

The AVA logo is displayed in white, stylized, outlined letters within a purple rounded square in the top left corner of the page. The background of the entire page is a photograph of a woman in a light blue shirt and dark apron sitting at a wooden table, talking on a mobile phone while writing in a notebook. A laptop is open to her left, and a bouquet of flowers is on her right. The setting is a bright, indoor space with many green plants and a window with a grid pattern in the background.

AVA

Retail Sector Video Security Trends Report 2021

A market study of physical security systems in the retail sector

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Executive summary

The retail sector experienced an unprecedented year of trading from late March 2020 onwards. In the UK, the British Retail Consortium's Chief Executive Helen Dickinson labeled 2020 the worst year on record, as non-food physical retail, including all non-essential retail, saw sales fall by a quarter compared to 2019.

As more shops reopened for business during April 2021, the respondents have reported that retailers

have been doing everything they can to minimize the perceived risk of infection from visiting their stores to reduce the emotional stress of shoppers and staff alike and help improve customer experience. Delivering COVID Safe in-store experiences for customers is critical to enticing them back, re-securing their loyalty, and increasing chain stores' sales.

During the first quarter of 2021, Video Security as a Service (VSaaS) provider Ava Security conducted market research to understand the video security trends in the retail sector in the US, the UK, and the Nordics.

111 retail sector video security or CCTV system decision-makers employed by firms with more than 50 employees participated in the survey conducted by the internationally-renowned research organization Opinium.

New COVID Safe requirements accelerating adoption of video analytics

The study uncovered numerous findings that show how many in the retail sector chose to deploy video analytics capabilities, including social distancing, people counting, room occupancy level monitoring, contactless access control in staff-only areas, observation of one-way systems, and mask-wearing in staff and throughout all work premises.

87% of all retailers Ava questioned saw a role for their existing video security systems in helping to make their stores and other work premises COVID Safe. Of this group, 48% had already used their current video systems to help reinforce social distancing measures. A further 39% anticipated doing so over the next 12 months.

IT Cloud migration accelerating linked to COVID-19

It's clear that during the pandemic, the focus on remote monitoring of retailers' premises and shops has accelerated demand for secure remote access, which cloud computing enables. Nearly half (48%) of retailers which Ava reached for this study recorded receipt of additional budget to accelerate work to migrate more IT applications into the Cloud. That was 8% above the five sector average across all 300 decision-maker respondents.

Video Security as a Service boosted

Nearly a third (31%) of retailers placed migration to VSaaS as a high priority for improving or optimizing their existing video system. A further 39% identified VSaaS as 'Somewhat a Priority' to optimize and enhance their current system.

Key findings overview

Focusing on retailers with more than 50 employees, Ava Security explored the leading causes of shrinkage and the loss prevention measures which companies are using to mitigate these losses. The leading causes of shrinkage were as below:

During 2019 and before the COVID-19 pandemic, what were the leading causes of losses or shrinkage for your business? Please select up to the three leading causes of losses or shrinkage.



Figure 1: Retail physical security decision-makers were invited to select the top three sources of pre-pandemic losses from the above list.

Ava Security also explored the level of confidence which managers of existing video security systems were exhibiting in terms of using their systems to reduce or eliminate losses in key known loss prevention sources as listed above.

Biggest savings from video security from reducing shoplifting

Shoplifting was the most likely to be curbed through the use of video surveillance. The research found that 58% of retail sector decision-makers thought video security systems helped significantly reduce shoplifting losses. At the same time, 9% believed their systems completely eliminated losses from shoplifting.

According to over half (54%) of retail sector respondents, their video systems were serving to significantly reduce theft or fraud by staff or contractors. In comparison, 9% confirmed that their video systems had eliminated losses in this area. Half (50%) of respondents confirmed that their video systems enabled them to reduce losses from slip and fall claims substantially. In comparison, 13% claimed their video surveillance system had eliminated losses from fraudulent slip and fall claims.

Video security eliminates losses from vandalism for 17% of retailers

Furthermore, nearly half (46%) claimed substantial reductions in losses from vandalism to their properties. Over one in six retailers (17%) had wholly eliminated losses from vandalism by using their video security systems.

Substantial reductions in losses from self-checkout thefts as a result of video security had been achieved, according to over half (52%) of retailers. While one in 10 retailers questioned believed they had eliminated all losses from customers self-checking out through video security.

In addition, video surveillance systems delivered a significant reduction in losses from 'damage to goods by our staff' for 41% of retailers surveyed. Nearly one in five (18%) reported completely eliminating this problem.

Which of these potential sources of shrinkage are significantly reduced or eliminated by your existing CCTV systems?



Figure 2: Existing video security systems are already significantly reducing key sources of shrinkage for over half of all retailers using them. Up to one in six are completely eliminating losses from the most common sources of losses.

Outsourcing video security delivers better loss prevention results

There was also some evidence that the most significant loss prevention savings were being realized by those that had fully or partially outsourced the running of their video surveillance systems. For example, amongst those running their video surveillance capabilities entirely in-house,

only 38% saw significant reductions in losses caused by ‘damage to goods by staff or contractors.’ Whereas, if they fully outsourced their video system management, that percentage increases to 48%. Interestingly, if they are partnered with a third-party expert, then those reporting a significant reduction in losses (for this source of potential losses) rose even further to 50%.

Similar differences in loss prevention levels between in-house and outsourced security management were found for product returns fraud. If an in-house team ran the video system, then significant reductions in losses were seen by 43% of retail respondents. However, if the video system was managed and run by an outside team, then significant loss reductions were being seen by 52% of retailers.

Losses from damage to goods in retailers' supply chains had been reduced significantly through the use of video surveillance systems at key loading/unloading points for 35% of retailers running their video systems in-house; whereas 48% of retailers

which were totally outsourcing video security saw significant reductions in losses from damage to goods on the way to their stores.

However, despite strong evidence that further savings are possible from multiple loss sources by working with an outside specialist, 65% (72 of the 111 retailers surveyed) of respondents still run their video security capability entirely in-house.

The shortcomings of existing video systems also limited retailers' loss prevention through the use of existing video systems, the Ava Security study found.

Current video systems limited by quality, functionality & focus

39% of retailers reported it takes too long and proves too difficult to find relevant video sequences, having uncovered a loss incident. If the video is managed entirely in-house, the percentage rises to 44%; if outsourced, it falls to a quarter (24%) of retailers which are struggling to gather relevant recorded video sequences following a loss incident.

What, if anything, is preventing you from reducing shrinkage further using your existing CCTV system?

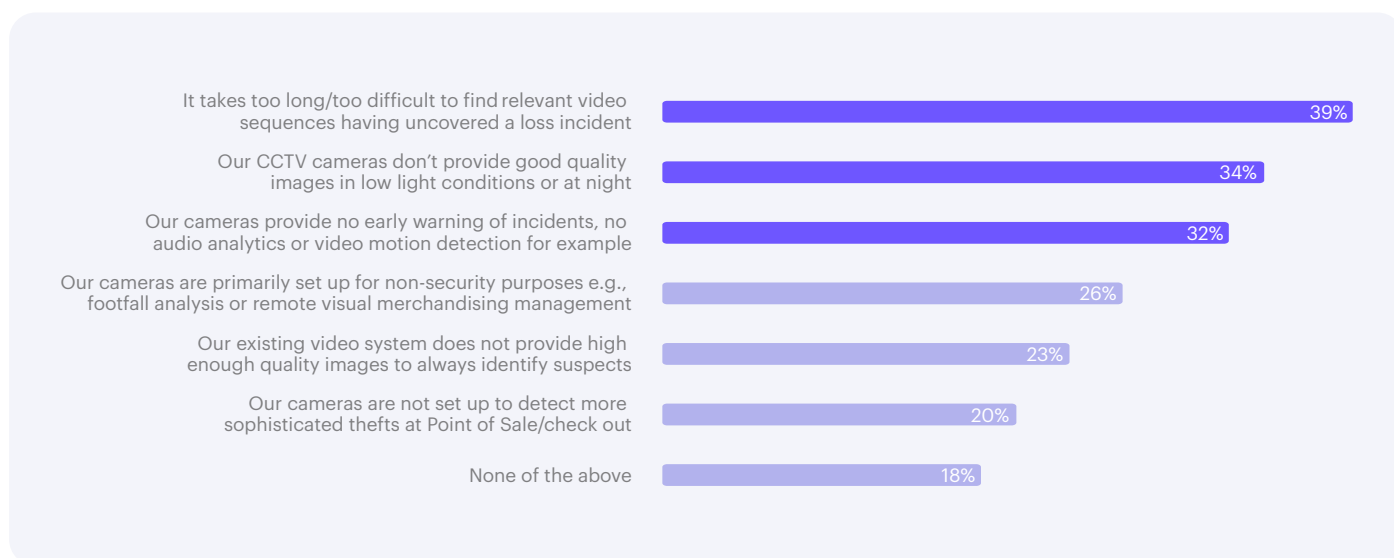


Figure 3: Loss prevention is hampered by a lack of timely access to relevant video sequences of security incidents. Poor performance of existing cameras in low light conditions and lack of access to audio analytics, video motion detection, and other video analytics is also a key frustration preventing further loss prevention.

The next most significant factor preventing further loss prevention in this study was the poor performance of their surveillance cameras in low or no light conditions. This was preventing 34% of retailers from reducing shrinkage further.

Nearly a third (32%) of retailers claimed that their video security systems did not offer early warning functionality provided by good quality audio analytics

or video motion detection, preventing them from reducing shrinkage further.

Over a quarter (26%) of retailers admitted that their video security systems don't work well for loss prevention because the cameras installed onsite were actually installed for a different purpose, such as remote management of visual merchandising or footfall analysis.

Most retailers plan upgrades to existing video security systems

A net total of 80% of retailers are considering upgrading their existing video security system within the next two years.

Ava Security also discovered that nearly 40% of retailers' systems on both sides of the Atlantic are still traditional, analog-based CCTV system types. These CCTV systems prevent leveraging video analytics in any way.

It's, therefore, no surprise that 38% of US retailers are considering upgrading from CCTV to IP video systems over the next two years. While in the UK, 31% of retailers are looking to upgrade from CCTV to IP Video by March 2023. Overall, when analyzing all 111 retailers in the US, UK, Sweden, and Norway captured in this study, an average of 35% were planning CCTV to IP video upgrades.

An average of nearly a third (32%) was considering upgrading their cameras to provide access to specific video analytics capabilities. Almost the same amount (29%) was already planning to upgrade to a Video Security as a Service (VSaaS) provider such as Ava Security to access more functionality and reduce shrinkage further.

US retailers were slightly ahead on VSaaS adoption, with a third (33%) exploring migration to VSaaS to upgrade their video security capabilities. Across the three Northern European countries, a total of 27% of retailers were evaluating VSaaS to access new capabilities.

Over a quarter (26%) are actively looking for a retail security specialist to help advise them on the best way of upgrading their video security capability. Demand for a sector specialist is highest amongst US retailers, where 35% of video system decision-makers are actively looking for the right specialist partner. Just 21% are actively looking for a sector specialist partner to assist with a system upgrade in the UK. Only a fifth of retailers (20%) have no plans for upgrading their video systems over the next two years.

Budget squeeze during pandemic likely to affect upgrade project timing

Retailers on both sides of the Atlantic have been exposed to reductions in budgets available for updating or improving existing video security systems. Nearly a third of retailers (30%) have seen a significant reduction in budgets available for upgrades, whereas nearly half (44%) have seen small reductions in the budget available for these improvements. Nearly 1 in 10 (9%) retailers anticipate budget cuts affecting their security upgrade plans during 2021 but have not yet seen them. Nearly three-quarters (74%) of retailers were experiencing budget cuts affecting video system upgrade plans, whereas across all five sectors captured by this study, the net average was 71%.

Priorities for operational improvements

The Ava Security Study uncovered several high priorities likely to be driving decisions to upgrade video security systems in the retail sector.

The top focus area for improvement or optimization of their video security system amongst retailers was making their video system 'more intelligent, e.g., using video analytics to support better post-event decision-making': 41% of all retailers considered this a high priority.

The next highest priority, recorded as high priority by 35% of retailers, improved their systems' video retrieval capabilities following a known security incident or event. They confirmed it needs to be 'easier and quicker. It currently takes too long.'

Nearly a third (33%) of retailers confirmed that they were looking to 'Improve GDPR compliance/procedures surrounding our CCTV system.'

Nearly a third (33%) of retailers confirmed that they were looking to 'Improve GDPR compliance/procedures surrounding our CCTV system.' In terms of accessing operational improvements to existing video systems, the fourth-highest priority was finding a suitable Video Security as a Service (VSaaS) provider as well as 'improving system resilience and video data backup procedures.' Both of these routes to improvement were a high priority for 31% of retailers.

30% of retailers also considered it a high priority to reduce false alarms dramatically 'as this is consuming too much of our time.' 29% of retailers prioritized more integration of their video security system with other security-related systems such as access control or alarm systems. At the same time, 28% of retailers considered combating cyber security threats a key focus area for improvement.

To what extent are the following areas of your CCTV systems priorities for improvement or optimization?



Figure 5: Priorities for improvements in existing video security systems in the retail sector



Video security systems support COVID Safe retail

A total of 97 of the 111 (87%) retail sector decision-makers questioned by Ava Security saw a clear role for their CCTV or video security systems in supporting safe reopening of their doors to staff and customers.

Nearly half of this group (48%) had already put their existing video security systems to work to help reinforce social distancing measures. A further 39% anticipated doing so over the next 12 months. This means 'net deployment' for this purpose was 88%.

Not far behind was the use of thermal camera-based analytics to help run temperature checks on visitors: 39% of retailers across the four countries in the Ava study had already deployed this capability, while a further 38% predicted to do so in the next 12 months.

Despite the controversy associated with the deployment of facial recognition, some 30% of retailers have already deployed facial recognition analytics at the entrances to staff-only areas to enable contactless access control, and a further 34% plan to do so over the next 12 months.

In-store video security systems have been adapted to help monitor shopper density levels in high footfall areas of stores. 47% of retailers have already installed this analytics capability, while a further 38% plan to do so within the next 12 months.

Video analytics for security mask-wearing in stores has already been deployed in nearly a third (34%) of retailers' premises, with a further 42% planning to deploy video analytics to perform this role over the next 12 months.

Despite the controversy associated with deployment of facial recognition, some 30% of retailers have already deployed facial recognition analytics at the

entrances to staff-only areas to enable contactless access control and a further 34% plan to do so over the next 12 months.

Using video systems for remote monitoring set to double

There is also a predicted near doubling of video security systems for remotely managing activity inside stores this year. At the time of Ava's study in March 2021, 45% were already using video cameras for monitoring operational activities, and 42% planned to use their video systems for remote monitoring of operations within the next year. More widely, 68% of retailers were using their existing video systems to secure property and assets. Nearly two-thirds (63%) were using their systems for operational monitoring to make sure procedures are being followed, and work schedules observed.

While 58% were using it to keep staff and shoppers safe, including reinforcing COVID Safety measures, 51% were using their video systems to ensure adherence to more comprehensive Health & Safety regulations beyond COVID Safety compliance.

Regarding COVID-19, in what ways do you, or do you plan to, use CCTV/video security technology to monitor the following?

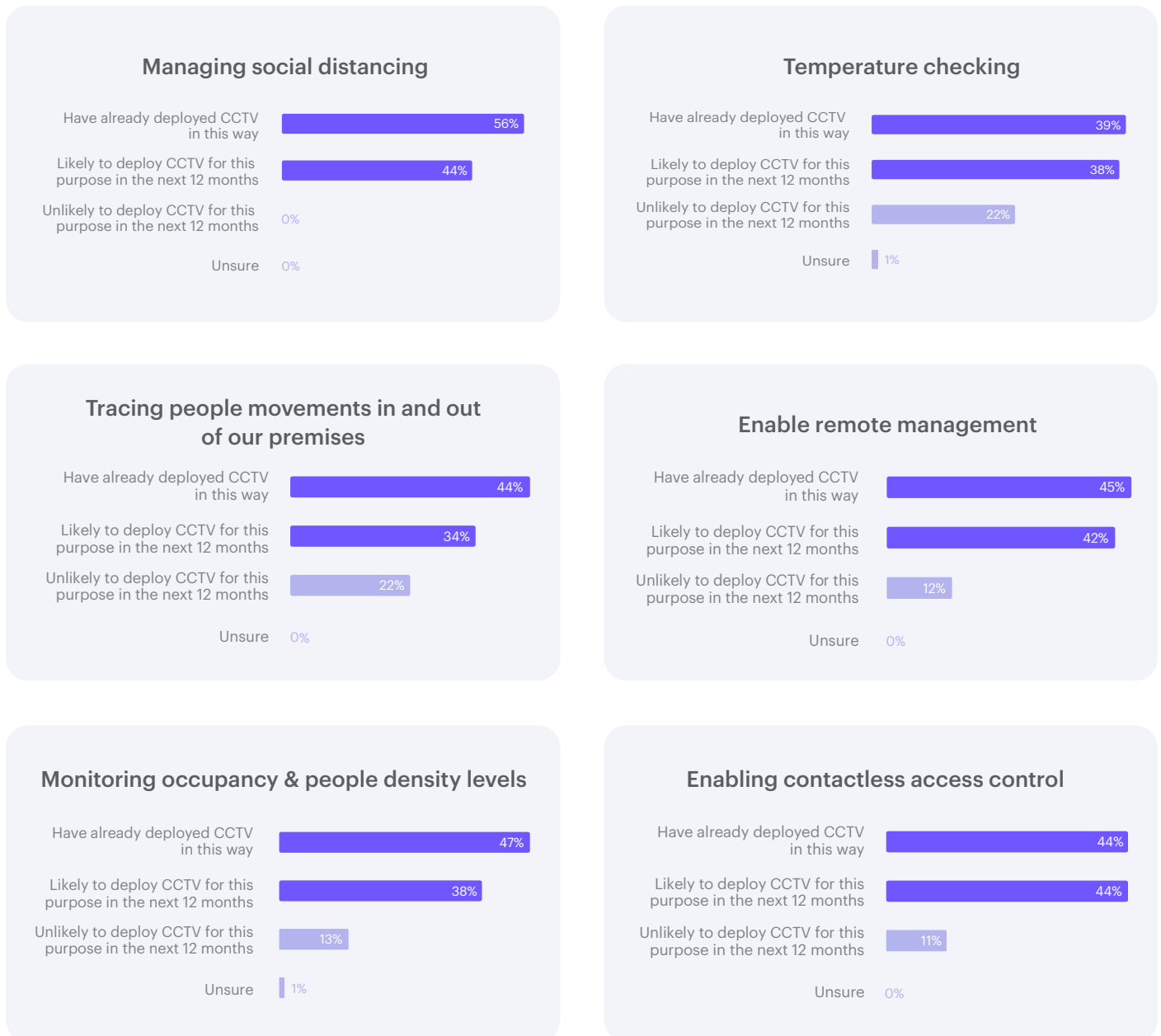


Figure 6: Video system upgrades are driven by several critical requirements, including managing social distancing, enabling contactless access control, and enabling remote monitoring of stores.

COVID-19 accelerates Cloud migrations

What is clear is that even though the pandemic has significantly impacted the retail sector, a new budget has been found for accelerating plans to move more IT services into the Cloud over the last year. Nearly half (48%) of retail security decision-makers we contacted confirmed that they found a new budget for moving more services into the Cloud.

We predict that VSaaS adoption in retail is likely to be boosted by being included in wider IT cloud migration projects.

Has loss of business in the last year led to a reduction of budget available to update or improve existing video security systems?

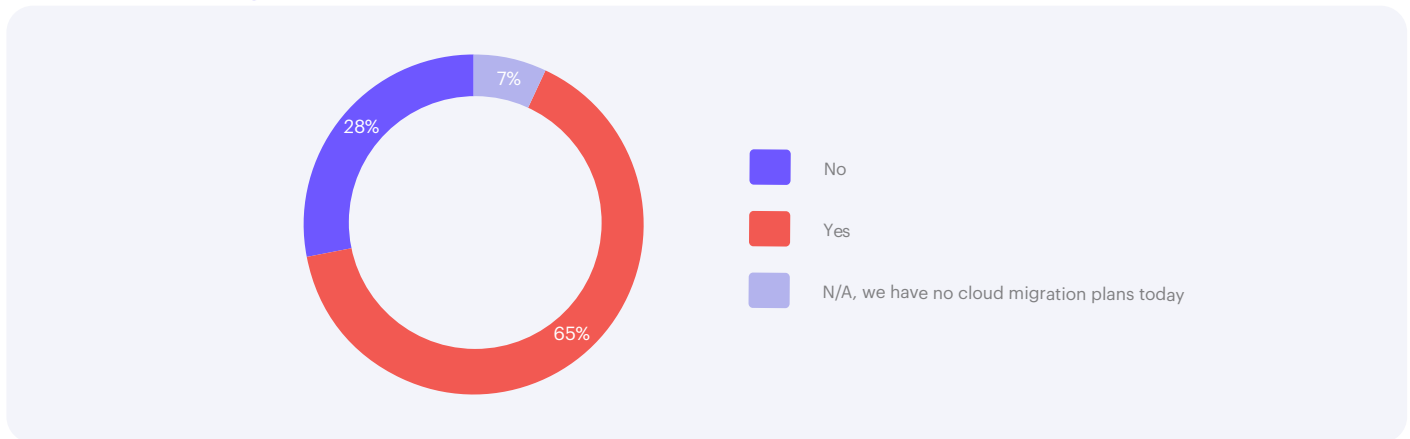


Figure 7: Nearly two-thirds of retailers report seeing cloud migration plans accelerated in their business or have already been assigned new budgets for moving more services into the Cloud in 2020/21.

Cloud migration budgets insulated from the evidence of security budget cuts— Please indicate how likely, or unlikely, your company will make these changes in the next 12 months?

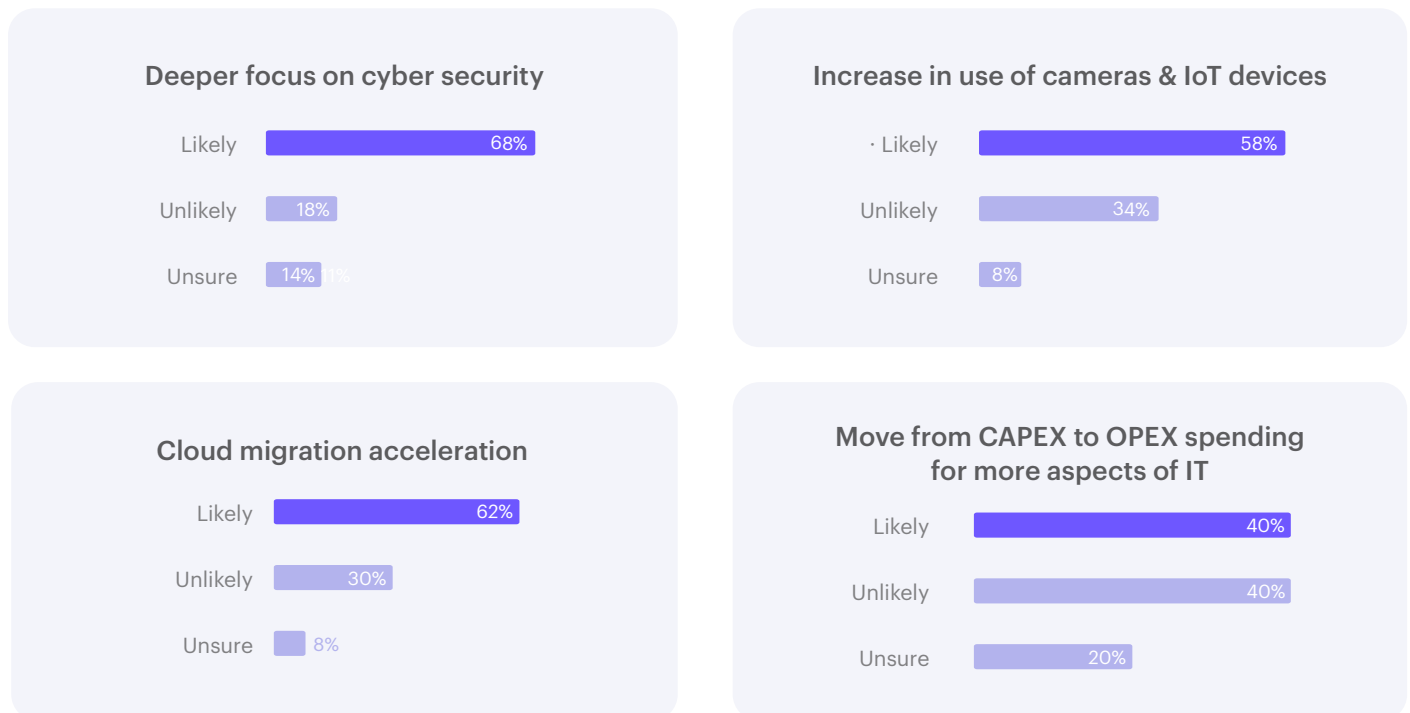


Figure 8: Budgets associated with migration of more IT applications into the cloud and companies' increasing focus on cyber security seem insulated from any physical security budget cuts which more than half of respondents predict this year.

VSaaS selection criteria

For the 79.3% of all retail sector respondents to this survey actively considering VSaaS options right now, there were many criteria determining provider selection:

91% considering VSaaS right now agreed with the statement ‘it (the VSaaS provider selected) must allow us to continue using our existing third-party cameras which we have already installed; we don’t want to rip & replace any equipment.’

The desire to hold onto existing security cameras and other equipment, like access control systems, through the migration to VSaaS was considered an essential consideration in provider selection by 43% of retail respondents.

90% of retailers considering VSaaS confirmed, ‘It must allow us to view their directly attached cloud cameras alongside our third-party cameras on the same interface.’ The fact that these two factors are so important confirms that not wasting prior investment in on-premise security systems is key to VSaaS provider success.

86% of retailers regarded it as necessary that the VSaaS it selected ‘must enable us to run the latest video analytics capabilities such as occupancy levels for social distance management (in a room), noise analytics (e.g., breaking glass, screaming, yelling, etc.), people and vehicle search, object searching and color searching.’

The fourth most important factor was the cyber security credentials of the selected VSaaS provider. 84% confirmed that its VSaaS ‘must have very strong cyber security, including end-to-end encryption from the camera to the cloud.’

Only marginally behind cyber security credentials came video management software functionality continuity. 83% of retailers specified that their selected VSaaS ‘must allow us to use our existing Video Management Software (VMS) or provide the same functionality as we get from our VMS.’

82% insisted their VSaaS ‘must allow us to continue existing integration with other physical security and safety systems.’

How important are the following features when you are considering a Video Surveillance as a Service (VSaaS) provider?



Figure 9: Criteria for VSaaS selection amongst those considering moving video security into the cloud focuses on maintaining existing VMS functionality and hardware and accessing the latest video analytics and cyber security protections.

Lower TCO is a key criterion for VSaaS selection

VSaaS providers which can prove that they can deliver lower Total Cost of Ownership (TCO) than existing systems are likely to find favor. Indeed, a key criterion for VSaaS selection is delivery of lower TCO for 52% of retailers considering VSaaS right now. Retailers are also demanding ease of use of systems, implying that video security systems are likely to be

used by a wider group of managers outside the IT, FM, or Operations departments that have traditionally run these systems.

A fifth of retailers looking at VSaaS selection today also stipulate using a specific Infrastructure as a Service (IaaS) provider, presumably because they have a cloud migration program already running and are looking to concentrate all network-based services with a single cloud infrastructure provider.

Which of these other considerations would you consider important when shortlisting a Video Surveillance as a Service (VSaaS) provider?

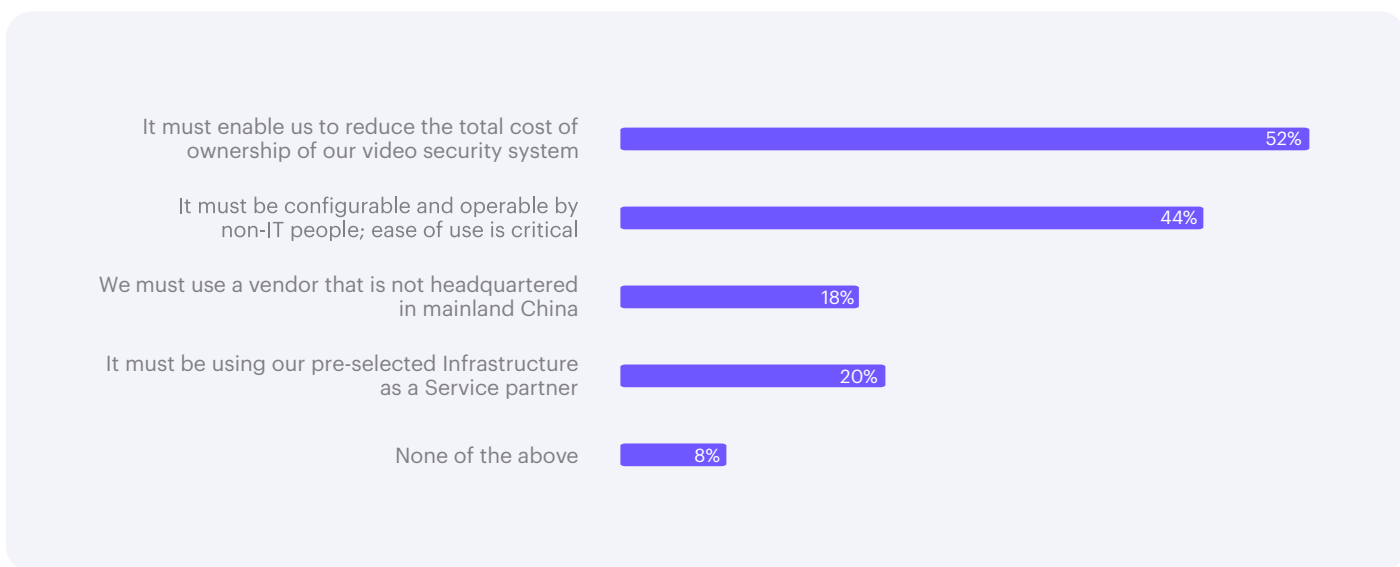


Figure 10: VSaaS providers must prove reduced TCO can be delivered following cloud migration of existing video security systems.

Summary

The Retail Sector Video Security Trends Report 2021 finds that, despite the severe reduction of physical store-based sales over the last year, retail groups have continued to find new money for improving video security systems. These improvements are part of a suite of process and system changes which retailers are now making to help reassure customers and staff alike of the COVID Safety of their stores and find badly-needed loss prevention and security management efficiencies.

The fact that nearly 80% of retailers we reached in this study are considering VSaaS as a route to upgrading their existing video security system is clearly very positive for Ava Security and other VSaaS

providers concentrating on serving this market on both sides of the Atlantic.

It's about using as much of the existing security infrastructure equipment and software functionality as possible, while making it possible to access some of the latest video analytics capabilities which many retailers have already identified.

The survey findings bear out our contention that a combination of accelerating migration for IT services to the Cloud and exponential demand for new video analytics, which helps keep stores COVID Safe and reduces known sources of shrinkage, is bringing VSaaS more firmly onto the video security system upgrade agendas of retailers.

About the research

During the first quarter of 2021, Video Security as a Service (VSaaS) provider Ava Security conducted market research to understand the video security trends in the retail sector in the US, the UK, and the Nordics. An online study was carried out by the internationally-renowned research organization Opinium, headquartered in London.

The survey was completed by 300 video security/CCTV system decision-makers employed by firms with more than 50 employees, of which 111 were in the retail sector.

Within this retail sector sample, 24% of respondents were managing directors, 20% held board-level director or senior management roles, while 9% held non-board level director or managerial roles. Furthermore, 9% of respondents owned their business, were partners in the business, or held the CEO role.

Nearly two thirds (65%) of all retail sector respondents from Norway, Sweden, the UK, and the USA were still managing their video security or CCTV systems in-house; while nearly a quarter (23%) had fully outsourced and 13% were in a hybrid state with some aspects of running, managing, or upgrading systems outsourced to a third-party provider.

All 111 retail sector respondents provided answers to 26 questions via an online questionnaire between the 10th and 19th March 2021. Six of those questions were only answered by retail sector respondents. Only firms with existing video security systems were invited to complete the survey. Of the 111 retail sector respondents, 88 were actively considering Video Surveillance as a Service (VSaaS), meaning that all percentages quoted in this report must be regarded as accurate and fully representative.



Ava Security is a global technology company with offices in the UK, Norway, and the USA. It was founded in 2016 to create a better, smarter way to deliver security.

Ava protects people, property, and data anywhere. Innovative companies worldwide use Ava Reveal™ for human-centric data loss protection and Ava Aware Cloud™ for video security and analytics.

To learn more about Ava's smart solutions and how you can enjoy proactive security, visit our website, or schedule a demo with a member of our sales team at sales@avasecurity.com.

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