

The Power of Hybrid – Driving Consistency and Value Across Cloud and On-premises Infrastructure

The 451 Take

Cloud computing advantages such as flexibility, scale and opex/consumption-based models are driving enterprise use for not only net-new, cloud-native applications, but increasingly for modernizing legacy workloads as well. Despite increased uptake of IaaS and PaaS for workload migration to public clouds, more than 40% of organizations have hybrid IT architecture with on-premises and private cloud environments remaining relevant for data, security and compliance among other reasons. At the same time, enterprises want to support flexibility for their technology teams; it is imperative that deployments be sanctioned, secure and compliant, regardless of the infrastructure.

As organizations manage hybrid architectures, they are focused on increasing consistency and reducing complexity by making on-premises and private cloud developer and operator experiences similar to public cloud services. Successfully moving workloads to the cloud while maintaining on-premises and private cloud deployments requires a consistent foundation that can serve as a single pane of glass for management and operations. It is also important to consider cloud modernization and migration as a journey with different companies at different points along the way between on-premises and public cloud implementation.

Hybrid IT – Delivering Speed and Support

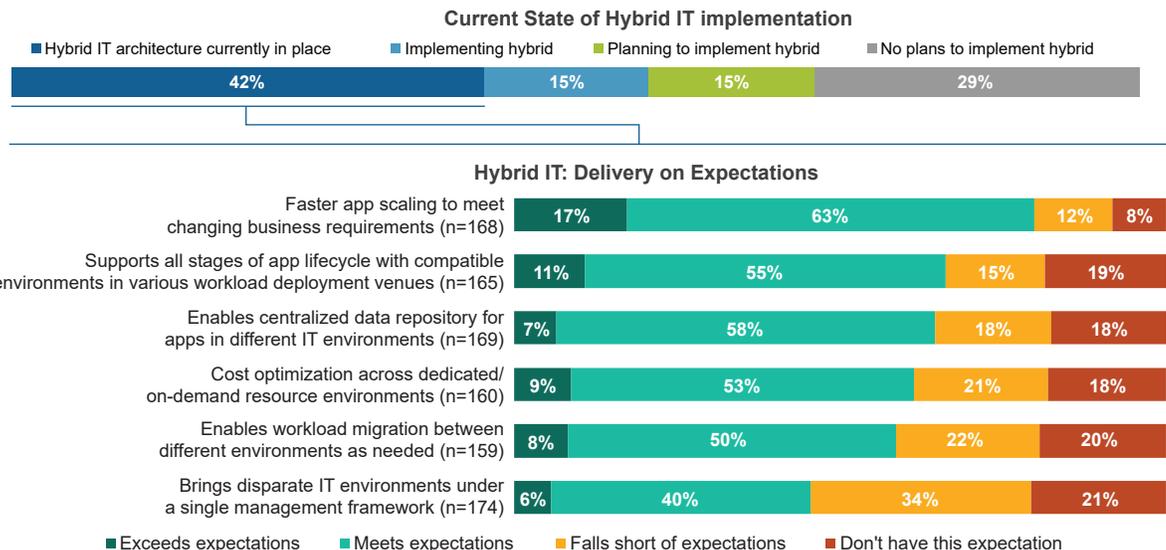
Source: 451 Research's Voice of the Enterprise: Cloud, Hosting & Managed Services, Workloads & Key Projects

Q: Which of the following best describes the current state of your organization's IT environment?

Base: All respondents (n=482)

Q: For each of the following intended outcomes, please indicate whether your hybrid IT environment is meeting, exceeding or falling short of your expectations.

Base: Respondents with hybrid IT infrastructure in place.



Effective use of hybrid architectures centers on the merits and benefits of different execution venues and the ability to enable continuous and iterative business model development, product innovation and operational efficiency. Today's enterprises are leveraging a variety of tools, languages, frameworks and environments, as well as a myriad of managed services for specialized expertise and to offload monitoring, management and other tasks. Amid this complexity at all layers of the enterprise stack, consistency is key.

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Business Impact

OUR RESEARCH INDICATES HYBRID ARCHITECTURES MEET CUSTOMER EXPECTATIONS OF FASTER APPLICATION SCALING TO MEET CHANGING BUSINESS REQUIREMENTS (SEE FIGURE 1).

Today's enterprise must be responsive to changes in the market, whether it's new technology such as containers and Kubernetes, security issues or global events. Hybrid cloud offers organizations the ability to support developer and DevOps teams and their choices, as well as the flexibility to deploy applications on the most ideal infrastructure.

HYBRID IT IS ALSO LIVING UP TO CUSTOMER EXPECTATIONS WHEN IT COMES TO CONSISTENCY.

Organizations need to be able to support all stages of the application lifecycle with compatible environments across various workload deployment venues. Consistency is also critical between development and production environments as it contributes to speed, efficiency and enabling teams to focus on new features, products and innovation rather than managing infrastructure.

ENABLING A CENTRALIZED DATA REPOSITORY FOR APPLICATIONS IN DIFFERENT IT ENVIRONMENTS IS ANOTHER REQUIREMENT FOR ENTERPRISE CUSTOMERS, a significant percentage of which say hybrid IT environments are working. Data integration is among the most significant challenges of hybrid strategies. Effective hybrid implementations depend on supporting both applications and data across different infrastructures.

COST OPTIMIZATION, WORKLOAD PORTABILITY AND SECURITY ARE ALSO KEY PRIORITIES FOR ORGANIZATIONS IMPLEMENTING A HYBRID STRATEGY. As organizations leverage a mix of platforms, frameworks and tools, they demand enterprise-grade assurances and capabilities for performance, compliance and other needs. We also see organizations leveraging cloud services and cloud-native constructs, including containers and Kubernetes, to migrate and modernize both new and legacy workloads, including traditional, relational databases.

Looking Ahead

We expect workloads will continue to move to the public cloud and SaaS, but on-premises and private cloud infrastructure and applications will remain relevant. Today's enterprises realize that different deployment venues are ideal for different applications based on a range of factors including cost, performance, data sovereignty, and geographic location. Large enterprises must also address the preferences and choices of developer, IT operations and combined DevOps teams across their organizations.

Whether or not applications are running in the cloud, enterprises are keenly interested in treating them like they are. This means cloud-native technology and methodology are being used for on-premises applications, including stateful ones that require data persistence. This is happening as enterprises seek to cast the cloud-native net wider across their portfolios, and cloud-native software such as Kubernetes evolves to include support for persistent data volumes. We expect this will further drive the containerization of traditional and mission-critical applications so that organizations can manage them more efficiently and effectively.

Managed services will also become an increasingly critical part of enterprise hybrid strategies. Over time, we anticipate managed services will extend to more advanced and comprehensive capabilities including observability, optimization, networking, data protection and compliance. Organizations that can effectively integrate these services into their hybrid strategies will be best positioned going forward.



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