Too Many Fires, Poor Implementations, and Cost Overruns Impeding Broader Public Cloud Adoption

DCIG's analysts (myself included) have lately spent a great deal of time getting up close and personal on the capabilities of public cloud providers such as Amazon Web Services ([AWS](#)), [Microsoft Azure](#), and [Google Cloud](#). We have also spent time talking to individuals deploying cloud solutions. As we have done so, we recognize that the capabilities of these cloud offerings should meet and exceed the expectations of most organizations regardless of their size. However, impeding cloud adoption are three concerns that have little to do with the technical capabilities of these public cloud solutions.

Anyone who spends any time studying the capabilities of any of these cloud offerings for the first time will walk away impressed. Granted, each offering has its respective strengths and weaknesses. However, when one examines each of these public cloud offerings and their respective infrastructures and compares them to the data centers that most companies own and manage, the differences are stark. The offerings from these public cloud providers win hands down. This might explain why organizations of all sizes are adopting the cloud at some level.

The more interesting dilemma is why organizations are not adopting public cloud offerings at a faster pace and why some early adopters are even starting to leave the cloud. While this is not an extensive list of reasons, here are three key concerns that have come out of our conversations and observations that are impeding cloud adoption.

Too many fires. Existing data centers are a constant target for budget cutbacks, understaffing, and too often lack any clear, long-term vision that guides data center development. This combination of factors has led to costly, highly complex, inflexible data centers that need a lot of people to manage them. This situation exists at the exact moment when the business side of the house expects the data center to become simpler and more cost-effective and flexible to manage. While in-house data center IT staff may want to respond to these business requests, they often are consumed with putting out the fires caused by the complexity of the existing data center. This leaves them little or no time to explore and investigate new solutions.

Poor implementations. The good news is that public cloud offerings have a very robust feature set. The bad news is that all these features make it very daunting to learn and very easy to incorrectly set it up.
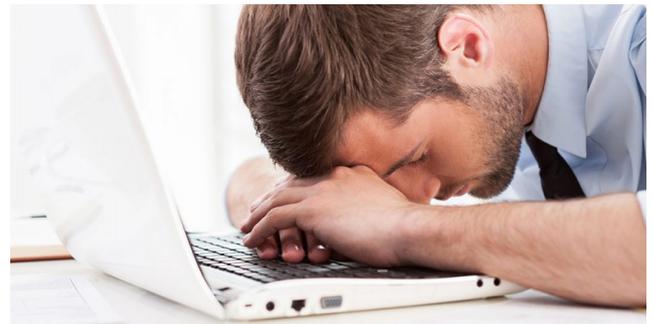
If anything, the ease and low initial costs of most public cloud providers may work against the adoption of public cloud solutions. They have made it so easy and low cost for companies to get into the cloud that companies may try it out without really understanding all the options available to them and the ramifications of the decisions they make. This can easily lead to poor application implementations in the cloud and potentially introduce more costs and complexity — not less. The main upside here is that because creating and taking down virtual private clouds with these providers is relatively easy, even if one does set it up poorly it can be rectified by creating a new virtual private cloud that does better meet your needs.
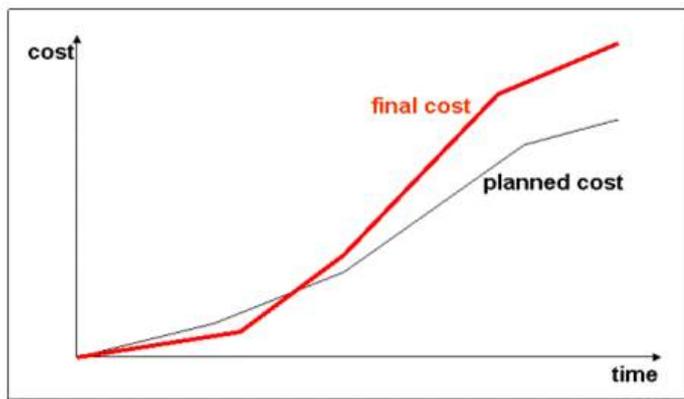
Cloud cost overruns. Part of the reason companies live with and even mask the complexity of their existing data centers is that they can control their costs. Even if an application needs more storage, compute, networking, power — whatever — they can sometimes move hardware and software around on the back end to mask these costs until the next fiscal quarter or year rolls around when they go to the business to ask for approval to buy more. Once applications and data are in the cloud and start to grow, these costs become exposed almost immediately. Since cloud providers bill based upon monthly usage, companies need to closely monitor their applications and data in the cloud to include identifying which ones are starting to incur additional charges, to know what options they have available to them to lower these charges, and the practicality of making these changes.

Anyone who honestly assesses the capabilities available from the major public cloud providers will find they can better deliver next-gen features than what most organizations can do on their own. That said, companies either need to find the time to first educate themselves about these cloud providers or identify someone they trust to help them down the cloud path. While these three issues are impeding cloud adoption, they should not be stopping it as they still too often do. The good news is that even if a company does poorly implement their environment in the cloud the first time around (and few will,) the speed and flexibility at which public cloud providers offer to build out new virtual private clouds and tear down existing ones means they can cost-effectively improve it.