

Cloud Lock-In Poses a Challenge to Companies Looking for a Provider

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Cloud lock-in is a problem many companies face today when choosing a provider. It is an issue that comes up in a lot of executive's minds when they choose to leverage more resources into the public cloud and data centers run by cloud providers.

This creates a situation where companies can get tied down to a single provider and get in a situation where they can't move to another cloud provider easily. It isn't cheap or simple to move between clouds once committed. There are other risks companies face regarding lock-in situations. A service provider may drop out of the market and take data down with it or sell it to an unknown provider with a different set of procedures.

Ways to Avoid Cloud Lock-In

Because no company wants to be tied to one provider and have a lock-in situation where it cannot control its own data, choosing the right provider when deploying to the cloud is very important. Companies should evaluate whether it is worth using a cheaper, but less known, provider over one with a proven record.

Choosing the right provider from the outset can alleviate the problems with cloud lock-ins , but not get rid of the problem. One way to avoid lock-in situations in their entirety is choose the private cloud route. Companies managing their own data centers and servers within them have complete control over their assets and never have to worry about lock-in situations.

However, this isn't an option for smaller companies or startups who cannot afford to host their own servers and pay for their own data center maintenance. This is why a hybrid cloud solution may be the next best option. In a hybrid cloud, lock-in becomes a lot less prevalent because only a part of a company's resources are tied to a public cloud provider. The rest -- which should be the most sensitive and most frequently used data -- should be run through the private cloud.

A hybrid cloud is one way to deal with potential lock-ins, but another way is to use multiple providers for different needs. A company can use Amazon for IaaS, for instance, and Microsoft for data storage. It can host some data with one provider and other data with a different provider. This alleviates the fear that company executives have that a single cloud provider can have complete control over their resources.

It is also a good way to combat outages by leveraging resources from one provider to the next in these situations. Sure, some of the data and cloud resources may be unusable in the period of the outage, but other data hosted in separate data centers will be available for use.

Using multiple service providers for different cloud services is a good way of dealing with both the fear of lock-in situations and the fear of losing all functionality in case of outages from specific providers. This is because a company can use a safeguard and scalable cloud (in standby mode) for emergency use (in case of outages or cloud migration). Using multiple service

providers for different cloud tasks (storage vs IaaS or PaaS for instance) may be a good isolation if a business can afford it. Companies can use cloud brokers to integrate and acquire services from multiple providers.

API compatibility issues may arise when using multiple providers or vendors, however, as David Linthicum, CTO & founder of Blue Mountain Lab, recently told me in an interview.

“Amazon's APIs will not be compatible with Rackspace's APIs,” Linthicum pointed out. “You will have to use different systems.”

There is another way of dealing with cloud-lock ins that involves giving companies incentive to work together and not control clouds entirely on their own. An example of this is OpenStack. It provides companies a shared cloud ecosystem with vendors assisting developers in producing cloud software. The software is free as is the basic membership in the CloudStack overseeing body known as OpenStack Foundation.

There are three membership plans available in the [OpenStack Foundation](#) (two are premium) that helps alleviate cloud lock-ins. According to [InformationWeek's Charles Babcock](#), the way this foundation it fights cloud lock-in is it relies on multiple vendors being members and pulling their resources together to find the best solutions. There are multiple vendors of cloud resources rather than single suppliers controlling everything. Each of the companies participating has a seat on a governing body and has a say on the direction the project is heading in.

OpenStack is great because its APIs are more compatible with other cloud services and providers due to its open source nature. So this allows companies the flexibility of using different providers more so than being locked into one. However, it still isn't compatible with every provider or service -- although compatibility is the direction the group seems to be heading in.

Lastly, a promising cloud integration of an existing technology looks to be a great solution to lock-ins. This is the peer-to-peer (P2P) cloud that I previously covered on [The Transformed Datacenter](#). A company specializing in cloud storage and backup, called Symform, is leading the charge in this area.

It is a global cloud that bypasses the datacenter entirely; and information is stored on server drives, desktops, and NAS boxes in 160 countries. By making the information widespread and in the hands of peers, it fights the dominance of corporate giants like Amazon and their data centers. This also mean lock-in becomes a non-issue with this form of cloud. However, there are many things that will need to be addressed if this becomes successful like security of data – although Symform claims it encrypts data on all networks. It also seems to be currently focused on just cloud storage and backup, rather than other forms of cloud computing like IaaS.

Cloud lock-in will continue to pose challenges, but as the cloud industry evolves so will flexibility in migration or moving between clouds. The costs will also continue to go down and services become more dependent or foreseeable.