



Dell Technologies Continuously Modern Storage

Dell Technologies Innovation Helps Customers Get More Value
From Their Data No Matter Where It Lives

Scott Sinclair, Practice Director

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Research Objectives

In a modern, data-driven economy, business success—or conversely, business struggles—often equate directly to how well a company maximizes the value of its data. As businesses require more from their data and the IT teams that manage that data, IT leaders need to rethink what they require from their data storage infrastructure.

The scale of today's digital demands—the increase in business-related needs—surpasses what IT can accomplish in any one location, whether it is on or off premises, in the cloud, or in the data center. Distributed operations across public cloud services and private data centers will continue to be the essential mode of operations for the foreseeable future. Businesses must improve their agility and operational efficiency across their entire IT infrastructure, including within the data center, with more automation, better security, and with seamless integration with cloud services.

To gain insight into these trends, TechTarget's Enterprise Strategy Group consolidated insights from multiple research studies covering hundreds of IT professionals at organizations in North America (US and Canada) responsible for evaluating, purchasing, managing, and building infrastructure.

KEY FINDINGS:



Organizations need to accelerate IT operations to support digital business initiatives.



Given the pervasive threat of cyber-attacks, such as ransomware, security and protection are essential for innovation.



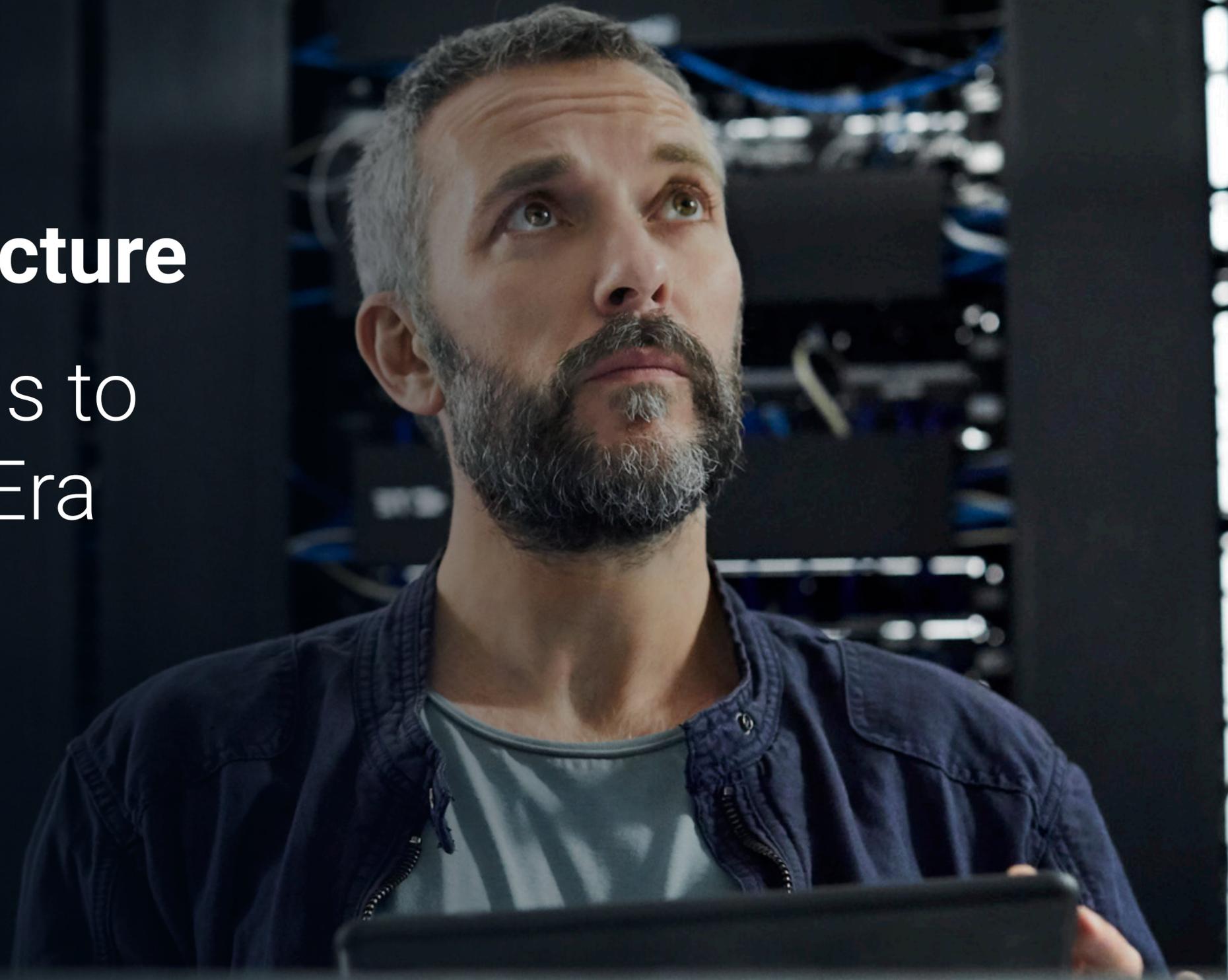
Businesses must simplify multi-cloud operations to keep pace with demands.



On-premises modernization is an essential component of any multi-cloud strategy.

Rethinking IT Infrastructure

Accelerate IT Operations to
Compete in the Digital Era



“When business is built on data, **the right data storage ecosystem can deliver competitive success.**”

- *Scott Sinclair*, Practice Director, Enterprise Strategy Group

Business is defined by data.



59%



of respondents say that **data is their business.**



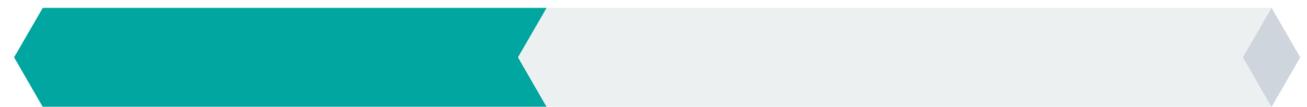
91%



of organizations have to **move faster than 3 years ago.**

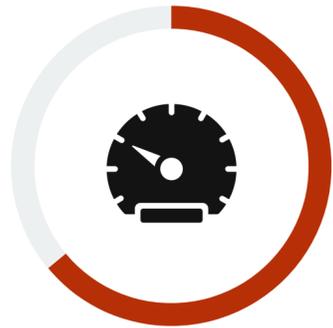


41%



of organizations **had to accelerate operations** by more than 50%.

IT leaders need modern and automated infrastructure to simplify, automate, and accelerate operations.



64%
agree that the complexity of their IT infrastructure slows IT operations and digital initiatives.



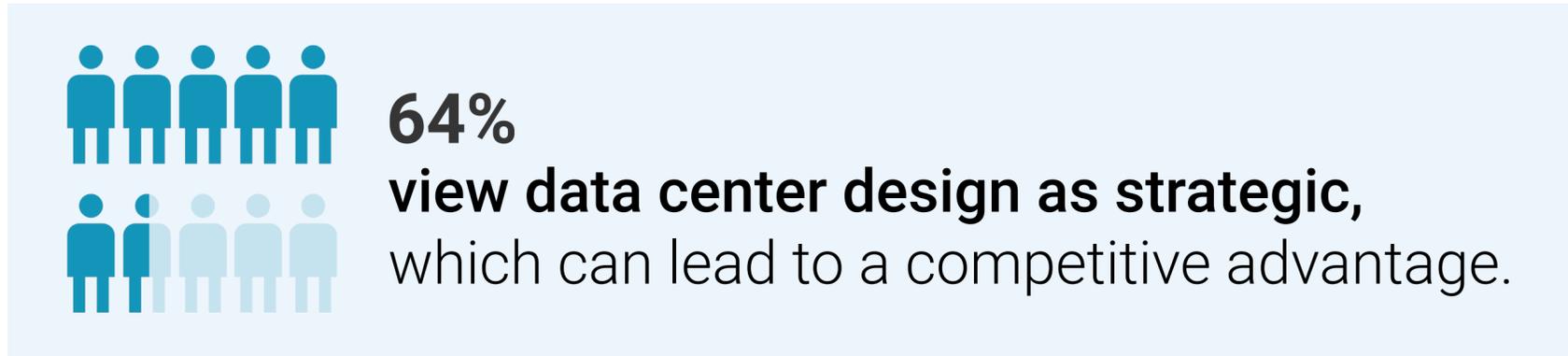
64%
agree that data storage infrastructure requirements and spending are hard to predict for their organization.



76%
agree that they have taken on added/new responsibilities to support their organization's digital transformation goals/initiatives (or are under pressure to do so).



67%
agree that they are under pressure to accelerate IT infrastructure provisioning/deployment to support developers/line-of-business teams.



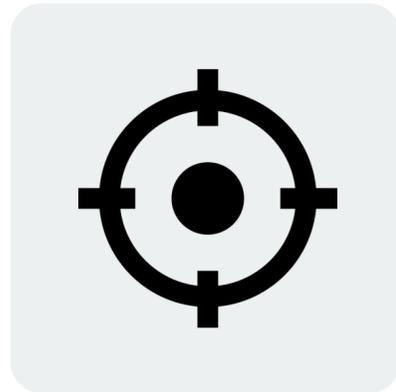
Without investments in simplification and automation, **IT operations will continue to be slowed by increased complexity, hindering and eventually paralyzing business operations.**

Rethinking IT Infrastructure

Security Is Essential
for Innovation



There is a pervasive threat of ransomware attacks.



79%



of surveyed organizations **have been the target of ransomware in the last 12 months.**



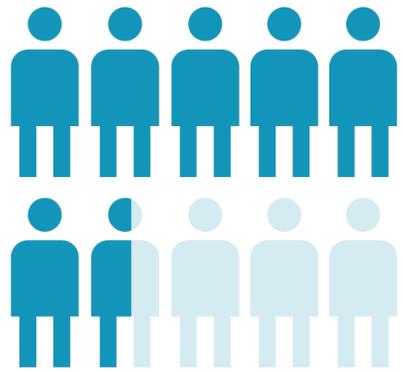
73%



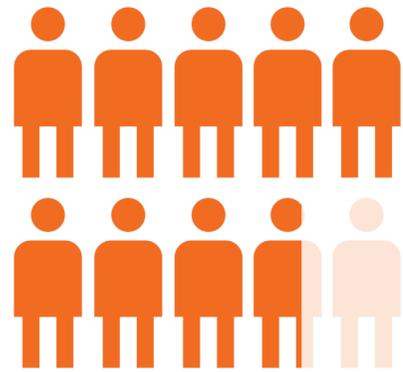
of those attacked said the **attacks were successful.**

Get your checkbook out! However, paying doesn't guarantee recovery.

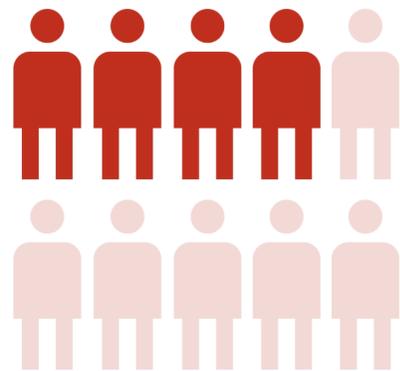
Cyberthreats/ransomware are becoming more frequent, more sophisticated, and more impactful. Every business and industry is at risk. Ransomware, in particular, is a major challenge. The majority of attacks are successful, and most companies pay to recover data. Paying the ransom, however, does not guarantee recovery and often it entices the attacker to ask for more.



56%
paid the ransom.



87%
were asked to
pay more, and the
majority did.



Only 40%
who paid a ransom were able to
recover more than 75% of their data.



More than half of organizations admit to paying a ransom to recover their data, **but extortion attempts persisted.**

IT leaders need secure IT infrastructure to ensure innovation and reduce risk.

Cybersecurity is an essential IT priority that requires prevention, detection, and recovery from ransomware attacks. IT leaders must assume their infrastructure can be compromised and have plans and tools in place to prevent, detect, and recover from attacks.



IT leaders must assume **their infrastructure can be compromised...**



82%



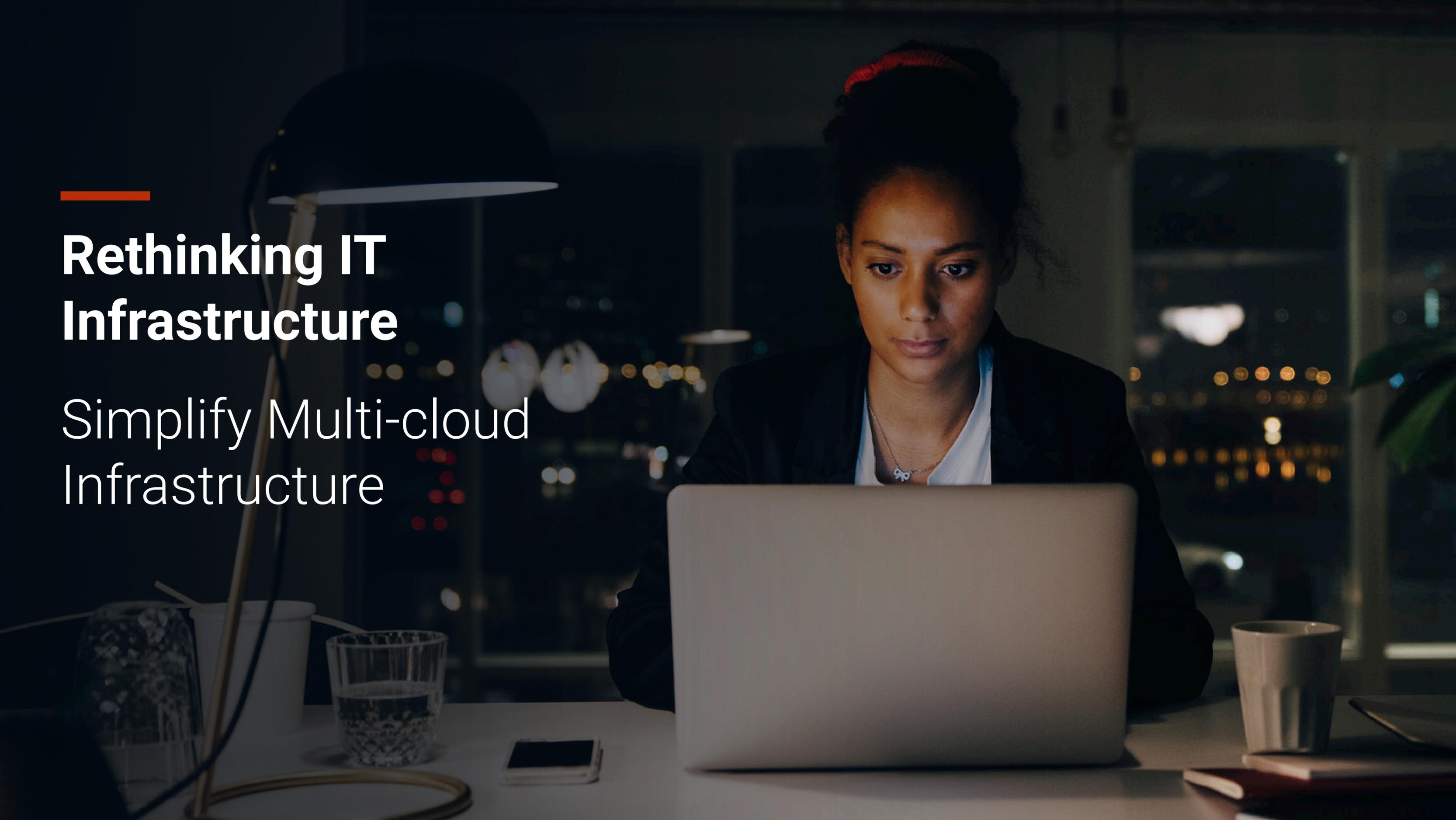
say concern for ransomware is **greater today than it was two years ago.**



68%



say ransomware is a **top 5 business priority.**

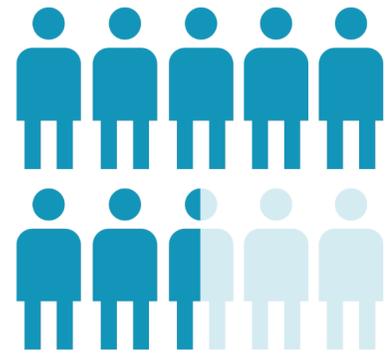


**Rethinking IT
Infrastructure**

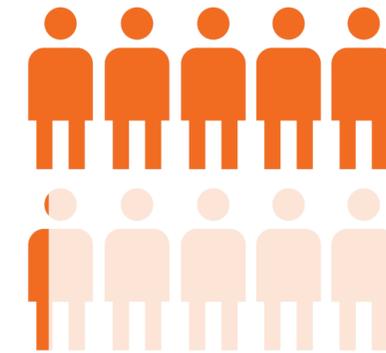
Simplify Multi-cloud
Infrastructure

“On-premises infrastructure must be better able to integrate with cloud providers to deliver greater agility and accelerated operations.”

IT leaders need greater agility across distributed, multi-cloud environments.



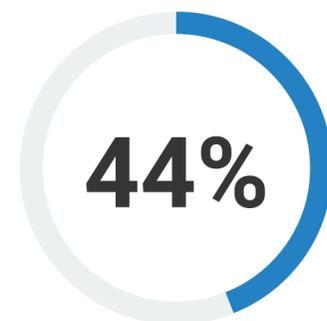
75%
of organizations leverage public cloud infrastructure services.



53%
of cloud users leverage 3 or more providers.

| Top 3 most common challenges with multiple CSPs.

Ensuring proper **coordination/** cooperation between multiple cloud teams/IT functional teams



Ensuring **security** across multiple cloud environments



Time and effort associated with moving apps/data between data center(s) and multiple public cloud services



A man in profile, looking towards the right, is positioned in the foreground. Behind him is a large, glowing digital display filled with various data visualizations, including line graphs, bar charts, and snippets of code. The overall aesthetic is futuristic and data-driven, with a blue and white color palette. The text is overlaid on the left side of the image.

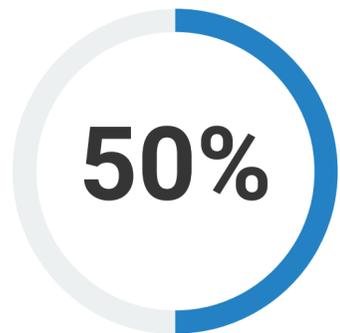
On-premises Modernization and Dell Technologies Continuously Modern Storage

Modernizing the data center remains critical in a multi-cloud world.

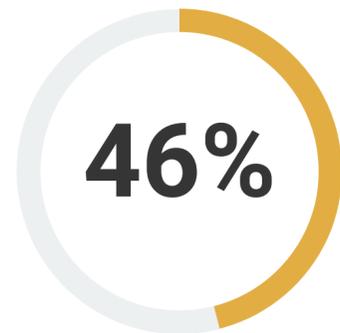


79%  are focused on modernizing their data center to support their business strategy over the next 3 years.

| On-premises data center environment strategies over the next three years.



Improving connectivity to/ interoperability with public cloud infrastructure



Invest in technologies that provide a cloud-like experience on premises



The data center is not going away, **nor can it stay the same.**



“ IT leaders need to be ready for what comes next.
Businesses don't stand still, and neither should their storage.”

Dell Technologies Continuously Modern Storage can deliver the needed data center modernization by:



Automating and accelerating operations.



Providing integrated security capabilities.



Delivering greater agility across distributed multi-cloud environments.

Dell Technologies Continuously Modern Storage – Automation for Distributed Multi-cloud Environments

Dell offers intelligent storage offerings with built-in AI along with CloudIQ, providing intelligent insights and proactive infrastructure monitoring.



PowerStore's adaptable architecture with native replication and native metro sync replication delivers simple shared storage across sites. And PowerStore's latest release is 60% more energy efficient,* simplifying enterprise storage with intelligent automation and an adaptable, continuously modern design.

* Based on a Dell analysis comparing maximum IOPS per Watt for PowerStore 1200 base appliance configurations with PowerStoreOS 3.0 versus PowerStore 1000 base appliance configuration with PowerStoreOS 2.0. Actual results vary.



PowerMax offers multi-array smart provisioning and workload optimization, health and compliance monitoring/ remediation, and NVMe/TCP networking configuration that reduces setup time by up to 44%.



PowerFlex's software-defined scale-out architecture with data path optimization delivers linear scalability of performance and capacity independently. APEX Block Storage uses Dell PowerFlex software so that customers can enjoy the same storage in public clouds.

Dell Technologies Continuously Modern Storage – Security and Comprehensive Cyber Resiliency Throughout the Data Lifecycle

Dell provides intrinsically secure storage solutions along with comprehensive threat prevention, detection, and response capabilities, ensuring that data is secure, protected, and always available. These solutions offer data isolation and immutability, anomaly detection, and granular recovery. They help reduce security complexity by aggregating threat intelligence and cascading it to upstream security platforms.



Dell designed **PowerMax** for robust, zero trust security architectures, claiming it as the world's most secure mission-critical storage. PowerMax offers multifactor authentication, continuous ransomware anomaly detection, and a native air-gapped cyber vault for open system servers and mainframes. And it has excellent scalability—up to 65 million immutable snapshots per array—to provide fast and granular data recovery.



Dell PowerProtect Cyber Recovery protects against ransomware and malware attacks with a secure vault (on premises or in public clouds) to secure and recover critical data. It can find data corruptions with up to 99.5% confidence, according to Dell.



For the on-premises Dell infrastructure, **Dell CloudIQ's** AIOps application detects early ransomware attack behavior and system security misconfigurations to minimize exposure, help reestablish a secure posture, and speed recovery.



Dell Technologies Continuously Modern Storage – Multi-cloud Ecosystem Flexibility

Dell's software-defined storage provides flexibility for managing high-performance workloads on premises and in public clouds.

Dell APEX Storage for Public Cloud brings Dell's enterprise-level block and file storage software to public clouds, along with scale, economics, and a consistent management experience.



Dell APEX Block Storage for AWS brings the high performance, linear scalability, and advanced data services of Dell's software-defined block storage, **PowerFlex**, to AWS.



Dell APEX File Storage for AWS brings **PowerScale OneFS** file storage software to AWS, with multiprotocol support (NFS, SMB, S3), SyncIQ native replication, snapshots, CloudPools and data reduction.



Dell APEX Protection Storage for Public Cloud ensures data is protected and available, enabling replication between cloud and on-premises storage or between clouds.

Conclusion

The growth, diversity, and security of data and the prevalence of multi-cloud usage are all facts of life now. Organizations must optimize all of those aspects of modern IT, which points to an urgent need to implement and leverage Continuously Modern Storage.

Dell Technologies, a trailblazer in IT, has an extensive portfolio of leading storage solutions. In fact, its broad portfolio covers the whole IT stack (storage, servers, software, networking, etc.) to help organizations simplify their IT ecosystems on a macro scale. Dell's specific approach for Continuously Modern Storage is enabled by software-driven innovation and highly specialized hardware using the latest Intel technologies that deliver the performance, efficiency, and hardware-enabled security needed in modern storage environments.

With the growing focus on AIOps, DevOps, security, and multi-cloud, it's not just about storage capacity and performance anymore. Dell is delivering software innovations across its entire storage portfolio—including PowerStore, PowerMax, PowerFlex, PowerScale, PowerProtect, and CloudIQ. Software innovation is what has kept Dell as a leader in the storage market for decades. And clearly, Dell intends to continue to advance that innovation, powered by Intel technology. With APEX Storage for Public Cloud offerings, Dell is equipping IT organizations with software innovation that will have a real-world impact on IT modernization efforts today and tomorrow.

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