

Adaptation, Not Adoption, is the Key to Digital Transformation

Why IT Strategy Requires a Perpetual State of Change

CLOUDFOUNDRY

April 2019

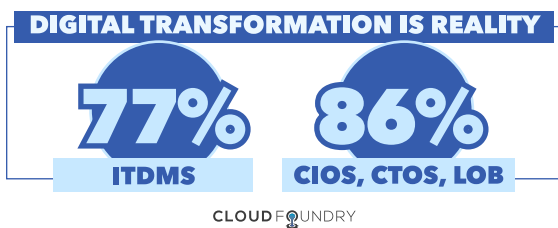
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WHY ONE SOLUTION ISN'T THE SOLUTION

Digital transformation is now firmly entrenched in the discourse around modern companies, and it's a crucial topic around the water cooler, in boardrooms and at hackathons. The impacts of digital transformation are profound and widespread, but understanding how this transformational change affects every member of an organization is paramount.

Importance notwithstanding, the complexities and yet-to-be fulfilled promises of digital transformation mean more companies are adapting to a perpetual state of innovation and change. Unforeseen challenges require new methods of reacting to technological changes and points of disruption that are well outside the control of any one organization.



Relatively few companies expect digital transformation to be a one-time feat, and a majority are embracing the journey that is unfolding. As of our February 2019 [research](#), more than three quarters of IT decision makers believe digital transformation has shifted from hype to reality.

Moreover, 86 percent of CIOs, CTOs, and Line of Business leaders agree with that assessment.

However, a strong majority of survey respondents have determined that “digital transformation” is a misnomer. To achieve success, enterprises must absorb and adapt to new waves of technology without pinning their strategies on one-time adoption of a single technology.

PERPETUAL STATE OF CHANGE

Indeed nearly three quarters, 74 percent, equate digital transformation to “perpetual shifts and constant adaptation of new technology.” A resounding minority, 26 percent, view digital transformation as a “one-time change and adoption of new technology.” This variance in philosophy is maintained across all regions, IT decision maker roles and company sizes.

WHAT IS DIGITAL TRANSFORMATION?



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It's no wonder why most enterprises are absorbing changes in technology as a constant cycle of adaptation. Very few report being done with the process, and those that do might be in for a rude awakening. Digital transformation is about entering a state of constant adaptation, and it certainly doesn't happen overnight. It tests the endurance of every organization, and relies on a widespread willingness to struggle and overcome challenges.

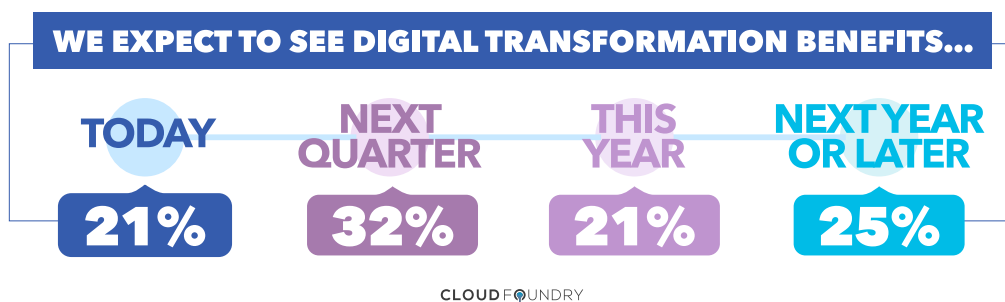
As of February 2019, only 13 percent report they are at a mature stage of digital transformation regardless of having implemented and optimized several digital initiatives. While a slim majority, 52 percent, report they are somewhere in the process of digital transformation, another 20 percent consider themselves in the beginning stages.



BENEFITS TAKE TIME

Although most companies are in the midst of transformational change, they don't expect dramatic changes to occur rapidly. Even the most agile and forward-thinking organizations are embracing the opportunity with a long view into the horizon. In fact, very few already feel the impact of digital transformation today.

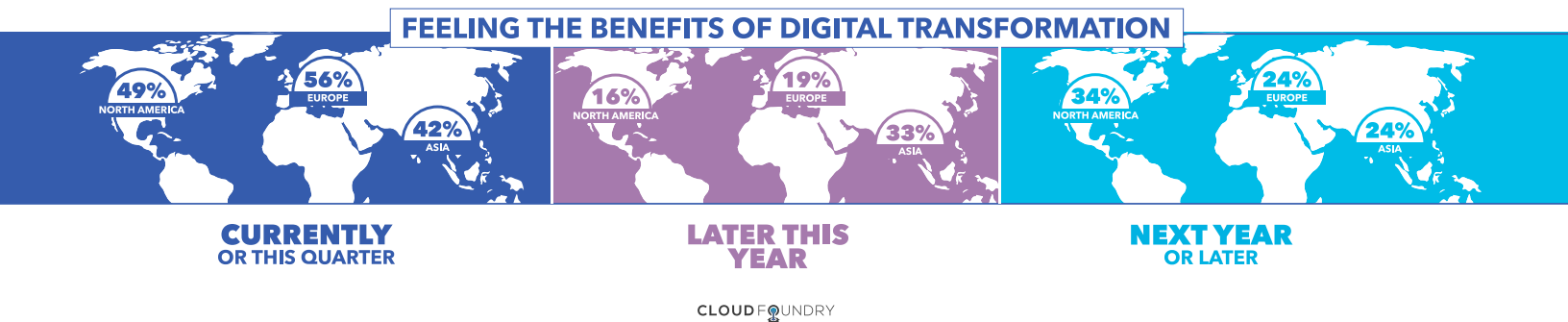
Of the total sample, barely one in five IT decision makers, 21 percent, say they are experiencing the benefits of digital transformation in their organization. Another 32 percent report they expect to see benefits within the next quarter. Finally, one in five respondents expect benefits to be realized within the year and 25 percent don't anticipate benefits for at least a year or longer.



Even for companies experimenting and adopting the latest innovative technology to build fully cloud native app development on top of their existing cloud solutions, the benefits take time. Just a little more than a third say they have begun to realize benefits from their digital transformation efforts. One in four IT decision makers at these organizations advanced in their cloud journey expect to see benefits this quarter and 40 percent report it could occur within the year or sometime later.

The lag time in feeling benefits from digital transformation holds across IT decision maker roles. The one group who feels early effects is developers and DevOps for whom digital transformation can unlock time and productivity, as 30 percent say they are already experiencing benefits. The effects of digital transformation are also felt earlier by larger companies, especially those with many developers, rather than by smaller companies where the effects are still at least a quarter away, if not longer.

Regionally, organizations report different time horizons for when they expect to feel the benefits of digital transformation. North America, Europe and Asia largely expect to see benefits this quarter or have already begun to experience those benefits.



INTEGRATION UNLOCKS INNOVATION

Integrating waves of innovation takes time, so getting to a point where that technology can be broadly deployed across a company is understandably a much longer pursuit. Existing environments aren't always the most adept at integrating new technologies, but familiarity and enthusiasm go a long way.

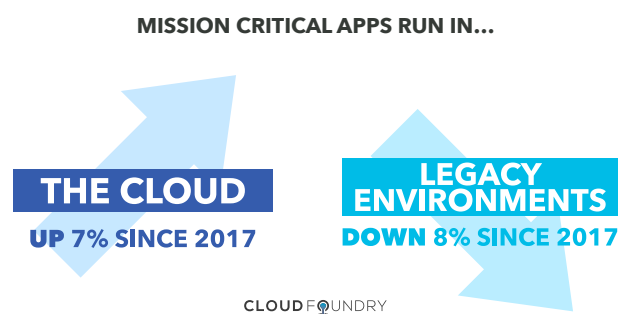
As of February 2019, 61 percent believe they can experiment and pilot a new technology within days, weeks or months, with 42 percent anticipating it to take months. Even more respondents, 70 percent, say they can scale to small teams in the same timeframe.

Even doing a limited deployment of new technologies within existing processes, respondents give a similar timeframe with 59 percent reporting it can be done in days, weeks, or months. But, the expectations shift significantly when it comes to broad deployments at scale. Only 36 percent say they can integrate a new technology under those circumstances in a matter of days, weeks or months. A majority, or 53 percent, expect it to take a year or multiple years, and 8 percent expect it to be a continuous effort.

MISSION-CRITICAL APPS ARE IN THE CLOUD

Despite these delayed benefits and other unknowns, the integration of cloud technology is undoubtedly the latest wave to take hold in the industry. Now, for the first time, most companies have reached a point where mission-critical apps have been moved to the cloud.

Since we started tracking this topic in August 2016, we've seen the number flip from a majority keeping their mission-critical apps in traditional legacy environments. Today, most organizations have shifted those apps to the cloud, as 51 percent of respondents report mission-critical apps were operating in the cloud and 45 percent still maintain these apps in legacy environments. The last time we measured this (April 2017), 53 percent said they maintained their mission-critical apps in legacy environments to only 44 percent who say they did so in the cloud.

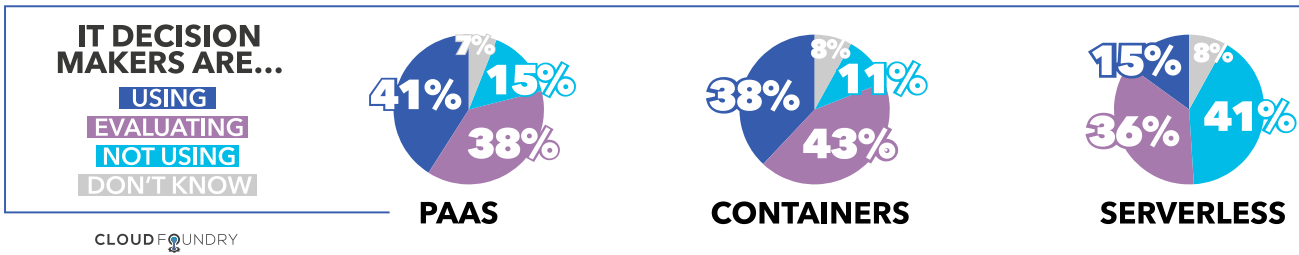


MIXING PAAS, CONTAINERS AND SERVERLESS WITH THE CLOUD

Taking that initial leap is critical, but to successfully integrate cloud and realize its benefits, companies are absorbing different cloud technologies like PaaS, containers and serverless technologies in significant and distinct ways, according to our research.

As of this research, 41 percent of respondents reported using PaaS and another 38 percent report evaluating or using PaaS in limited deployment. Only 15 percent report not using PaaS at all.

More than a third, 38 percent, report using containers and 43 percent are evaluating or using containers in limited deployment. Only 11 percent report no use of containers.



Among those using or evaluating containers, the number of containers used has grown substantially. Organizations using 100 or more containers has grown from 34 percent in April 2018 to 48 percent as of February 2019.

The contributions of containers are also becoming more critical to an organization's mission. Among the IT decision makers surveyed, 62 percent report they expect containers to be mainstreamed at their organization within a year.

Conversely, serverless technology has made less headway in enterprises. As with any new technology, the integration cycle can be bumpy with multiple fits and starts, and serverless is no different. After a sharp increase in evaluation of serverless in September 2018, our latest research points to a pullback today. As of February 2019, 36 percent reported evaluating serverless compared to 42 percent in September 2018.



Still, with 15 percent reporting they use serverless, there are still a majority of 51 percent both using and evaluating serverless to 49 percent of respondents reporting no use of serverless within their organization or not knowing.

And, for people using or evaluating serverless, more are doing it at scale. For users and evaluators, 18 percent say they are broadly deploying serverless across their entire company, double the percentage who said that only one year ago.

MULTI-PLATFORM STRATEGY FLOURISHES

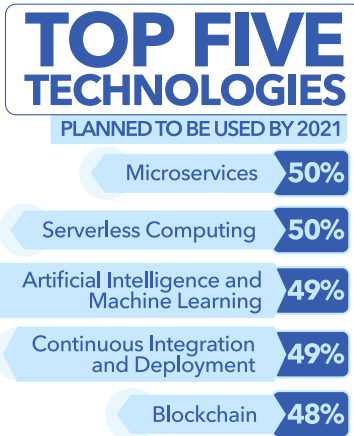
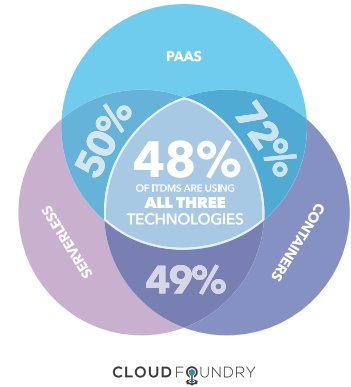
Last year, we published a report on how IT decision makers were embracing a multi-platform strategy, using PaaS, containers and serverless in tandem. This year we see a deepening of that trend. Almost half (48 percent) report using a combination of PaaS, containers, and serverless technologies together. This is an increase of nine percent from last year. Moreover, 72 percent report using PaaS and containers together (an 8 percent increase), 50 percent report using PaaS

and serverless together (a 7 percent increase), and 49 percent report using containers and serverless together (a 7 percent increase).

WHAT WILL WE ADAPT TO NEXT?

To learn more about the direction this is all heading, we presented IT decision makers with a list of different technologies and trends in the industry to determine what technologies they are currently using, planning to use in the next two years, and those that aren't even on their radar. Microservices, serverless computing, artificial intelligence and machine learning, continuous integration and deployment, and blockchain were identified as the top five technologies.

MULTI-PLATFORM IN PRACTICE



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Within the next two years, IT decision makers say their organizations plan to use microservices at a rate of 50 percent, serverless at a rate of 50 percent, artificial intelligence and machine learning at a rate of 49 percent, continuous integration and deployment at a rate of 49 percent and blockchain at a rate of 48 percent.

CHANGE IS THE ONLY CONSTANT

Few things are constant in technology, but change is a certainty. Companies must plan for new and emerging technologies to stay ahead of the curve and be ready to adapt to the next wave of innovation.

Despite all the buzz and hype ripped from the headlines and halls of tech conferences, the emergence of new technologies fuels industry far and wide. While this requires organizations to embrace a constant state of change, knowing full well that benefits may not be realized for years, the struggle isn't just inevitable - it's worthwhile.

METHODOLOGY

Since 2015, [ClearPath Strategies](#), a strategic consulting and public opinion research firm, has conducted Cloud Foundry Foundation's Global Perception Study (GPS), a series of deep-dive research on topics critical to cloud and developers. The results in this report come from the ninth round of this global quantitative and qualitative research in that series. The survey consisted of 501 interviews of IT professionals and execs, covering eight geographies (Canada, China, Germany, India, Japan, South Korea, the UK, and the US) and was offered in five languages corresponding to those geographies. The data was weighted evenly across three regions, Asia, Europe, and North America, to correspond with past waves of research. While margin of sampling error cannot technically be calculated for online panel populations where the relationship between sample and universe is unknown, the margin of sampling error for equivalent representative samples would be +/- 4.8 percent.

The sample was distributed across four major ITDM roles and the proportions were weighted to reflect consistency with past GPS waves. The breakdown of roles is as follows: Dev/DevOps (30 percent), Ops/Architect (30 percent), CIO/CIOs/Line of Business (25 percent), and IT Managers (15 percent). This mix of company size is as follows: 32% SME (<1K employees), 68% Enterprise (1K+), 25% Large Enterprise (10K+). To ensure the highest quality respondents, surveys include enhanced screening beyond title and activities of company size (no companies under 100 employees), cloud IT knowledge, and years of IT experience.

