KEY CONSIDERATIONS FOR DIGITAL TRANSFORMATION LEADERS

Survey offers insights into cloud adoption and IT spending trends

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DIGITAL TRANSFORMATION REPORT MAY 2017

Companies in all industries are becoming increasingly software-driven, as cloud technology changes the way information technology (IT) is delivered and consumed. Cloud services continue to introduce new levels of innovation, greatly reducing the time and cost required to deploy technology.

And the cloud is only one part of a broad picture of change. Digital transformation is reshaping the IT industry, as a range of technologies like big data analytics, artificial intelligence (AI) and cognitive technology drive businesses to adapt and keep pace or fall behind.

Despite the pace of change, digital transformation remains a challenging concept for many organizations. It's a moving target — an ongoing, ever-evolving process. Gartner recommends a "bi-modal" approach to digital transformation, in which organizations maintain traditional core operations (mode 1) while also rolling out innovative new solutions (mode 2) to gain a competitive advantage.

As a managed service provider (MSP), Rackspace is helping companies adjust to and thrive in this new era. Rackspace integration services and transformative solutions enable organizations to establish and optimize both IT modes, ensuring continuity of service. Many customers view working with an MSP as key to a successful cloud initiative, and MSPs need to be able to elucidate and address the pain points companies face as they navigate their transformation.

This survey explored how IT departments are adapting their strategies to support their organizations' digital transformation efforts and growth objectives. It identifies the key challenges and most influential trends, and reveals the adjustments IT leaders are making to support corporate goals.

SURVEY DEMOGRAPHICS

- **100%** Work in IT or technology implementation
- **72%** Work at companies with more than 1,000 employees
- **96%** Located in North America
- **7%** B2G, **57%** B2C, **35%** B2B In professional services, manufacturing, software, finance, insurance, real estate, telecommunications, education and healthcare

Survey was conducted by Researchscape in April 2017, with opt-in responses from 230+ respondents who work in IT or technology implementation at companies with 250+ employees

TOP DIGITAL TRANSFORMATION TRENDS

How are companies planning to adopt cloud in the larger context of digital transformation? And what's driving these plans?

Insights from the survey reinforce the current consensus that cloud adoption continues to accelerate, with a majority of respondents indicating that they are either considering migrating IT operations to the cloud or have already done so. Only 8% haven't yet migrated any operations.

It's no surprise that streamlined operations and reduced costs rank highly (57% each) among survey respondents' reasons for moving to the cloud, considering that the cloud's pay-as-you-go pricing model eliminates the expense of unused software. Further, you can cancel your cloud subscription any time you want, which lessens the financial risk of software that doesn't fit your business needs.

The biggest (and most-discussed) technology drivers of cloud adoption are big data and predictive analytics, at 41%, and the Internet of Things (IoT), at 35%. IoT's influence will only increase: According to Gartner, over 50% of all new applications developed on PaaS will be IoT-centric by 2020. Other related cloud adoption drivers include mobile applications (10%), machine learning (8%) and AI (4%).

Data proliferation has challenged companies around the world and across industries to manage their IT environments more efficiently. Organizations receive terabytes of data from IoT devices and other sources, often impeding their ability to extract business insights and take action.

While many organizations consider machine learning and AI to be in their infancy — especially when it comes to reaping tangible benefits — IDC research shows that, by the end of 2017, businesses will have spent $12.5 billion on AI and cognitive systems. Both are becoming key parts of enterprise IT infrastructures.

KEY TAKEAWAYS

- **85%** Considering moving operations to the cloud or have already done so
- **64%** In the process of moving some operations to the cloud
- **28%** Have successfully moved some operations to the cloud
- **8%** Have not yet moved anything to the cloud
- **41%** See data analytics or big data as a related driver for cloud adoption
- **35%** See the Internet of Things (IoT) as a related driver

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AI VS. MACHINE LEARNING

Many companies aren't yet ready to adopt both AI and machine learning, but ultimately these tools will help firms get closer to customers, meet digital transformation objectives, and accelerate innovation by harnessing data (the fuel of digital initiatives). The terms "AI" and "machine learning" are often used interchangeably, but there are meaningful differences between them. Those differences can have important business and technical implications, so be sure to keep them in mind:

ARTIFICIAL INTELLIGENCE

- Is the science and engineering behind smart machines, and the broader concept of machines being able to carry out tasks in an "intelligent" way

- Enables computers to do things that would normally be done by people

- Is the automation of programmed responses to a specific set of questions

MACHINE LEARNING

- Is a current application of AI based on the idea that algorithms can learn from existing data to achieve better outcomes without explicitly being programmed

- Enables intelligence to surface at the most appropriate time with the most appropriate response

- Allows companies to see things they couldn't otherwise see by removing human cognitive bias

"I THINK ABOUT 2017 AS THE YEAR WHEN WE'RE GOING TO SEE AI HIT THE WORLD AT SCALE. IT'S THE BEGINNING OF AN ERA THAT'S GOING TO RUN A DECADE OR DECADES IN FRONT OF US. THIS IS NOW THE ERA OF AI."

GINNI ROMETTY :: IBM CEO (SPEAKING TO FORTUNE MAGAZINE IN MARCH 2017)

HARNESSING THE CLOUD FOR DIGITAL TRANSFORMATION

Organizations that have yet to migrate face uncertainty about the best (or most realistic) path to digital transformation. How is the cloud being leveraged by companies today, and what do their cloud strategies look like?

Private cloud continues to be the flavor of choice for many organizations (49% of survey respondents), as it provides the highest level of security (and peace of mind for IT). When used exclusively, private cloud gives IT leaders significant control over their environments, but that control comes at the expense of some valuable public cloud capabilities.

For 19% of respondents, the public cloud has matured to the point where they're comfortable using it. Large enterprises are starting to put tier-one applications in third-party public clouds like AWS, something that was unheard of even a few years ago. Of respondents leveraging public cloud, 49% use Microsoft Azure, 24% use AWS and 22% use Google Cloud. This finding confirms that while AWS remains the market leader, Azure and Google Cloud are steadily chipping away at its lead. In fact, Google recently announced efforts to boost its cloud business, while Azure has taken competitive steps as well, buying startup Deis to augment its cloud operations and allowing developers to build cloud applications.

A combination of public and private clouds (aka hybrid cloud) often gives businesses more flexibility to respond to data demands and changing business and IT requirements. While a large portion of survey respondents (32%) are implementing a hybrid strategy, it does raise important questions. For example: "What does my cloud infrastructure look like?" And: "What does my company stand to gain?" Asking these kinds of questions is the first step toward realizing the benefits of the cloud.

The reality is that most organizations must devote significant resources to keeping their legacy environments up and running. Enterprises require agility and elasticity to rapidly develop applications and services, which must be managed efficiently and securely with limited resources. Many larger enterprises rely on in-house data centers for legacy equipment and applications. Ultimately, hybrid IT simplifies the management of a mixed environment, offering greater automation and visibility into resources.

KEY TAKEAWAYS

- **49%** Migrating to private cloud

- **32%** Migrating to hybrid cloud

- **19%** Migrating to public cloud

- **49%** Of those using public cloud services are using Microsoft Azure, with the rest using Amazon Web Services or Google Cloud

- **57%** Rely on a cloud provider to help move their business to the cloud

- **35%** Rely on a managed security provider

PUBLIC CLOUD SECURITY SNAPSHOT

For those who have yet to take the leap — and even those who already have — there are concerns about security.

While enterprises are rapidly migrating to the cloud, many aren't prepared for the security issues raised by private and public cloud services. Yet most seem to be aware that security needs to be part of any digital transformation and cloud strategy. Only 1% of respondents said security is "not at all" a concern, and the majority of survey respondents (66%) indicated that security concerns were the top barrier to cloud adoption.

As security threats grow in quantity and complexity, your organization needs expert help identifying the most significant threats and effectively preventing them. With managed security providers (MSPs), you don't have to be a security expert. In fact, only 32% of survey participants using an MSP for their cloud migration indicated security was a significant overall concern, compared to nearly half of respondents using a cloud provider. An MSP can provide managed security services that continually assess and monitor your application environment, ensuring your data remains safe — even as new threats develop.

KEY TAKEAWAYS

- **99%** Are concerned about security
- **60%** Cite security as a major concern when discussing public cloud adoption

Security concerns were slightly lower for those respondents relying on an MSP.

BUILDING YOUR DIGITAL TRANSFORMATION TEAM

What in-house and/or outsourced resources are companies assembling to drive digital transformation?

After security, respondents were most concerned about available IT skills and experience or team bandwidth (45%), likely because successful cloud deployment and management require so many different skills. And the strength of a company's IT bench will vary depending on approach. With public cloud, for example, having a strong developer in the mix is essential for success.

When assembling your IT dream team, it's important to remember that no single skill is paramount. Team members must work together to keep your IT infrastructure humming. Top areas of expertise include networking, security, server and storage, application database, and development. There is also a growing need for individuals who understand how to collect and manage data, drive analytics, understand business processes and, from there, automate and either develop or direct the development of these processes seamlessly. While only 30% of respondents say their CIO is leading the digital transformation effort, many argue that it's time for CIOs to take the reins when it comes to building the perfect digital transformation team.

Another way to address the skills gap is by outsourcing IT. Many companies turn to a third party to help ease the burden on internal resources. Most respondents choose cloud providers (57%) or MSPs (35%), but some choose Infrastructure-as-a-Service (IaaS) providers (6%). An MSP can simplify the monitoring and management process by providing comprehensive management of IT infrastructure. Moving to the cloud can add functionality and lower costs to free up budgets for innovative new purposes, facilitating better asset use across the board. Having trusted advisors on hand to help you manage your IT infrastructure and ERP software can alleviate the concern that you'll be blindsided by developments that might alter your current system.

KEY TAKEAWAYS

- **45%** Cited IT skills and experience or team bandwidth as a barrier to cloud adoption
- **57%** Rely on a cloud provider to help with cloud adoption
- **35%** Rely on an MSP to help with cloud adoption
- **55%** Say the IT director or manager is leading the digital transformation
- **30%** Say the CIO is leading the digital transformation

COST CONSIDERATIONS

How are organizations budgeting for digital transformation, and where does most of their IT budget go?

With most survey participants having already migrated operations to the cloud or planning to do so, it's no surprise that a significant portion of company budgets are allocated to digital transformation efforts. Only 22% of respondents said that less than 20% of their budget goes to digital transformation, while 35% said between 20% and 39% does, and 28% said they allocate between 40% and 59% to digital transformation.

Although many survey respondents find migrating to the cloud cost-prohibitive (35%), most are deploying to reduce costs (57%). While reluctance to make the initial expenditure is understandable, the firms that have embraced cloud realize their long-term return on investment will be significant.

With so many new ideas and rapidly evolving technologies powering digital transformation, companies are evaluating their IT spend often, and nearly all of them (91%) think IT spending will need to be re-evaluated in the coming year. Most respondents (78%) believe their next IT budget will change, with 68% believing it will increase. In fact, worldwide IT spending is forecast to reach $2.7 trillion in 2020, with spending on cloud infrastructure accounting for a large portion. Costs associated with non-cloud IT infrastructure will likely continue to decline through 2020.

These estimates are in line with the survey results, with nearly half of respondents indicating that the majority of their IT budget goes to infrastructure. It's important to keep in mind that you can and should build on your existing infrastructure as you digitally transform. Specifically, enterprises can minimize disruption by leaving many of their systems in place, lowering their support costs, and investing more in understanding their infrastructure and business. From there, they can decide how to automate and drive efficiencies.

COGNITIVE CAPABILITY AS A KEY DIFFERENTIATOR

Salesforce has started to blend cloud and Software-as-a-Service (SaaS) with its Einstein AI in different offerings, including a recent update to its Financial Services Cloud. Alibaba Cloud, the cloud arm of online retailer Alibaba, has announced that it will integrate more AI and machine learning into its offerings. And Google's strategy is to leverage its vast trove of data to help customers gain insights that they can use to drive revenue.

KEY TAKEAWAYS

- **43%** Say a large portion of the company's budget is allocated to digital transformation efforts
- **36%** Have evaluated IT spend this quarter
- **78%** Anticipate IT budget changing in the next year
- **68%** Of those said it will increase
- **49%** Said IT budget predominantly goes to infrastructure and application services

THE FUTURE OF FLEXIBLE IT

The concept of digital transformation may be evolving, but the process has already become a reality for many CIOs and CEOs. According to new research from Gartner, half of today's CEOs have increased profits through digital improvements.

Flexible IT resources like the cloud accelerate innovation and reduce time to market, as well as enabling experimentation and fast failure. But perhaps the biggest promise of digital transformation lies in its ability to elevate operational performance at a cost that scales with your company's growth. That means you can provide an optimized customer experience while preserving your competitive advantage.

ABOUT RACKSPACE

Rackspace, the #1 managed cloud company, helps businesses tap the power of cloud computing without the complexity and cost of managing it on their own. Rackspace engineers deliver specialized expertise, easy-to-use tools, and Fanatical Support® for leading technologies developed by AWS, Google, Microsoft, OpenStack, VMware and others. The company serves customers in 150 countries, including more than half of the FORTUNE 100. Rackspace is a leader in the 2017 Gartner Magic Quadrant for Public Cloud Infrastructure Managed Service Providers, Worldwide, and has been honored by Fortune, Forbes and others as one of the best companies to work for.

Learn more at www.rackspace.com or call us at **1-800-961-2888**.

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