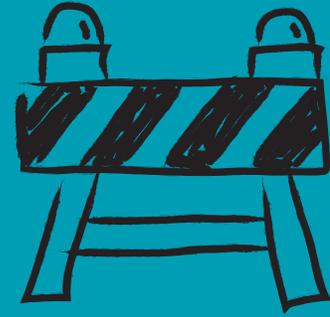# 3 BARRIERS TO CLOUD AGILITY

BY DAVID DAVIS

Organizations are adopting the cloud at an impressive rate. So much so, that according to Gartner, worldwide public cloud service revenue will grow to $331 billion by 2022, almost doubling the 2018 revenue of $182 billion.*

Unfortunately, many businesses are also finding that the cloud isn't all they dreamed it would be, and are repatriating workloads back on-premises. According to a recent McKinsey study, companies polled indicated that roughly 50% of their workloads are running in the public cloud today and that 75% of their workloads will be running in the cloud by 2022.

While this does show that companies are rapidly increasing their utilization of public cloud, the same report also found that 80% of CIOs have not reached the level of agility and business benefits they were aiming for. And, even worse, organizations that have transitioned the majority of workloads to the cloud are still within the same range of agility as their counterparts who are slowly making the move.

So why are companies increasing cloud utilization despite the overwhelming majority not achieving the agility they were seeking when they moved to the cloud? Hint: The cloud is not to blame. Its benefits *can* be realized but only *if* you avoid common pitfalls.

If you want to prevent cloud catastrophe, you need to understand the three barriers to cloud agility (that aren't always so obvious) and how to address them before they happen.

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Barrier #1: Lack of knowledge

Many reports about failed cloud migrations cite unexpectedly high costs associated with public cloud as the primary reason for workload repatriation. However, high and unforeseen costs are not the leading reasons for companies failing to achieve cloud agility.

In fact, the top reason—by a wide margin—is skills and talent gaps in technical and managerial staff. In other words, while millions of dollars may have been spent moving to the cloud with aspirations of incredible business agility, the investment of time and money (in roughly 80% of cases) has been squandered due to a lack of investment in proper skills development.

Filling the skills gap with talent from outside of your organization isn't an easy solution. A recent study by OpsRamp found that 94% of IT decision-makers find it difficult to hire DevOps/SRE professionals, cloud-native developers and multi-cloud operators. The same study also revealed that 45% of all hiring managers are unable to fill these critical positions because there's a shortage of qualified talent. So, what do you do if you can't find the right talent to implement and manage public cloud?

To overcome this barrier, companies must make a concentrated upskilling effort that involves creating space for employees to build essential skills. You'll need to supply them with high-quality resources to help them stay relevant, measure their proficiency and practice applying skills in simulated and real world environments. This upskilling initiative should not only involve the staff you'd think of for cloud migration projects (like your Cloud Architect). It should also be inclusive of other team members, including support staff, developers, managers and even the CIO. Yes, even the C-suite. Cloud knowledge gaps at the executive level are one of the primary reasons companies fail to reach agility objectives.

Facing the reality that their internal staff is busy or lacks the right skills, some companies rely on consultants and outsourcing to make their cloud migration possible, which isn't recommended. Such a short-term solution creates a long-term dependence problem. If you don't take the time to upskill your staff, and instead choose to outsource the migration, it's very likely that you'll stay dependent on that outside organization to manage and support your cloud.

Barrier #2: Security and compliance challenges

The second most common reason companies fail to achieve their agility goals is because they struggle with security and compliance. McKinsey reported that 52% of CIOs haven't reached their agility objectives because of it. This isn't a problem exclusive to companies with poor security practices. In fact, the stronger the security measures, the greater the negative impact on agility. Whether or not you have a leading security strategy in place right now, here's what you need to know.

Security and compliance challenges happen in one of two ways. The first can begin when a company tries to replicate their current security practices to the cloud. They assume that their existing on-premises security tools are going to be cloud-capable, and in most cases, they aren't. Companies not only need to fully get on board with storing their data and running their applications in the cloud, but they also need to adopt the advanced cloud-based security and compliance solutions that will make this discipline just as agile as the rest of the IT organization. Many of today's cloud solutions include built-in security and compliance tools that are continually being improved. Embrace them.

The second security and compliance challenge that companies struggle with is not having the knowledge they need to leverage these advanced cloud-based security tools. Just as learning how to run applications in the cloud requires training, testing and time to ramp-up, learning how to run applications securely in the cloud also requires training, testing and ramp-up time. Your applications are now not only running in a new place, but they're also being protected and audited by tools your teams have likely never used before. Make sure your team has the right technologies and enough time to implement cloud-native security, compliance and other infrastructure tools. Both of these are important to preventing cloud migration failures and reaching agility goals.
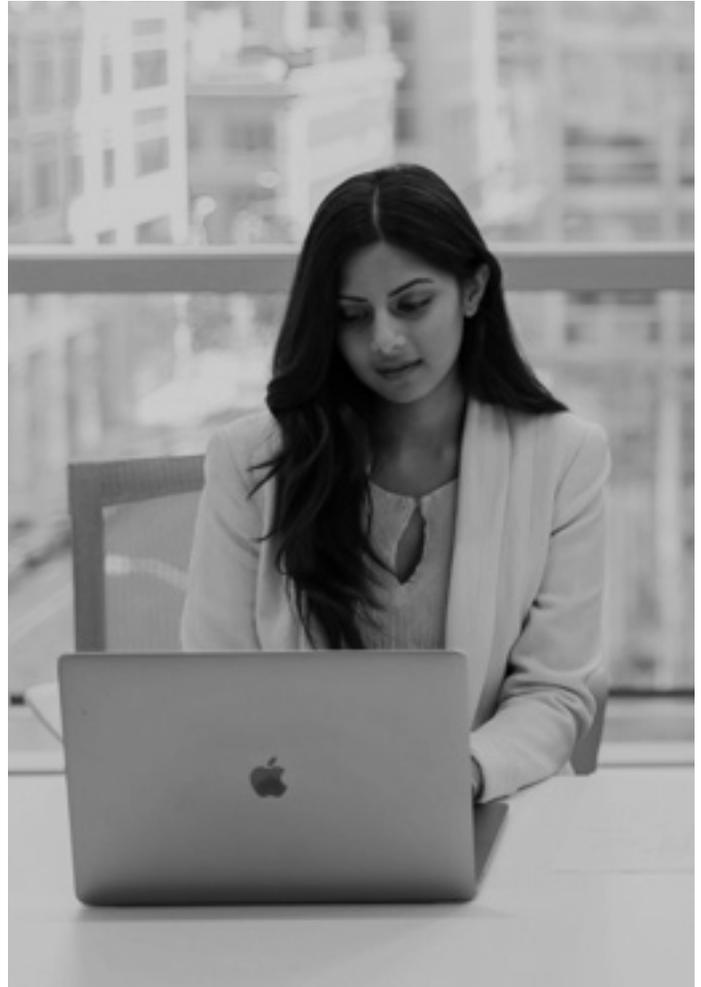
Barrier #3: Complexity and implementation complications

When migrating to public cloud, traditional legacy applications typically don't work as currently designed, which is critical to keep top of mind. You can't just "lift and shift." You have to "lift, refactor applications and shift around—a lot." Traditional monolithic applications typically have to be redesigned and refactored into microservice architectures so that many different application services (usually run in containers) can be orchestrated across clusters, dynamically scaling up and down as the workload demands.

It takes time for an entire IT organization to grasp and embrace this new "cloud-native mindset." And even when fully informed, many IT organizations come to an overwhelming realization that moving from point A (on-premises) to point B (the cloud) is a much larger mountain to scale than they anticipated.

Unnecessarily replicating years of complexity found in legacy IT environments to the public cloud is not smart. And for those who didn't create the complexity themselves and are now trying to migrate applications to the cloud, it's common to be caught off-guard by the underlying intricacy of your legacy environment and applications. The solution for this is to spend time understanding your applications and reduce that complexity as much as possible before moving those applications to the cloud.

Change management and implementation complications are also leading causes of an organization's failure to reach cloud agility. This should come as no surprise. If you add up and consider all the other factors previously cited—lack of knowledge, complexity, security and compliance issues—it's inevitable that you'll have complications when implementing your modernization in the cloud. Complexity and lack of knowledge are a dangerous combination.

WHAT'S THE SOLUTION?

- Skill everyone up on the cloud-native mindset
- Take time to understand applications and unravel complexity
- Don't try to replicate complexity to the cloud
- Only migrate when the staff is ready, which might not always be as quickly as the business wants
- Always continue learning and improving

Making cloud agility a reality starts with tech skills. Talk to us about starting a pilot.

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