



Data Centre and Virtualization

Multi-Cloud in Practice

Sumeet Sabharwal



Sumeet Sabharwal
Group Vice President
and General Manager
Navisite

Biography

Sumeet Sabharwal is the Group Vice President and General Manager for Navisite (www.navisite.com). In this role, Sabharwal is responsible for managing the overall performance of the Navisite business and directing its evolution. Prior to this, Sabharwal held the position of Group Vice President, Business Services Strategy where he was responsible for long-term strategy, planning, strategic partnerships, and corporate development activities aimed at sustaining TWC's aggressive growth in Business Services.

Sabharwal joined Navisite in 2004 and was responsible for leading various aspects of the business including SMB, indirect channels, and global operations. Prior to Navisite, Sumeet held key leadership positions in the IT services industry and was also the co-founder of a small, bespoke applications development company.

Sumeet holds a double major in Electrical Engineering and Computer Science from Cornell University.

Sumeet tweets at @sabhas, and blogs at <http://www.navisite.com/resource-center/blog>

Keywords Multi-cloud environment, Business continuity, Disaster recovery, Hybrid cloud
Paper type Research

Abstract

With all the fanfare are the allegedly transformative power of every technology trend, it can be tricky to know ones will actually deliver on their promise. Thankfully, in the case of multi-cloud – the use of multiple cloud computing services in one single diverse architecture – it is no longer guess work and the benefits are clear. Looking to the future, multi-cloud will be key to holding a competitive position and creating a seamless IT environment that drives business goals, the ambition of every CIO and IT leader.

Introduction

The IT world continues to grow leaving IT leaders to face an incredibly complex landscape as they try to adopt, integrate and manage various legacy architectures and public and private cloud models. There are three core priorities CIOs are likely facing: bringing different deployment models together; securing these models; and ensuring they are running an economically achievable infrastructure.

In order to hit these targets IT leaders often need more than a single cloud solution: they need to bring multiple cloud models together, using diverse vendors with individual strengths that collectively contribute to meeting an organization's full set of needs.



The reality of multi-cloud

Don't be too hasty in your deployment though. Before developing your multi-cloud strategy, it's important to get to grips with and debunk the myths surrounding multi-cloud, as well as understanding the realities of the model, before you can get the most out of it.

1. **It's complex** – When stripped back, multi-cloud is really about the ability to bring together a variety of disparate models, while maintaining a 'cloud first' mindset. It is impossible – and in some cases, ill-advised – for everything to migrate to the public cloud despite a cloud only approach seeming appealing. In some cases, adopting a hybrid or multi-cloud approach allows enterprises to adopt a 'cloud first' mindset, while also enabling businesses to utilize the consistency and management control in the rest of the legacy environment.

Tailoring your multi-cloud model enables the assets to be brought together with persistent governance, orchestration and controls. The coming together of public and private cloud, as well as legacy architectures, is an option for organizations where public cloud alone is not a viable solution for everything. This way, everything can be governed and controlled alongside each other, under one umbrella. This sounds simple enough, however, there is a catch: managing these different, complex environments is difficult, time-consuming work, and is the reason many enterprises take the managed approach to multi-cloud.

Managed multi-cloud allows organizations to let someone else deal with the headaches of interoperability, monitoring of each environment, and managing vendors, updates, security patching, and everything else, all while internal teams have a single point of contact for their IT architecture.

2. **Securing and complying to a multi-cloud environment** – Security is a hot topic for business and IT leaders alike. Running workloads across a number of cloud services simply means more environments to monitor and keep protected. How can enterprises manage simple security tasks across all environments – sometimes as often as every few hours – effectively and efficiently?

As the security threat grows, the need for a common set of aligned, monitored controls across those models grows with it, adding another layer of complexity to a multifaceted picture. Most enterprises, however, are not staffed or equipped to manage this, despite it being their responsibility. Welcome a managed cloud provider; the heavy lifter of the behind the scenes integration, pulling together a single experience for security controls and compliance.

3. **Let's talk about money** – You have probably read that cloud is cheap. However, relocating data isn't necessarily inexpensive. If mapped correctly to make the most of online infrastructure and managed and optimized it efficiently, the public cloud can certainly be cheaper. But it is important for CIOs to get to grips with the economics to cover costs of admin, performance and integration to optimize this across all platforms.



The adaptability of a multi-cloud model enables careful selection and payment for only the services and support required to meet business needs, as well as accurately matching applications and workload requirements to specific platform capabilities. Also cutting costs is the reduction of complete dependence on on-site data centres and saving on the initial CapEx investment avoided in hardware.

Managed cloud providers' value is also added by looking after the difficult workload operations, administration and integration. By understanding and optimizing costs across cloud over the long term, deployment becomes increasingly cost-efficient. A key message to understand is that multi-cloud isn't about getting technology on the cheap, rather it's about getting the deployment right to achieve agility, which for today's enterprises is often the more valuable currency.

The practical use cases

Despite the initially daunting deployment model that is multi-cloud, 85% of organizations currently have a multi-cloud strategy¹. Why? Because when done right, the variety of benefits to diverse business needs are clear. Here are some practical examples and common use cases of multi-cloud deployments.

Business continuity and disaster recovery

IT systems can and will fail at some point, no matter what measures are put in place to avoid it. So, when looking at the key applications driving a business, understanding how to address their resilience and continuity is paramount – and surprisingly, businesses often can't give an answer. Often this is because when outside of a cloud environment, the expense and difficulty of disaster recovery (DR) backups implementation is large.

However, the barriers to entry for cloud have reduced substantially, meaning leveraging public cloud for disaster recovery and to backup core business environments is often the first port-of-call for many organizations' cloud journey.

Leveraging public cloud for DR is simple within a multi-cloud model. Applications will have recovery point objectives (RPO's), and recovery time objectives (RTO's). Each application will have different RPO and RTO requirements, and with public cloud, businesses can match and optimize each application's specifically to meet their DR needs.

Costs of continuity can be brought down by replicating data and virtual machines in a multi-cloud environment, and perhaps only paying for their use during an incident.

Scaling up/down

Similar to public cloud, multi-cloud is an excellent solution to enabling businesses to be flexible in meeting increased capacity or compute needs and creating new solutions. Scaling up and down quickly as per business requirements is made possible in a multi-cloud environment, offering the agility businesses are now deeming so important. On the other side of the financial equation, it also means



Data Centre and Virtualization

there is no need to provision infrastructure which may stand unused as the requirement is reduced, for example, outside peak retail periods such as Christmas.

On top of this, open source infrastructure allows companies to use more complex solutions such as multi-cloud and hybrid cloud, which, in an ideal world, should work seamlessly together so companies can invest only in the levels of space, security and protection needed for each individual aspect of their infrastructure.

Going global

Often, offering end users in remote locations, as well as giving businesses global reach to service new customers are amongst the most common drivers for multi-cloud adoption. This is particularly relevant to Software-as-a-Service providers.

Utilizing the reach of a hyperscale provider, such as Microsoft Azure, provides a lot of potential for global growth in all the locations they support globally. This is particularly helpful as a managed Azure model, which also simplifies expansion for your business, without the requirement to spend time managing the new infrastructure.

As this kind of multi-cloud environment becomes more common, both the complexities and the benefits are coming to the forefront – and it's important to understand these elements for a successful implementation. Ultimately though, the right strategy and a managed multi-cloud solution can offer the agility and ability that businesses so often need to bring multiple deployment models together, with the oft desired 'single pane of glass' overview visibility.

Reference

¹ RightScale 2017 State of the Cloud Report
--