CLOUD VS. ON-PREMISE: THE FUTURE OF SECURITY

actuate

OVERVIEW

Next-generation physical security applications have high performance requirements that on-premise hardware struggles to meet. Cloud deployments are the solution to improving building security with new technology while reducing costs.

THE PAST: ON-PREMISE DOMINANCE

Security software applications such as Video Management Systems (VMS) and Access Control solutions are traditionally deployed on on-premise servers. These workloads have low performance needs, making on-premise a good fit:

- Compute requirements are low, allowing the use of cheap commodity hardware.
- Single-site deployments meant network traffic from security cameras was very high internally and very low over the internet.
- Security systems were fragmented. For example, VMSes often didn't integrate with access control, reducing IT complexity and the associated compliance and cybersecurity burden.

THE FUTURE: NETWORKED SECURITY

New technologies like drones, multi-site deployments, building automation, and artificial intelligence, increase the effectiveness of existing on-premise solutions, but come with high performance requirements and increased complexity:

- Meeting peak performance requirements of AI and building automation requires expensive server hardware that sits idle 90% of the time, wasting money.
- Multi-site deployments result in large amounts of bi-directional video traffic, using a lot of internet bandwidth.
- On-premise software and hardware integrations often require extensive customizations, slowing implementation, driving cost overruns and creating cybersecurity vulnerabilities.

THE SOLUTION: CLOUD

On-premise servers are effective for existing workloads, but struggle with next-generation technology. Locating new security applications on the cloud resolves the challenges of supporting these new workloads while virtually eliminating the up-front cost associated with purchasing servers:

1. On the cloud, you pay for what you use, eliminating the cost of under-used servers and storage.

2. Cloud deployments central-ize network traffic, cutting the congestion on local networks and simplifying network management, with only modest increases in internet bandwidth usage.

3. Internet-based integrations use simple, open APIs and are hosted on servers with world-class security and maintenance, reducing IT maintenance.