



Test and Development Optimization with Hybrid Cloud

The modern IT landscape presents a host of options to enterprises looking to make the most of their budgets and resources. To be competitive, they have to balance current investments with the potential for growth. It's this careful calculus that guides their strategies. Enterprise concerns around using a combination of public cloud services revolve around the risk that added complexity can bring. There is a new class of services that allow organizations to gain the scale and agility benefits of public cloud while reducing complexity and limiting transitional risk. They build true hybrid environments that span on-premises and public cloud environments.

In order to effectively use public cloud, enterprises need to understand and integrate new service and cost models and add new staff skills. While the idea of pay-per-use infrastructure is attractive because of the promise of limiting costs to only the infrastructure that's needed, it can be expensive if not managed well. In many cases, that complexity means that the use of public cloud resources falls to the few parts of the organization that are willing to balance their perception of risk with the benefit of public cloud use. In many cases, on-premises and public cloud use isn't coordinated, which results in a multi-cloud environment that misses the advantages that a real hybrid configuration can offer. Real hybrid cloud is a utilization model that combines the management and operations of on-premises and public cloud and lets enterprises make intelligent decisions about where to place workloads.

- 72.06% – Hybrid cloud is expected to be the fastest-growing deployment segment (451 Research Voice of the Enterprise, Cloud Transformation Study 2017)

One of the more common early public cloud use cases for enterprises has been for test and development environments. The sporadic use and dynamic requirements of dev-test workloads fit well with cloud capabilities. Most test environments have their greatest resource needs as an application release is nearing completion. This is true for both traditional development environments and those moving to continuous integration/continuous development (CI/CD) or DevOps models. That cyclic resource need can be served well with cloud provisioning and its ability to scale available resources for as little or as long as needed.

One of the challenges with the typical use of public cloud in test and development is that cloud resources are provisioned separately from on-premises production environments. That means that differences in provisioning processes can lead to problems when the final push to the production environment happens. Hybrid cloud deployments use the same integrated platform for managing both on-premises and public cloud resources, simplifying the production push operation and reducing risks.

Hybrid cloud deployments are also an idea for meeting complex data-protection requirements that enterprises in regulated industries face. Some portions of an application may not handle sensitive data and be cleared for testing in a public cloud. Databases that contain sensitive data and applications that handle sensitive data can be kept on-premises when necessary to meet compliance requirements. This flexibility simplifies the test and development process. It's also an area where automation can be added to the provisioning process to ensure that the right decisions are made automatically for the right workloads.

Business Impact

EFFICIENT RESOURCE USE – Hybrid cloud deployments can make resources available as they're needed and, more importantly, can be pulled back after the processing is done. Sensitive workloads and data can stay on-premises, and public clouds can meet dynamic processing needs.

HYBRID CLOUD MATCHES DEVELOPMENT CYCLES – The dynamic nature of development and testing cycles means that resource needs will vary widely. Hybrid cloud approaches can better match consistent requirements with fixed cost infrastructure and meet dynamic needs with the scale of public cloud.

451 Research is a preeminent information technology research and advisory company. With a core focus on technology innovation and market disruption, we provide essential insight for leaders of the digital economy. More than 120 analysts and consultants deliver that insight via syndicated research, advisory services and live events to over 1,000 client organizations in North America, Europe and around the world. Founded in 2000 and headquartered in New York, 451 Research is a division of The 451 Group.