



# APAC Businesses Leap Forward in Pursuit of Digital Transformation

MAY 2017

PREPARED FOR





## 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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### **NEW YORK**

1411 Broadway  
New York, NY 10018  
+1 212 505 3030

### **SAN FRANCISCO**

140 Geary Street  
San Francisco, CA 94108  
+1 415 989 1555

### **LONDON**

Paxton House  
30, Artillery Lane  
London, E1 7LS, UK  
+44 (0) 207 426 1050

### **BOSTON**

75-101 Federal Street  
Boston, MA 02110  
+1 617 598 7200

## Introduction

This report is part of a study designed to explore the extent of enterprise digital transformation across Asia-Pacific, 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. The objective is to highlight some of the shared learnings of enterprise strategists and practitioners with a working knowledge of digital transformation. The report provides insights, directional indicators and recommendations about the state of digital transformation in modern organizations across Asia-Pacific. Using a combination of web-based surveys and telephone-based interviews comprising more than 30 questions, we interviewed 614 decision-makers at leading companies in the financial services, healthcare and retail sectors. We thank each and every one for their participation.

## Key Findings

- Roughly 57% of companies polled across the Asia-Pacific region have a formal strategy for digital transformation and are actively digitizing some of their business processes.
- 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 45% of companies.
- More than one-third of companies polled believe their industry has undergone major disruption (34% rate the impact as 8-10 on a scale of 1-10) in the past three years, and fully expect the level of disruption caused by digital technologies such as mobile apps, IoT, automation and intelligent software to increase further over the next three years.
- Cloud services are viewed by 70% of companies as being very important (rated as 8-10 on a scale of 1-10) as enablers of digital transformation.
- Among business drivers for digital transformation, improved customer experience (44%), better management of risk (43%) and reduced costs through new operational efficiencies (41%) stand as the top three motivations.
- Potential failure to secure sensitive data is perceived as the number one barrier (35%) to digital transformation. Related to that, improved reliability of systems, networks and infrastructure (42%) is viewed as the single most important IT-led investment priority for digital transformation.
- Companies identify with improved operational efficiency (28%), improved agility (25%), enhanced customer experience (24%) and better management of business risk (23%) as the four organizational goals driving their digital transformation initiatives. To achieve these outcomes, roughly 55% of companies seek the help of an IT service or telco service provider.
- The company CTO (27%) or CIO (22%) is seen as being the chief architect and executive with ultimate responsibility for digital transformation programs. About 14% of CEOs are directly involved as leaders of their digital transformation initiative.

## Digital Transformation: an Engine for Business

No one would dispute the power of digital technologies. In an era of accelerated change and radical market transformation, the innovative use of IT helps ignite business possibilities that were not financially or operationally feasible before. From improving operational efficiency or enhancing organizational agility to better managing risks and enriching customer experience, IT now touches every aspect of business and is changing it for the better.

But we are only just starting to harness the power of digital transformation, and it is playing out differently depending on a company's maturity, the vertical sector in which it operates, the skills of its employees, the age of its infrastructure and numerous other factors. Further, for many IT and business decision-makers, the infiltration of technology into all aspects

of our daily lives and the growing complexity of IT service implementations can be perplexing. Cloud computing, big data, IoT, machine learning and artificial intelligence may bring new and exciting ways for business to operate, collaborate and innovate, and allow some organizations to excel in turbulent times, but these enablers of digital transformation require careful planning, considered IT deployment and sensitive management. Aside from the reengineering of IT systems and networks to smooth out the transition processes, businesses can be challenged in identifying and then building the new skills and digital capabilities they need.

451 Research defines digital transformation as the result of IT innovation that is aligned with and driven by a well-planned business strategy, with the goal of transforming how organizations serve customers, employees and partners; support continuous improvement in business operations; disrupt existing businesses and markets; and devise new businesses and business models. The three aspects of business we see being transformed most often are:

- The way businesses use data and business information
- How businesses organize and run their business processes
- The technology platforms businesses use to underpin their operations

Entrusting some of these transformational tasks to third-party service providers and evaluating the cost/benefits such moves could provide (i.e., the ability to refocus internal resources on developing new services and applications to support innovative business initiatives) is a critical aspect of the transformation roadmap. Asian enterprises are increasingly turning to third-party providers – IT providers and cloud specialists in particular – for service support and management. Data from our global digital transformation survey revealed that 55% of companies are using or expect to need an IT or telco service provider partner to support their digital transformation programs. Just under half (49%) use or will use a specialist cloud service provider.

Enabling hybrid IT deployments, by which businesses extend their operating environments outside of the corporate four walls, is gaining momentum in both developing and developed Asia. In part, this has been driven by government-led initiatives such as Western Australia's Whole of Government ICT Strategy and China's Industrial Internet. But equally, it reflects the willingness of IT and line-of-business leaders to embrace innovative technologies, as well as a realization that agile business models have a role to play in expediting the process of digital transformation. This hybrid approach to IT infrastructure and services management is further evidenced in the survey findings: on average, companies expect to spend 24% of their IT budget migrating workloads to run in third-party public clouds and in deploying SaaS applications.

Digital transformation programs have strong executive backing, with the company CTO (27%) or CIO (22%) most often charged with ultimate responsibility for the realignment of IT investments toward new digital-ready business models. Indeed, the strategic value of digital transformation has not been underplayed across Asia-Pacific, with 69% of companies actually increasing their spending levels to push through the business benefits and commercial gains attributed to digital transformation outcomes. For example, 88% of Indian companies plan to increase their IT budget because of digital transformation.

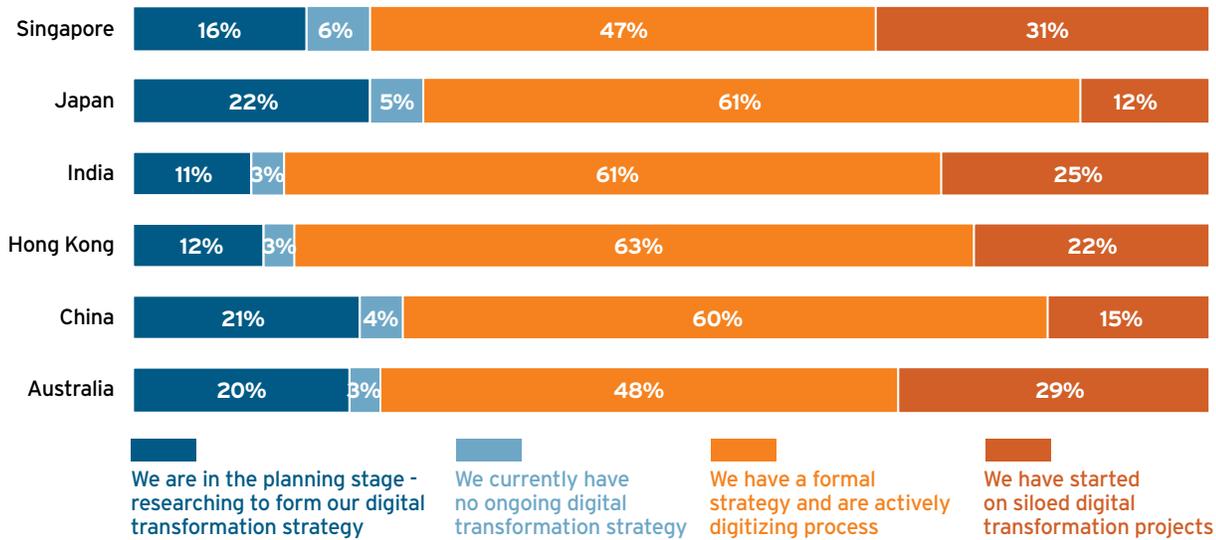
### **Redefining IT Priorities for a Digital Future**

Companies large and small have made no secret about their growing reliance on innovative technologies and services to enhance customer experience, manage risk and reduce operating expenses. Our survey results show (See Figure 1) that there are only small differences between economies with regard to the status of digital transformation initiatives. Companies in Hong Kong have moved more quickly than their counterparts in the rest of Asia-Pacific to take advantage of digital technologies, with roughly 63% of companies indicating that they already have a formal strategy and are actively digitalizing their internal processes.

For selected industrial verticals – financial services and retail segments in particular – digital transformation is often undertaken not by choice, but out of necessity. With the rise of fintech, traditional banking activities are under attack. Additionally, the explosive growth of e-commerce in mainland China has provided the impetus for Hong Kong retailers to accelerate their digital transformation plans.

**Figure 1: Organizations' status with regard to digital transformation**

(n = 613)



More than 70% of those companies still in the planning stages of digital transformation expect to materialize their plans in the coming 24 months. Further analysis suggests that more companies in China and India are in the final stages of preparation, with 44% of Chinese companies and 48% of Indian businesses saying that they will begin their digital transformation projects in 2017.

The top three drivers for companies across Asia-Pacific to proceed with their digital transformation strategies are improving and enriching the customer experience (44%), better managing risk (43%) and reducing operational costs (41%). This shows that cost savings is no longer the only driving force for change among Asian corporations, which historically have tended to be cost-driven. Being able to meet, if not exceed, customer requirements by improving the overall customer experience has moved up the list of priorities to become the number one driver for digital transformation as innovative technologies such as self-service apps, mobile banking services and IoT have become more easily accessible with lower barriers to entry. Risk management has firmly caught the attention of IT executives as they manage the growing complexity of their IT environments. For example, 55% of Chinese companies are motivated to address a digital transformation initiative in the expectation that it will lead to better security controls. Ensuring security management across heterogeneous operating environments has become the new CTO mandate, and bridging the gap between on-premises and off-premises experiences is more important than ever.

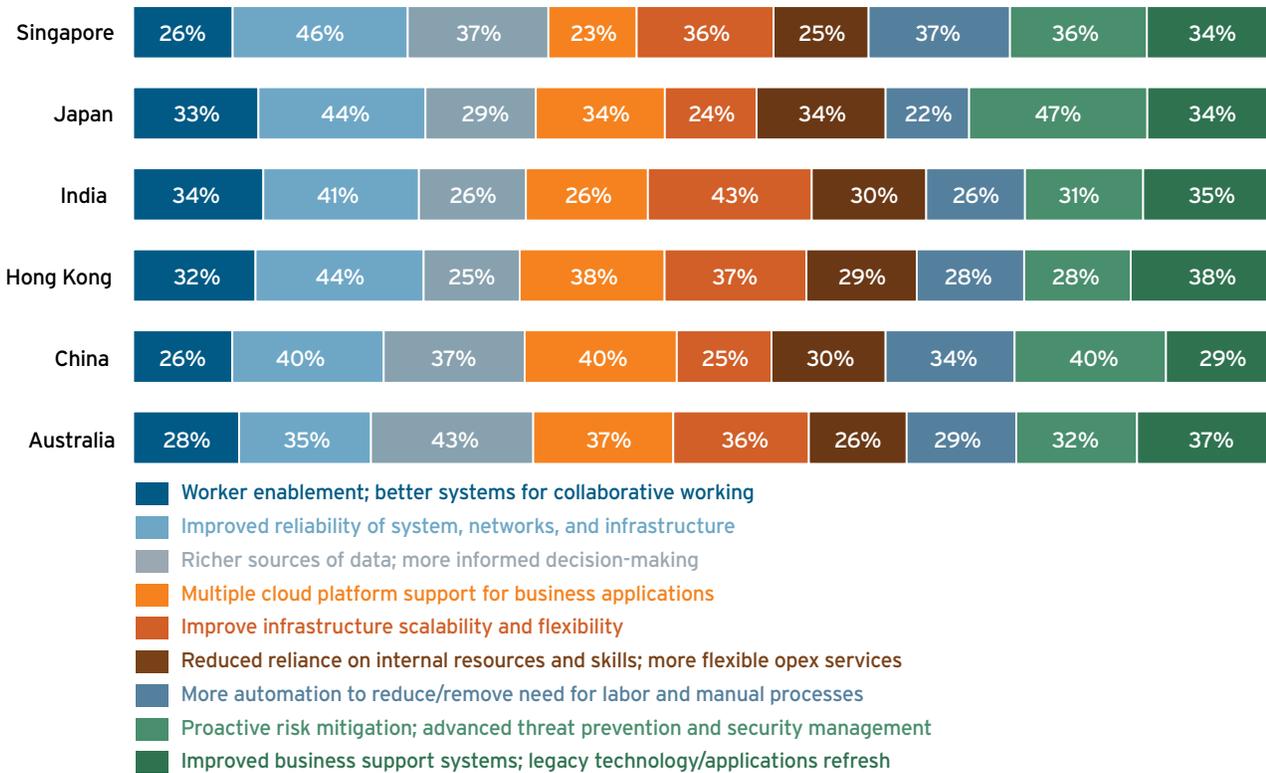
As far as IT priorities are concerned, enterprises in Asia-Pacific are fairly pragmatic. According to the survey, 42% of respondents are looking for improved reliability of systems, networks and infrastructure to drive their digital business, followed by 36% of respondents who are looking to tighten control by deploying proactive risk mitigation, advanced threat prevention and security management, and another 35% of companies are planning to update their business support systems with a legacy technology/applications refresh.

Interestingly, the top three IT-led priorities in digital transformation vary country by country. As shown in Figure 2, Japanese businesses are strong advocates for putting in place risk mitigation and threat management mechanisms (47%). Meanwhile, improving infrastructure scalability and flexibility topped the priority list for Indian companies (43%).

Companies also like to take a pragmatic stance when qualifying the key performance indicators (KPIs) that are used to measure the value or impact of digital transformation on revenue or cost. For example, Japanese companies use the number of security incidents – breaches/attacks – as a KPI to measure the value delivered by their IT-led digital transformation projects.

**Figure 2: An assessment of IT-led priorities in digital transformation**

*Top three IT-led priorities in digital transformation*



Companies in the surveyed markets are at different stages of digital transformation. Because there is no one-size-fits-all strategy, it's important that the chosen service provider(s) can work to understand the organization's individual requirements around security, performance and scalability.

### Cloud and Innovation: A Formula for Scaling Digital Transformation

While not every application is built for a cloud-native environment, businesses in Asia-Pacific do recognize the value of cloud-based models to accelerate transformational changes. Using a 10-point scale (with 10 being very important and 1 not very important), surveyed companies were asked to score the importance of cloud service use in the context of digital transformation. Our results found that companies in China and India expect to be heavier users of cloud services, with average scores of 8.4 and 9.1, respectively, which exceed the regional average of 8.2.

We asked respondents to assess their organization's ability to innovate on a scale of 1-10, with 10 being able to innovate and 1 being slow to innovate, and Indian companies appear to have a high level of confidence with an average score of 8.9, exceeding the regional mean of 7.8. This may come as no surprise given that the '10,000 Startups' initiative – led by the Indian National Association of Software and Services Companies with the support of a number of state governments and industry partners – is well underway. Chinese companies came in second with an average score of 8.0. The influx of investment in the tech startups and their power to disrupt the entire value chain has helped to fuel optimism there.

## The Four Pillars of Digital Transformation

The success of a company's digital transformation strategy will hinge on its long-term commitment, both financially and technologically. Surveyed companies in Asia-Pacific are generally mindful about the time it will take to successfully complete a full digital transformation within the organization. To put this in perspective, roughly 63% of companies estimate that it will take three to six years to achieve a company-wide digital transformation, and another 7% of companies estimate it will take longer than seven years.

Although there are four main goals behind digital transformation initiatives, respondents ranked improving business agility and operational efficiency as a higher priority than other desired outcomes. This is a fairly consistent theme across the region, with the exception of Singapore, where respondents placed a high priority on improving internal/external customer experience, which scored 27 on a 100-point scale.

**Figure 3: Organizational goals of digital transformation**

*(When asked to allocate 100 points across these four goals, respondents put more emphasis on improving operational efficiency than any other pillar.)*



### IMPROVING OPERATIONAL EFFICIENCY

A fundamental shift is underway in the role enterprise IT plays in business. Although IT was once considered a cost center, IT executives are now being tasked with staying at the forefront of technology innovation to develop systems and processes that increase competitive differentiation. Overall, our survey results reflect this trend. According to our respondents, the top three objectives in improving operational efficiency are:

- Using IT as a strategic differentiator for innovation (43% rated this in their top three).
- Leveraging data for better decision-making (42%).
- Enabling the optimal use of human resources, infrastructure, goods and materials (39%).

### IMPROVING BUSINESS AGILITY

Businesses are aware of the impact that digital technologies – such as cloud, IoT and voice recognition software – have had on their customers, employees and partners. While CIOs are beginning to embrace new technologies and business models for service agility, they have come to realize that the network foundations must first be optimized. Among a variety of objectives in improving business agility, the top three are:

- Modernizing IT infrastructure for availability, speed and resilience (52% rated this in their top three).
- Flexing infrastructure resources on demand to meet business need (47%).
- Harnessing the power of data analytics for better insight (43%).

### BETTER MANAGING BUSINESS RISK

As companies continue to scale their business, they need to keep pace with escalating security and compliance demands. This can present some daunting challenges, particularly for companies operating in markets where security and audit criteria for cloud-based services and architectures are not yet well established. This is reflected in the list of objectives in managing business risks. The top three are:

- Securing customer data (48% rated this in their top three).
- Securing internal data (45%).
- Providing proactive risk mitigation (42%).

### IMPROVING CUSTOMER EXPERIENCE

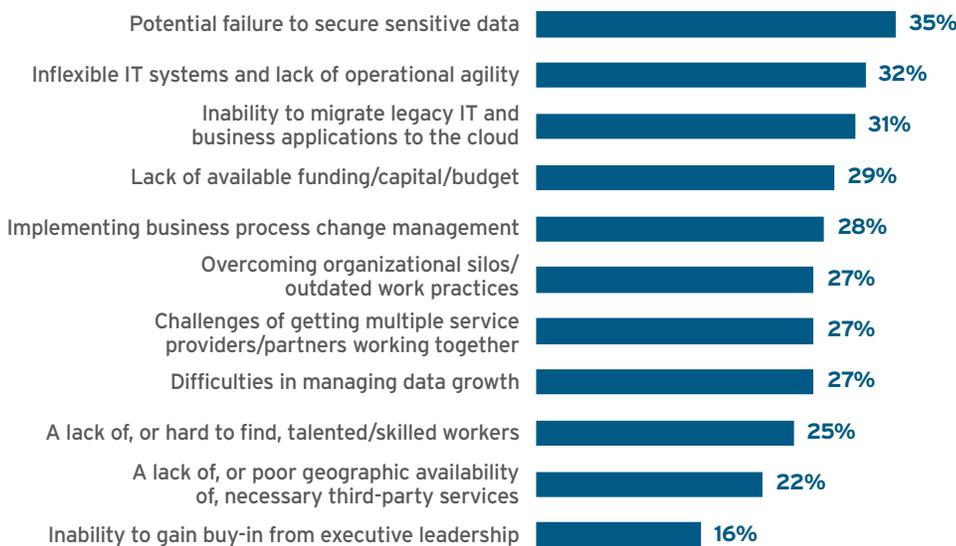
Customer experience continues to be a center of focus for businesses to increase competitiveness. From modernizing back-end infrastructures to streamlining fulfillment processes and providing persona-based marketing, organizations are striving to win the hearts, minds and wallets of customers through developing an enhanced technology-enabled customer experience. The top three objectives in improving the overall customer experience are:

- Improving customer service (40% rated this in their top three).
- Developing innovative products and services (35%).
- Adopting new digital engagement technologies (34%).

### Direction of Travel for Digital Transformation

Mastering the delicate balance between internally and externally sourced services is one constant in digital transformation. Organizations continually have to juggle multiple internal and external imperatives. As shown in Figure 4, the top three perceived challenges in achieving digital transformation have to do with a company's ability to manage operation-centric tasks. Roughly 35% of respondents pointed to a potential failure to secure sensitive data as the major roadblock to digital transformation. Lack of operational agility and legacy application migration were deemed challenging for about 30% of companies when asked about barriers to digital transformation.

Figure 4: Perceived barriers to digital transformation

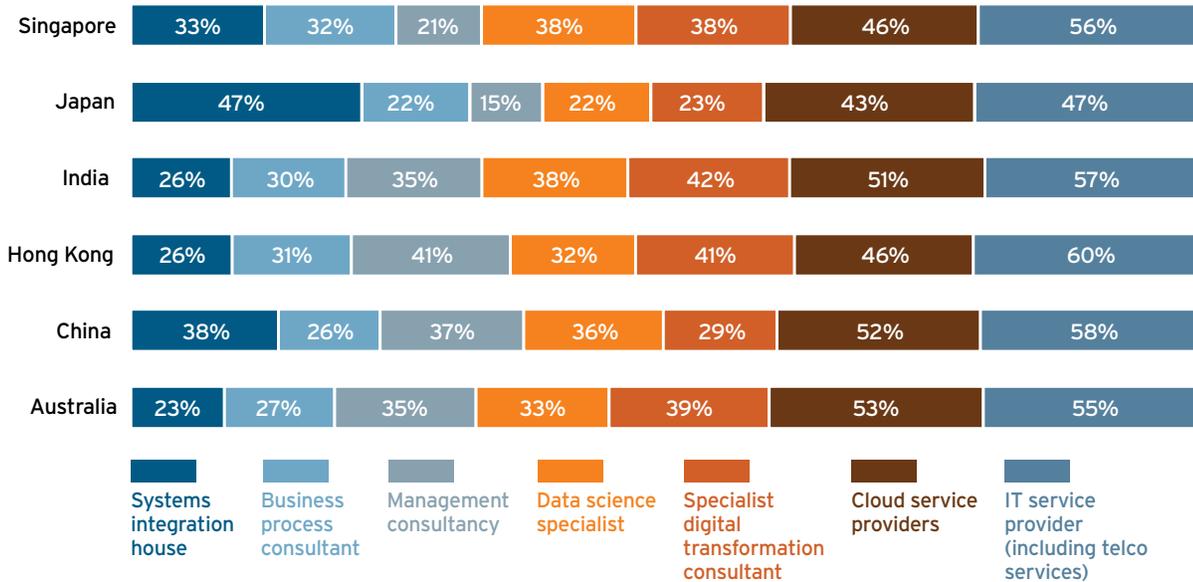


Resource coordination is considered a key attribute. According to our research, getting multiple service providers/partners to work together is one of the top barriers that prevents Indian companies (35%) from undertaking digital transformation initiatives. However, in Singapore, 36% of respondents expressed concerns about overcoming the restrictions of organizational silos and outdated work practices as the top barrier. Clearly, business practices and organizational culture play a vital role in enabling or inhibiting any digital transformation project. This underscores the importance of putting in place a framework or roadmap of procedures to help define, monitor and coordinate multiple touchpoints and processes throughout the digital transformation project.

### The Win-Win Play

Among all the factors that determine the success of a company’s transformation strategy, none is more critical than choosing the right partner. To that end, enterprises see a need for a portfolio of services from a range of external specialists. In addition to IT and cloud providers, which have long secured a relationship of trust with enterprises for IT management, organizations expect to call on the support of managed service providers and specialist data scientists (see Figure 5).

**Figure 5: Preferred third-party service provider partners for support of digital transformation**



Having established long-standing relationships with systems integrators for full lifecycle IT support and management, Japanese firms show a higher propensity to work with systems integrators for digital transformation projects. With that said, many local firms haven’t yet reaped the full benefits of digital transformation, and they seem cautious when it comes to making forward-looking investments. Culturally speaking, Japanese companies can be mindful about the decision-making processes and refrain from taking action until a new business model is proven to be successful. Nevertheless, local businesses could create a ripple effect that could shake up the entire value chain. A good example is the manufacturing industry, where incorporating 3-D printing technology and IoT into the manufacturing processes is becoming increasingly commonplace.

While Australian businesses have been at the forefront of technological innovation, our survey results indicate that their business counterparts are not far behind. Companies in China and India are turning to cloud service providers and data scientists for specialist support for their transformation initiatives. This speaks to the richness of provider choices and service options available in the marketplace, particularly in the areas of cloud computing, big-data analytics and artificial intelligence. All things being equal, the ability to incorporate third-party expertise into operational processes will speed the transformation of IT from being a cost center to becoming a competitive differentiator.

When asked to indicate the likelihood of outsourcing specific IT services to a partner, companies seemed to be more willing to outsource specific managed IT services (about 23%, including respondents who ranked 4 or 5, with 5 being most willing), followed by network infrastructure services (22%) and service capability for multi-cloud infrastructure (21%), as well as end-to-end IT services support (21%).

### Lessons Learned

Digital transformation is not a one-time project; it will require cross-functional collaboration to ensure that business processes and transformation efforts are fully aligned. While corporations are beginning to reap the benefits of transforming parts of their businesses, they are only part of the way toward achieving the full potential of digital transformation. In this context, some patterns evident in the study will help formulate certain aspects of the enterprise digital transformation strategy.

**FIXATE ON THE CUSTOMER:** Customer experience continues to be a 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 and provide channels for personalized engagement, as well as new ways to enhance touchpoints to better understand customer satisfaction.

**BE WILLING TO USE A VARIETY OF PARTNERS:** We see three aspects of businesses being transformed: the way a business uses data and business information, how it organizes and runs its business processes, and the technology platforms it chooses to underpin its operations. Entrusting some of the transformational fundamentals to a partner and evaluating the costs/benefits of such a move is a critical piece of 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, and it can't be bolted onto fundamentally insecure infrastructure. There needs to be multiple layers of network-based security. It 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, the underlying connectivity needs to have industrial strength built in. Respondents cited improved reliability of networks, systems and infrastructure as the single biggest IT-led priority. As multiple clouds come into use, the need to connect at speed and without failure with more diverse and traditionally divided ecosystems becomes paramount.

## 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 in 11 countries across North America, Europe and Asia-Pacific. The survey was 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 array of businesses, we were able to identify which new IT choices are becoming popular, explore service partner preference, 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 more than 600 companies – with 501-100,000+ employees – in financial services, retail and healthcare based in six strategic Asia-Pacific markets: Australia, China, Hong Kong, India, Japan and Singapore.

### STUDY DEMOGRAPHICS

We conducted the digital transformation survey in March and April 2017 using a combination of web-based surveys and telephone-based interviews consisting of more than 30 questions. We interviewed 613 decision-makers distributed across businesses employing 500 or more employees in Australia (17%), China (12%), Hong Kong (11%), India (25%), Japan (19%) and Singapore (16%). We sampled three major industrial verticals: financial services and banking, healthcare and consumer retail products and services. The survey ran concurrently among businesses in North America (the US and Canada), and Europe (Austria, UK, Germany and Switzerland).

All respondents had primary responsibility for making purchasing recommendations and influencing decisions and strategy about digital transformation initiatives, or having 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 US government agencies navigate some of the key issues and considerations specific to digital transformation themes in these sectors.

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