

## How Enterprises Will Survive The Digital Shift

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Across all industries, demand is increasingly driven by consumers who value products that are rich in digital experience and rapidly brought to market. Large enterprises' prevailing processes and technology were largely unequipped to meet these requirements when they took hold, so it became apparent that fundamental change was needed. A glaring spotlight shone on the issue when scrappy startups "born in the cloud" began launching offerings at breakneck speed that sustained a better pulse on the customer than seasoned market leaders ever had before. Because the cloud unlocked the liquidity of data, it enabled companies using this flexible technology, no matter their size or age, to become more consumer-driven.



A buzzword that—while sometimes used ad nauseam—accurately captures the adjustment companies must make to adequately serve an evolving marketplace is *digital transformation*. The term essentially points to whatever technological and procedural changes are required to serve today's more demanding consumers, who expect companies to be customer-obsessed and anticipate their needs, now and in the future. Since virtually all legacy enterprise applications resided on inelastic platforms and were supported by slow-moving processes, transferring everything to the cloud presented an incredibly daunting task. That's why enterprises instead chased a slightly older buzzword, *bimodal IT*, whereby old applications are essentially maintained "as is" and new, consumer-focused ones are deployed on scalable, next-generation platforms and supported by a nimble DevOps discipline.

Only a few years after bimodal made its debut, the concept of deploying *only new* applications on flexible infrastructure was deemed insufficient, and it died with a whimper. Neglecting legacy applications was one culprit, but certainly not the only reason bimodal IT fell short. Even if an enterprise migrated wholesale to the cloud, it wouldn't be well-positioned to deliver the kinds of data-driven products, services and experiences that today's consumers expect. Moving to the cloud accomplished a lot more than adding scalability to IT. The shift from non-virtualized, on-premises, single-tenant environments to virtualized, off-premises, multi-tenant cloud services signified an unforeseen willingness to relinquish control. It highlighted companies' subsequent need to retool their cultures to complement the agility now offered by information systems. Simply adopting the technology provides no use unless it's wielded properly to effect change.

Today, the two primary objectives of digital transformation are to (1) achieve more seamless collaboration internally to expedite delivery schedules and (2) effectively utilize data analytics and machine learning to secure real-time, granular customer profiles. Tomorrow, efforts will be focused on facilitating the Internet of Things (IoT) and the rise of "smart everything," which would enable enterprises to garner an even more in-depth appraisal of demand profiles. Here are some recommendations on how enterprises ought to embark on their digital transformation journeys and the benefits they could extract today when adopting cloud services and managing them correctly.

### Change and Culture Management

Because cloud is now universally considered a safe and beneficial technology, companies must establish a highly disciplined approach to change management in order to transition successfully and keep pace with evolving technology. Too often, the advent of new tools and techniques elicits a knee-jerk reaction, resulting in companies spinning up new, multidisciplinary teams for

exploratory projects that fail to align. Also, your IT staff may not be experienced in cloud migrations or experts yet in working with cloud products and services. Therefore, it's important to enlist the assistance of people who are. Digital transformation is as much a cultural adjustment as a technology shift. In order to truly seize the full benefits cloud offers, the entire organization must be educated to understand how cloud, once adopted, can expedite product launches. That way, they can create in kind and follow more agile business processes. Since large enterprises tend to be stuck in their ways, it's often necessary to bring in outside experts who aren't bogged down by company history and incumbent processes to work with each division and serve as the heralds of change.

Companies should not expect to get married to their digital partners, but rather aim have an intense two-to-three-year transformative run. They ought to be thought of as cultural disruptors that have the ability to change the way in which thousands of people across a large enterprise consume technology. It's imperative they examine and incorporate the second-order impacts and challenges that must be overcome in order to achieve success. It's typically necessary to bring in neutral eyes and ears to distill the dependencies and ramifications inherent to taking on such a challenge.

Building awareness of the full cloud products and services with your key stakeholders will open up possibilities, not just for your existing application workloads but also for net new cloud architecture. Taking advantage of some initial 'proof-of-concept' cloud workloads helps an organization to understand the cloud potential and justify an enterprise migration. Start with disaster recovery or test production environments. Other solid starting points include "Lift and Shift Workloads," since they allow you to avoid capital-intensive refresh cycles by moving an entire workload to the public cloud. Replication technology moves data and workloads with minimal time and expense.

Many times, it is difficult to capture the current application portfolio, let alone figure out which applications are a good fit for the cloud. It's important to take the time to analyze all enterprise applications to determine which would be good candidates, how they need to be positioned (shift vs. re-architecture vs. SaaS), clarify dependencies with other applications or data, and create the overall roadmap for migration. For example, you wouldn't want to migrate an on-premise email solution. Additionally, you need to consider past barriers in terms of an application use. For example, now you can take advantage of the elastic nature of the public cloud to rapidly allocate and deallocate massively scalable resources to support business service on-demand, compared to building out your own infrastructure to support that one-time peak demand for the year.

## Cloudifying Collaboration

Introducing elasticity to the way in which enterprises consume compute, network, and storage via public cloud adds tremendous value for proprietary applications. But in many cases there's extraordinary value in shifting to SaaS, where worrying about the underlying infrastructure isn't necessary. For the vast majority of enterprises, migrating to cloud-based collaboration tools is a quick and effective way to retool your company culture for a cloudy world.

Companies can utilize an intranet to foster collaboration among teams and departments with knowledge and content sharing, but it's only as strong as the self-managed applications that run on it. To successfully collaborate, team members need quick and easy access to their project materials. The latest additions to Google Drive, for instance, help employees work more efficiently by providing the tools to find relevant content as fast as possible. It is actually [estimated](#) that by 2020, 80 percent of large and midsize organizations in mature regions will have deployed one or more content collaboration platform (CCP) products to implement a content productivity and collaboration strategy.

The ability to collaborate better has limitless benefits for the enterprise: from iterating on projects in real-time to bringing products to market faster. The amount of content being created within the enterprise every day is enormous. The ability to do so more efficiently and instantly across time zones allows employees to spend more time focused on what really matters.

Additionally, bringing video into the mainstream of an employee's workday will make learning easier and more interesting, while also providing employees with the flexibility to access content

whenever and wherever they are. Cloud-based collaboration tools ensure seamless video delivery that is typically beyond the capabilities of internal IT teams. Communicating via video is proven to be a more impactful and memorable method of sharing content, because our brains process video 60,000 times faster than text and with a much higher rate of comprehension.

## Extracting Real Value from Data Analytics and Machine Learning

Traditional analytics environments excel at two things: examining what happened yesterday and delivering operational reporting. The reality is that these analytics are not helping companies to innovate and push into the future. Legacy applications lack predictive and machine learning capabilities. This architecture doesn't contain all of the data necessary for machine learning to be accurate and impactful. Enabling on-premises machine learning infrastructure costs too much to warrant the benefit. Cloud native solutions offered by the leading providers, on the other hand, offer the average enterprise the ability to incorporate predictive analysis powered by machine learning into its arsenal. The concept of machine learning has been around since the late 1950s; however, the vast compute resources that the hyperscale public cloud providers maintain today finally enabled the discipline to be applied practically.

Planning around data shouldn't focus on which data technologies are being implemented, but instead on which solutions are being enabled through those technologies. The companies that are most successful at leveraging machine learning are able to understand from the outset if the approach in question fits the situation at hand, if the data is ready, and, finally, if there is a requisite vision to maximize both results and opportunities. Doing so calls for a healthy dose of skepticism and a heaping serving of pragmatism to cut through the hype and get to the root of the opportunity. Undertaking a data assessment phase before diving into machine learning can:

- Save you from taking on a challenge that your data is not yet ready to support
- Speed up the process to begin machine learning projects in cases where the data can be enhanced
- Improve outcomes due to adherence to best practices

Too often, the original impetus for the machine learning project is altered or forgotten as the project progresses. As a project progresses, continue to revisit the motivating questions driving your efforts. Why are you spending time and energy to come up with these predictions? What is the ideal outcome for learning this information? How does your business improve from knowing this information? Integrating your model with a digital marketing campaign will help you drive business outcomes as part of your marketing strategy. Often the potential outcomes from machine learning exercises are not being maximized due to the failure to adopt the necessary vision to realize the full value.

## Piecemeal or Wholesale?

It's unlikely that a large enterprise could move everything that's currently in place to the cloud. But it would also be a travesty if only net new applications migrated. Collaboration applications and machine learning should be deployed in the cloud posthaste. Regardless of the transformation timeline, it's imperative that companies seek to rethink their culture, making themselves as agile as their cloud-based systems, in order to make the investment and disruption 100 percent effective.