Understanding the Benefits and Limitations of Lift-and-shift Cloud Migration

Imagine lifting a couch and moving it into a new room. The couch looks exactly the same, just in a different location. Lift-and-shift cloud migrations work essentially the same way. While the simplicity may seem attractive, organizations should explore the benefits and limitations of lift-and-shift cloud migration before committing to this method.

In a lift-and-shift migration, the migration team takes existing on-premises applications and data and moves them to the cloud environment with minimal modifications. Also known as rehosting, this type of migration requires minimal retraining and time. Fast and cost-effective, it comes with some significant drawbacks.

Quick and Easy Way to See Some Cloud Benefits

First, let's take a look at the advantages of lift-and-shift and instances where it makes sense to take this approach. It provides a quick and minimally disruptive way to move to the cloud using a small migration team. The on-premises application remains in place during the process, and end-users see little change as they work with the application.

Additionally, by moving to the cloud, the organization gains access to updated, better-performing hardware without heavy capital expense. This includes expanded computing capacity and storage. And it opens the door to scalability and other cloud benefits, even for companies with minimal cloud expertise.

While not ideal for all situations, lift-and-shift does make sense in certain scenarios. For instance, when under a tight migration deadline, the organization can quickly move to the new environment without extensive rearchitecting. Likewise, lift-and-shift works well in transitional situations, buying time for applications that will eventually undergo reengineering.

Additionally, this method works well for legacy applications with complex dependencies and tightly coupled components. And it can provide proof of concept to validate the feasibility of operating in the cloud.

However…Cons May Outweigh the Pros

While lift-and-shift offers a smooth transition to the cloud, it is far from a silver bullet. In the first place, it does not leverage the full potential of the cloud, and thus results may prove disappointing. In fact, it may introduce compatibility issues that cause errors and unexpected behaviors that affect the functionality of the application.

Also, when organizations simply shift an application to a new environment, they do not address underlying inefficiencies and technical issues. This means that any existing vulnerabilities, bugs, outdated dependencies, or performance bottlenecks come over, as well. And these issues may become more problematic in the cloud, even interfering with other services.

Organizations need to pay particular attention to potential security issues. Differences in security configurations in the cloud environment may result in unexpected vulnerabilities, opening the application to unauthorized access.

Finally, lift-and-shift migrations may result in unpredictable costs. Because they are not designed for the cloud, shifted applications may not use resources efficiently, thus resulting in higher costs.

Alternative Migration Methods to Consider

Lift-and-shift, or rehosting, represents just one of several core cloud migration strategies, each with its own pros and cons. In addition to rehosting, these include:

- Replatform – One step removed from rehosting, replatforming involves moving applications to the cloud with some modifications. These modifications might include adding some cloud-native features, changing configuration settings, or optimizing performance. This requires some programming expertise.
- Repurchasing – This involves replacing an existing application with a cloud-native application such as a SaaS solution like Microsoft 365. This can simplify maintenance and integration while providing new functionality. But it does involve some data migration challenges, cost switching, and the potential for vendor lock-in risks.
- Retiring – When migrating to the cloud, the organization may choose to decommission or eliminate existing applications that are no longer utilized. This frees up resources for more valuable applications. However, it requires careful analysis and planning to avoid disrupting business processes.

- Retaining – On the other hand, the organization may choose to keep some existing applications on premises. This may prove necessary in cases where technical limitations or regulatory constraints preclude cloud migration. But it involves maintaining both legacy and cloud systems and not taking full advantage of cloud benefits.

- Refactoring – This method involves rewriting the application to take full advantage of cloud-native services and features. It requires significantly more time and skilled resources. However, it can deliver substantial gains in efficiency, flexibility, and innovation.

Exploring Benefits and Limitations of Lift-and-shift Cloud Migration Informs Cloud Strategy

The ideal cloud migration strategy will depend on business priorities. Lift-and-shift offers a fast and efficient entrance to cloud computing, and it may prove the best option for some scenarios. However, organizations should view this type of migration as a first step rather than a final destination.

By partnering with a cloud migration expert, organizations can examine the various migration options and make an informed decision. Messaging Architects engineers bring expertise and insight honed through hundreds of successful cloud migrations.