Businesses are Shifting to a Unified Hybrid Cloud

Enterprise cloud adoption is in full swing. More than 90% of respondents to 451 Research’s Voice of the Enterprise (VotE): Cloud Hosting and Managed Services studies indicated that they have some type of cloud service in place, and many of those already have multiple cloud environments in use. Public infrastructure as a service plays a significant role in both existing and planned usage; however, the shift to public cloud is not absolute – only a small portion of businesses plan to go all-in on public cloud (see figure). Most businesses see their cloud strategy as more inclusive, and more complex.

A significant majority of respondents to 451 Research’s VotE: Cloud, Hosting and Managed Services: Budgets and Outlook study indicated that their IT plans include both on-premises systems and external cloud or hosted systems; 58% described plans to implement a unified, hybrid cloud environment integrated to support ongoing application and data mobility and seamless delivery of functions, providing business agility.

Agility is one of a core set of perceived cloud benefits – cost, performance and availability are among them – that are also considered to be benefits of executing across multiple cloud environments. So, a unified, hybrid cloud infrastructure is a means of extracting those specific business benefits from the use of cloud while addressing inhibitors such as security and compliance through the potential to isolate workloads or data where necessary.

Deployed effectively, hybrid cloud enables next-generation, hybrid applications that can span multiple cloud environments, allowing developers to focus on application functions rather than building in resiliency. Effectively deploying a unified hybrid cloud architecture and realizing the intended benefits is an engineering challenge, and one that requires strategic oversight of hardware and software selection, as well as application, storage and network architecture.

IT Plans Favor Multiple Clouds

Source: 451 Research’s Voice of the Enterprise: Cloud Hosting and Managed Services, Budgets and Outlook 2017

Q: Which of the following best describes your organization’s overall IT approach and strategy?

**ORGANIZATIONAL IT APPROACH AND STRATEGY: ON- AND OFF-PREMISES INFRASTRUCTURE**

<table>
<thead>
<tr>
<th>Choice</th>
<th>% of respondents (n=644)</th>
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<tbody>
<tr>
<td>We are moving toward a hybrid IT environment that leverages both on-premises systems and off-premises cloud/hosted resources in an integrated fashion</td>
<td><strong>58%</strong></td>
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<tr>
<td>We are moving to a completely off-premises public cloud environment composed of IaaS, PaaS and/or SaaS</td>
<td><strong>18%</strong></td>
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<td>We are building an on-premises cloud and leveraging off-premises public cloud IaaS/SaaS, but the two environments remain separate, with little or no interoperability between cloud environments</td>
<td><strong>12%</strong></td>
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<td>Cloud is not an important part of our IT strategy</td>
<td><strong>8%</strong></td>
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<tr>
<td>We are building an on-premises cloud environment only</td>
<td><strong>4%</strong></td>
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THE DRIVERS OF HYBRID CLOUD ARE SIMILAR TO THOSE FOR CLOUD ITSELF. These include cost, performance, agility and availability benefits. A hybrid strategy is often a reflection of the fact that public cloud alone is not delivering all that businesses require, as well as an effort to address some of the operational challenges and complexities of executing in multiple infrastructure environments without fully integrating.

GOING FROM THE ‘OR’ STRATEGY TO ‘AND.’ Although multi-cloud architectures enable businesses to take advantage of multiple execution venues (across public IaaS, SaaS, hosted private cloud or on-premises private cloud, for instance), they require businesses to choose one or another of those venues. Truly unifying environments across orchestration, storage architecture, APIs and other key layers enables access to agility and innovation across multiple venues simultaneously.

HYBRID STRATEGY MUST INFORM TECHNOLOGY CHOICES. Effectively implementing hybrid cloud means reconciling the demands of cloud-native applications and existing on-premises environments and developing infrastructure consistency at several levels. The ideal hybrid infrastructure environment is one that enables consistent storage services, resiliency, APIs, and application mobility between on-premises and off-premises cloud. Businesses must make technology, platform and partner selections that support the goal of hybrid in order for the hybrid architecture to succeed.

DATA STRATEGY IS CRITICAL TO HYBRID CLOUD STRATEGY. Extracting value from business data is an avenue for innovation, whether through businesses analytics, artificial intelligence training or making user data more accessible. Hybrid applications require access to data wherever it resides, and developers require consistent APIs they can code to. However, while strides have been made for unifying cloud platforms at the management and compute layer, there remains a division at the storage layer. Businesses must seek out and prioritize ways to unify cloud at the storage layer.

Looking Ahead

Going forward, IT infrastructure must be built with the demands of next-generation applications in mind – both in the public cloud and in internal environments – to realize the benefits of the cloud for new and innovative cloud-native development, and for the modernization of existing investments, including on-premises infrastructure and applications. The fact that most businesses see hybrid cloud as their IT strategy moving forward shows that no one infrastructure environment satisfies the breadth of IT requirements. Truly stitching together multiple environments in a unified, hybrid way across orchestration, management and storage layers delivers the best-case scenario for data protection, performance optimization, cost optimization and business agility.

The outcome of an effective cloud strategy will be true application portability, enabling businesses to seamlessly shift existing enterprise apps to the cloud, build new cloud-native apps off-premises, and even to migrate those cloud-native applications on-premises when it makes sense. Hybrid cloud will enable businesses to continuously evaluate workload placement to make the best use of all resources.

Pure Storage offers cloud data services that bridge on-premises and public cloud, and enable true hybrid operations. Learn more here.