

# MANAGING "MULTI-CLOUD" ENVIRONMENTS

## What's the secret to managing new challenges

"THE MANAGEMENT OF DATA, APPLICATIONS AND PROCESSING HELD WITHIN A MULTI-CLOUD ENVIRONMENT DEMANDS AS MUCH ATTENTION AND CARE ACROSS THE C-SUITE AS DOES A COMPANY'S BRAND."

STEVE PRENTICE :: CLOUD TWEAKS

You may be running a workload that requires large pools of storage and networking resources on a private cloud. At the same time, you may have another workload running on Amazon's service and yet another on Microsoft's. Each workload is running on the ideal cloud, but now you have multiple clouds to manage. We asked industry influencers their thoughts on the secret to managing this multi-cloud environment.

Multi-cloud environments come with their challenges—complexity, resources, expertise, cost, and management issues, to name a few—and management seems to be the common denominator. "Unified management will be essential for freely moving workloads and data among and between multiple public clouds, as well as an organization's private clouds," says [Dana Gardner](#), principal analyst with Interarbor Solutions.

Such freedom of movement is the Holy Grail of IT, bringing forth freedom from vendor lock-in, freedom to choose best-of-breed

infrastructure, minimize risk from localized failures and control over where data is located.

"Organizations are adopting a multi-cloud strategy to optimize agility, increase the speed of development and control the cost and performance of mission-critical business applications and services," says [Rob Smoot](#), vice president of product marketing with virtualization pioneer VMware. But, he points out that if you thought silos within data centers were an issue, now you must contend with silos across clouds.

"The proliferation of public and private cloud services has complicated the process of acquiring and managing these on-demand resources," says [Jeffrey Kaplan](#), managing director of THINKstrategies, Inc. and the founder of the Cloud Computing Showplace, "This situation has made it imperative that IT administrators adopt management solutions that provide a unified view of all the cloud resources being utilized in conjunction with whatever on-premise systems also exist."

## Bridging New Tools to Life

If the challenge feels overwhelming, rest assured that many industry resources are being trained on tools and solutions to ease the burden of managing multi-cloud complexity.

[Lori MacVittie](#), principal technical evangelist at F5 Network, says enterprises are struggling with challenges such as security policies and enforcement across the multi-cloud environment. "Systems and solutions capable of providing a single, authoritative source for managing the entire lifecycle of services – from provisioning to

ongoing maintenance to end of life – spread across multi-cloud is a must if organizations are going to effectively expand their footprint across cloud environments.”

Those systems will need to be highly automated, notes Gardner. “Increasingly, we expect containerization and micro services to become common, and the sheer number and complexity of these assets requires yet still more advanced and dynamic cloud resource management capabilities,” he says. “Advanced cloud resource management is needed not only for the apps and services to perform properly across multiple environments, but also to make the whole affair affordable.”

[Stephen Spector](#), senior manager of Cloud Online Marketing at Hewlett Packard Enterprise, is optimistic about unified management. “Managing across these clouds with a ‘single pane of glass’ provides enterprises the ability to eliminate the overall complexity and gain the benefit of multi-cloud deployments,” he says.

## Cloud Providers Need to Step Up

Some of the onus is on the cloud service providers. “A unified environment if executed right can not only save time and money, but companies would be able to benefit from salient features of each provider,” says [Tarusha Mittal](#), COO at Koonk Technologies. “Companies would be able to use the strong suite of each provider.”

Not everyone is convinced we’re there yet.

“I think we need to see a fully-baked multi-cloud management solution before we can make the real call if management is the ‘secret sauce,’” says [Will Kelly](#), technical freelance writer. “It’s still too early to call in my opinion.”

## On Your Shoulders

IT executives can’t rely solely on technology and roadmap promises – they don’t have the luxury of time. “No technology negates the need for good design and planning. Multi-cloud environments are a prime example of that,” says [Edward Featherston](#), VP Principal Architect at Cloud Technology Partners.

In fact, several of our experts indicate that senior IT managers are on the spot to apply management skills to the challenge.

“Management must enforce a stringent level of self education in order to keep up with the ever-changing landscape of cloud,” asserts [Steve Prentice](#), senior writer and podcast producer at Cloud Tweaks. He cautions that companies shouldn’t leave the decisions entirely in the hands of a CTO or IT exec. “As skilled as those people are, the management of data, applications and, processing held within a multi-cloud environment demands as much attention and care across the C-suite as does a company’s brand.”

[Kevin Jackson](#), founder of Gov Cloud, makes a similar observation. “Management education is the key to any successful cloud

deployment, especially when hybrid solutions are involved,” he says. “Successful cloud computing deployments require balance between technology, business requirements and economic goals. Lack of intimate management involvement leads to failure.”

## Achieving the Payoff

Cloud technology is advancing by leaps and bounds and to remain competitive enterprises must have the flexibility to swap in better cloud services and capabilities as they become available. But, realizing the promise of multi-cloud...

- Offers enterprises “a significant advantage for application availability and best fit,” says HPE’s Spector.
- Requires management “that is highly automated, perhaps using machine learning and/or artificial intelligence.” – Gardner
- Means recognizing that while unified management is no guarantee of success, “the lack of it will almost guarantee failure.” – Featherston

## Bottom Line

There is no single answer of how to best manage multi-cloud. It is either going to require a combination of advanced technology and savvy IT professionals or a partnership with a [managed cloud services provider](#).

“Management is absolutely the secret sauce for multi-clouds,” says [Jeff Rutherford](#), director of marketing at Knowledge Matters. “When your enterprise is using an amalgam of public clouds and private clouds (the definition of multi-cloud), managing those cloud implementations is a careful balance, and thus managing those disparate clouds will determine your enterprise’s multi-cloud success.”

It’s important to note too that management expertise and execution doesn’t always have to come from within the organization, or be seen only as a single pane of glass. [A partnership or collaboration with a managed cloud provider](#) can be a key tactic for managing multi-cloud environments.