Where Do My Workloads Belong?

Breaking Down the Options in a Multi-Cloud World

The cloud is the biggest disruption IT has faced in decades, and for good reason. The agility that cloud has brought to IT teams that are struggling to support business demands has forever changed the way IT delivers their services. But with that agility comes challenge, the challenge of matching the right platform to the right application and workload. Choice is great, but too many choices can breed confusion. As with most things, there is no "one size fits all" approach to cloud, and every organization and application has unique compute and data storage requirements. So, how does one determine the best fit for their workloads?

Assessing Workload Characteristics

Understanding the characteristics of workloads is crucial when deploying applications to an organization's cloud environment. A study by IDC found that to optimize your cloud deployment, you need to understand an application's requirements in six key areas:

- Performance
- Security
- Compliance
- Data protection
- Storage
- Automation

With thorough evaluation against those criteria, applications can be ranked in criticality. The Tier 1 are critical applications with the strongest requirements for reliable performance or application security while Tier 2 and Tier 3 have less stringent demands by the business.

Matching Applications to the Cloud

With those metrics in mind, Tier 1 applications are far less likely to be deployed to a public cloud environment. IDC found that most organizations use public cloud resources for their end-user oriented applications such as collaboration tools, e-commerce platforms, and mobile applications. In addition, a public cloud is often a good home for batch workloads because they are easily automated and benefit from the elastic capacity of that environment.

A public cloud may also be suited for complex scientific processes that require specialized high-performance environments that are difficult for organizations to implement and maintain in-house. The public cloud is also a good choice for development and testing because you can easily spin up test instances as needed and eliminate the environment and its costs when the application moves to production.

Private cloud is frequently used for infrastructure services and data management, including virtual desktops, databases and analytics, and content services. Many organizations may also prefer to keep applications that need to share data with third parties on their private cloud, as managing the applications across environments can be challenging. Any workload using an organization's most sensitive data is probably best suited to the private cloud.

Then there is the best of both worlds. Applications that normally run in private cloud can take advantage of public cloud for additional capacity when demand spikes.

It's also important to recognize that not every application is suited to the cloud, whether public or private. Some applications require very low latency for data access, and virtual environments that access data from a remote location may not meet those requirements. Legacy applications may not be well structured for a machine-independent cloud deployment and it may not make sense to invest resources in rearchitecting and migrating them.

Where to Start...

- Document Your Current State: Before migrating to the cloud, you need to have a clear understanding of your organization's current infrastructure.
- Determine Cloud Readiness: View your applications from a cloud perspective by assessing their cloud-readiness before migration begins. If they are not cloud ready but would be a good fit for the cloud, then build a strategy that gets them there.
- Understand Applications and Their Role in the Business: It's important to execute a detailed assessment for each workload to set proper expectations for migration. Therefore, document the business impact through a thorough application discovery and mapping exercise to identify how those applications support the business.
- Evaluate the Cost: Evaluate the support and operational cost for each workload. Using your findings, you can then decide which applications make the most sense to move to the cloud. A good general rule to always apply is, the benefits of moving your workloads should outweigh the cost and the risk.

Multi-Cloud is Here to Stay

We are in an era of digital revolution, where competitive advantage depends on maximizing the enterprise digital infrastructure and business applications to glean faster insights from data leading to real-time decisions. Forward-thinking organizations are recognizing it and are digitally transforming themselves to embrace multi-cloud, advanced analytics, IoT, and the power of AI and machine learning to derive insight from that data are the ones that will be here tomorrow.

As your business becomes more complex and the pace of digital change continues to increase, the role of technology in your organization is more critical than ever before. The OneNeck® IT Solutions team of experts can provide real value on projects ranging from technology deployments to full ecosystem design, implementation and management. We will provide you with independent, unbiased evaluations and recommendations with an eye toward future-proofing to ensure the technology you implement today doesn't limit your organization tomorrow.

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