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Measuring the Operational Benefit of Dell APEX Navigator for Multicloud Storage

Multicloud Storage Management and Operations

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March 2024

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Introduction

Organizations need to accelerate IT operations more than ever, as organizational leaders look directly to IT to enable fast business decision-making. The good news is that numerous technology tools are available to support operations acceleration, enabling organizations to create an effective hybrid cloud ecosystem that is seamless and secure. Modern IT environments are becoming highly distributed, with applications and data moving between on- premises, cloud, and edge environments. This increased distribution with applications and data increases complexity for IT operations and personnel. Organizations, however, must strive to accelerate operations to stay competitive. This requires prioritizing solutions that can both automate and accelerate the deployment of new infrastructure and applications, as well as the movement of applications and data across locations, while monitoring the health and utilization of environments.

Dell APEX Navigator provides a unified console that streamlines operations across public cloud and on-premises environments by enabling storage configuration and deployment for Dell APEX Storage for Public Cloud. This streamlining is achieved with a SaaS-based, API-first architecture that optimizes workload placement, facilitates zero-trust adoption, and delivers actionable intelligence for storage deployments across clouds and on premises.

Accelerated Operations: A Top Priority in Infrastructure Modernization

As multicloud transitions to the forefront of application deployment strategies, organizations must invest in simplification. TechTarget's Enterprise Strategy Group research shows that 88% of organizations agree that leveraging multiple public cloud providers delivers strategic benefits, 87% stated that their application environment will become distributed across more locations over the next two years, and 86% indicated they regularly migrate applications and/or data from on-premises locations to the public cloud.

Despite broad agreement that multicloud is beneficial, it poses some challenges. For example, 82% of organizations said they struggle to properly size workloads for the optimal infrastructure environment, regardless of whether that ideal environment is on or off premises. In addition, 81% of organizations said they face application portability challenges and problems with cost, complexity, and risk associated with refactoring or replatforming applications for the cloud.[1]

The drivers behind infrastructure automation are extensive, justifying increased investment into these technologies within organizations of all sizes. Enterprise Strategy Group research shows that the top benefits recognized by organizations include reduced burden on IT operations (46%), improved security (45%), and reduced operating costs (42%; see Figure 1). The list goes on, reflecting the ability of infrastructure automation to significantly transform IT operations, accelerate IT delivery, and ultimately pull on-premises infrastructure in line with efficiencies seen in public cloud services. As automation is built into processes, consistency becomes more standard across organizations, enabling IT teams to oversee their ecosystems with more predictability and efficiency.[2]

The takeaway is that, for many organizations, the burden is so great that they often look for tools to just help keep pace with demands; once the immediate challenges have been addressed, they then try to accelerate.
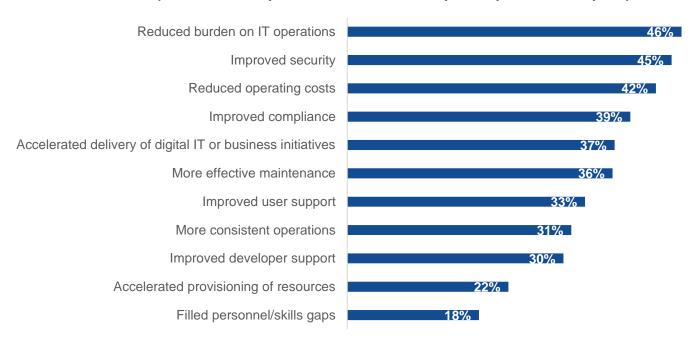
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[1] Source: Enterprise Strategy Group Research Report, *Multi-cloud Application Deployment and Delivery Decision Making*, June 2023.
[2] Source: Enterprise Strategy Group Research Report, *Distributed Cloud Series: The State of Infrastructure Modernization Across the Distributed Cloud*, November 2023.

Figure 1. Benefits of Infrastructure Automation Tools

What benefits does your organization seek from infrastructure automation tools? (Percent of respondents, N=370, multiple responses accepted)

Benefit	Percent
Reduced burden on IT operations	46%
Improved security	45%
Reduced operating costs	42%
Improved compliance	39%
Accelerated delivery of digital IT or business initiatives	37%
More effective maintenance	36%
Improved user support	33%
More consistent operations	31%
Improved developer support	30%
Accelerated provisioning of resources	22%
Filled personnel/skills gaps	18%

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Dell APEX Navigator for Multicloud Storage

Dell APEX Navigator for Multicloud Storage is a set of capabilities offered for Dell APEX Navigator that simplifies management of Dell storage software across multiple public clouds with automated deployment, easy configuration, monitoring, and management. It also simplifies and automates the movement of data across on-premises environments and public clouds. The solution provides centralized day-to-day storage management with a consistent experience across on-premises environments and public clouds. Dell APEX Navigator provides the following key capabilities:

- Automating the connection, discovery, and deployment of IT resources.
- Providing optimal workload placement and data connectivity.
- Integrating existing tools (e.g., Terraform) via an API-first architecture.
- Facilitating zero-trust adoption through key capabilities such as SSO and federated identity.
- Establishing user roles that prevent unauthorized activities with proper policy enforcement through role-based access control and enabling delegated administrative rights to allow self-service access to resource provisioning.
- Monitoring operations and system health with management tools that deliver clear and actionable insights.
- Utilizing public APIs to automate deployment, management, and decommissioning of Dell storage in public clouds and to move data from on-premises environments into public cloud and back.

Measuring the Value of Dell APEX Navigator

Enterprise Strategy Group looked at how Dell APEX Navigator for Multicloud Storage enhances the Dell APEX Storage for Public Cloud experience by both unifying the public cloud and on-premises experience and simplifying multicloud management and operations. Specifically, Enterprise Strategy Group reviewed the value of Dell APEX Navigator around data mobility in multicloud environments as it is facilitated by APEX Navigator and a common set of storage software across locations—what Dell terms a *universal storage layer*.

For example, deployment of Dell storage to the public cloud includes provisioning of storage, networking, installation, and configuration of storage software. All of this is automated by Dell APEX Navigator and requires just four steps in the UI to get started. This means users can rapidly deploy Dell APEX Block Storage for AWS, with simple configuration and automated provisioning of underlying public cloud resources and automated deployment of Dell storage software. Then, after deployment, Dell APEX Navigator provides access to storage management tools.

Enterprise Strategy Group found that together, Dell APEX Navigator with Dell APEX Block Storage for AWS provides several benefits:

- **Cost optimization.** Achieved by reducing overprovisioning by an average of 4:1 for block deployments. Enterprise Strategy Group estimates APEX customers can reduce overprovisioning by 26% to 42% depending on workload.[3] In addition, the ability to utilize pre-committed cloud spending can lead to reduced data egress costs and lower cost of operations by strategically placing workloads.

- **Increased productivity.** Achieved by optimizing workload placement for efficient cloud usage, enabling interoperability between environments and freeing up IT to focus on high-value activities. This leads to more efficiency on the part of IT infrastructure staff.

- **Enterprise-grade resilience.** Achieved by scaling infrastructure as business needs evolve, helping secure data, and helping to monitor and recover from attacks and outages. This leads to improved uptime, which is designed for 99.9999% or higher availability for the application.

- **Business acceleration.** Achieved by deploying and provisioning IT services more quickly. In the case of block storage, APEX Navigator can deploy a single cluster that can scale up to 2PB of usable capacity in the public cloud, while reducing cloud configuration administration time from hours to minutes.[4] Dell services, partner ecosystems, and validated designs are also available to help with migration and change management. This all leads to a faster development lifecycle.

- **Business agility**. Shifting IT responsibilities to Dell APEX enables organizations to focus on using technology to solve business challenges while helping ensure that technical capabilities are available at their optimal level and are aligned to the company's needs.

- **Day 1 automation**. Providing Day 1 multicloud automation benefits, including reduced setup time, HashiCorp Terraform integration, and increased security using Zero Trust principles.

- **Day 2 automation**. Providing Day 2 multicloud automation benefits, including built-in fleet management monitoring, data mobility and cloud placement, and an easy, intuitive-to-operate interface.

- **Data mobility**. Enterprise Strategy Group specifically looked at data mobility by reviewing a customer example of time to deploy and the cost of a 500 TB environment running a mix of:

  - An on-premises deployment (Dell PowerFlex software-defined storage).

  - A public cloud deployment (Dell APEX Block Storage for AWS).

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[3] Source: Enterprise Strategy Group Economic Validation, *Understanding the Economic Benefits of Dell Technologies APEX*, July 2022.
[4] Based on internal testing, January 2024, when comparing the manual configuration of cloud components versus Navigator-driven cloud component orchestration and automated deployment of APEX Block Storage for AWS.

The initial environment was 90% on premises and 10% in the public cloud. By leveraging the mobility of the APEX Navigator and common multicloud storage services forming a universal storage layer, we were able to observe a smooth deployment and seamless redistribution of workloads to 70% on premises and 30% in the cloud. In addition to the rapid deployment and migration of the data is the estimated three-year savings of 42% driven by APEX Navigator data mobility and APEX Block Storage for AWS over a native Amazon EBS deployed solution.

- **Simplicity and control.** Rapid changes in business needs and the challenges of matching hardware, software, and expertise to meet those needs are struggles for most IT organizations. Customers said that Dell APEX dramatically reduced the complexity of their IT environments, giving their business a clear understanding of operations and a level of simplicity that enabled them to focus on solving business problems. All of the customers interviewed as part of the Enterprise Strategy Group Economic Validation, Understanding the Economic Benefits of Dell Technologies APEX, said that Dell APEX was a critical partner on their path to modernization.

Achieving Multicloud by Design With Dell APEX

APEX Navigator is just one component in how Dell APEX delivers multicloud by design, which is comprised of three high-level strategies: ground-to-cloud, cloud-to-ground, and as-a-Service subscriptions.

- The Dell APEX ground-to-cloud strategy brings Dell storage and data protection software to public clouds. APEX Storage for Public Cloud enables organizations to leverage the same enterprise-class functionality, performance, and resiliency of on-premises Dell infrastructure in public clouds. APEX enhances data mobility and drives management consistency across environments.

- The Dell APEX cloud-to-ground strategy lets organizations deploy modern cloud software, fully integrated with Dell infrastructure. APEX Cloud Platforms extend familiar cloud experiences on premises to maximize performance and mitigate risk so that organizations can boost workload agility and enable software innovation, wherever applications and data live.

- In addition to public software and services, Dell APEX also enables a subscription-based consumption model for preferred on-premises infrastructure and services. Once an organization has selected the products to be deployed and services required, Dell delivers this available as-a-Service so that organizations simply pay for what they use each month.

This combined strategy of ground-to-cloud, cloud-to-ground, and as-a-Service subscriptions creates a universal storage layer, which streamlines storage management with common storage services across public cloud and private cloud locations.

Conclusion

For most IT organizations, the past decade has been defined by a movement to adopt and leverage public cloud services. As a result, the vast majority of organizations leverage multiple public cloud providers, but individual cloud strategies often vary significantly across organizations and particularly across industries. In addition, support for increased data volume and traffic are necessary for infrastructure modernization initiatives, as speed is very much in play. IT teams must move faster than ever, which leads them to rely heavily on both the technologies and the processes developed to accommodate business stakeholders and their demand for immediate, impactful insights.

The Dell APEX portfolio of solutions, including APEX Navigator, helps meet all these shifting requirements with an ever-growing collection of offers and services designed for a multicloud world. APEX lets organizations tailor a range of solutions to fit their specific needs.

Enterprise Strategy Group found that Dell APEX Navigator provides cost optimization, increased productivity, digital resilience, and business acceleration. In addition, Enterprise Strategy Group reviewed an APEX Block Storage for AWS customer scenario that resulted in an estimated three-year savings of 42%, driven primarily by the data mobility capabilities of APEX Navigator.

Enterprise Strategy Group has analyzed the impact of adopting Dell APEX Navigator and determined that it simplifies multicloud storage management and simplifies and automates the movement of data across on-premises environments and public clouds. This is achieved via cost-optimized consumption resulting in TCO improvements, intuitive management through a centralized console, consistent tools and experience with seamless data mobility between on-premises and cloud, and centralized governance with end-to-end visibility and role-based policy enforcement.

Enterprise Strategy Group strongly recommends that companies explore the capabilities of Dell APEX Navigator to bring to their organization the benefits of centralized day-to-day storage management with a consistent experience across on-premises environments and public clouds.

For more information on Dell APEX Navigator and to learn how to get started with a risk-free 90 day evaluation, please visit:

- Dell APEX Navigator web page.
- Enterprise Strategy Group Economic Validation, *Understanding the Economic Benefits of Dell Technologies APEX*, July 2022.