

2021 Trends in Video Surveillance



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2020 imparted a worldwide pandemic. Social unrest. Political divisiveness. Unprecedented wildfires. And a near record-breaking hurricane/typhoon season. As relieved as the world may be to put this challenging year behind us, all these disparate-yet-connected events didn't magically disappear once the ball dropped on midnight, December 31.

In fact, this continued uncertainty around the globe is the underlying issue for most, if not all, of the security industry trends we're predicting for 2021. For example, it's accelerating the move to the cloud, amplifying the call for safety coupled with privacy, and emphasizing the need for accurate data and analytics with which to make faster, better, more informed decisions.

Here's how our experts see the coming year unfolding for the video security industry.



The video surveillance market is expected to grow from \$45.5 billion (USD) in 2020 to \$74.6 billion by 2025.

ONE

Customers are asking for cloud.

Some 90 percent of companies report doing business in the cloud. Its adoption started to ascend a few years ago when Millennials – who had become a dominant generation in the labor force – pushed hard for the flexibility to work from anywhere, anytime. Fast forward to 2020 and we saw the remote workforce trend accelerated by COVID-19, as the business world scrambled to maintain productivity with a home-bound workforce.

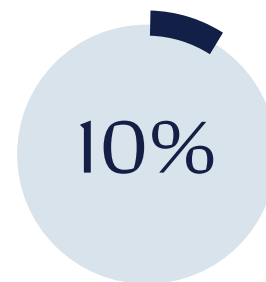
All that said, approximately only 10 percent of video surveillance is on the cloud. The rest is still being recorded on a server or a machine or computer located in the facility where the cameras are installed.

But, that's changing. And, it's changing primarily because the benefits of cloud in the video surveillance space are powerful and undeniable, including major cost savings, heightened data security, remote access and maintenance, flexible storage and retention, scalability, increased stability, and disaster recovery. In addition, bandwidth challenges are no longer a feasible argument against cloud computing, as tremendous advances have been made in internet bandwidth availability.

Finally, the cloud also enables an open platform, which promotes flexible, fast technology innovation and longevity.



of companies do business operations in the cloud.



of video surveillance is on the cloud, but that's increasing.

TWO

Advanced analytics (AI) will transform video surveillance systems into even more valuable business solutions.

Video surveillance systems are not just for security anymore, they're also a valuable tool for business intelligence (BI). Many video management system (VMS) providers have been preaching this, but most of the industry has failed to deliver. Widespread availability and adoption of AI and BI to transform video surveillance mirrors the Gartner Hype Cycle. They have progressed through the cycle from "Technology Trigger" to "Peak of Inflated Expectations" down to the "Trough of Disillusionment" and gradually back up toward the "Slope of Enlightenment." It's now reaching the "Plateau of Productivity," meaning AI and BI in video security are becoming the norm.

Ultimately, smart cloud video surveillance with appropriate privacy and cybersecurity protections will make businesses and communities much safer, for example, by detecting dangers such as weapons, erratic driving, active robberies, and suspicious loitering. Furthermore, businesses will analyze their customer behaviors, service, and overall retail operations to provide a significantly better customer experience. And, manufacturers will provide higher quality products, in a safer and more timely manner.

To drill down a bit, AI is also reducing false alarms, a major issue in the security industry. Analytics can ensure the system won't trigger unnecessary alarms due to benign motion, such as animal movements or billowing curtains. Simultaneously, sophisticated algorithms are now able to identify age groups, genders, clothing colors, and even details, like whether or not visitors entering a building are wearing face masks or maintaining social distancing.

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THREE

Video surveillance compliance requirements are constantly evolving.

As video surveillance becomes a more widely adopted tool across industries and continents, regulating its use is becoming more prevalent. For example:



Body-Worn Cameras

Policies dictated by state law enforcement commissions regarding when, where, and how police officers operate their body-worn cameras are prevalent and divergent. And, in the not-too-distant future, we predict these policies will also expand to commercial body-worn cameras for in-home service providers, such as nurses, cleaning crews, massage therapists, and food deliverers. In fact, the body-worn camera market is expected to register a 16 percent compound annual growth rate between now and 2025.

The Agriculture Industry

The agriculture industry is transforming rapidly to adopt technology to better monitor livestock and crop development. Video surveillance is giving farmers the opportunity to check irregularities or incidents directly on their phones or other devices via notifications. 4G capabilities give them the opportunity to stream video from remote barns and fields. In some countries, cannabis legislation is changing. And regulations that encompass things like video resolution and retention, remote accessibility for law enforcement, and offsite video backup vary widely from state to state, and even municipality to municipality.



Payments

Any business that regularly comes into contact with credit card information must remain compliant with PCI DSS (Payment Card Industry Data Security Standard). To ensure card data isn't compromised or for quick incident investigation, monitoring physical access to sensitive areas and retaining collected surveillance data are necessary.



The Education Sector

Compliance requirements are expanding for special education classrooms, with a number of states requiring districts to conduct surveillance intended to protect students who may not be able to report abuse or mistreatment themselves.

Healthcare

This industry is tightly regulated by government regulations. As part of this, video security is used by healthcare facilities to safeguard patients and their medical records, as well as staff, visitors, and the facility itself.



FOUR

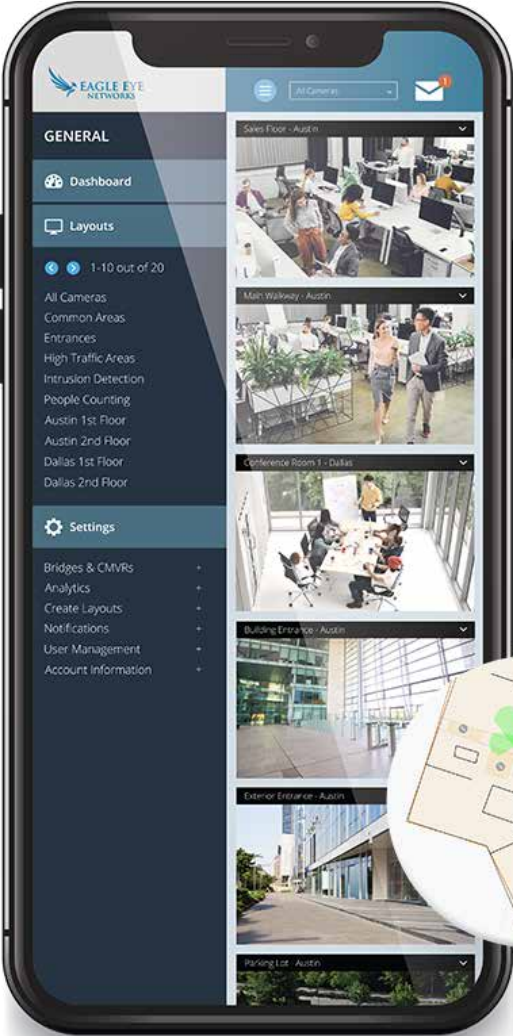
IT departments are now engaging with, and in many cases owning video surveillance.

For decades, the security team owned the video surveillance system in an office setting. However, in recent years, IT leaders have not only gotten involved in the video management system, they're actually owning it. As part of their IT strategy, corporations are leveraging video for business process improvement to maximize the benefits of surveillance investments while reducing unnecessary operational overhead.

The main driver for this shift is their deep understanding of the importance of cybersecurity. As keepers of the company's computer network, they're taking lessons learned from managing and securing the network – which includes email, the customer relationship management (CRM) system, accounting software, and more – and applying them to other potential vulnerabilities, such as surveillance cameras.

In addition, the IT team appreciates the low maintenance costs (both operational and infrastructure), how the VMS manages bandwidth, camera compatibility, and the vast integration possibilities inherent with cloud technology. As more core business applications, such as point of sale, access control, process control, and others, integrate with video surveillance systems, IT plays a more important role in ensuring compatibility, access, and security.





Endless opportunities for API integrations, including but not limited to:

- Access Control
- Point of Sale
- Business Analytics
- Sensor Monitoring
- Alarm Management
- Live Video Wall

FIVE

Customers are expecting their systems to be open and connected, as the value becomes more clear.

Whether it's our phone, fitness tracker, voice controller (Echo, Alexa), doorbell cam, or thermostat, consumers have become heavily dependent on IoT (internet of things) devices. So, it's no surprise we're seeing a confluence of consumer and commercial – I have it (automation, control, cost reduction, increased productivity, real-time access, etc.) at home. Why not at work?

An open and connected ecosystem makes it possible for businesses and developers to integrate any number of applications on a single VMS platform. The platform handles all the heavy lifting of interfacing with the cameras, recording video, securely transmitting and storing video to the cloud, and making video available for use in the integrated applications.

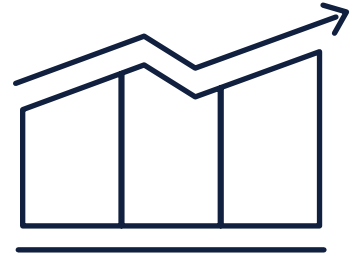
An open, cloud-based API (application programming interface) offers businesses:



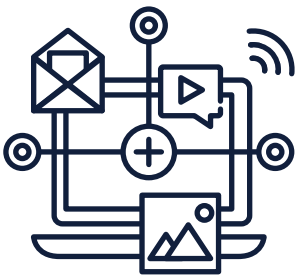
Access to valuable analytics



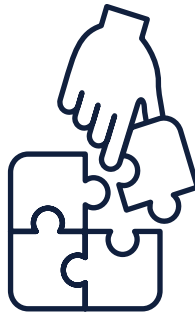
Ability to easily innovate



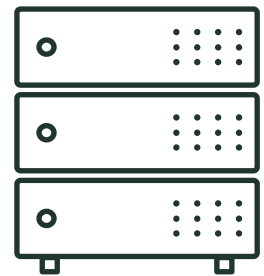
Speed to market



Flexibility to pick and choose the specific technology they want and need at any given time



Seamless integrations with other applications, such as point-of-sale (POS) systems and building management systems (BMS)



Means to get the most out of legacy technology investments

30%

of business owners said API integrations played a role in their organization's ability to respond to COVID-19.



This open, agile, customer-centric approach to technology design will continue to be a leading motivator for business owners when selecting a VMS platform and partner.

BONUS PREDICTION

The subscription model is preferred.

This is not so much prediction as it is fact. VSaaS, or Video Surveillance as a Service, refers to hosted cloud-based video surveillance, and comes with many benefits, including:

Lower Costs

The VSaaS model has an extremely low upfront capital expense, along with a predictable monthly operating cost.

Lower Total Cost of Ownership

When all costs are factored in, the ongoing monthly subscription costs are lower due to the economies of scale from the shared cloud infrastructure and support.

Bandwidth Management

Cloud systems have highly advanced bandwidth management to reduce consumption and provide smoother remote viewing.

Reliability and Redundancy

Cloud data centers have double and triple storage redundancy.

Easy Installation and Ongoing Support

A cloud-based system has an on-demand deployment, and ongoing support is done off-site by the provider.

Flexibility, Scalability, and Evolution

Because cloud systems use a large shared cloud infrastructure for video storage, the technology provides tremendous economies of scale and room for flexibility.

Technology Longevity and APIs

APIs for analytics, integration, and applications are open and publicly published. Fully functional APIs can be used in other systems.

Remote Access

Cloud-based systems were architected for remote access.

Cybersecurity

Advanced cloud-based video management systems do not have the cybersecurity vulnerabilities of traditional systems. There are no open ports, no onsite firewalls, and no on-premise software. No firewall installations are required.



BONUS PREDICTION

5G is coming.

5G is the fifth and next generation of mobile communication technology. The fastest 5G networks are expected to be at least 10 times faster than 4G LTE, according to wireless industry trade group GSMA. It has already launched, though on a small scale, and is being predominantly driven by the need to connect more devices and collect more data.

The new technology is expected to propel transformative, innovative technologies, for both the consumer and business markets. 5G will afford the video security industry, specifically, the ability to pull video and data from countless devices – so, not only from fixed video security cameras, but also devices such as body cams (think bus drivers, train conductors, Uber Eats drivers) and drones, which will be particularly powerful for businesses, such as farmers and sporting arenas.

Widespread adoption of 5G could take years, but if we're not working on it today, we'll be late to the game.

A man in a dark suit, white shirt, and tie is walking on a paved sidewalk. He is looking down at a smartphone in his right hand and holding a coffee cup in his left hand. The background shows a modern building with glass panels and a blue sky.

10x

faster than 4G LTE, currently the most popular option for cellular connectivity.

Contact Us

Let's connect to discuss how you can start using these trends to protect and grow your business in the coming year and beyond.

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