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Overcoming challenges in EMEA retail with video solutions that reduce costs and boost sales

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1. Introduction

The retail sector is adapting to a period of unprecedented change and intense economic pressure - adapting by: embracing smarter technologies that can streamline operations from stock delivery and tracking, to point of sale; focusing on building shopper loyalty through improved customer experience (CX); driving down operating costs by finding new efficiencies through better intelligence; more effectively integrating their online operations with bricks-and-mortar stores; and reducing losses, not just by tackling shrinkage, but by focusing on other costs such as staff turnover and employee performance.

Today, more affordable but more capable video solutions have an important role in each of these areas. Gone are the days when CCTV was used for surveillance purposes only or when

early IP cameras were expensive to install and maintain, were hard to operate, and subject to blind-spots in crowded shop aisles and busy storerooms, and when they performed only one or two basic functions. They have become flexible, affordable, and ever more useful.

For systems integrators who understand the pressures that retailers now face, and who are tuned-into new ways to support stores' profitability, this is a sector with real potential.

2. A long run of economic challenges

The economic challenges facing retailers today are an acceleration of trends that began over a decade ago. Following the financial crash of 2008, the retail landscape saw a period of rapid change with the rapid rise of e-commerce giants and grocery retailers tying customers in with subscription services, while below-inflation pay rises gradually reduced disposable income for many consumers. Yet as shopping habits changed and many household brands struggled to adapt, or went bust, others thrived by quickly pivoting to hybrid models. And nimble new-entrants – notably at the value end of the market – emerged.

This decade-long run of disruption continued into the 2020s, with pandemic lockdowns; supply chain stress; labour shortages; and geo-political instability adding to renewed economic pressure.

By the middle of 2022 the outlook had become even more uncertain, with rising inflation across EMEA, declining consumer sentiment, expected interest rate and tax rises, and a squeeze on disposable incomes eating into the pent-up demand and savings that had been accrued during lockdowns.

The post-pandemic bounce back

Yet the bricks-and-mortar retail sector had also proved to be resilient. It's also a political priority for central and local governments to try to support shopping hubs as a part of the fabric of modern-day society, and a tax revenue generator, rather than let them fall into neglect and criminality.

And where consumer demand has changed, retailers along with local authorities are keen to adapt. Post-pandemic, footfall is rising faster in some locations than others. For example, malls across Europe and the Middle East have evolved into visitor attractions, while the markets and bazaars of Turkey and North Africa have transformed cities into popular tourist destinations. Historic town and city municipalities are working with retailers to adapt stores around cultural landmarks, hotels, and entertainment hubs so that a trip to the shops becomes a day or night out for couples, friends, and families.

Out of town shopping centres and retail chains are also providing more flexible purchasing options including online, in-store and click-and-collect; working to build customer loyalty with a new focus on customer experience (CX); and increasing convenience by opening smaller stores for longer hours. They have also invested in new ways to protect staff and improve working conditions, boost efficiency, reduce losses and become more competitive.

Video technology is playing a key role in supporting both resilience and the ability to continually evolve, and the latest-generation solutions also offer compelling new benefits to help retailers positively impact the bottom line.

3. Transforming loss prevention operations

In addition to dealing with this rapidly changing economic landscape, today's retailers still face the age-old threats to profitability posed by internal and external shrinkage. According to the last 2019 figures from the Centre for Retail Research (CRR), European retail crime was costing $26bn USD equating to just under $89.00 USD per head, with shrinkage the biggest cause of losses.

Today, security managers, loss prevention, and profit protection managers are dealing with a wide array of shrinkage challenges ranging from staff and returns fraud, sweethearting, deceptive self-scanning, organised crime gangs, steal-to-order rackets, and shoplifting, through to bogus injury claims. It's therefore important that retailers and their systems integration partners collaborate to identify the biggest direct cost to the bottom line, and target the problem strategically: often a video surveillance pilot will reveal gaps in security, and unforeseen vulnerabilities.

Selecting the right cameras to reduce losses yet blend with aesthetics

Because the latest video solutions have been refined to precisely target these problems. A wide choice of camera models that feature on-board failover, active tampering alarms, WDR and IR is available to blend with the aesthetics of every outlet – from high-end fashion to convenience stores – providing excellent coverage and evidential footage in all lighting conditions without impacting on the customer experience.

Panoramic or fisheyes enable comprehensive surveillance of shop floors, showrooms, and aisles, providing wide area coverage that's free of blind-spots and making it easier to identify and tackle shrinkage and theft, to investigate incidents, and to see activity right to the periphery of every scene.

Discreet mini-domes and bullets can be focused on high value items, cash desks, returns counters, and stock rooms, deterring shrinkage, sweethearting, and fraud. High-definition pinhole cameras also offer a discreet option for haute couture boutiques and jewellers as they can be invisibly blended into displays of designer handbags, precious gems, and luxury watches.

Traditional fixed lens cameras and PTZs placed at entrances, exits and parking areas, are ideal tools for deterring crime, and increasing protection for vehicles and drivers. These cameras can also be leveraged for car parking management and for gathering business intelligence through AI-powered license plate recognition and video analytics.

Advances in computing at the edge have opened up even more options for surveillance at strategic points in and around stores, with the continuing evolution of ever more useful edge AI cameras.

For big box stores and grocery retailers that want visible deterrence, today's more capable

cameras will support the easy and effective use of public display monitors at store entrances and spot monitors in staff areas back-of-store, including stock rooms and loading bays.

Easy-to-use VMS and with optional federation services also give store managers the tools they need to improve operations locally, while allowing centralised loss prevention teams to oversee and control a growing list of functions remotely: managing investigations; searching and reviewing recorded activity; reconciling and checking transaction data with video footage; conducting system health checks; and handling real-time tasks such as granting remote access to service teams and deliveries out-of-hours.

And for managers who need the ability to work on the move, mobile tools and apps make it easy to handle all these key surveillance tasks, helping to watch over activity at multiple branches and stay in control remotely.

4. Tacking violence and abuse against staff

While loss prevention has long been a concern for security managers, increasingly they are prioritising the growing risk of verbal and physical assaults on shop workers. This concern was highlighted even more as front-line staff came under pressure during pandemic lockdowns.

The British Retail Consortium (BRC) reported a 7% rise in incidents in 2020 compared to the previous year. Figures from the UK Association of Convenience Stores (ACS) 2022 Crime Report showed that in the previous year, 89% of staff working in convenience stores alone faced abuse in their job, equating to 35,000 incidents of violence. As a result, the UK Police, Crime, Sentencing and Courts Act came into effect in April 2022, bringing with it tougher penalties against customers who attack shop workers.

Alas, this escalation in violence and threats of violence is not exclusive to the UK. In EU member states, 6% of workers have been exposed to violence according to the most recent European Risk Observatory Report, with that figure even higher for retail workers, and higher yet for younger female staff. Reported incidents are higher in northern European Member states such as France, Ireland, and the Netherlands. Yet the European Survey of Enterprises on New and Emerging Risks (ESENER) revealed that Turkey, Portugal, Romania, and Bulgaria show the highest level of concern,
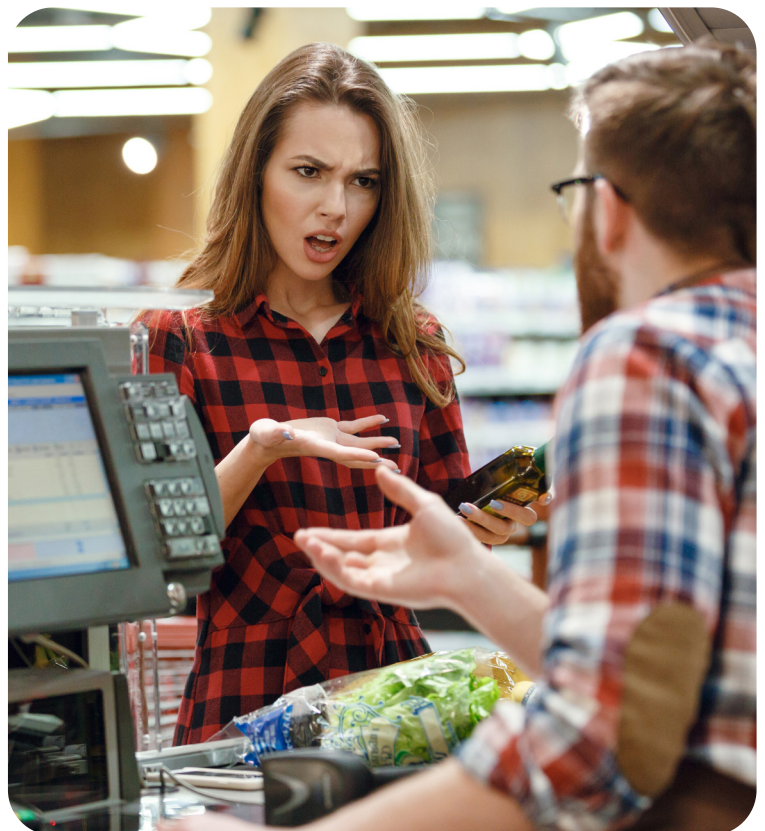
particularly for staff in front-line roles such as retail and hospitality settings.

Unsurprisingly, this has become a priority issue for many retailers not just because of new laws, and pressure from government and unions, but because there is less confidence in the speed and effectiveness of a police response unless an incident involves serious violence. Retailers are also aware of the negative impact on staff morale, absence, and turnover, all of which add major costs to their businesses.

Video innovations are helping to address the issue, with practical solutions including: high-definition image capture that allows faces to be clearly identified; assured chain of evidence integrity, using watermarking technology, optimising the deterrent value of recorded video; body-worn cameras; two-way audio allowing warnings to be issued remotely via cameras and integration with PA systems and audio devices.

Analytics-driven detection tools such as queue and overcrowding monitoring are allowing automatic verbal reminders, reducing the likelihood of confrontation between customers and staff. And discreet, wearable lone worker devices or personal alarms that connect easily with video management software or network video recorders (NVRs), plus fixed panic buttons with associated beacons and sirens positioned internally and externally, are all ensuring improved in-house incident response and protection for staff inside as well as those at particular risk when opening and closing stores.

5. Affordable AI-powered analytics deliver significant value

Affordable and easy-to-use deep learning and AI-assisted analytics are now readily available tools for not just major retail chains, out of town retail parks and malls, but also for small stores. For example, analytics no longer need dedicated, top-of-head cameras to function and instead leverage existing cameras. This means users can double the benefit from their cameras deployed in standard locations. They can gain enhanced safety and security, plus competitive advantage with business intelligence.

Closing gaps in security and intelligent loss prevention

For improved loss prevention in larger stores, malls, and parking areas: AI-powered analytics tools include intrusion, objection & loitering detection, all of which can take pressure off busy monitoring teams by reducing false alarms and triggering automated alerts when security intervention is most needed.

Analytics are also making it easier to review recorded footage, with the ability to search for events, objects, and people, and to pinpoint irregular transactions thanks to integration with data from barcode scans, and point of sale (POS) systems, with the latest end-to-end video systems often replacing up to two or three separate systems and eliminating the clutter of hardware at checkouts and cash desks.

In practical terms, analytics tools are speeding up investigations, cutting the time it takes to find footage of interest from hours to minutes.

They are helping to track down missing children in crowded stores or malls. And they can be an important tool in helping to reduce human error, which is a major contributor to shrinkage, through their ability to rapidly retrieve and review events. For example, errors at checkouts and cash desks, fraudulent returns, self-scanning theft, poor stock handling, incorrect pricing on merchandise and displays, and failure of staff to adhere to agreed protocols.

Processors inside edge AI cameras are now powerful enough to run analytics locally, while still encoding and streaming without the need or cost of upgrading software. This capability is now available even with lower cost 5MP domes and bullets. Once retailers are ready to upgrade to edge cameras, they will deliver faster insights and better security, while overcoming bandwidth constraints and storage burdens. Rather than using AI-functionality and tools within VMS, larger retailers are demanding onboard functions powered by the same highly accurate, deep-learning algorithms including object, loitering, line cross, and crowd detection; object removal ; and facial recognition.

Gaining actionable intelligence and improving the customer experience

Analytics are also unlocking valuable business intelligence for retailers, in new and exciting ways. For example, people counting and heatmapping tools allow managers to examine patterns of activity by time and day, and to see trends over longer periods including weekly, monthly, and seasonal. This sort of understanding was once only available to major grocery

retailers with teams of statisticians or acquired through years of personal knowledge of stores and customers. Today it can be viewed at-a-glance, with management reports steering decision-making at head office level and at local branch level, and empowering store managers and their teams. This doesn't just improve sales but staff engagement and morale too.

Retail staff can use new insights to build more positive customer experiences. Heatmapping tools reveal customer dwell time, and show how shoppers move around stores, allowing displays to be improved and 'dead zones' to be made better use of, understanding, and improving the way customers interact with floor layouts, displays, and merchandising. Analytics allow automated real-time queue monitoring, so that staff can be more quickly deployed to where they are most needed.

And occupancy monitoring can highlight where areas frequently become overcrowded, in a way that might detract from the shopping experience. With health and safety top of mind post-pandemic, it also helps stores stay on top of cleanliness with layouts without causing pinch points.

6. Affordable and reliable storage

General
Data
Protection
Regulation

Increasingly, regulations require footage to be stored for extended periods – in the Middle East for example, where 90-120 days is not unusual. In Europe, GDPR requires uninterrupted footage to meet with freedom of information requests, and banks often demand longer retention periods for footage of transaction data, particularly in locations that have experienced ongoing problems with fraud.

As a result, retailers are looking for the most practical and affordable compliance options, and technology that will keep their storage and bandwidth burdens low. It's worth remembering that not every store, even across the same retail chain, will have access to high internet speeds. Many also share bandwidth with other mall tenants meaning that networks can easily be overloaded handling critical sales transaction data as well as offering customers Wi-Fi that helps target promotions and use shopping apps.

This makes a separate VLAN and NVR-based approach to recording the most popular option and the advantages become more compelling as budgets tighten. Those with low hard-drive (HDD) failure rates are popular for hard-working and often dusty retail environments. Built in PoE switches eliminate the need for additional hardware and offer efficient methods of cabling. Compact models that can be fixed to counters and walls are ideal for smaller stores with confined spaces.

The best NVRs also have the benefits of advanced compression technology with H.265 as standard, which overcomes the pitfalls of traditional compression, including jerky images and difficult footage review. Combined with additional compression technologies NVRs can save retailers up to 60%-70% on their data storage and bandwidth compared with older H.264 systems.

With simultaneous live, record, playback, backup, and remote operation, they are well proven as the most robust and cost-effective foundation for any scale of retail surveillance operation, from four to eight channels up to enterprise-level solutions encompassing a limitless number of devices.

Finally, it's worth noting the continuing rise of 'deep-fake' technology and the growing risk of video evidence tampering; it's vital to be able to demonstrate the integrity of captured footage. NVRs which give retailers designed-in protection through 'watermarking' techniques provide reassurance that video evidence is not open to legal challenges.

7. Designing systems for assured compliance

Video solutions now make it easy to achieve full compliance with regulations and standards that apply in different jurisdictions. For example, in various Gulf States in the Middle East video systems in high-end retail settings need to comply with increasingly stringent video capture and storage rules.

Similar standards are also applied by financial institutions, especially since the convenience of higher contactless tap-to-pay values is increasing the risk of fraud.

High-definition cameras positioned correctly are likely to act as an effective deterrent, while NVRs and compression technology no longer need to significantly increase costs.

User-friendly VMS with metadata search tools makes investigations much faster – minutes, not hours or days; and dynamic privacy masking and redaction tools make it practical to comply with data protection requirements when exporting footage for third party investigations or use as evidence.

Increasingly, it's good sense for retailers to plan for compliance rules being tightened, even where regulations do not yet exist. NDAA-compliance, while only legally enforceable for U.S. retailers that form part of federal supply chains or receive federal loans, is influencing standards globally. Choosing NDAA-standard video technology is seen as a sensible additional quality

NDAA Compliant

benchmark for EMEA organisations, especially in the UK and EU Bloc where there is increasing scrutiny of the cyber and national security risks inherent in Chinese surveillance tech. The same is true for major U.S. brands that want to avoid the reputational damage of using technology linked to human rights abuses, and for retailers with commercial links to America.

This, and the likelihood of tighter standards on cybersecurity being applied more widely in the future, makes it sensible to choose equipment with a high degree of assurance against hacking risks. Multi-factor authentication for many retailers is now vital, while mutual authentication of devices, and one-click configuration for multi-site rollouts, also help eliminate common cyber loopholes. Retailers also need to ensure multi-layered protection of stored and transmitted data, not only to protect against cybercrime but to ensure they can comply with freedom of information requests.
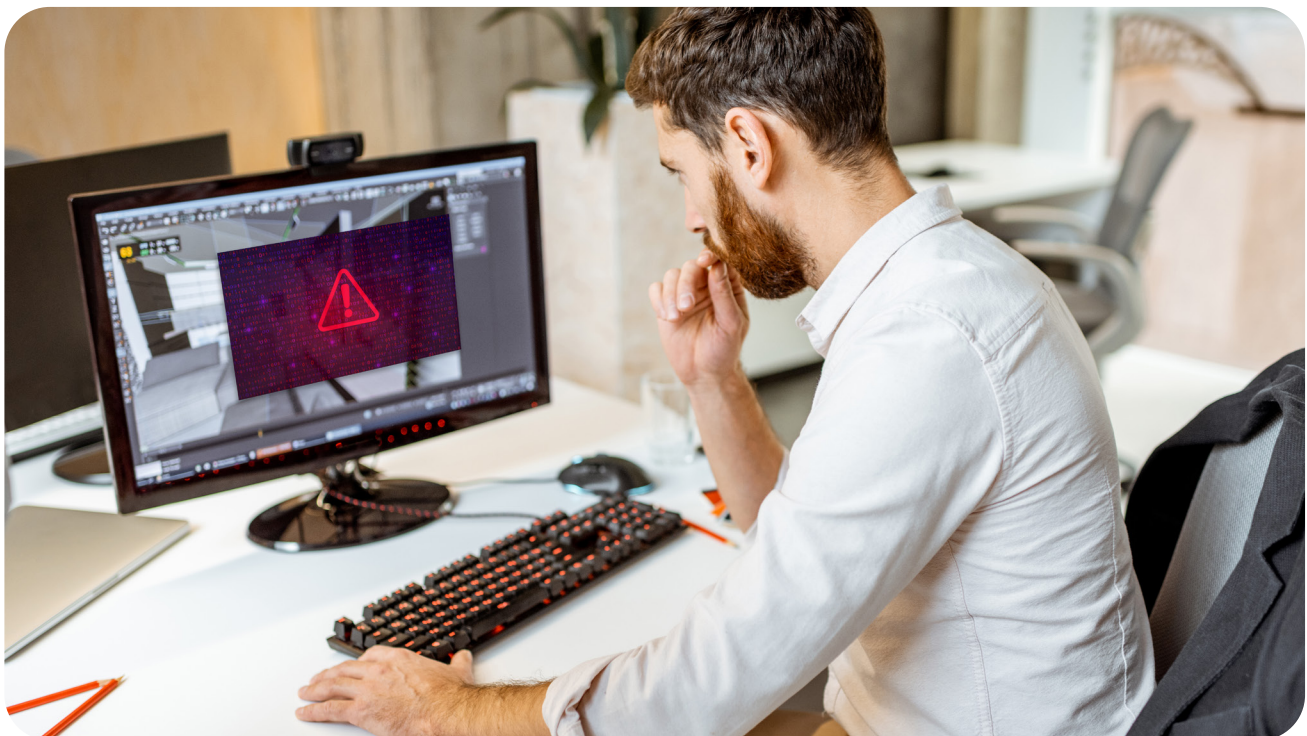
8. Ensuring a rapid return on investment

Today's video solutions are delivering new efficiency advantages to retailers and offering the best TCO (Total Cost of Ownership). With the right solution, video upgrades can deliver return on investment in the first year.

There are significant advantages to choosing end-to-end solutions – including assured device compatibility and system longevity – and today's easy plug-and-play technology offerings, without the need for specialist networking and routing skills. These allow retailers to upgrade their video systems across multiple stores using several regional installers, or to move to the latest technology without switching away from their trusted integrators, if they prefer not to.

Plug-and-play installation and true one-click configuration offers major cost savings during large scale project rollouts where centralised monitoring is being set up for multiple branches; it eliminates the risk of engineer mistakes and project over-runs.

There is also a focus on robust performance and reliability, giving hardware with extended warranties a distinct advantage and offering a more sustainable alternative to the traditional rip and replace model. Forward- and backward-compatibility is also important, ensuring that older cameras and associated devices can easily be switched out for newer models.

This eliminates the need for complex system upgrades and the cost of decommissioning, or the clutter of defunct cameras residing on ceilings and walls impacting on store aesthetics and the overall customer experience.

TOTAL COST OF OWNERSHIP

In Europe there is a growing focus on health & safety, and retailers are increasingly concerned about real and bogus accident claims. The ability of cameras to provide comprehensive area coverage, in high resolution, without blind-spots, allows slips, trips, and falls to be reliably investigated. At the same time, footage can prove that store staff are following health and safety laws and mandates, reducing pay-outs and insurance premiums.


With retailers under financial and competitive pressure, it's also vital to avoid technologies with unfair pricing structures and high ongoing costs such as perpetual license fees and maintenance agreements.

For small and medium-sized stores its worth considering solutions that come with totally, cost and license free client software. This will often provide security teams and in-store staff with all the features and functions they need for effective surveillance operations, not only reducing upfront costs, but more importantly eliminating ongoing operating expenditure.

For large retailers or retail chains that need the enterprise-class functionality to manage an unlimited number of devices and sites, its vital to take a deep dive into VMS pricing structures. It's important to ensure that retailers can take a modular approach paying for the functionality they need with the ability to integrate off-the-shelf with access control, intruder, and life safety systems, for example.

Federation and critical failover services that protect against a range of fault conditions should also not be expensive. Retailers
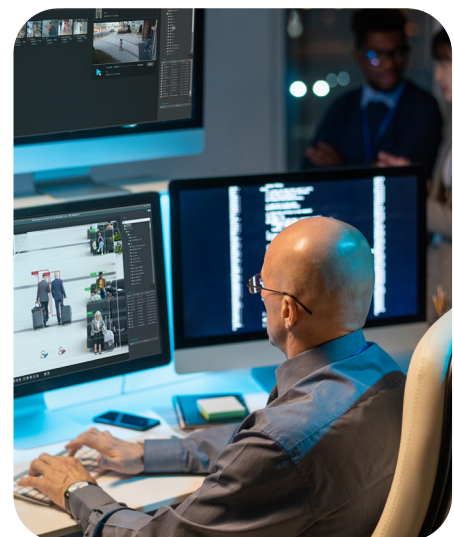
need to beware of bundled functionality, such as AI-powered analytics that they often pay for before but are not yet ready to use them. And look out for intuitive user-interfaces with simple dropdown menus that will allow authorised managers at local branches to easily find and playback footage, without them needing specialist security knowledge or training.

Finally, it's important to remember that video is a mission-critical investment for the future of bricks-and-mortar retail, not only for large-scale operations but for smaller, local stores too. Therefore, at the same time as solving today's immediate challenges it's also important to plan for the medium and longer term.

Retailers will be best served by VMS that gives them futureproofing through unlimited scalability, flexibility, and forward-compatibility. Look for vendors

who are committed to extended technology portfolios, with product roadmaps that include increased and smarter automation tools; and solutions that will make it easy to leverage IoT, from refrigerator sensors to goods-tracking systems and lone-worker devices.

Today's VMS and video solutions should be designed to reduce costs, enhance customer experiences, increase operational efficiency, and ultimately generate more revenue, while ensuring they can continue to adapt and evolve.

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