2016

CLOUD COMPUTING TIPPING POINT SURVEY

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WHAT'S INSIDE

WHEN WILL IT REACH THE CLOUD-FIRST TIPPING POINT?

It's been 20 years since Sean O'Sullivan, a consultant on his way to a meeting with Compaq Computers, jotted these prophetic words into his daily planner "Cloud Computing: The Cloud has no Borders." About three weeks later his client, a Compaq marketing executive named George Favaloro, wrote extensively about "cloud computing" in a 50-page business plan for Compaq Computer's server division.

Lost to history is whether the term was coined by O'Sullivan or Favaloro, but it was the first documented use of the term "cloud computing." What they envisioned was a world where apps and services were hosted not in data centers but rather in the cloud, on infrastructure the enterprise did not own, but rather used on a "pay-as-you-go" basis. In other words, they imagined a world where apps and services were hosted in the cloud.

What both O'Sullivan and Favaloro saw clearly 20 years ago is that cloud computing would eventually be the norm – the default – for enterprises around the world. And that this new model would change everything.

But when would this shift occur? Search today for cloud computing, and you'll find no shortage of pundits predicting the tipping point to a cloud-first world, where new apps and services are hosted in the cloud unless there is a good reason to do otherwise.

What you won't find is evidence that this cloud-first world has taken hold…yet.

THE CLOUD HAS NO BORDERS

SERVICENOW CLOUD COMPUTING TIPPING POINT SURVEY

To explore when the world would reach that tipping point where the majority of enterprises were cloud-first, ServiceNow commissioned ReRez Research of Dallas to survey enterprises from around the world.

To our knowledge, this is the most in-depth survey on the subject to date. First, we surveyed 1,850 respondents. Second, the survey covers seven countries on four continents. And, most importantly, we surveyed not only IT but also DevOps and Line-of-Business owners (LOB). Our hypothesis was that this shift was being driven, at least in part, from outside of IT. We felt we needed to hear from DevOps and LOB if we were to understand the full story.

Methodology

1850
respondents in
7 countries

ENTERPRISE **>500**
employees

Split evenly among
IT, DevOps,
Line of Business
Mid-to-senior management role

NETHERLANDS

UNITED KINGDOM

GERMANY

FRANCE

UNITED STATES

SINGAPORE

AUSTRALIA

REALITY CATCHES UP WITH THE HYPE

O'Sullivan and Favaloro were right. The cloud-first world they predicted 20 years ago has finally become the norm. Fifty-two percent of respondents report they are taking a cloud-first approach. Specifically, they said that new apps and services would be hosted in the cloud as opposed to on infrastructure enterprise owns and manages. This 52 percent grows to 77 percent within two years, showing just how quickly this shift is happening.

The question becomes, "why now?" A cloud computing world was first predicted 20 years ago; why was 2016 the year it reached the tipping point?

PREDICTED 1996

2016
52%

2018
77%
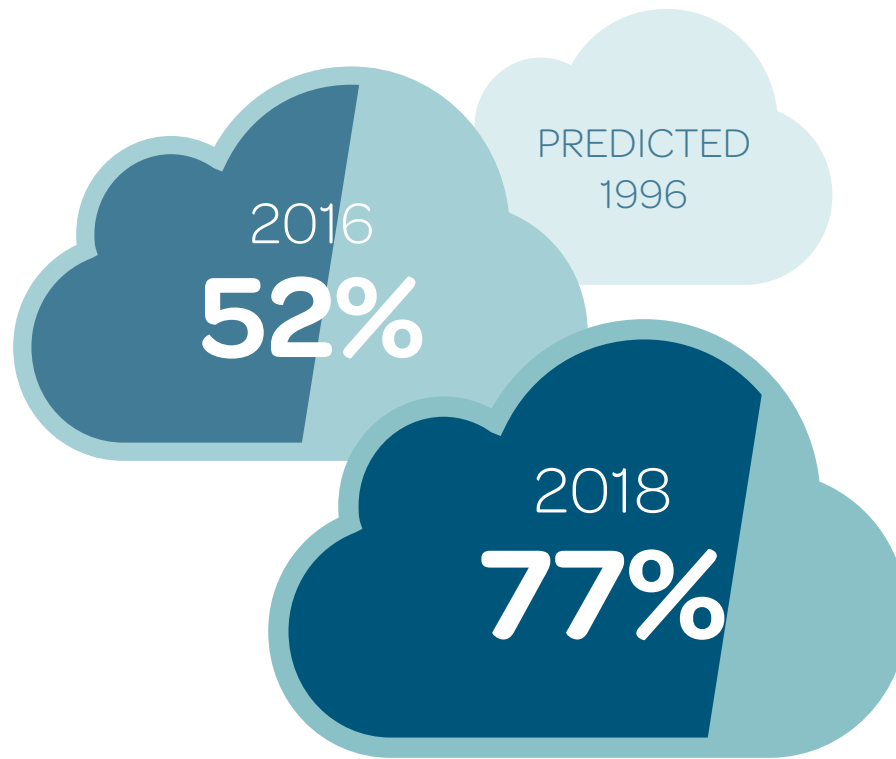
WHAT DOES CLOUD-FIRST MEAN?

With traditional data center computing the enterprise designs, buys, deploys and manages the infrastructure upon which business applications run. With cloud computing the enterprise does none of these things, and instead consumes cloud infrastructure on a pay-as-you-go basis.

In our survey we asked respondents a series of questions about shifting from traditional data center computing to cloud computing (SaaS, IaaS and PaaS).

DEVOPS LEADS THE CHARGE TO A CLOUD-FIRST WORLD

Surprisingly, this shift to a cloud-first world is being driven by the rise of DevOps within the enterprise, rather than by IT.

DevOps is a relatively recent trend, born out of the agile development movement. Agile development aims to reduce the cycle time between software development releases. Increasing the development cadence puts pressure on how enterprises deploy new applications. Whereas traditionally there was little collaboration between IT and developers, the DevOps movement aims for early and frequent collaboration between these groups.

Our survey shows that 94 percent of all respondents are engaged with the DevOps movement in some way. Some are just getting started, while others have fully implemented DevOps. Interestingly, most (63 percent)

see DevOps not as a new division, but rather as a philosophy to be taught to existing departments such as IT and development.

The goal of DevOps is to streamline the entire process – from development to eventual hosting – of new apps and services. DevOps shines a spotlight on the bottlenecks incurred when hosting apps on company-owned infrastructure. As such, DevOps saw early that cloud computing could solve many of the issues they were grappling with.

Thus, an overwhelming majority of respondents (76 percent) report that the rise of DevOps is driving the shift to cloud computing.

If DevOps is driving this shift, where does this leave IT?

63% see DevOps as a philosophy to be taught to existing departments, rather than a new division

76% report the rise of DevOps is driving the shift to cloud-first

# A CLOUD-FIRST WORLD DEMANDS A NEW IT SKILL SET

Our survey uncovered some ominous signs for IT. Notably, nearly 9 in 10 companies who have completed making the shift to a cloud-first model said their current IT staff lacked the required skill sets to help them make this shift. In addition, 88 percent feel cloud could be a replacement for a formal IT department at least some of the time.

To add more perspective, when asked how their IT departments operate today, LOB respondents described them either as a "supplier" (28 percent) or "consultant" (24 percent). When asked "How IT should operate?" Sixty-five percent of LOB respondents wanted IT to operate as a "strategic partner."
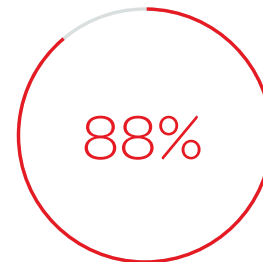
What does being a strategic partner mean? When asked what are the most important factors the enterprise cares about with regards to application hosting the top four are all traditional IT concerns: performance, scalability, availability and risk. It seems the enterprise wants IT to act as a strategic partner to help achieve these traditional IT goals in a cloud-first world.

When viewed in perspective the business isn't saying IT is no longer needed, but rather that IT needs to change to remain relevant. There were two data points that showed this clearly.
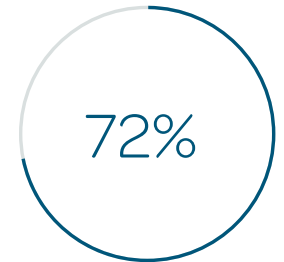
First, 72 percent said the cloud shift actually increases IT's relevancy to the business. In addition, two-thirds (68 percent) said IT would be completely essential in the future. It is clear that respondents see an important role for IT in this cloud-first world, but what is that role?
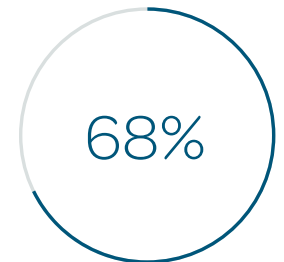
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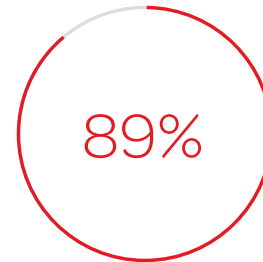
Nearly 9 in 10 companies who have completed the shift say IT lacked the skills to shift to cloud-first

72%

Many said the shift increases IT's relevance

88%

Most feel cloud could replace a formal IT department at least some of the time

68%

Two-thirds said IT will become essential in the future

IMPLICATIONS OF A CLOUD-FIRST WORLD

It follows directly that a cloud-first world will increase the number of cloud projects deployed. Furthermore, with DevOps leading the way, most of these projects will initiate from the bottom-up and deploy at a much more rapid pace than in the future.

From a DevOps and LOB perspective, this is a good thing. Increasing the pace of app deployment is a core goal of the DevOps movement. Yet, from IT's perspective, this cloud-sprawl presents two immediate challenges: visibility and the ability to predict computing costs.

These challenges were reflected in our survey results. Sixty-four percent report that the shift to cloud-first will make it more difficult to achieve 360-degree visibility. Sixty-three percent say predicting the cost of computing will suffer as they become cloud-first.

For IT, not having visibility of the true cost, quality, risk and performance of their business applications and services, will make it increasingly difficult for IT leaders to identify wasteful resources, rationalize their investments and they will focus less on the innovations that drive business outcomes.

Beyond these obvious and direct challenges, IT will also have to contend with how to define their role in a world where DevOps is often the instigator of new cloud workloads. IT has traditionally exercised a great deal of control over the computing environment, allowing them to achieve the goals entrusted to them by the enterprise such as security, compliance, performance and reliability. In an agile, bottom-up cloud deployment world driven by DevOps, such control is difficult to achieve. IT will need to develop strategies to achieve enterprise goals from a position of less control.

Finally, while IT is highly experienced in managing traditional data center vendors (such as Cisco and Oracle), a cloud-first world demands a new approach to managing consumption-model solutions such as Amazon Web Services and Microsoft Azure. It is one thing to manage the acquisition and deployment of traditional infrastructure. It is quite another thing to manage ongoing cloud deployments with their dizzying array of pricing options, discounts, service-level guarantees and so on. Service Integration and Management (SIAM) and vendor management will be more important than ever and will require IT to move from a "large grain" to a "fine grain" approach to managing the growing list of IT services.

RECOMMENDATIONS: TRANSITIONING FROM BUILDER TO BROKER

If the results of this survey teach us anything, it is that moving to a cloud-first world changes just about everything. For some organizations, IT will find their role greatly diminished, often at a great cost to the enterprise in terms of overall computing goals such as security and compliance.

However, there is another option. We believe the shift to cloud-first presents a real opportunity for visionary IT organizations to become strategic partners to the enterprise in this time of transition.

At its core, IT should shift from being a builder of computing infrastructure to a broker of cloud services. But how?

Based on expertise gained from our ServiceNow Inspire consulting team, here are five steps IT leaders can take today to optimize their smooth shift to a cloud-first footing:

1) ASK YOURSELF: WHAT ARE THE SERVICES WE PROVIDE THE BUSINESS?

IT organizations need to clearly describe what "service" means to your organization. Why does your business want to make a transformation, and how is it different than what your team does today? This IT service concept has been around for so long that many IT teams probably consider themselves service providers, but often that is not how the business may regard IT's role.

Ensure that you are truly building end-to-end IT services that provide value to the business and LOB owners. DevOps is focused on rapidly developing applications that provide business services while streamlining those applications into a strong, fully-automated operations environment. Without alignment to key business initiatives at an enterprise level, you may be developing applications that provide no real additive value to the company.

2) MEASURE WHAT MATTERS.

CIOs and IT leaders need to focus on the key performance indicators (KPI's) that clearly demonstrate which groups buy into the new model and which don't.

- Communicate progress against those KPIs in frequent updates to the larger organization, and recognize those groups that are modeling the right behavior and drive the right results. The "hero worship" mindset can still work, but the heroes are different now.

- Celebrate the folks that build the content or enable teams to progress positively against these KPIs versus the folks that drop everything to fix what doesn't follow the process.

- Implement solutions that can provide a single source of engagement for managing your service-brokered environment. This single system of engagement needs to be able to manage across the entire landscape of people, projects, compliance and vendors.

3) ASK HARD QUESTIONS OF THE LEADERS OF THIS CHANGE.

As teams jockey for position in the evolving services-focused organization, redundancy due to misplaced responsibility may result. Leaders need to identify these inefficiencies and hold each other accountable for the service dependencies between their teams. For those leaders accustomed to filling gaps when they see them, this will be a true measure of their capacity for and commitment to the service transition.

- Focus on building cross-functional teams without silos and enable them to be agile and innovative.

- Give cross-functional teams executive-level support to clear road blocks out of the way so that they can effect change. Look for small wins initially and keep the scoping conversations around driving a value stream.

- Invest in transformational training initiatives in areas like agile, lean, etc. that will help the teams understand how to move to a flow-based work structure for maximizing efficiency.
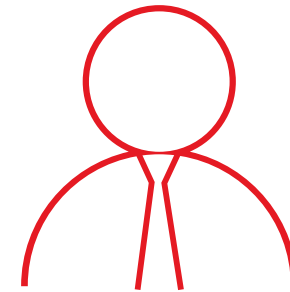
4) MAKE IT MATTER.

To the business, IT matters when it is providing a competitive advantage to the organization. By streamlining the IT organization to align more towards revenue-driving initiatives that are important to the LOB, IT will regain the trusted partnership with the business and provide higher satisfaction overall.

To avoid being "just a cost center" or a burden to the business, take a hard look at the processes that are in place to ensure that you are making the right choices for the business, rather than holding on to business-as-usual legacy religion.

5) FOCUS ON WHAT YOU DO BEST.
LET INDUSTRY LEADERS TAKE CARE OF THE REST.

Hardly any of the companies ServiceNow works with were founded with the intention of becoming the best IT system builder they could be. However, over the years, the "build it yourself" mentality has caused each organization to spend billions of dollars of capital and OPEX to maintain their IT cost-centers.

Companies should take a hard look at their IT environments and decide if they are making decisions that align with the top-line mission of the organization. Are they spending wastefully trying to be "innovative IT system builders" for the sake of doing so?

By leveraging the strengths of partners in the industry, you can get IT refocused on innovation and top-line revenue generation, rather than trying to be a system builder and operations center. This will help move your IT organization firmly towards a service-broker mentality.
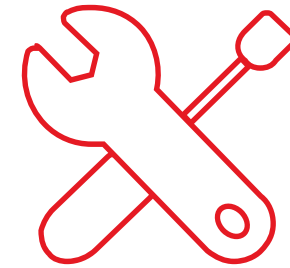
SUMMARY

Bill Gates famously said, "We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next 10. Don't let yourself be lulled into inaction."

This has clearly been the case with cloud-computing, which arose in the late 90s but took two decades to reach the tipping point. But reach the tipping point it has, and the dangers and opportunities for IT are profound.

Some, lulled into inaction, will miss the opportunity and fall prey to the dangers. But for IT organizations that are paying attention, the cloud-first tipping point provides an exciting opportunity.

SURVEY METHODOLOGY
- ServiceNow commissioned ReRez Research to conduct a study about the shift from traditional data center computing to cloud computing with 500 or more employees.
- The 15-minute survey was fielded between August 4, 2016 and August 25, 2016 in the US, UK, Australia, Singapore, France, Germany and the Netherlands.
- 1,850 mid-to-senior level managers split evenly between IT, DevOps and Line of Business completed the survey.
- ReRez Research, an independent market research company, hosted the online survey and provided respondents from their panel.
- The margin of error for the study is ±2.3 percentage points at the 95% level of confidence.