Why are Organizations Going Back to On-site Recorders for Surveillance Systems?

By Lance Klukas | November 1, 2024

In recent years, many organizations (including colleges) that initially embraced cloud-based video surveillance are now returning to on-site network video recorders (NVRs) due to concerns over data security, privacy, and reliability. Here's what I found and why this shift is happening. Will your college be next?

Privacy, Control and Cost

Cloud-based surveillance stores data on external servers, which can raise concerns about privacy and data security. Organizations with strict privacy regulations, like healthcare, finance and education, often find it challenging to comply with data protection laws while using cloud services. By using on-site NVRs, organizations regain control over their data, reducing the risk of unauthorized access and easing compliance.

While cloud storage offers scalability, it can become expensive as video footage accumulates and newer cameras are higher quality. Monthly cloud storage fees can be significant, especially when high-definition footage is recorded 24/7. On-site NVRs, despite their upfront costs, offer long-term savings by eliminating recurring cloud storage fees which always seem to be increasing. Additionally, organizations often find that the ability to scale their storage on-site is more predictable and manageable over time.

Reliability and Performance

Cloud-based systems depend heavily on reliable internet connections. A network outage or slow internet speed can disrupt the ability to store or access video footage. In contrast, on-site NVRs are typically more reliable because they don't rely on external internet access to function. Organizations that need constant, uninterrupted access to footage – such as those in manufacturing or education – find NVRs to be a more dependable option.

On-site NVRs often provide better performance with minimal latency, which is crucial for real-time monitoring and quick response times. With cloud storage, there can be delays in accessing footage, especially during high-traffic times or when internet speeds fluctuate. On-site NVRs allow for faster playback and review, which can make all the difference in time-sensitive situations.

Cybersecurity Risks

As cyber threats continue to grow, the cloud has become a target for hackers aiming to exploit video data. An on-site NVR system, while not immune to cyber threats, is often considered safer as it isn't as exposed to the internet. Many organizations are shifting back to on-site NVRs as a way to reduce vulnerability, control access points, and enhance overall security.

While cloud-based surveillance has its advantages, the return to on-site NVRs is largely driven by the need for security, cost savings, reliability, and performance. For organizations that prioritize data control and need robust, low-latency systems, on-site NVRs remain a trusted and effective solution.

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