Enterprise Digital Transformation Trends in North America: Catalyst for Change

JULY 2017
PREPARED FOR

CenturyLink®
About this paper
A Black & White paper is a study based on primary research survey data that assesses the market dynamics of a key enterprise technology segment through the lens of the “on the ground” experience and opinions of real practitioners – what they are doing, and why they are doing it.

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INTRODUCTION
This report is part of a study designed to explore the extent of enterprise digital transformation across North America, identifying four key business pillars as drivers to assess how efforts are playing out in organizations planning or actively applying digitization to strengthen competitive differentiation. This North American study is part of a larger undertaking to assess digital transformation readiness and progress on a global level across more than 1,400 enterprises. The objective of this report is to highlight some of the shared learnings of enterprise strategists and practitioners with a working knowledge of digital transformation. It will provide insights, directional indicators and recommendations about the status of digital transformation in modern organizations across the US and Canada. Using a combination of web-based surveys and telephone-based interviews comprising more than 30 questions, we interviewed 384 decision-makers at leading North American companies in the financial services, healthcare and retail sectors, as well as in US federal, state and local government agencies. We thank each and every one for their participation.
KEY FINDINGS

- While 45% of organizations polled across North America (N = 384) now have a formal strategy for digital transformation and are actively digitizing some of their business processes, the region still significantly trails Asia-Pacific countries, which occupy five of the top eight places in the vanguard of those with formal transformational strategies. The US (42%) and Canada (54%) compare poorly with Hong Kong (63%), which was the leading territory for companies with a formal strategy, followed by Germany, India, China and Japan.

- The overarching intention of digital transformation is to enable and speed product and business service innovation, and 50% of those North American entities with a formal digital transformation strategy believe their organizations are faster to innovate as a result.

- Among business drivers for digital transformation, improved customer experience (49%) and reduction of operating costs (49%) stand out as top motivations.

- Almost one-third of organizations polled believe their industry has undergone major disruption in the past three years (33%), and they fully expect the level of disruption caused by digital technologies such as smartphone apps, Internet of Things (IoT), automation and advanced analytics software to increase further in the coming three years.

- Cloud services are viewed by 60% of companies as being a ‘very important’ enabler of digital transformation, with roughly 46% of companies seeking the help of a cloud service provider in their digital transformation initiatives.

- 87% of respondents use or expect to use third-party partners, such as an IT service provider or telco service provider (45%), to support their digital transformation initiatives.

- Overcoming organizational siloes that go hand in hand with outdated work practices is held as the number one barrier (39%) to digital transformation. Related to that, modernization to improve business support systems, legacy technology and applications refresh (38%) is viewed as the single most important IT-led investment priority for digital transformation.

- About 10% of CEOs in North America are directly involved as leaders of their digital transformation initiatives. For others, the CIO (25%) or CTO (23%) is the executive with ultimate responsibility for digital transformation programs.

Taken as a whole, the report reveals that North American organizations fully realize that as the steady adoption of digital systems, tools and processes continues to disrupt every industry, it is becoming ever more critical that they transform the way they do business quickly and securely.
CATALYST FOR CHANGE

There can be no more ‘business as usual.’ Operations, processes, infrastructure and systems constantly need to change if organizations are to keep pace with shifting competitive pressures and dynamic customer demands. These forces provide the motivation for enterprise digital transformation. There are implications for every organization, be it big or small, private or public. In fact, most will have already seen a substantial amount of transformational disruption stem from the application of digital technologies playing out in their sectors.

To establish the level of this impact, we asked respondents to rate the extent to which digital technology (such as cloud, mobile internet, IoT, collaborative software, robotics and automation, intelligent software, etc.) has disrupted their sectors over the last three years, and the level of disruption expected in the next three years. While 33% of respondents stated the past three years had seen major disruption, 42% expect even more disruption coming in the next three years (see Figure 1).

Figure 1: Market disruption in North America is viewed as prominent and increasing

While the precise shape of the digital transformation strategy will be different at each organization and will depend on a variety of factors, executives identify with four pillars that address the pressing and prevailing need to:

- Boost customer service
- Manage risk
- Enhance overall agility
- Improve overall operational efficiency

In terms of the business drivers of digital transformation, respondents are ever pragmatic. About 49% in the financial services, retail and healthcare sectors, as well as agencies in federal and local US government, see the strongest driver of digital transformation being the need to reduce costs through gains in operational efficiency.

Indeed, among organizations in North America, the expectation is that they should be able to find new ways to make their operations more efficient by using data to better inform their decision-making. Organizations polled across the US and Canada see this as a critical organizational goal for their transformational initiatives.

As a means of driving transformational improvements in these four pillars, 45% of organizations believe that gaining a deeper understanding of a customer’s wants and needs – by drawing prescriptive insights from the masses of business information and customer data now available – is a main objective for improving efficiency (see Figure 2). The study also shows that when addressing agility, 55% of respondents see ‘modernizing the IT infrastructure’ as one of the most effective ways to strengthen that pillar. Similarly, 48% of respondents said they believe better security around customer data is one of the top three ways to improve their overall posture to risk.
Figure 2: How North American commercial concerns and US governmental agencies are seeking to transform in four key pillars

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Experience</td>
<td>44%</td>
<td>Improve customer service</td>
</tr>
<tr>
<td>Agility</td>
<td>55%</td>
<td>Modernize IT infrastructure for availability, speed and resilience</td>
</tr>
<tr>
<td>Efficiency</td>
<td>45%</td>
<td>Use data for better decision-making</td>
</tr>
<tr>
<td>Risk</td>
<td>48%</td>
<td>Secure customer data</td>
</tr>
</tbody>
</table>

Source: 451 Research

Customer experience in all its forms is a dominant catalyst for digital transformation projects. It is why many businesses invest in new digital technologies and processes to more effectively engage with customers (as well as business partners and employees) in new ways. A digital platform will often provide an operational foundation and data infrastructure that can be used to improve customer experience. One goal of putting digital tools to work in a transformative way is to ensure that enterprise data and business insights connect people with information and processes that ultimately lead to a better experience for customers.

But North American organizations also report a struggle to create a broad, all-encompassing strategy for customer services that applies consistently across their various physical outlets and the digital touch points they have with their customers. For 44% of those polled, there is an acceptance that they need to work harder to improve customer service across the various touch points of retail stores and bank branches, just as they do in their call centers, on their websites and via mobile apps.

North America Must Pick Up Pace in Transformation Strategies

While most industries are just starting to harness the full power of digital transformation, the North American region appears significantly behind both Europe and Asia-Pacific. The study identified a major geographical bias toward the East in terms of those organizations currently pursuing digital transformation strategies. As Figure 3 illustrates, Asia-Pacific countries occupy five of the top eight places in the vanguard of those with formal transformational strategies. The US (42%) and Canada (54%) compare poorly with Hong Kong (63%), which was the leading territory for companies with a formal strategy. That latter data point might represent countries in high-growth economies effectively leapfrogging those in more seasoned US markets, in a bid to further extend their global competitiveness.1

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1 This report is one in a series; to view the findings of the global survey, or other related reports please go to http://www.centurylink.com/digital-transformation.
Figure 3: Global state of enterprise digital transformation strategies

Q: Which of the following best describes your organization’s status with regards to digital transformation? Base size n=1402

Although most organizations have started their digital transformation efforts, 20% are still only in the planning stages, and 12% have no activity at all. The biggest laggard is the US federal government; only 40% of agencies contacted for the study have a formal strategy in place, and 35% are still at the early stage. This is in stark contrast to the situation in the retail sector, where 54% said they are already executing on their formal strategy. Retailers have been through numerous transformations and have also had to adapt quickest to the effects of technological change. Online pioneers such as Amazon, Apple and Staples continue to push the boundaries of the e-retail model.

Across all sectors, respondents confirm that digital transformation programs are viewed as long-term strategic initiatives that receive top-level executive backing, and are expected to run for three to five years for 42% of organizations. Roughly 10% of CEOs in North America are directly involved as leaders of their digital transformation initiatives. For others organizations, it is the CIO (25%) or CTO (23%) that is the chief architect of digital transformation and the executive with ultimate responsibility for digital transformation programs.

Data (see Figure 4) on the ambitions for digital transformation shared among North American executives reveals some gaps in perception between IT and line-of-business peers in the way they view some of the desired outcomes of their planned transformational efforts.

Figure 4: Views of desired digital transformation outcomes among North American respondents

<table>
<thead>
<tr>
<th>Desired digital transformation outcome</th>
<th>Line-of-business executives</th>
<th>IT leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide a unified view of customer data to build deeper connections with customers</td>
<td>30%</td>
<td>41%</td>
</tr>
<tr>
<td>Reduce customer friction points</td>
<td>47%</td>
<td>34%</td>
</tr>
<tr>
<td>Create innovative products and business service</td>
<td>38%</td>
<td>25%</td>
</tr>
<tr>
<td>Use IT as a strategic differentiator for innovation</td>
<td>22%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Source: 451 Research
The data shows that the promise of a ‘single version of the truth,’ which would provide the business with a combined data view of all that is known about a customer, still holds strong because it will ultimately make companies easier to do business with by helping smooth out some of the friction points customers can experience from initial contact all the way through to fulfillment. As for the overarching intention of digital transformation – to enable and speed product and business service innovation – there may be signs in the data of lingering doubts as to whether IT can provide the strategic differentiation organizations need.

**Shifting IT Spending toward Strategic Initiatives**

We have seen how digital transformation mandates are almost inextricably linked with enterprise endeavors to search for the operational efficiencies that digitization promises. But the reality is that most organizations still devote the majority of their resources to keeping their legacy environments up and running. Despite the internal fiscal expectations and external market pressures to deliver ROI, very few businesses report they are gaining the full value of technologically enabled change, even with the technologies they have already deployed. Many companies already took on significant effort and expense in implementing ERP, CRM or other technology-enabled change programs, but obtained only basic levels of value from their investments. However, some evidence obtained in this study suggests a level of improvement on this position in the context of strategic digital transformation.

The study captured some early evidence of organizations breaking this cycle. On average, 51% of North American businesses expect to realize more strategic value from their future IT investments, up from 38% today (see Figure 5). Canada is higher at 58% of respondents hoping to shift spending to more strategic initiatives. By deploying infrastructural and business process improvements and new cloud-based capabilities, they expect to reap bigger returns from digital transformation. Over time, as companies progress with their digital transformation program, the expectation among respondents is that cumulative cloud adoption and the like will gradually move the IT investment needle away from sustain-the-business spending toward more strategic change-the-business investments and competitive differentiation.

**Figure 5: Digital transformation will help shift IT spending onto strategic initiatives**

Q: On a scale of 1-10, how do you expect digital transformation to shift your IT spending over the next 5 years? n=384

Digital Transformation Maturation: Current and Future IT Spending

![Digital Transformation Maturation Chart]

Source: 451 Research
Every digital strategy is shaped and motivated by business need. In the context of enterprise digital transformation strategies, these needs arrange into a classic Maslow’s Hierarchy of Needs format (see Figure 6), with cost-efficiency and customer satisfaction as the foundational elements needed for an organization to survive and thrive.

**Figure 6: Maslow’s Hierarchy of Needs: Business Drivers of Transformation Assessed**

Q5. In your opinion, what are the three main drivers for digital transformation? n=384

- To increase competitive differentiation: 28%
- To create new services or revenue streams: 28%
- To enhance the ability to innovate: 31%
- To harness the power of data-driven decision-making: 36%
- To better support collaborative working (across the organization’s departmental/geographical borders, supply chain, etc.): 39%
- To better manage risk (e.g., cybersecurity, data privacy, systems reliability): 39%
- To improve customer/citizen experience or better meet customer/citizen demands: 49%
- To reduce costs through operational efficiencies: 49%

Source: 451 Research

Once the fundamentals are addressed, the next critical level of success is to better manage risk (in a myriad of forms, but here principally addressing those that are associated with cybersecurity, data privacy and systems reliability). Risk features on many corporate agendas, and 39% of organizations rate this as a key driver of desired digital transformation outcomes. Improved support of collaborative working practices (39%) is seen as another, where workflows are better coordinated across the organization and without the confines that so often are imposed by departmental boundaries and office walls.

With solid foundational steps as an underpinning, and with the lower-order needs of organizational security and stability satisfied, respondents recognize that digital transformation programs will then begin to deliver the more strategic acceleration and value-added benefits that provide competitive differentiation. These take all shapes and can exhibit a variety of forms.

In our study, 36% said they would particularly seek to better harness the power of data to empower data-driven decision-making and to enhance their ability to innovate (31%). It is a key way to improve competitive differentiation and the creation of new revenue streams.
Barriers to the Digital State

As a backbone of any digital transformational effort, the IT infrastructure has to be fit for purpose. Overall, 36% of US organizations reported that the inflexibility of their existing IT systems is holding back the pace of enterprise digital transformation (see Figure 7). Recognizing how this hampers progress, and with an eye toward improving their level of business agility, 55% of executives based in North America believe that modernizing their IT infrastructure for availability, speed and resilience is a primary objective of digital transformation. Some contrasts are evident in this regard; North American readings are higher than those of peer organizations in both Asia-Pacific and Europe – 43% in Japan and 42% in Switzerland, for example.

Figure 7: Perceived barriers to transformational progress

Top barriers to digital transformation

<table>
<thead>
<tr>
<th>What's holding enterprises back from digital transformation?</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Silos</td>
<td>39%</td>
</tr>
<tr>
<td>Lack of Funding</td>
<td>36%</td>
</tr>
<tr>
<td>Inflexible IT Systems</td>
<td>36%</td>
</tr>
</tbody>
</table>

Q. In your opinion, what are three main barriers to digital transformation? n=384

Source: 451 Research

Organizations are being held back by non-IT barriers, too, such as financing, cultural resistance and concerns about security and regulatory compliance. Here, more US organizations than overseas peers anticipate stiffer challenges to source available funding and provision necessary capital or budget. Compared with the situation in the growth markets of India and China, where 22% and 23%, respectively, of companies see the lack of available budget as a major barrier to digital transformation, in the US, the numbers rise to 37% for businesses, and 40% in US federal government agencies. Awareness of the limited availability of transformational funds is more apparent among line-of-business executives (43%), than it is within the IT departments of North America (31%).

Companies are also feeling constrained by organizational silos and outdated work practices that hamper progress, with 39% of respondents in North America sensing a need to uncouple legacy practices (compared to just 27% across Asia-Pacific, where companies just emerging in high-growth markets are less hampered by the constraints of legacy environments).

Having to support the legacy processes that were prescribed for old-style systems of record such as enterprise resource planning, customer relationship management, or custom-built on-premises financial accounting suites absorbs manual and IT resources. This maintenance burden can keep organizations from fully exploiting the newer systems-of-engagement applications that are specifically designed to improve customer interaction and that arguably should be considered a priority. Once integrated with the older systems of record (so that historical customer intelligence is fully leveraged), these systems can be deployed alongside analytics software and external third-party cloud services to provide new forms of value to business (e.g., enhancing customer experience).

Any hint of a move to these kinds of heterogeneous operating environments, or so-called hybrid IT environments, summons a reappraisal of risk management protocols and scrutiny of the security regimes applied to data stored on-premises, as well as data held remotely by a cloud service provider or hosted off-premises by a managed IT service supplier. Securing internal customer data remains the biggest source of concern for 49% of organizations presently undergoing digital
transformation. As more data is generated and sensitive customer records are mined, or a customer’s personal information is used to personalize the customer-engagement process, the exposure to risk increases.

Although there is no comprehensive US federal (national) law regulating the collection and use of personal data, there are, of course, many laws at the state level and a panoply of federal privacy-related laws that regulate data usage – the Federal Trade Commission Act, Gramm-Leach-Bliley, HIPAA, Fair Credit Reporting, Electronic Communications Privacy Act, the list goes on. And understandably, perhaps, US respondents are sensitive to the needs of meeting privacy requirements. About 42% of respondents describe this as one of the main objectives behind efforts to better managing organizational and business risk, alongside ensuring that data treatments and compliance operations adhere to regulatory obligations (41%). While Canada is also highly concerned about securing customer data, it appears to be less hindered by regulatory and privacy constraints – 14 points lower, with only 27% of respondents stating it as a concern.

Even so, 49% of organizations across North America are motivated to address a digital transformation initiative in the expectation that it will lead to better security controls for customer data. In addition to being good practice, as more business goes digital, this is recognition of some emerging issues that multi-national enterprises will need to contend with, such as the US-EU Privacy Shield, which governs data transfer of personally identifiable information between the US and Europe. Under this directive, US companies will have to be certified, guaranteeing that European customer data is adequately protected, processed and shielded from any threat of mass surveillance.

Cloud as Transformational Accelerator

Cloud adoption has matured to an advanced stage where enterprises are increasingly relying more on cloud infrastructure. Figure 8 shows that 60% of those surveyed see cloud as very important to their strategies. Canada was even higher than the overall pool, with 66% of Canadian respondents stating that cloud services were very important to digital transformation initiatives. Businesses are already using multiple clouds across the enterprise – data, applications, infrastructure and personal clouds – and this will fundamentally change the way people and businesses operate.

Figure 8: Use of cloud is seen as very important to digital transformation

Q. In your opinion, on a scale of 1-10, how important will the use of cloud services be in the context of digital transformation? n=384

<table>
<thead>
<tr>
<th>Importance of Cloud Services</th>
<th>VERY IMPORTANT</th>
<th>IMPORTANT</th>
<th>SOMEWHAT IMPORTANT</th>
<th>NOT VERY IMPORTANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>27%</td>
<td>11%</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

Source: 451 Research

Initial experiences with cloud have commonly been focused on infrastructure (primarily IaaS). But those experiences are now progressing as more enterprises begin to embrace robust platform services that go beyond basic functionality and integrate with multiple cloud infrastructures, and can process massive amounts of data and cover numerous geographical sites. If the first step to the cloud was primarily driven by workload transition, the next is all about higher levels of customization and enhanced service features, as well as the availability of cloud management tools. Businesses can begin to make decisions about how and where to run applications and workloads, which to source internally and when to source externally (based on workload profiles, security policies and SLA requirements).
Overall, 87% of respondents will use some type of third-party external specialist.

### Figure 9: The roles for service provider partners in support of digital transformation

Q: Do you use or expect a need for any of the following third-party or external specialist partners in support of digital transformation? n=384

<table>
<thead>
<tr>
<th>Partner Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud service providers</td>
<td>46%</td>
</tr>
<tr>
<td>IT service provider (including telco services)</td>
<td>45%</td>
</tr>
<tr>
<td>Business process consultant</td>
<td>28%</td>
</tr>
<tr>
<td>Systems integration house</td>
<td>27%</td>
</tr>
<tr>
<td>Management consultancy</td>
<td>26%</td>
</tr>
<tr>
<td>Specialist digital transformation consultant</td>
<td>24%</td>
</tr>
<tr>
<td>Data science specialist</td>
<td>24%</td>
</tr>
<tr>
<td>No external agency used, or anticipated</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: 451 Research

According to our survey data, US mid-sized companies (under 10,000 employees) are particularly drawn toward managed IT services in this regard, and about 30% expect to use some form of third-party service to support digital transformation. This service portfolio covers everything from managed big-data analytics services to basic managed firewall, email filtering and patch management services, or managed hosting. In fact, all enterprises are increasing their use of third-party service providers to host various business services, using both private and public tenant options to complement or replace their on-premises systems. As Figure 9 shows, at least 45% are expecting to partner with either a cloud services or a managed IT service provider.

This is evidence of what we refer to as best execution venue (BEV) playing out. In simple terms, BEV is the notion that for any application and IT workload, there is a compute environment that will best balance performance and cost, and the IT organization should be able to select that environment (or even have the application select it automatically) as part of the general good practice of IT. Some applications, workloads or service requests may be best-suited to run on-premises, but for others, a public multi-tenant cloud may be more appropriate, while a dedicated hosted venue may be best for others. The impact of this on the internal IT operating model is considerable because it addresses many of the adoption issues with cloud. In particular, because it is a software-defined model, IT personnel don’t need to physically touch everything they want to deploy, which leads to operating efficiency and agility.
Figure 10: Transformational partner service preferences

Top Desires for a Transformational Partner

What services do businesses want?

Q. Specifically, what IT services would you be more willing to outsource to a partner in support of a digital transformation project? n=369

- 34% Network infrastructure services
- 34% Specialist data science services
- 32% Cloud workload migration, onboarding & mgmt. services

Source: 451 Research

Of the organizations that are just starting out with their digitization programs, 39% said that one of the biggest hurdles they face is the seeming inability to migrate legacy business applications to the cloud. Enterprises are seeking suppliers that can unburden them of mundane IT operations and bring expertise to the running of specific workloads or application tasks, whether as a software service, managed application or hosted business process. For them, the impact of cloud in providing scale, improved reliability and better business support will progressively be shaped by the extent to which it will become possible to modernize, migrate or ‘lift and shift’ existing applications and workloads into the cloud. This is where 32% of respondents see opportunity to work with a transformation partner – to push more of their applications into a hosted environment, managed by a specialist service provider (see Figure 10).

As the use of cloud grows, more operations become automated and more processes are transformed into digital, service guarantees will be needed that the underlying network infrastructure can provide the bandwidth, the reliability and the reach needed to keep business running. Simply being able to keep operations going will never be enough, however. To compete and thrive, organizations need to innovate.

Put simply, a digital transformation strategy enables innovation. In fact, the survey revealed a direct correlation with digital transformation maturity and the ability of organizations to be innovative with digital technologies, such as biometric security in mobile banking services, in-store beacon-based shopper interactions, telemedicine applications and Wi-Fi-enabled smart cities in the public sector.
As Figure 11 illustrates, when asked to rate their organization’s ability to innovate, 50% of those with a formal digital transformation strategy in place scored their organization as more capable and faster to innovate – almost twice as many as those still in the early stages of digital transformation.

**Figure 11: Formal digital transformation leads to faster innovation**

Q. In your opinion, on a scale of 1-10, how would you rate your organization’s ability to innovate? n=384

<table>
<thead>
<tr>
<th></th>
<th>Early Stage Digital Transformation</th>
<th>Formal Digital Transformation Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faster to innovate</td>
<td>27%</td>
<td>50%</td>
</tr>
<tr>
<td>Neutral</td>
<td>32%</td>
<td>43%</td>
</tr>
<tr>
<td>Slow to innovate</td>
<td>80%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Source: 451 Research

**Lessons Learned: Speeding the Digital Transformation Journey**

Digital transformation is not a one-time project. It will require coordinated effort over many years to ensure that business operations, processes and platforms are fully aligned. Corporations are beginning to reap the benefits of transformation but are only part of the way toward achieving the full potential. Following are some key guiding principles evidenced by the study that will ensure continued successful progress:

**Fixate on the Customer**

Customer experience continues to be the center of gravity for business competitiveness. From modernizing back-end customer database infrastructures and streamlining fulfillment processes to providing persona-based marketing, the way to win the hearts and minds (and wallets) of customers is through enhanced technology-enabled customer experience. Customer service remains the mantra, and digital initiatives help remove friction points, provide channels for personalized engagement, and provide new ways to enhance touch points to better understand customer satisfaction.

**Be Willing to Use a Variety of Partners**

We see three aspects of business being transformed most often, namely: the way a business uses data and business information, how it organizes and runs its business processes, and the technology platforms it uses to underpin its operations. Entrusting some of the transformational fundamentals to a partner and evaluating the cost-benefits of doing so is a critical point on the transformation roadmap. Our data shows that enterprises are increasingly turning to third-party providers – managed IT partners and cloud specialists, in particular – for service support and management, or they expect to need an IT or telco service provider to support their digital transformation programs.

**Build in Security, Layer by Layer**

There’s no silver bullet for security. It can’t be bolted onto fundamentally insecure infrastructure; there needs to be multiple layers of network-based security. Security is not just about privacy concerns or protection against cyberthreats, but about fundamentally securing company data throughout its lifecycle. Key to meeting this challenge is prioritizing assets and segmenting according to risk, with appropriate controls and safeguards applied to each.

**Engineer a Cloud-Enabled Enterprise Network**

Enterprises are increasingly relying on cloud infrastructure to improve scalability and utilization, and to maximize these benefits, there’s a need to build industrial strength into the underlying connectivity. Improved reliability of networks, systems and infrastructure was the single biggest IT-led priority. As more organizations begin to use multiple clouds, connecting at speed and without failure becomes paramount, and the need for multi-cloud management services becomes apparent.
APPENDIX

Methodology
The survey data used in this report was collected in March and April 2017 by 451 Research as part of a global digital transformation enterprise study – commissioned by CenturyLink and conducted with 1,402 enterprises in 11 countries across North America, Europe and Asia-Pacific. The data is designed to provide insights that will help executives understand how businesses leverage the changes and opportunities of digital technologies to serve different stakeholders, manage risk, support continuous improvement in operations, and invent new services and business models.

In taking the pulse of digital transformation across a broad spread of businesses, we have been able to identify which new IT choices are becoming popular, explore service partner preferences, and track investment priorities, as well as establish the state of vertical-specific digital transformation readiness and evolution.

For the purposes of this report, we reviewed and analyzed data derived from a sample of 384 companies in financial services, retail and healthcare sectors based in the US and Canada, as well as in US federal, state and local government agencies.

Study Demographics
Using a combination of web-based surveys and telephone-based interviews comprising 30 questions, the digital transformation survey was conducted in US and Canada in March and April 2017. The survey ran concurrently among businesses in Europe (Austria, UK, Germany and Switzerland) and Asia-Pacific (Australia, China, India, Japan and Singapore).

All respondents have primary responsibility for making purchasing recommendations, influencing decisions and strategy about digital transformation initiatives, or have significant decision-making authority. On average, more than 60% of respondents are responsible for decisions about digital transformation strategy. Overall, 60% of respondents work as senior IT executives, and 40% lead line-of-business departments for their companies. Our business segmentation corresponds with the categories typically used by service providers to identify midmarket and large enterprise customers.

Further Information
This report is one in a series to explore the current state of maturity of enterprise digital transformation strategies representative of organizations in key commercial sectors and government agencies in North America, Europe and Asia-Pacific.

The series comprises a set of reports addressing the analysis of the global picture, as well as three summary regional reports that assess some of the variations identified across geographies.

There are also four vertical-market-focused reports that will help IT and line-of-business executives in financial services, healthcare, retail and also US government agencies navigate through some of the key issues and considerations specific to digital transformation themes in these sectors.

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