

# Simplify Video Surveillance with Nutanix

Performance at Scale, Reliability, and Management Simplicity



## POWERING THE NEW ERA OF VIDEO SURVEILLANCE MANAGEMENT

When a US federal law enforcement agency needed to manage an expansive video data repository dispersed across nearly 50 remote offices, each collecting upwards of 25 terabytes of surveillance data from field operations, they turned to the Nutanix Enterprise Cloud.



When Coeur d'Alene Casino and Resort needed to upgrade their bare-metal video surveillance system to achieve 24x7 availability and comply with federal gaming agency (National Indian Gaming Commission) rules, they looked at hyperconverged infrastructure and chose industry leader Nutanix.



When the Bellflower Unified School District wanted to simplify and modernize their virtual desktop infrastructure and improve their video surveillance and server virtualization capacity, Nutanix fit the bill.



When the City of Plano, TX needed video storage for their police auto and body cams, it was a simple expansion of their existing Nutanix environment.

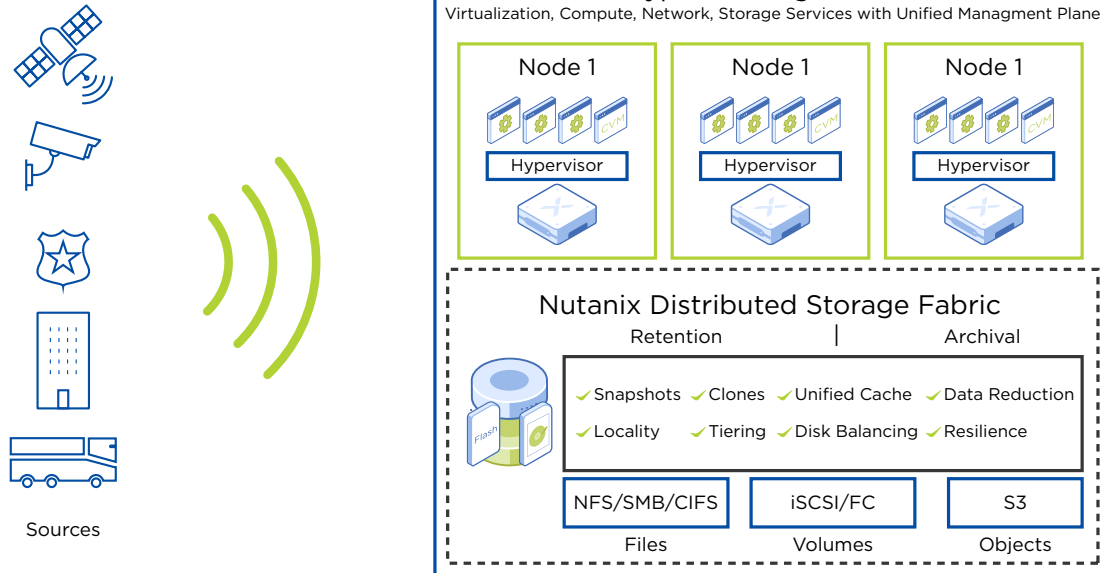
What these organizations have in common is that Nutanix radically simplifies the management burden that accompanies the massive storage and access demands associated with their video surveillance data, while bringing the performance, reliability, and scalability required of demanding workloads.

## MARKET NEEDS AND TECHNOLOGY DRIVE DEMAND FOR IMPROVED DATA MANAGEMENT

Rapid advances in digital video technology, including resolution, mobility, high-speed and wireless networking, and growth of IoT (Internet of Things) devices have enabled near ubiquity for video surveillance. These technology advances have triggered a boom in video management system use cases, such as drones, police auto and body cams, security of public and private spaces, emergency response, as well as traffic management, monitoring environmental conditions, and even optimizing customer service experiences. Accordingly, Allied Market Research predicts the global video surveillance market will exceed \$87B by 2025. All this contributes to new challenges and a video data explosion, which must be managed efficiently to maximize the value from that data.

## MEETING THE STORAGE AND INFRASTRUCTURE REQUIREMENTS FOR MODERN VIDEO MANAGEMENT SYSTEMS

Common legacy infrastructures are siloed, complex, and unable to handle the massive and rapid storage capacity growth required of modern video surveillance systems. Customers today want reduced complexity with systems that are simple to deploy and manage from day one, have built-in resiliency, are efficient yet scalable and provide visibility and analytics to manage the explosion of data that accompanies video capture and analysis.



### Resiliency and Accessibility

Availability and data integrity are absolute necessities. Storage systems must protect against loss by using replication or erasure coding, so that data is preserved in the event of component or datacenter failures. The Nutanix platform, with reliable operations at its core, has been designed with built-in high-availability, self-monitoring, self-healing, self-protection, and self-recovery. Nutanix consolidated storage services (Files, Volumes, and Objects) allow you to easily extend the storage fabric to meet your business requirements. For both security and evidentiary requirements, built-in encryption and write-once, read-many (WORM) capable storage ensures the data is immutable.

### Performance and Storage Efficiency

Even as storage costs decline, the sheer volume of video data continues to make storage costs a significant concern. To optimize storage capacity and accelerate application performance, the Nutanix Distributed Storage Fabric employs data efficiency techniques such as deduplication, compression, and erasure coding to optimize capacity utilization—contributing to lower TCO.

### Scale and Capacity

Scale capacity and performance with ease. Video data can grow rapidly, and the demand for high resolution and high frame rates can increase storage requirements even faster. In addition, data for investigative or evidentiary purposes require long-term retention. Nutanix allows you to flexibly scale to meet current and future demands. Storage solutions should allow a conservative initial footprint, with the ability to scale seamlessly and without downtime. The Nutanix Enterprise Cloud, powered by industry-leading hyperconverged infrastructure (HCI) technology, removes the complexity and overhead of expansion, allowing for simple, linear, and virtually unlimited scalability for incremental compute and storage requirements.



Simpler  
Management



Fewer Outages



Linear Performance  
Scaling and Capacity



Rich Metadata and  
Analytics



Storage Efficiency for  
Reduced Footprint

### Simplicity and Manageability

Often overlooked, ease of management is a key ingredient of a well-planned video management system. As capacity and performance demands grow, IT teams need smart technology to help them remain effective. Ease of management for storage systems enables intelligent automation for common or predictable workflows and self-servicing capabilities driven by the storage systems and machine intelligence. Powered by advanced machine-learning technology, Nutanix can mine large volumes of system data to automate common tasks and generate actionable insights to optimize virtualization, infrastructure management, and everyday operations. Nutanix's unified management plane simplifies and consolidates management functions to a single intelligent interface. Deploy application and storage resources with a click in just a few minutes.

### Intelligence Through Analytics

Video data is unstructured but must be easily searchable. A distributed metadata storage subsystem is built into the core Nutanix platform and extends to the consolidated storage components for file, block, and object storage—enabling analysts to search vast video repositories based on identifying tags, and establish correlations and patterns across datasets. Nutanix File Analytics provides surveillance system administrators with real-time insight into the performance capacity and usage to more intelligently plan for future data growth as well as search.

### Total Cost of Ownership

HCI represents one of the most dominant types of software-defined architectures today. Nutanix HCI solutions are built as clusters of commodity x86 servers that provide an abstracted pool of capacity, memory, and CPU cores as the foundation for server-centric workloads (the hypervisor, virtual machines [VMs], and applications), as well as storage-centric workloads through data persistence, data access, and data management. Nutanix offers the best TCO in the Industry. Beyond the physical hardware costs, it is important that organizations consider costs such as staffing, storage efficiency, ease of management, costs of downtime, and other costs that affect total cost of ownership. **According to IDC<sup>1</sup>**, Nutanix Files reduces operational overhead by 66% over traditional siloed storage, resulting in 414% ROI and 7-month payback.

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## READY TO TRANSFORM?

Experience the delight that comes from freedom of choice—across hypervisors, hardware, and clouds—as well as the operational agility that comes with not having to worry about your underlying infrastructure.

Nutanix is ready to help you transform your datacenter, your IT operations, and your business, giving you the freedom to invent. To learn more, contact Nutanix at [info@nutanix.com](mailto:info@nutanix.com), follow us on Twitter [@nutanix](https://twitter.com/nutanix), or visit [nutanix.com/try](https://nutanix.com/try) to try it free.

<sup>1</sup> <https://www.nutanix.com/viewer?type=pdf&path=/content/dam/nutanix/resources/analyst-reports/ar-idc-business-value-nutanix-files.pdf>

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