# FOUR PROVEN WAYS TO CUT DATA STORAGE COSTS

Reduce operational spending while maximizing your data center.

Business investments in digital transformation—including AI initiatives, enterprise apps, and online services—are ramping up demands on intelligent data infrastructures.

IT teams in every industry have responded by expanding their data estate across data centers and public clouds. But as the demand for storage has surged, so have the costs and complexities. Every organization must answer this big question: How can data leaders fuel business growth while driving down spending?

Ahead, we tackle four common challenges you might face in cutting data infrastructure costs. We also provide you with effective strategies to overcome each hurdle and build an intelligent data infrastructure—one with truly unified data storage that turbocharges AI, provides ironclad defense against ransomware, and helps you effectively manage spending.

CHALLENGE 1:
COMPLEX IT ENVIRONMENTS THAT RATCHET UP COSTS
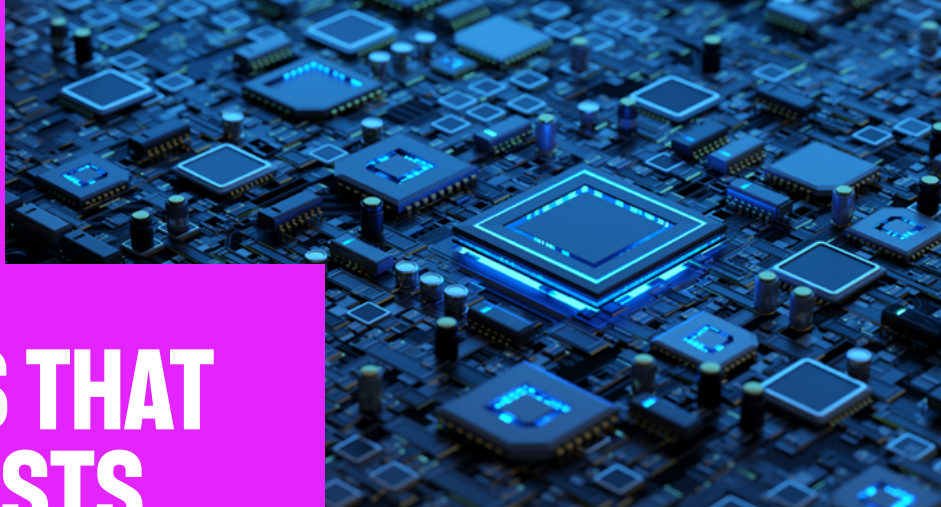
A hybrid multicloud strategy enables you to meet the diverse needs of different apps and workloads, but it can get expensive fast. Every cloud and siloed storage system has its own storage software, each with different control planes, interfaces, and operating processes. Anytime you move data between these environments, you need to interact with differing systems and requirements.

This complexity leads to higher costs and increased risk. Not only does each new system create another bill, but dealing with different tech and rules requires more time and effort, which adds operational cost.

SOLUTION:
SIMPLIFY WITH AN INTELLIGENT DATA INFRASTRUCTURE

True unified data storage, which is built on a common storage operating system, runs wherever you need it, employs a single management approach, and includes all the data services required for enterprise workloads.

Your IT staff doesn't have to be proficient in numerous tools, interfaces, and control planes. With unified data storage, you can easily manage and move data anywhere—on any public or private cloud and any on-premises data center—all while reducing costs and risks.

GUIDANCE:
LOOK FOR UNIFIED DATA STORAGE WITH THREE KEY FEATURES

Single storage operating system for all data
Ensure your operating system accommodates various data access protocols. For example, if your AI workloads need to use block, NFS, SMB, and object-based applications, your storage solution should be able to handle all these protocols so they can seamlessly work with the same set of data.

Consolidated data access across any environment
Select a solution with a single point of control that spans all your environments. This type of unified control simplifies management across on-premises and cloud environments and frees your team's time so they can focus on other priorities.

Integration in the world's largest clouds
Opt for unified data storage that's embedded in major clouds—and therefore doesn't require complex third-party integration tools. This ensures robust, scalable storage that's seamlessly integrated with global cloud ecosystems. Such deep integration enhances data accessibility and reliability, and future-proofs your storage strategy in complex, multicloud environments.

98% of organizations are in the middle of their cloud journey, with 3 out of 4 reporting workloads using data stored on-premises [1]

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CHALLENGE 2:
OVERSIZED, UNDERUSED CLOUD COMMITMENTS AND SHRINKING DATA CENTER BUDGETS

To lock in discounts, many organizations make significant commitments to cloud providers. These commitments, which can span several years, often surpass an organization's data center budget. As part of cost optimization initiatives, company leaders may institute a capital expenditure (CapEx) freeze, limiting funds for data center expenses, such as equipment, infrastructure, and tech, in order to fulfill their cloud commitments.

When new needs arise, like increased data center workloads or AI initiatives that require additional storage, teams face a dilemma. They must fulfill their cloud commitments while scrambling to find funds to expand their data center. This can result in financial penalties for underused cloud commitments and the need to justify more data center resources.

SOLUTION:
USE YOUR CLOUD COMMITMENTS TO OPTIMIZE YOUR DATA CENTER

By being strategic about your cloud budget and choosing services that complement your data center infrastructure, you can expand your data center resources without additional funds. The key is to fulfill your cloud-first mandates with storage and services solutions that seamlessly work across on-premises and cloud environments. By extending workloads to the cloud or by protecting your data with cloud-based backups, you'll draw down your cloud commitments. This lets you increase your data center capacity, stay within your CapEx budget, and more easily meet your cloud commitment goals.

Worldwide end-user spending on public cloud services is forecasted to reach $679 billion in 2024[2]

GUIDANCE:
SELECT A STORAGE SOLUTION WITH BUILT-IN DATA SERVICES THAT LEVERAGE CLOUD CONNECTIVITY

Merge flexibility and power
Choose a system that can extend from the data center to the cloud and work across any environment—from on-premises to any cloud. Remember, an effective storage operating system is as flexible as it is powerful. **Consolidated data access across any environment**

Boost protection and savings
Adopt a solution that provides integrated services such as backup and tiering to expansive, inexpensive cloud stores. These features not only amp up your data protection and guard against last-minute capacity issues but also bring substantial cost savings and flexibility to the table.

Take Nubank as an example. The large financial institution partnered with RealCloud and NetApp to implement a complete cloud data management solution built on Spot by NetApp cloud cost-optimization tools for comprehensive visibility and maximum cost efficiency.

CHALLENGE 3:
THE HIDDEN COST OF TRADITIONAL BACKUP METHODS

When it comes to storage, conventional methods might not be the best option. That's because using traditional approaches and technologies, such as Network Data Management Protocol (NDMP), to back up to "cheap and deep" storage in your data center incurs increased CapEx, licensing complexity, and maintenance costs.

Not only do these approaches lack efficient technology and often require additional hardware investments, but they can also put a strain on your staff. IT teams must configure and manage backup infrastructure systems and software, execute schedules, perform maintenance and updates, and more, which drives up OpEx costs. Plus, because they require specialized expertise and manual intervention, old-school approaches increase the risk of error and inconsistency.

SOLUTION:
UPDATE AND UPGRADE YOUR BACKUP STRATEGY

Modern backup and recovery solutions have evolved to become more user-friendly and effective. They use smart automation across every step of the backup process, aligning with a full 3-2-1 "gold standard" strategy while also providing the flexibility to adjust for different data workloads.

The latest technologies use a block-level, incremental-forever approach that keeps resource usage low, delivers tight recovery point objectives (RPOs), and features near-instant recovery time objective (RTO) capabilities. With a single control panel, these solutions make it easy to protect data wherever it is—on-premises and in the cloud. They can even recover data in a different environment if the original one is compromised, offering a practical, reliable approach to data protection

GUIDANCE:
IMPLEMENT A ROBUST, AUTOMATED APPROACH TO BACKUP

Amplify agility and command

Prioritize backup and recovery services that enhance your team's agility and command over data protection processes. Automation is key; it streamlines data management and remote backups, freeing your staff from tedious tasks while slashing the margin for error.

Customize and modernize your backup strategy

Tailor your backup strategy to each workload to optimize cost-efficiency and simplicity without compromising safety. Use a single interface to manage your backup strategy or, better yet, opt for AIOps to handle it autonomously. Ensure your solution includes an indexed, searchable catalog of snapshot copies and backup data. This enables you to quickly locate and restore anything from entire systems to select volumes to individual files.

Block-level, incremental-forever backups boost speed and save storage space

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CHALLENGE 4:
BURNING ASSETS ON MANUALLY PROVISIONING SYSTEMS AND RESOURCES

No matter the industry, IT teams need to support innovation across a wide range of user groups, from DevOps to site reliability engineering and AI teams. Manually provisioning IT resources to disparate teams is a slow process that burdens staff, stretches resources thin, and strains budgets.

As system requests queue up, IT is stuck in a loop, repeatedly making decisions on performance, capacity, and SLAs for each workload. Requests accumulate, projects get delayed, and IT hours are spent on tasks that could instead be automated. This repetitive cycle hampers innovation and business growth.

> " Manual provisioning can be a cumbersome and time-consuming endeavor for IT teams, especially because many steps must be repeated."[3]
>
> —TechTarget, **"What is provisioning?"** July 2023.

SOLUTION:
FREE IT TIME WITH AIOps

What if you could establish a system where user groups self-serve their IT needs using automated wizards, while adhering to cost and security guidelines? For this to work, you'd need to establish a streamlined, policy-based process rooted in best practices that would curtail overspending and mitigate risk.

That's where artificial intelligence for IT operations (AIOps) comes in. Through AIOps, you can create a self-service process that allows team members with only general technical knowledge to handle tasks that would typically require full-blown IT support, such as provisioning storage, virtual machines, or cloud services. This frees your IT team to focus on more meaningful initiatives, helping to maximize output, minimize costs, and ultimately deliver more value to your business.

GUIDANCE:
BEGIN BY DEFINING THE RULES OF ENGAGEMENT

Create a shared system
Kick off your journey to AIOps by creating a system that everyone can understand. Adopt a platform that delivers data to end-user groups in a way that aligns with their workflows. This platform should feature an intuitive, policy-driven interface that's easy to learn and use, and that automates more complex tasks.

Lay out the rules and regulations
Configure your AIOps system using defined rules, permissions, budget constraints, and operational scopes. The goal is to develop a virtual IT ops team that supports and optimizes your real-life IT crew.

OVER 50%
of IT companies plan to implement AIOps.[4]

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A PARTNERSHIP –AND PRODUCTS–ROOTED IN THREE KEY ELEMENTS

1 An intelligent data infrastructure is built on unified data storage, integrated data services, and CloudOps solutions that enable you to store any data, any place. These CloudOps solutions should use AI to deliver superior data protection, greater security and governance, and optimal performance and efficiency.

2 NetApp understands the importance of providing unified control that meets the demands of today while anticipating the needs of tomorrow. With NetApp BlueXP™, for instance, you get a unified control plane that simplifies operations, whether on-premises or in the cloud, backed by AIOps to ensure efficiency and minimize costs. It's about empowering your teams and freeing them to focus on what truly matters—innovation and strategic growth.

3 In this rapidly advancing digital era, our promise at NetApp is to help customers rise to every moment, so they can turn disruption into opportunity. It's in that spirit that we can help you build an intelligent data infrastructure that's ready to scale, adapt, and thrive, ensuring that your data works as hard as you do.

Take the next step
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Placeholder CTA here →

[1] NetApp. "2023 Data Complexity Report: Driving Simplicity Through Unified Storage." October 2023.
[2] Gartner. "Gartner Forecasts Worldwide Public Cloud End-User Spending to Reach $679 Billion in 2024." November 2023.
[3] TechTarget, "What is provisioning?" July 2023.
[4] Medium. "Key Trends of Next-Gen AIOps to Dominate 2024." March 11, 2024

Contact us

About NetApp

NetApp is the intelligent data infrastructure company, combining unified data storage, integrated data services, and CloudOps solutions to turn a world of disruption into opportunity for every customer. NetApp creates silo-free infrastructure, harnessing observability and AI to enable the industry's best data management. As the only enterprisegrade storage service natively embedded in the world's biggest clouds, our data storage delivers seamless flexibility. In addition, our data services create a data advantage through superior cyber resilience, governance, and application agility. Our CloudOps solutions provide continuous optimization of performance and efficiency through observability and AI. No matter the data type, workload, or environment, with NetApp you can transform your data infrastructure to realize your business possibilities. www.netapp.com

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