

#### **ESG SHOWCASE**

# Prioritize Cloud Connection and Integration with NetApp

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**ABSTRACT:** Often, an organization's hybrid cloud environment is the culmination of multiple one-off projects—often led by different teams with different goals and processes. The resulting IT ecosystem becomes plagued by operational and technical inefficiencies. Architecting an efficient hybrid cloud ecosystem requires focusing on connecting and integrating cloud resources, a capability in which NetApp, a leader in cloud IT, excels.

#### **Overview**

The cloud plays an integral role in modern IT. Nearly all (94%) IT organizations surveyed by ESG reported leveraging public cloud services, and 67% reported leveraging infrastructure-as-a-service (IaaS). IT is becoming hybrid cloud IT, but not every hybrid cloud environment is created equal. When it comes to defining a hybrid cloud environment, 48% of IT professionals who manage their organizations' on-premises and cloud-based infrastructures say the ability to manage across on- and off-prem environments is a must-have for hybrid cloud—which was the most common response. 2

However, consistent management of on-/off-premises resources is difficult to achieve. Nearly two-thirds (64%) of surveyed IT decision makers believe IT is more complex today than it was just two years ago. And 26% of those that have experienced complexity increases say the requirement to use both on- and off-premises resources is one of the underlying reasons.

This complexity is not due to the cloud but to the difficulty of connecting on-/off-prem infrastructure environments, especially if those environments span separate projects and technology silos. Gathering these disparate environments creates "technical debt," a hidden cost that burdens IT and hinders the success of future projects.

Being cloud-first isn't enough. Organizations must be multi-cloud first, leveraging technologies that focus on utilizing the cloud and optimizing the connection of cloud services with on-prem infrastructure and other clouds. Those technologies must support all future app environments, too.

## Prioritize the Connection and Integration of Cloud Services with On-premises Environments

Technical debt is a cost that stems from choosing an easy but limited solution, rather than a superior approach that may take more time or money to implement. When ESG asked IT managers about challenges in monitoring hybrid cloud environments (see Figure 1), their top challenges related to technical debt.<sup>3</sup> IT organizations struggle to manage diverse, frequently changing environments with ill-understood interdependencies that require manual effort to manage. With 33% of IT organizations reporting problematic skill shortages in the area of cloud architecture/planning, these challenges burden hard-to-find, valuable IT personnel, hindering their ability to drive higher-value activities such as digital business initiatives.

<sup>&</sup>lt;sup>1</sup> Source: ESG Research Report, <u>2020 Technology Spending Intentions Survey</u>, February 2020. All ESG research and charts in this showcase have been taken from this Research Report, unless otherwise noted.

<sup>&</sup>lt;sup>2</sup> Source: ESG Master Survey Results: <u>Hybrid Cloud Trends</u>, May 2019.

<sup>&</sup>lt;sup>3</sup> ibid.



### Figure 1. Monitoring Hybrid Cloud Environments—Top Challenges



Diversity of technology makes it hard to monitor (42%)



Frequent changes to infrastructure and apps make it hard to keep up (39%)



Difficult to understand relationships and interdependencies between services and infrastructure components (34%)



Manual effort to instrument applications and infrastructure (32%)



Too many monitoring tools and agents to deploy and manage (30%)



Difficulty getting visibility into containers (26%)



Siloed monitoring views resulting in war rooms (23%)



No way to get an end-to-end view (22%)

Source: Enterprise Strategy Group

## Rules to Minimize Technical Debt When Architecting a Cloud Environment

- Put your data center in the cloud instead of putting "cloud in your data center." Retraining is costly and timeconsuming and provides few advantages. So, focus on technologies that extend existing skillsets to wherever the infrastructure is—on-prem, in the cloud, or at the edge.
- Any app, anywhere. Select technology that supports a range of application environments: bare metal, virtual machines, containers, etc. Demand the ability to provision, manage, and run production, development, or test instances in the right location at the right time.
- Consistent enterprise-grade data management capabilities. Make sure features such as multi-protocol access, tiering, replication, backup, and recovery are available wherever the application runs, on- or off-premises.
- Data consistency. Demand that data stays consistent when applications move to a public cloud to simplify future liftand-shift operations or application moves. Refactoring represents a huge cost with little benefit, so choose technologies that minimize or eliminate the need for refactoring.

# **The Bigger Truth**

IT is now built on hybrid clouds, and that's not changing soon. Expect multi-cloud capabilities from day one to be part of every application deployment design. Focus on technologies that improve the integration and connection of various infrastructure resources to deliver a common, consistent, familiar application environment.

NetApp, a leader in cloud IT infrastructure, has been innovating on its Data Fabric vision for years. The idea is that apps and data should be free to move and exist on the right infrastructure for the business without unnecessary refactoring, and without compromising capability or performance. When looking to design your hybrid cloud architecture, consider putting NetApp toward the top of your list of vendors to speak with. To learn more, please explore NetApp reference architectures.

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