

Security

Securing your data and growth: How to build cyber resilience in your cloud operations



DATA HAS become the primary source of both opportunity and risk for the enterprise. On the one hand, data fuels potential growth through analytics and AI. On the other, it threatens to leave the business hostage to breaches and ransomware attacks. Perhaps this explains why [Foundry's 2022 State of the CIO survey](#) puts data and business analytics as the number two initiative driving IT investment, but security and risk management as the number one. Over half of CIOs describe security management as the current focus of their role.

IT leaders are all too aware of the dangers of ransomware: a [Microsoft study](#) released in January placed it as the top cybersecurity challenge, followed closely by cloud security. Attacks almost doubled in 2021, rising 92.7%, while [IDC research](#) has shown that over one-third of organisations worldwide have experienced one, and that only 13% of those attacked have ended up not paying any ransom. According to that same IDC research payments are soaring, from an average \$300,000 in 2020 to nearly

\$1,000,000 in 2022. With “double extortion” rackets on the rise, today’s attackers are as likely to threaten to release sensitive data to the web as to deny your business access.

Of course, the cost of ransomware goes beyond the ransom. [Cyber-insurance premiums have climbed by as much as 96% year on year](#), driven by a rise in ransomware claims. Downtime, lost business, remediation expenses, and reputational damage also need to be factored in. And while cybercriminal activity is the largest threat to data, it’s not the only threat. Power outages, hardware failure, network failure, and human error can all leave enterprises without access to their data. Even weather can be a factor. During July’s European heatwave, the failure of cooling systems at a London

\$265 billion

the global cost of ransomware by 2031

92.7%

growth in ransomware attacks from 2020 to 2021

only 13%

of organisations attacked end up not paying any ransom

data centre took services from Google and Oracle offline.

What aggravates these data risks is that many firms don't have full control or visibility of their data. Only a minority will be structured, managed, and properly secure. The rest will be unstructured data, captive within siloed file systems, emails, applications, document collections, media files and social media, among other places. Unmanaged cloud services and IoT devices are adding to the pile. Many organisations have no inventory of this data and no understanding of what's out there, where it's stored, or who has access. This makes it impossible to secure or manage the risks.

This is why it's so crucial for businesses to find a new approach to data and bring its management and security together. Without visibility and control, the impact of ransomware and other threats could be catastrophic.

Data and security: a unified approach

A [software-based unified storage](#) architecture answers the needs of both data management and data security. It brings file-level, block-level, and object-level storage together in a single data platform, running across on-premise infrastructure, private cloud, and public cloud. With unified storage, it doesn't matter whether data is structured or unstructured, or where it's physically located. It can all be monitored, secured, and managed in the same way through a single set of tools. Unified storage brings everything into one cloud and puts IT in control.

This approach brings a range of benefits. For one, low-commitment subscription licensing and a friction-free, pay-per-use consumption model makes unified storage both cost and resource effective. Instead of

planning and purchasing storage years in advance, trying to estimate future requirements, businesses can get what they need when they need it and only pay for what they use. As demands or workloads change, the storage platform can evolve to meet requirements, delivering the storage resources required by any workload to the right location.

Meanwhile, organisations can use the platform to build their own management and security dashboards, giving them full visibility and control of their data and their spend, while harnessing AI and analytics to automate management tasks and security responses. For instance, in [Nutanix Unified Storage](#), the [Data Lens](#) feature can provide a global data view, along with anomaly detection to pick up signs of attack and audit trails to trace activity. This can help simplify data lifecycle management as well as protect against ransomware attacks.

Crucially, unified storage can protect your cloud from ransomware through a powerful prevent, detect, and recover model.

Unifying security and data management can help gain built-in protection to:

- **Prevent attacks** by blocking infected users and devices, then follow up with searchable audit trails of all activity from file, folder, or user. Smart, immutable snapshots are proof against modification and deletion, protecting backup data from corruption or unsanctioned encryption and locking.
- **Detect attacks** by recognising ransomware signatures and using pattern matching to identify ransomware behaviour, then trigger an appropriate security response. For example, Nutanix Unified Storage can detect over 4,000 different ransomware signatures, then pinpoint the source of the attack through anomaly detection, ready for mitigation.
- **Recover** from a backup or a snapshot to a pre-attack safe state. With Nutanix's technology, built-in Write Once, Read Many (WORM) capabilities enable users to write critical data in a way that malware can't lock or alter later.

These management and security features don't just protect data from ransomware, but also assist with governance and compliance, providing full visibility for audits and compliance with key global, national, and industry-specific standards.

What's more, rendering all this data visible also makes it usable, so that your organisation is better positioned to convert it into game-changing insights. Add the reduction of lost productivity, file storage costs, IT staff, and unplanned downtime, and you could be looking at a 414% return on investment in four years, with just seven months to recover the upfront costs.

Reducing the storage grind

Moving to a unified storage solution doesn't have to involve the pain you might associate with changing a fundamental part of your technology stack. The beauty of software-defined storage infrastructure is that it can operate on your terms – you can set the speed and scale. It's built upon clustered nodes, each a pool of resources, with the storage controller virtualised

to provide access to distributed blocks, files, and objects.

Deployment is simple and heavily automated, and you can choose to consolidate all your storage on one or more clusters or start small with just three nodes and add more as you need them. You can scale up without disrupting workloads and services by adding virtual resources or scale out non-disruptively by adding physical nodes where you need predictable resources or performance.

Whether you're planning to run simple backup and archive services or more complex cloud native apps or data analytics workloads, you have the flexibility to do so, either from a dedicated cluster or from a mixed environment. You can keep your applications and your data resources together to maintain optimal performance.

What's more, switching to unified storage saves IT time and effort. Bundled solutions of hardware, software, and services, can be up and running within weeks, with minimal

intervention from the in-house IT team. After that, organisations can manage their resources, data, and data security from a single plane. Provisioning, monitoring and deployment of new features and services can be handled through one core UI that covers everything from configuration of virtual machines and storage to a unified view of your consumption, helping you control storage sprawl and costs.

Nutanix Unified Storage gives organisations the flexibility and instant access to the resources they need to support any workload, at scale, without sacrificing performance or resilience. It gives enterprises the freedom to launch innovative new services and adjust performance characteristics on the fly, with the ability to rapidly repurpose those resources, if necessary, later. With Unified Storage, firms can move workloads in and out of cloud or between different clouds with ease. Most of all, the architecture doesn't limit you. The more the organisation grows, the more the resources and performance scale to match. Indeed, with the software optimised to take advantage of Intel Xeon Scalable processors and Intel Optane storage, you're also equipped to take advan-

tage of the responsive performance of the latest Intel technologies.

Plus, where new infrastructure demands big upfront investments, using Nutanix Unified Storage can help businesses reduce and manage their costs. [Research](#) from IDC has shown organisations can reduce total cost of operations by 66% over a five-year period, reaching payback on their initial investment within just seven months. Organisations only pay for what they consume, as and when they consume it.

It's time for a new approach

Baseline requirements for storage are changing. Enterprises need more than just resources to hold their data; they need a more flexible infrastructure that can span from on-premise hardware to the edge via public cloud. They need the ability to scale and support new workloads as and when they're needed, and the tools to see and manage their data, whether structured or unstructured. They need the means to protect that data from malware and ransomware, and a robust set of features to limit

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and recover from attacks – or from any other disaster.

Nutanix Unified Storage meets all these requirements and more. With it, you can build resilience into your cloud and storage operations and start making the most of the insights contained within your data without concern that your business transformation could be derailed by a ransomware attack. With Nutanix Unified Storage, creating and managing this data infrastructure doesn't have to be a grind. In fact, there are opportunities to simplify and streamline operations, reduce operating costs, and use AI and automation to free up IT teams for more business-focused work. Working with Nutanix and Intel solutions, based on the latest Intel Xeon Scalable architecture, you can find an optimised configuration with verified performance in a surprisingly short time, with a stream-

lined path to further hybrid cloud deployments to cover future needs.

Nutanix Data Lens provides deep analytics to enhance visibility and security across your structured and unstructured data, while enhanced ransomware protection, with immutable snapshots and WORM capabilities, ensure that ransomware can't get a foothold, and that your infrastructure can recover at speed from any attack. Automation and proactive data monitoring guarantee a rapid response.

Adopting a unified storage architecture makes sense on every level, from enabling the business to harvest more value from its data, to ensuring that all data stays protected from emerging threats. What's more, Nutanix has the experience and expertise to help organisations of every size take the next step to build resilience and secure their data and their growth. ♦

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