

2022 Cloud Video Surveillance Camera Worldwide Statistics



Introduction

By Dean Drako, CEO of Eagle Eye Networks

In our second annual report on security cameras, Eagle Eye Networks has aggregated data from a 200,000 sample of security cameras worldwide connected to the Eagle Eye Cloud VMS (video management system) over the past six years.

The analysis reveals clear trends and insights as to how organizations around the globe – from businesses to schools and communities – are deploying security cameras in a cloud-based video management system.

In addition to an organization deciding on the number and locations of their security cameras, they must make choices along several other factors. One goal of this report is to offer context for organizations making those determinations, by identifying the most common configurations and the trends over time.

Topics Covered in this Report

1. Video Recording Location (cloud, or cloud + on-premises)
2. Retention (cloud and on-premises)
3. Camera Resolution (<2MP, 2MP, >2MP)
4. Audio Recording
5. Top Analytics
6. Top Security Camera Manufacturers

Broad Scope of Source Data:

- Sample of **200,000 cameras**, digital and analog
- Covers **100 countries**
- **158 different camera manufacturers**
- **1,000s of organizations**, including retail, restaurants, warehouses, commercial enterprises, multi-family residence, healthcare, hospitality, logistics, K-12 schools, and cities
- The security camera systems are deployed to improve security safety and/or operations

Cloud System Terminology

There are multiple cloud surveillance approaches: True cloud, managed cloud, hosted cloud, and hybrid cloud. For a more detailed explanation of the distinct types, please reference [last year's report](#).

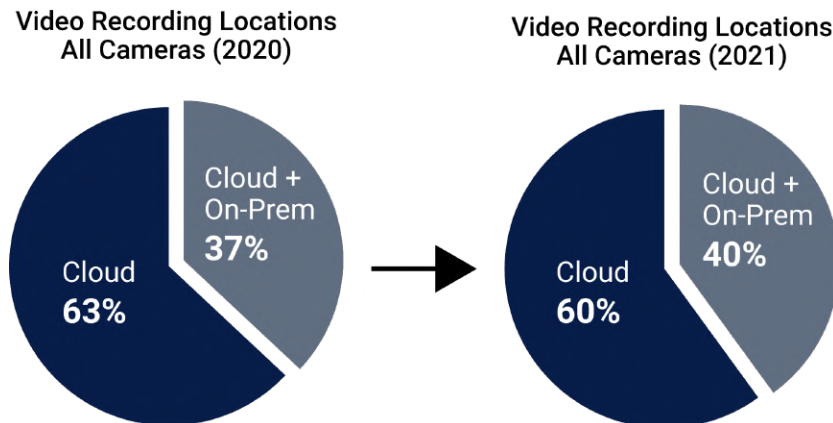
Below are the short descriptions of the three relevant terms in this report.

- **True Cloud** – A true cloud video management system offers on-demand network access to a shared pool of configurable computing resources, such as networks, servers, storage, applications, and services, which can be rapidly provisioned and released with minimal management effort.
- **On-Premises** – Software and technology located and stored within the physical confines of an enterprise, often in the company's data center or electrical closet, as opposed to running remotely on hosted servers or in the cloud.
- **Cloud-Prem Flex Recording** – A system where the customer can flexibly adjust the portion of video stored in the cloud and the portion stored on-premises, ranging from 0 to 100 percent, based on the available bandwidth, customer security requirements, number of cameras, and the customer's application.

All cameras analyzed in this report are in the Eagle Eye Networks true cloud video surveillance system. Further, because Eagle Eye Networks offers cloud-prem flex recording, customers have full control over where they want their video recording stored. We show their choices in the next section.

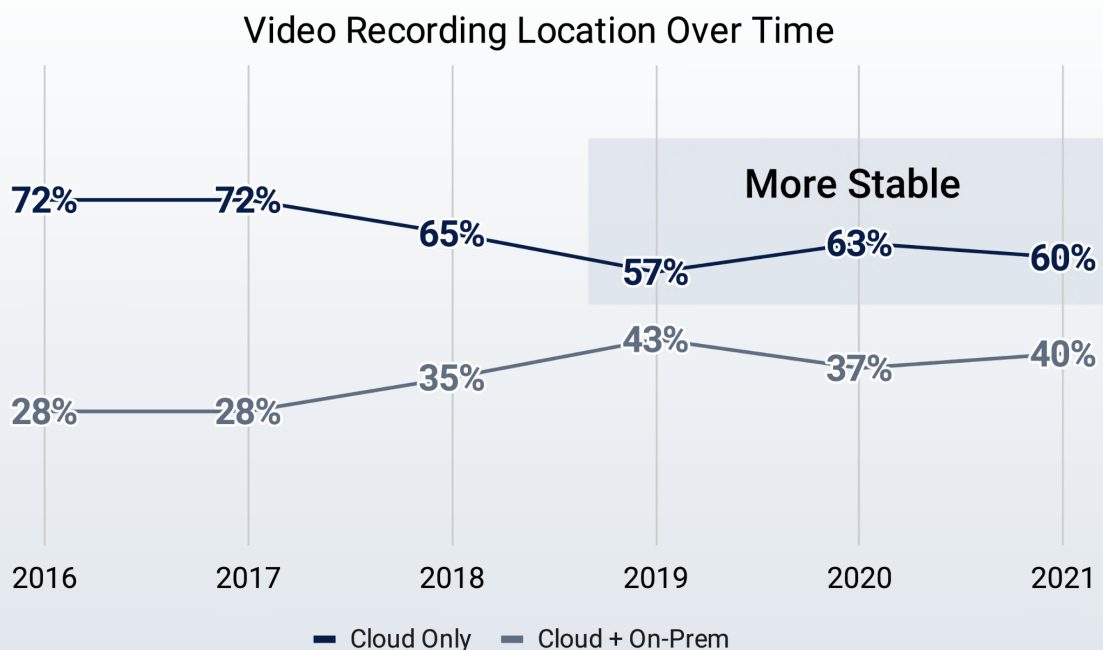
Video Recording Location

Sixty percent of cameras are used for cloud-only video recording, while 40 percent combine a mix of cloud and on-premises recording.



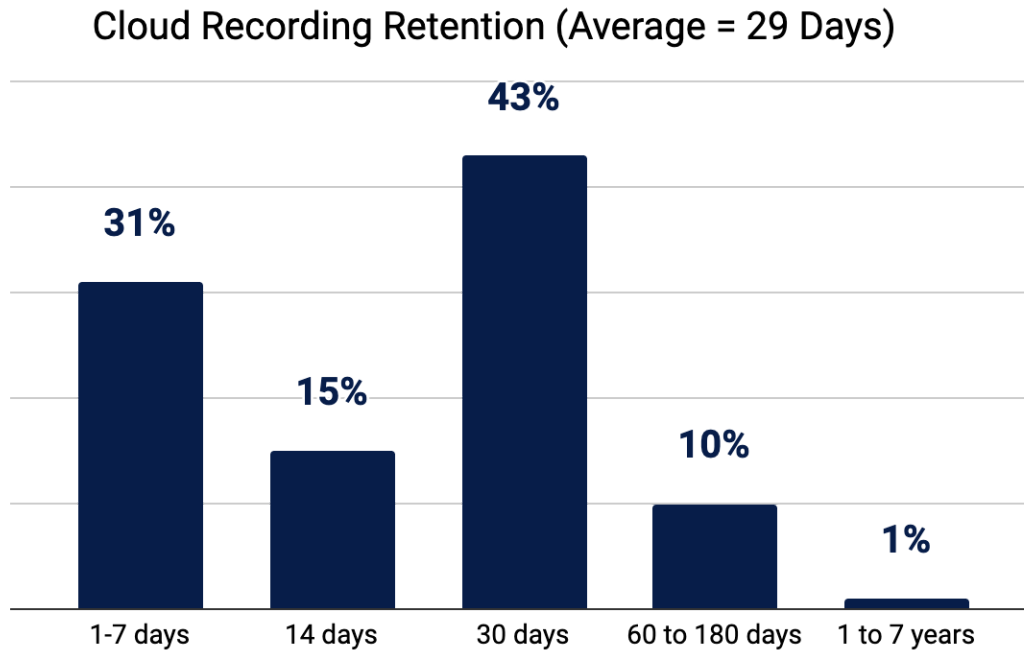
There was an increase in the number of larger enterprises moving to cloud video surveillance in 2021; the higher number of security cameras in each building for larger enterprises requires more on-site storage due to bandwidth limitations. This shift resulted in a slight increase in the percent deploying mixed cloud plus on-premises video recording compared with the 37 percent in last year's report.

When we dive more deeply into this finding, we see the percentage of cameras with combined cloud and on-premises recording (versus cloud-only recording) increased from 2016 to 2019 and has been fairly stable over the past three years.



Cloud Recording Retention

The average cloud recording retention in 2021 is 29 days, only slightly higher than the 28.2 cloud retention from last year's report. The most common cloud retention is once again 30 days.



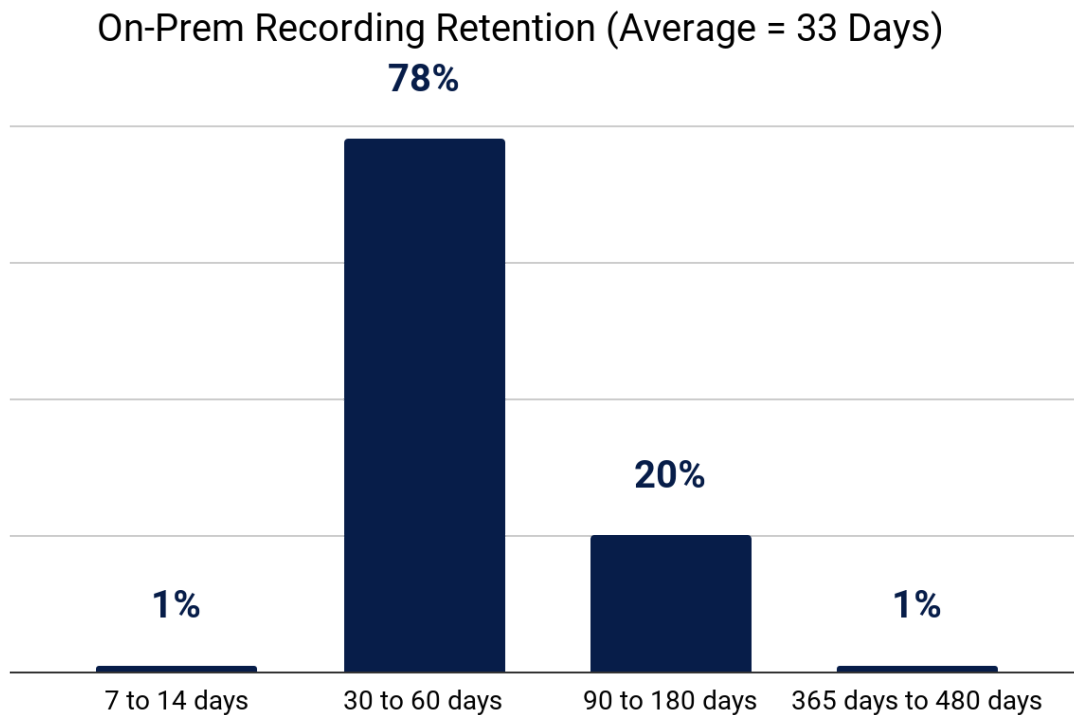
Although there is variation, we find that for 180 days retention and above, the groups below are highly represented:

- Medical
- Educational institutions
- Financial
- Government
- Hospitality & Multi-unit residences
- Contract recordings

More regulated industries, such as banking, law enforcement, and the cannabis industry generally require longer retention, with some contract recordings requiring a full seven years.

On-Premises Recording Retention

The average on-premises recording retention was stable this year at 33 days. The dominant retention choice continues to be 30 to 60 days, with 78 percent selecting that option. (In the 2021 report it was 72 percent.)

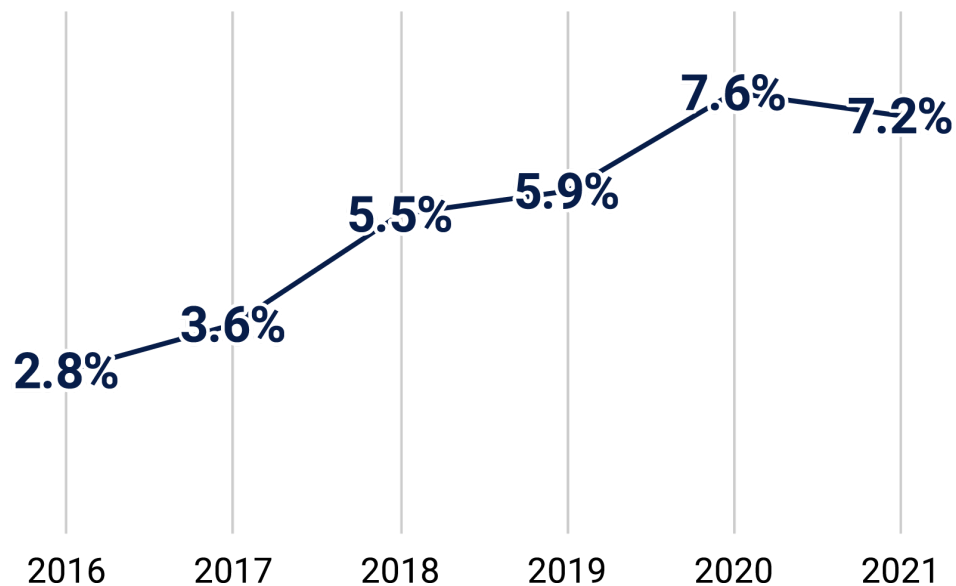


The above general analysis for cloud and on-premises recording retention is independent of organizations' capturing and archiving specific incidents, which can be retained for much longer time periods.

Audio Recording

The percent of audio-recording-enabled security cameras has doubled over the past five years, with 7.1 percent of cameras installed in 2021 using audio recording, which is virtually the same as cameras installed in 2020.

Surveillance Cameras with Audio Recording



Contract discussions can require audio recording. And while customer-facing businesses may be interested in using it to improve customer service, and it can help with security, the laws in different countries and states can restrict the use of audio by state and locality.

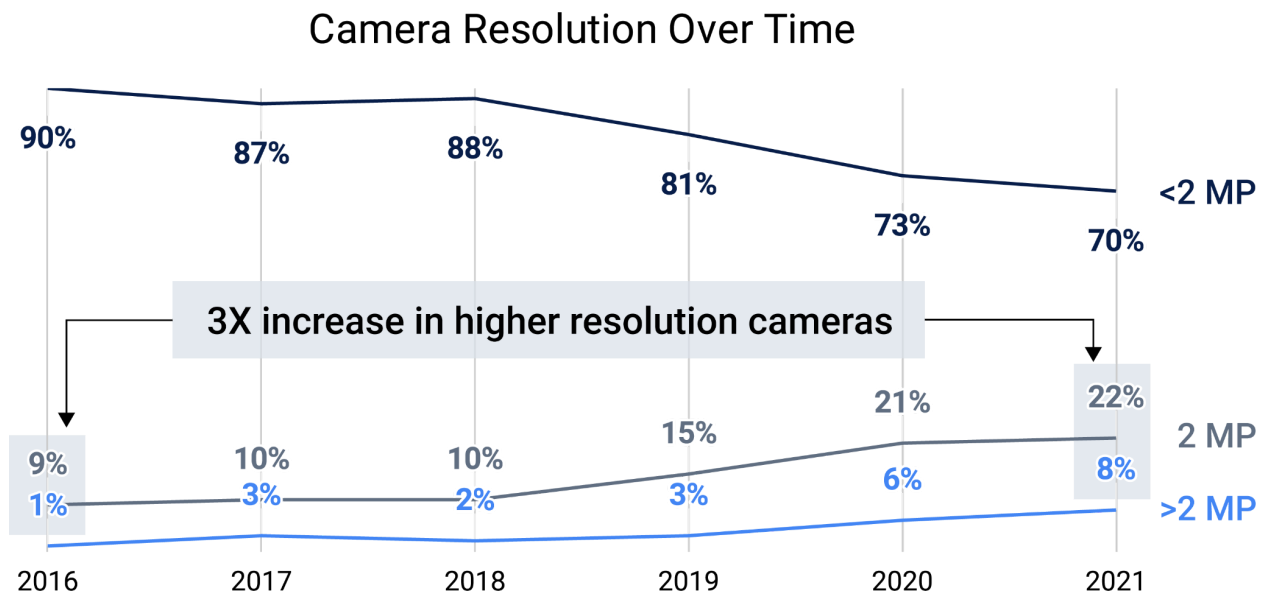
For example, at least 10 states in the U.S. require two-party consent for any audio recording. Determining the legalities of audio recording and subsequent compliance is part of what hinders broader adoption.

Applications for audio recording with video surveillance include recording contract discussions and classrooms with special needs students, where it may be legally mandated.

Note that because organizations deploying cameras supporting audio can enable or disable the audio recording setting at any time, this number can vary somewhat over time, even for cameras installed in a particular year. For example, at the time of our last report, 7.6 percent of the security cameras installed in 2020 were using audio recording, while for this year's snapshot, it shifted slightly to 7.2 percent.

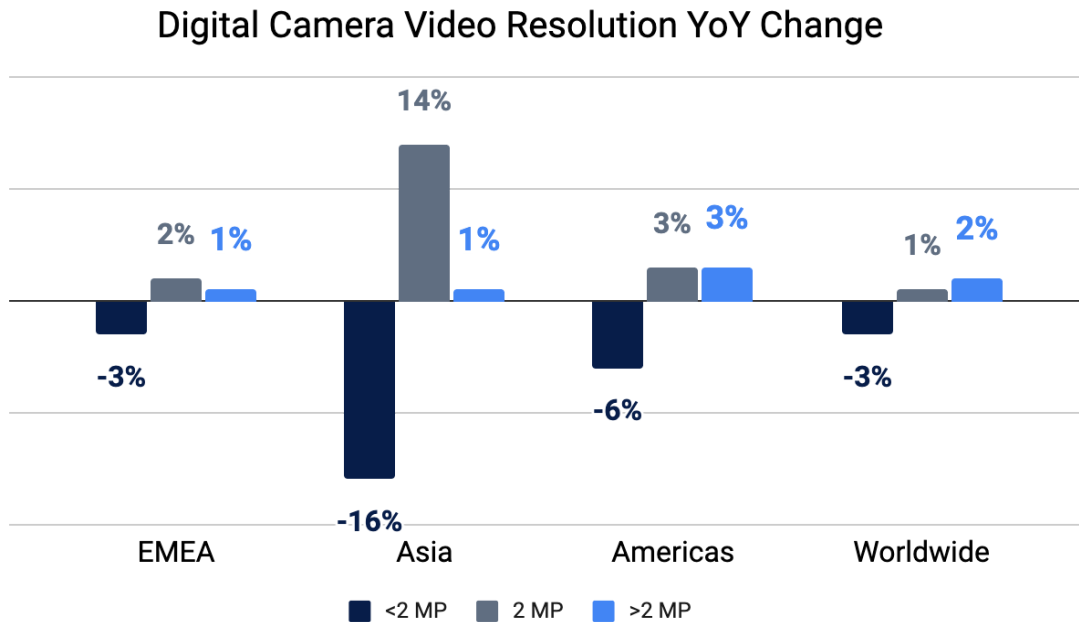
Digital Camera Resolution

There has been a three-fold increase in high resolution digital security cameras over the past five years, driven in part by increased affordability. As the resolution increases, the ability to implement certain artificial intelligence (AI) solutions also increases.

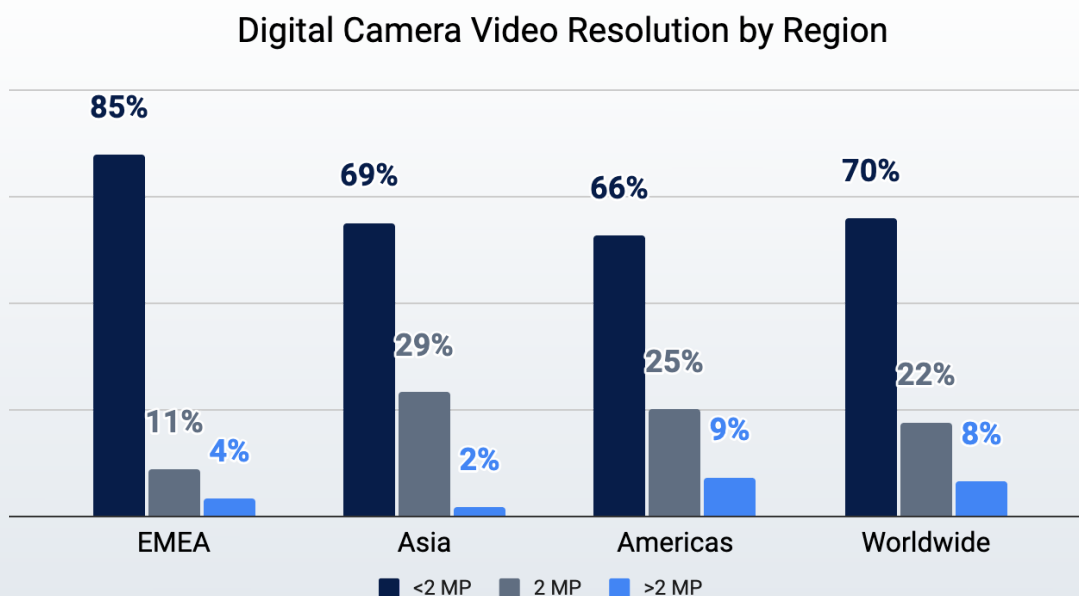


Digital Camera Resolution by Region

The shift toward higher resolution cameras has been occurring across all three regions, with the biggest increase taking place in Asia.

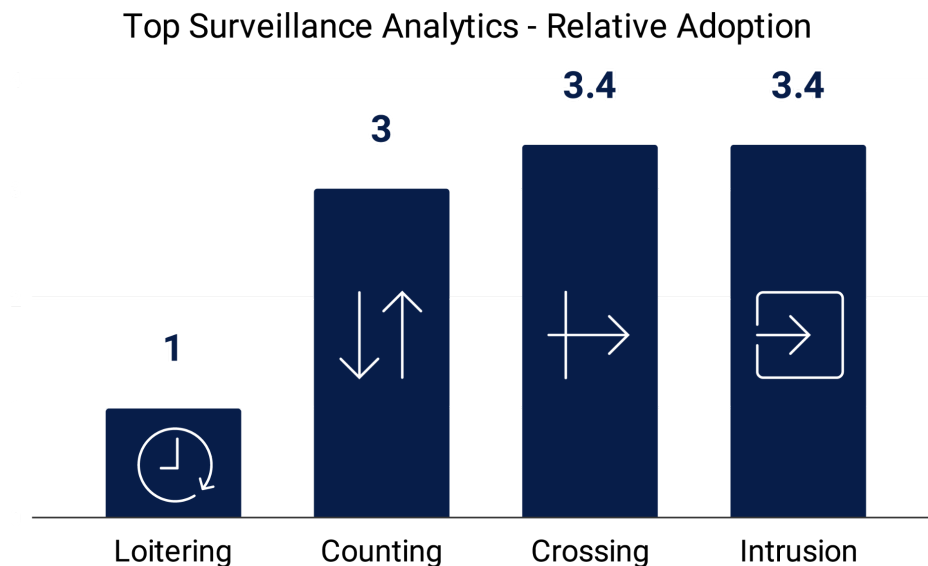


Even so, as we show below, the Americas currently has twice the number of cameras with >2MP resolution than EMEA and four times those of Asia.



Top Analytics

Security camera system video analytics track and provide real-time alerts to particular events. They can also be used to search forensically for events that have already occurred. Once again in this report we looked at the four most common physical security analytics to determine their relative level of use.



The four most commonly used analytics are:

- **Intrusion** – Flags when someone enters a designated area – typically associated with areas that are considered off limits.
- **Crossing** – Identifies whether a person or vehicle crosses a marked line. Commonly tied to people entering a store and can also be used for an unsafe area.
- **Counting** – Counts the number of people in an area; typically used to monitor service quality or for safety reasons.
- **Loitering** – Determine if an individual or group stays beyond a specified time in a particular area; can indicate suspicious behavior.

This year, crossing analytics caught up with intrusion for a two-way tie for the most deployed analytics, closely followed by counting analytics. Loitering remained the least-used application, with deployment one-third or less of the others.

The more recent artificial intelligence-based analytics available in the market, including license plate recognition and traffic monitoring, are still in earlier stages of adoption and do not yet show up to a significant level.

Top Digital Security Camera Manufacturers

The digital security cameras installed with Eagle Eye Cloud VMS were made by 158 different third-party camera manufacturers. The only requirement for digital cameras to work with Eagle Eye Cloud VMS is that they are ONVIF conformant.

Below are the top ten camera manufacturers, out of those 158, connected to the Eagle Eye Cloud VMS, in alphabetical order. The names in bold changed. The top ten did not change over the past year.



These top ten manufacturers account for 87 percent of the installed third-party cameras; this is down from 90 percent last year.

Conclusion

Our 2022 report found organizations are mostly consistent from our 2021 report across the following factors: video recording location, recording retention, audio recording, and the top camera manufacturers.

The major changes since last year were the continuing increase in higher resolution cameras, the higher relative deployment of counting and crossing analytics, and the number of different camera manufacturers installed.

About Eagle Eye Networks

Eagle Eye Networks is the global leader in cloud video surveillance, delivering cyber-secure, cloud-based video with artificial intelligence (AI) and analytics to make businesses more efficient and the world a safer place. Eagle Eye provides security and real-time business intelligence, helping organizations of all sizes and types optimize operations.

Eagle Eye's 100 percent cloud-managed solutions are smart, simple, and secure. The Eagle Eye Cloud VMS (video management system) platform is robust and flexible enough to lead the future of video surveillance and intelligence.

Purpose-built for the cloud and AI, it addresses customers' security needs with infinite scalability, flexible pricing plans, a wide array of advanced analytics, and an open RESTful API platform for unlimited customization.

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