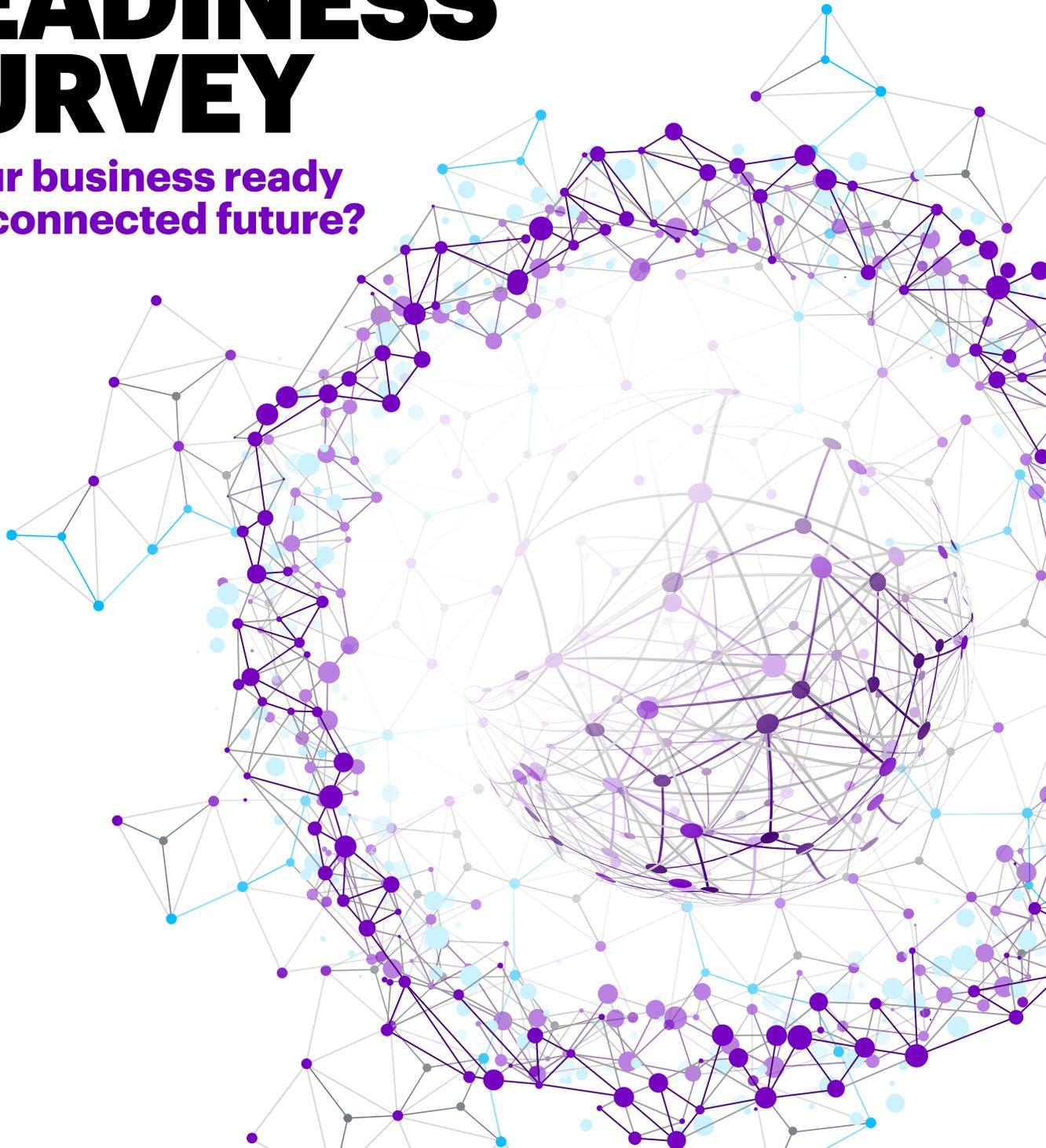




# NETWORK READINESS SURVEY

Is your business ready  
for a connected future?



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# Executive Summary

Accenture surveyed 300 senior IT and business executives on enterprise networks ability to meet today's demands and future requirements. We looked at factors driving increased demand on enterprise networks, such as IOT, edge, analytics, and digital experience. We found that while many companies were satisfied with their overall network capabilities, only 36 percent were "very satisfied" – bandwidth and reliability were top concerns. Less than half indicated their networks are completely ready to support cloud and digital. The key barrier most frequently cited in keeping networks in line with business demands was the misalignment between IT and business needs.

We also heard that business demands have outpaced the ability of IT to deliver services. Most companies were in the process of deploying SDN in parts of their organization to address the challenges they face, but even though many organizations said they were moving toward a unified enterprise network approach, it was clear that the majority continue to see their networks in pieces and parts. Companies will have to undertake significant work before they will achieve a unified enterprise capability to support business needs today—and tomorrow.

# Introduction

**Businesses today are moving to the cloud and embracing digital. According to the [Accenture Technology Vision 2019](#), 94 percent of executives say the pace of innovation in their organizations has accelerated over the past three years.**

However, most enterprise networks are built to serve the needs of another era. The shift toward cloud and digital is putting networks under tremendous pressure to meet demands for greater bandwidth, performance and security.

Accenture surveyed 300 senior IT and business executives to discover how ready enterprise networks are to meet today's demands, and how prepared executives feel about meeting future requirements. The study took into account several aspects of networking – including overall capability, performance, bandwidth, security and reliability. We also investigated which barriers posed the greatest threat to networks keeping pace with business demands. Finally, we looked into the uptake of several critical technologies and the ease with which network initiatives were established and funding secured.

We conducted a blind survey with executives from companies with annual revenues in excess of US\$1 billion. Respondents came from 10 industries and seven countries. Participants from IT included CIOs/CTOs, their direct reports (denoted in the report as CIO/CTO-1), and vice presidents (VPs) or directors of infrastructure/network. The business respondents included line-of-business executive vice presidents (EVPs) and VPs.

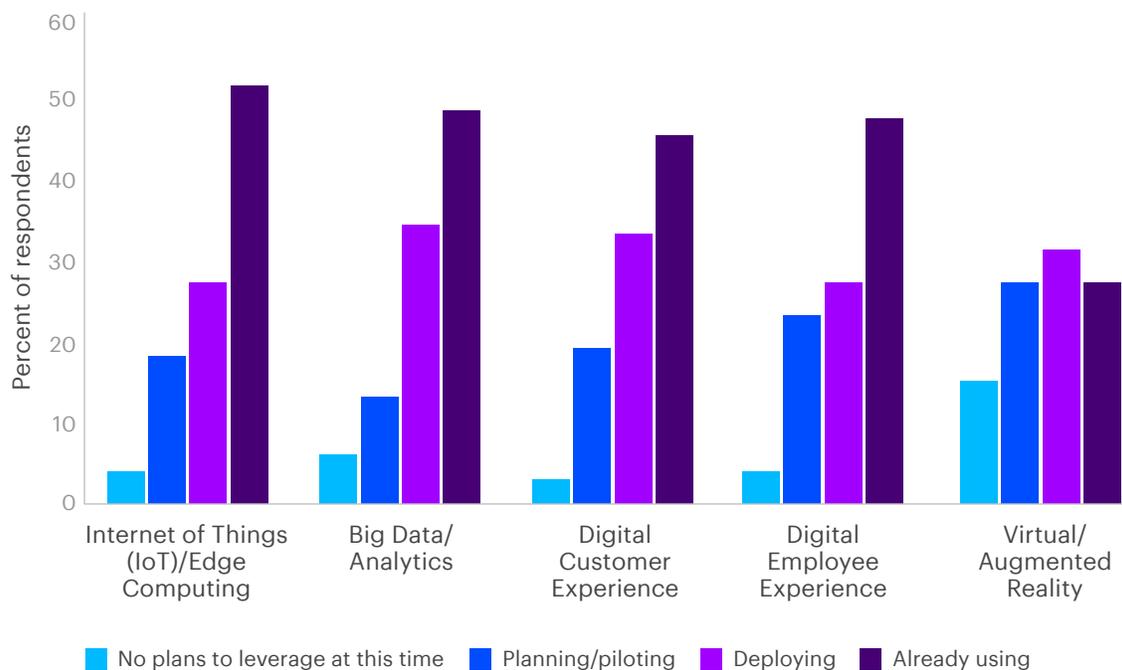


# The move to digital

First, let's take a step back and look at what is driving increased demand on enterprise networks. A key factor is organizations' adoption of digital technologies, ranging from IoT and analytics to solutions for offering enhanced digital customer or employee experiences.

We asked business executives to share how far along their organizations were in adopting these advanced digital technologies (Figure 1). Not surprisingly, most reported that their organizations were either already using these technologies or in the process of deploying them. That includes IoT/edge computing (77 percent), big data/analytics (83 percent), digital customer experience (78 percent), digital employee experience (74 percent), and virtual/augmented reality (58 percent).

Figure 1: Penetration of advanced digital technologies.



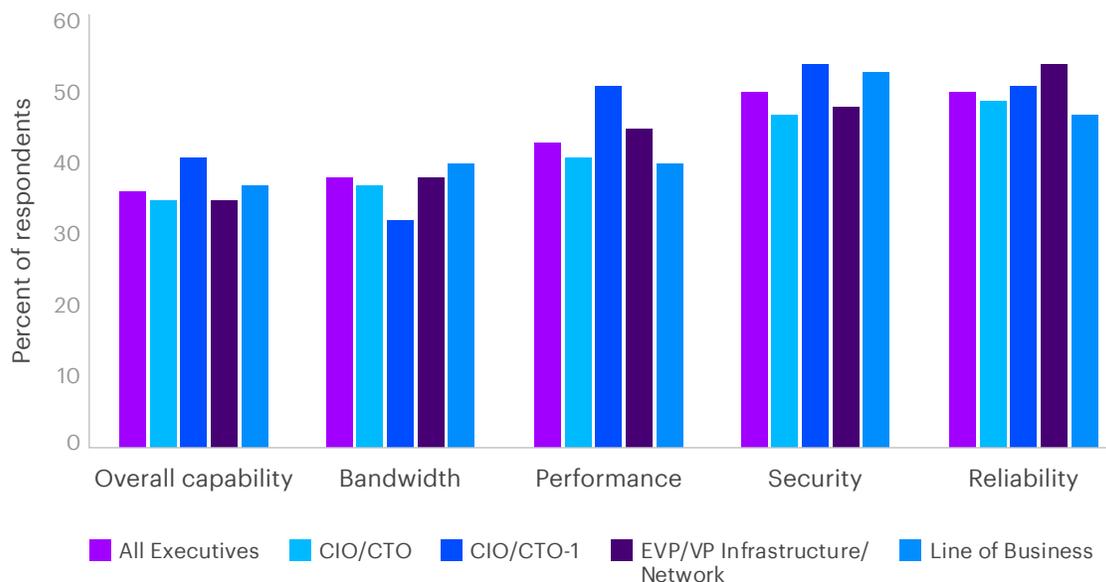
# Current network capabilities

As companies move to the cloud and transform into digitally-driven businesses, they need networks capable of supporting their evolution. To establish the baseline, we examined organizations' current network capabilities (Figure 2).

A large majority of companies reported satisfaction with their current network capabilities across all categories. However, less than 40 percent said they were "very satisfied" with overall capability (36 percent) and bandwidth (38 percent). Half or less reported being "very satisfied" with their network performance (43 percent), security (50 percent) and reliability (50 percent).

The findings around security revealed a couple of interesting points. A greater proportion of executives from North American companies were "very satisfied" (56 percent) than their European counterparts (44 percent). Additionally, more business executives were "very satisfied" (54 percent) compared to their IT colleagues (49 percent).

Figure 2: Percentage of respondents reporting they have "very satisfied" their network capabilities today.

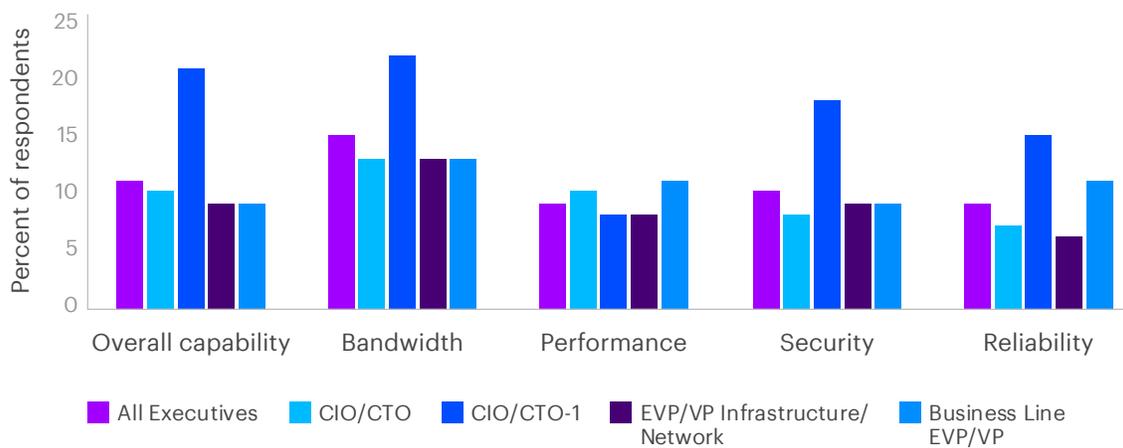


Overall, around 10 percent of respondents reported dissatisfaction with current network capabilities—that includes participants who said they were “dissatisfied” or “very dissatisfied.” Bandwidth was the area of greatest dissatisfaction across all respondents.

Interestingly, executives at a level below the CIO/CTO (shown in Figure 3 as “CIO/CTO-1”) were roughly twice as likely as other participants to be dissatisfied with networks’ overall capability, security and reliability. However, their dissatisfaction with network performance was in line with other participants’ responses.

Additionally, business executives showed the greatest levels of dissatisfaction with bandwidth (13 percent), performance (11 percent) and reliability (11 percent). Their IT counterparts reported greater concerns over bandwidth (15 percent) and overall capability (12 percent).

**Figure 3: Dissatisfaction with current network capabilities by title.**



# Meeting future demands

**The rapid pace of change and growing uptake of technology exert increasing demands on enterprise networks. With this in mind, we asked executives to indicate whether they were satisfied with their network's ability to meet business demands in the next 18-24 months.**

The results were surprising (Figure 4). One might expect executives to have greater confidence in their ability to meet future demands compared to current ones; however, they reported similar levels of satisfaction in meeting current and future demands.

Only 39 percent of all executives reported being “very satisfied” with their network's ability to meet future demands. Bandwidth once again proved the area of greatest concern, with 14 percent of respondents reporting some level of dissatisfaction.

Other noteworthy points included:

## **Overall capability**

- North American companies (43 percent) were more likely to be “very satisfied” with their network's ability to meet future demands than European companies (37 percent).

## **Security**

- Only 43 percent of IT executives were “very satisfied” with future security capabilities, compared with 57 percent of business executives.
- Executives one level below CIO/CTO were more “dissatisfied” (18 percent) with future security capabilities than CIOs/CTOs (12 percent), directors and VPs of infrastructure/network (8 percent) or business executives (7 percent).
- Companies with annual revenues exceeding US\$5 billion were nearly twice as likely to be dissatisfied (13 percent) with future security capabilities than companies with annual revenues of US\$1-\$4 billion (7 percent).

**Figure 4: Satisfaction with network capabilities to meet business needs in 18-24 months.**

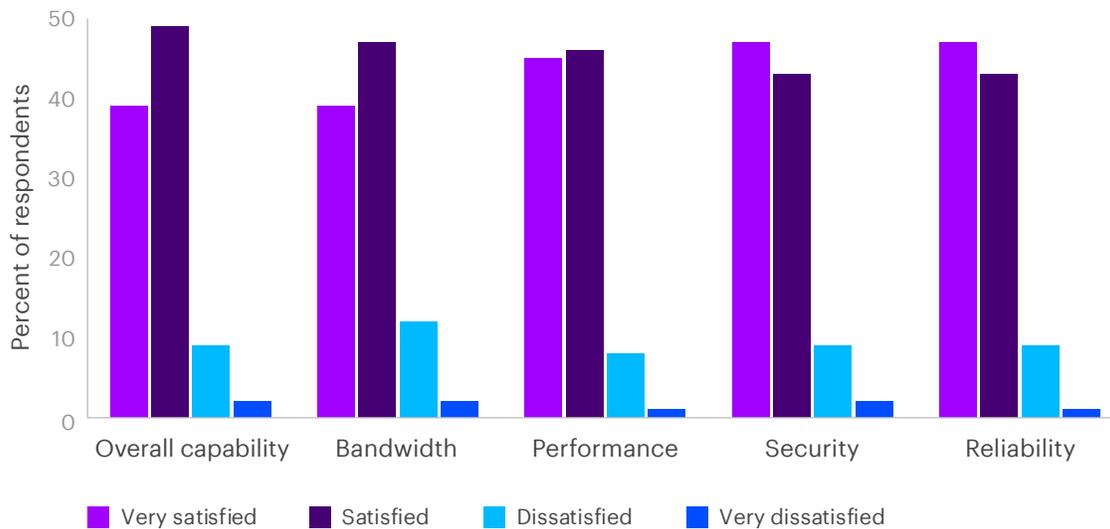
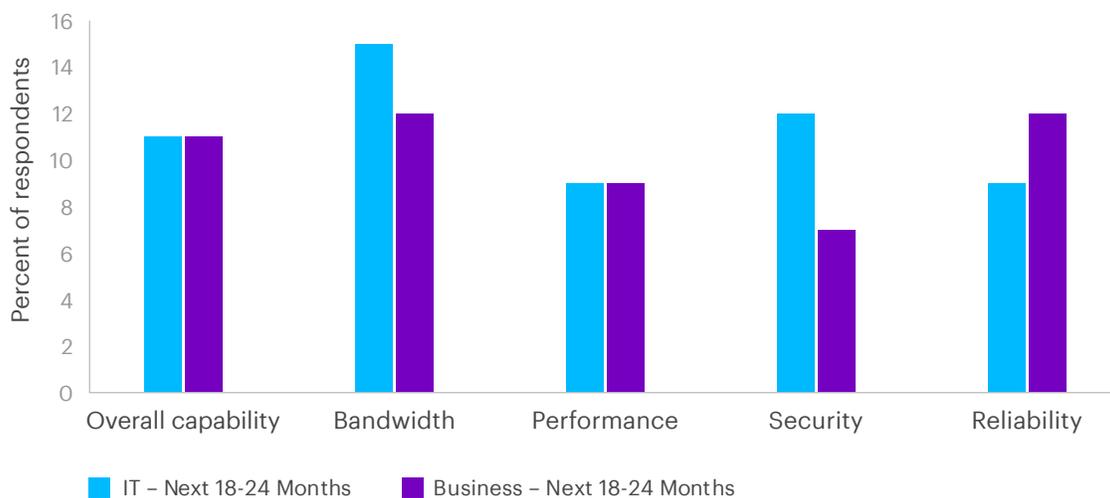


Figure 5 shows executives from IT and business expressed equal levels of dissatisfaction with overall future network capability (11 percent each) and future performance (9 percent each). In other areas, IT and business respondents expressed different worries. IT executives reported more concern over future bandwidth (15 percent) and security capabilities (12 percent) than their business counterparts (12 percent and 7 percent respectively). Meanwhile, business executives showed greater concern over future reliability (12 percent) than their IT colleagues (9 percent).

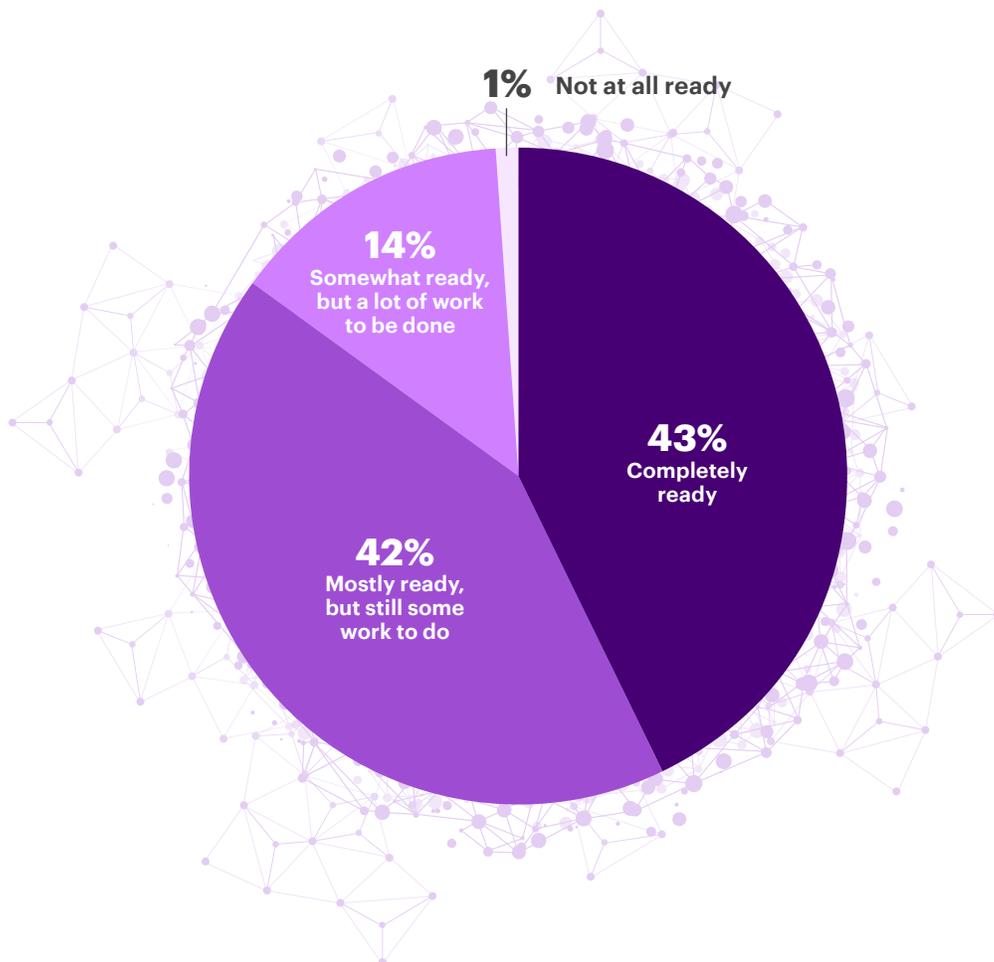
**Figure 5: Dissatisfaction with network capabilities to meet business needs in the next 18-24 months—IT vs business executives.**



# Readiness to support cloud and digital initiatives

With most companies actively engaged in digital, moving to the cloud, or both, we asked executives about their networks' readiness to support these initiatives.

Forty-three percent indicated their networks are "completely" ready to support cloud and digital, but the rest still have work to do. Forty-two percent of respondents said their networks were "mostly" ready, while only 15 percent indicated they were only "somewhat" or "not at all" ready.



# Top barriers to networks keeping pace with business demands

**Less than 40 percent of respondents reported being “very satisfied” with their network’s ability to meet current or future business demands. That leaves a sizeable 60+ percent of executives who see room for improvement.**

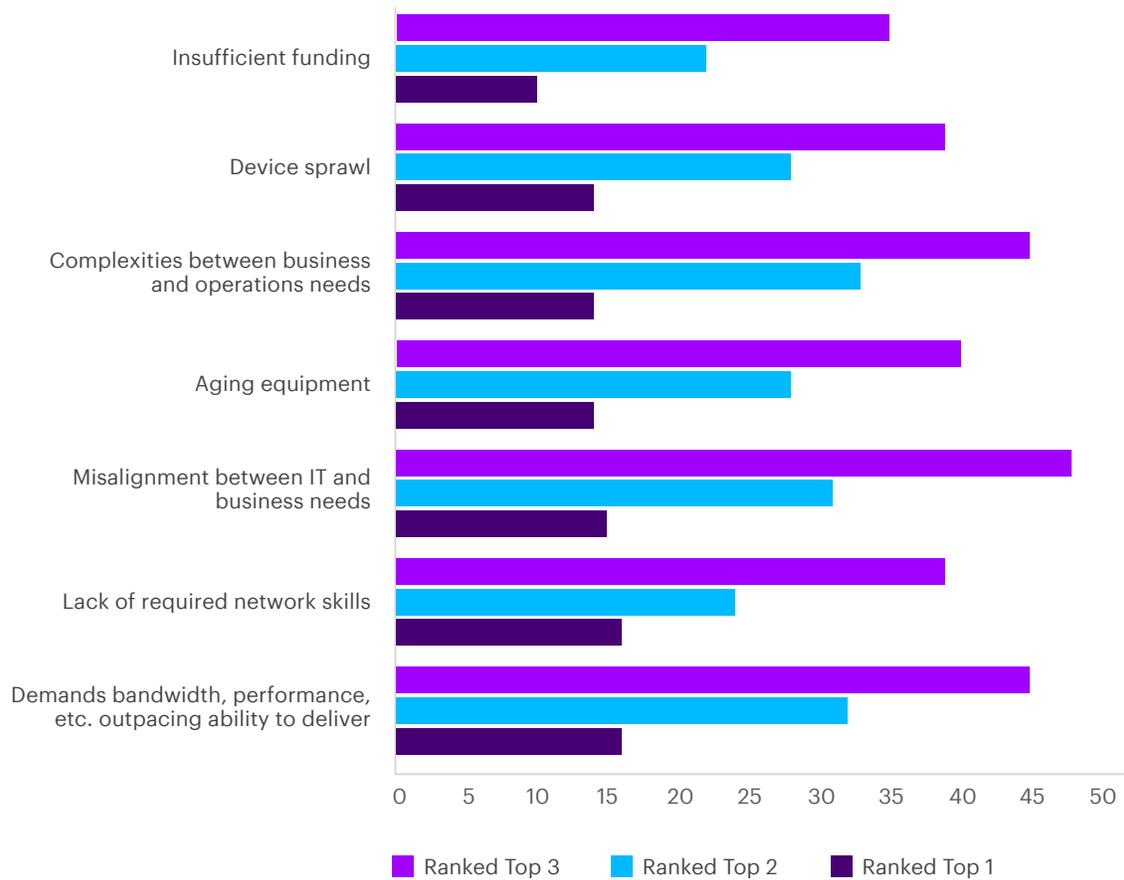
We asked the IT and business leaders involved in our survey to identify and rank the barriers they believe pose the greatest impediment to keeping their network in line with business demands (Figure 6). The barrier most frequently cited in respondents’ top three was “misalignment between IT and business needs” (48 percent). That is an interesting finding: after all, 85 percent of respondents reported that their networks were completely or mostly ready to support the business’ digital initiatives.

The second and third most commonly cited barriers were “inherent complexities between business requirements and operational needs” and “demands for bandwidth, performance etc. outpacing the ability to deliver” at 45 percent each. When participants were asked to rank only the top barrier, “demands for bandwidth, performance etc outpacing the ability to deliver” and “lack of network required skills” were most frequently cited, at 16 percent each. Concerns over the former would appear to be at odds with executives’ high level of overall satisfaction with their networks’ current and future capabilities.

Although there is general consensus on a few barriers across all participants, the choice of the top-three barriers varied greatly according to where these executives sit within the organization.

Figure 7 illustrates the disparity of top-three barriers by executive title. No single issue appears in the top-three barriers cited by respondents from all job categories. In fact, each role sees a different barrier as the greatest challenge.

**Figure 6: Top barriers to networks keeping pace with business demands.**



**Figure 7: Top barriers by executive title.**

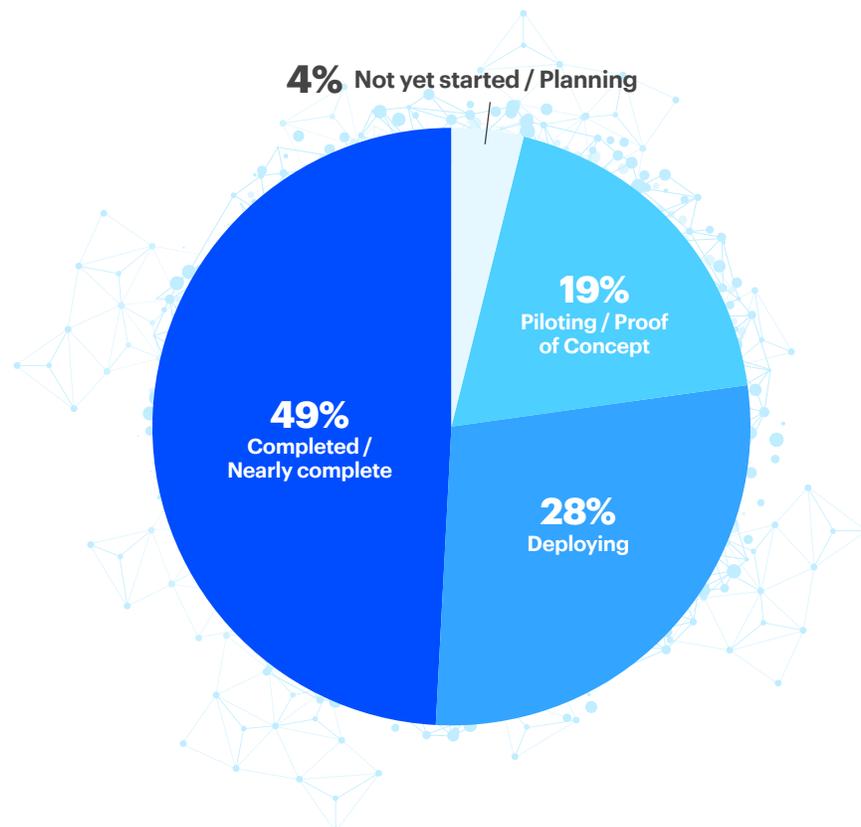
Rank	CIO/CTO	CIO/CTO-1	Directors and VPs of Infrastructure or Network	Line of business EVP/VP
1	Misalignment between IT and business needs (58%)	Demands for bandwidth, performance, etc. outpacing ability to deliver (54%)	Aging equipment (49%)	Inherent complexities between business and operational needs (57%)
2	Lack of network skills (46%)	Device sprawl (51%)	Demands for bandwidth, performance, etc. outpacing ability to deliver (47%)	Demands for bandwidth, performance, etc. outpacing ability to deliver (49%)
3	Aging equipment (40%)	Lack of network skills / misalignment between IT and business needs (46%)	Inherent complexities between business and operational needs / insufficient funding (40%)	Misalignment between IT and business needs (48%)

# The way forward: software-defined networks

Software-defined networking (SDN) is an architecture approach that enables the network to be intelligently and centrally controlled—or “programmed”—using software applications.

This helps operators manage the entire network consistently and holistically, regardless of the underlying network technology. This capability is especially useful as companies begin to leverage big data—something traditional networks were not designed to accommodate.

Since SDN is a critical enabler of new technologies, we asked executives to share their organization’s current uptake of it. The results indicated that most companies (77 percent) were in the process of deploying SDN or have completed their journey. This is surprising. Many of the companies we speak to are less advanced in their journeys to address network challenges. One interpretation of the data is that while SDN may be in place in parts of the organization, it is not rolled out uniformly enterprise-wide.

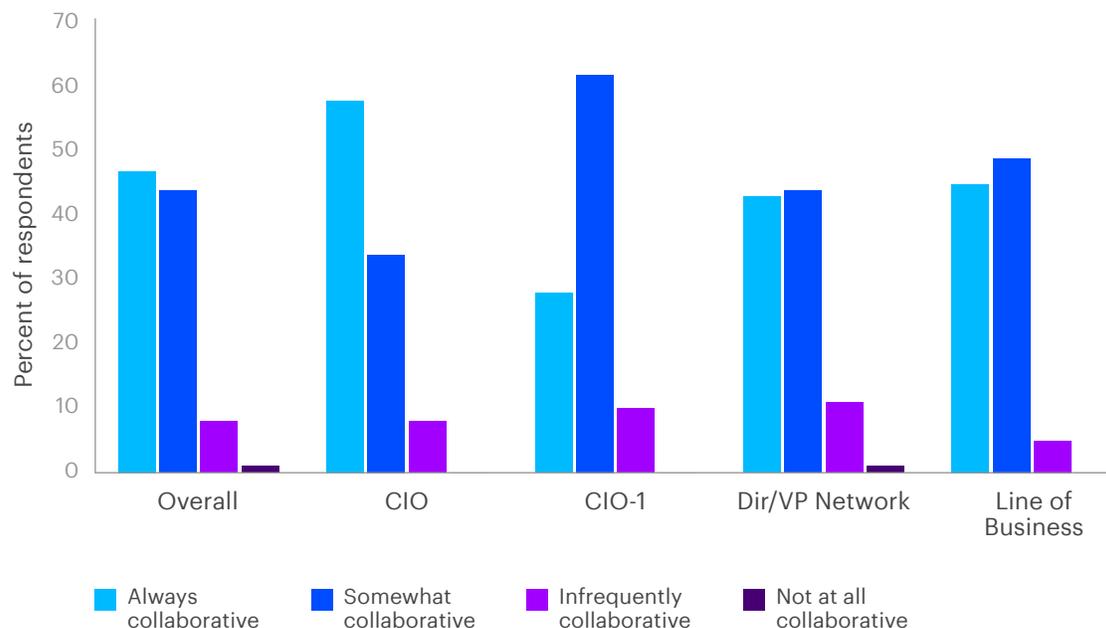


# Who decides to improve the network?

Given that the network is crucial to achieving business goals, it is key to both IT and the business. With this in mind, we asked executives the extent to which key network decisions were made in collaboration between IT and the business.

Less than half of all respondents said the process was “always collaborative” (Figure 8). CIOs/CTOs tended to see greater collaboration, with 58 percent responding “always collaborative” compared to only 28 percent of their direct reports, and just 43 percent of Directors and VPs of Infrastructure or Network. Roughly 10 percent of the IT executives below CIO/CTO reported “infrequent” or “no” collaboration in the process. Business executives expressed a much more positive view, with 95 percent of them describing the process as “always” (45 percent) or “somewhat” (49 percent) collaborative.

Figure 8: Extent of collaboration on network decisions between IT and the business.



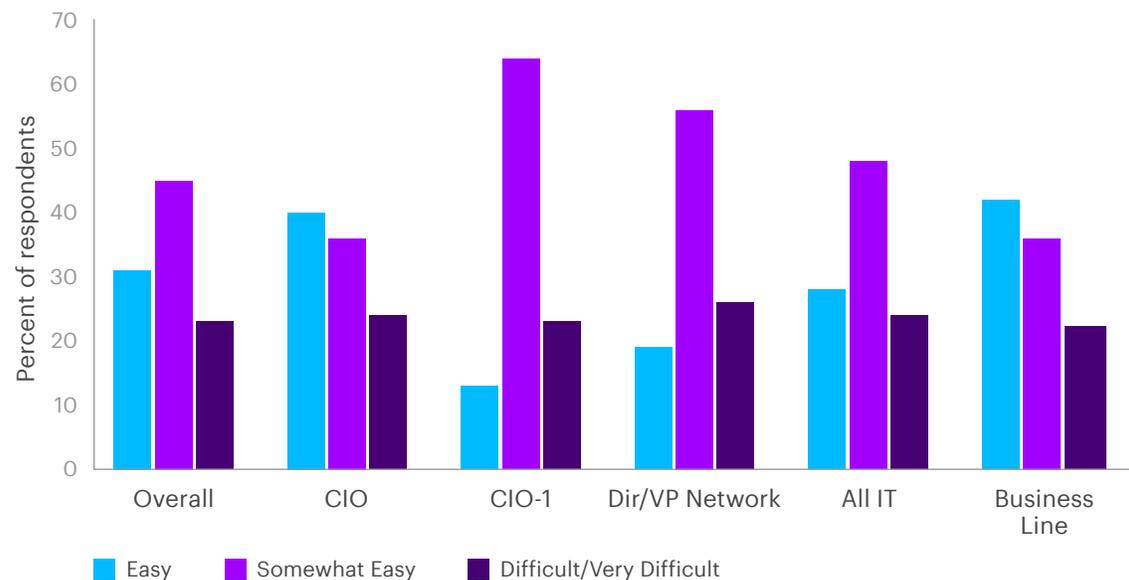
# Funding network capability improvements

We also asked executives how easy it was to secure funding for network capability improvements to meet growing business demands (Figure 9). Overall, 31 percent describe funding network improvements as “easy” and within the network infrastructure team’s control.

CIOs/CTOs were much more likely to report the funding process as “easy” (40 percent), compared to their direct reports (13 percent) or directors and VPs of infrastructure/network (19 percent). Similarly, 42 percent of business executives considered the funding approach to be “easy.”

However, there is room for improvement. On average, 23 percent of executives across all roles described securing funding as “difficult” or “very difficult,” requiring either special budget from both the infrastructure team and the business or a directive from the c-suite.

Figure 9: Ease of funding network capability improvements.



# The new network paradigm

**Leading-edge hardware is an essential part of the network. Legacy networks alone cannot support the innovation and performance required in the digital age. Such networks lack the security, automation and analytics needed to manage business applications, leverage the cloud and interface with a proliferation of devices.**

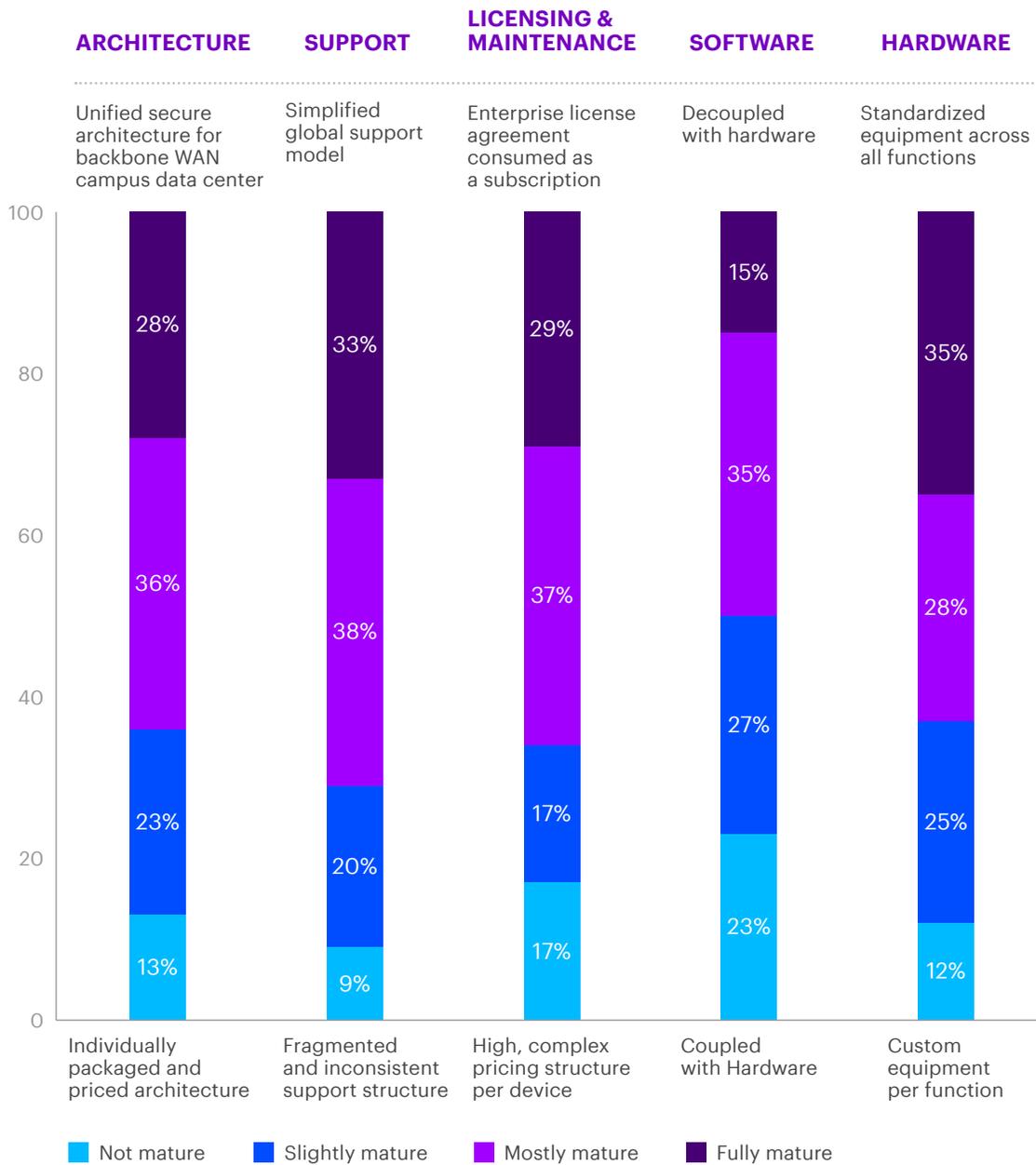
In [Are You Going Digital without a Net?](#) we proposed that a new network paradigm is needed to fully support the needs of digital and/or cloud-based businesses. We asked IT executives to identify how far along their organizations were toward achieving this new paradigm (Figure 10). And while their answers showed that many organizations are indeed moving toward a unified enterprise network approach, it was clear that the majority continue to see their networks in pieces and parts. Respondents said that the greatest progress toward standardization and unification had been made in hardware (35 percent) and support (33 percent).

Executives reported decoupling software from hardware to be the most challenging aspect of the evolution, with only 15 percent indicating success. 50 percent of respondents said that there is still a significant degree of linkage between software and hardware. On average across all categories, roughly 37 percent reported limited to no progress toward the new network paradigm.

When these findings are viewed in combination with other survey responses, it appears that network advances may be progressing across multiple fronts but have yet to be integrated into a unified enterprise capability. For example, while a company may deploy SDN or a software-defined data center in a few select locations, it may see limited benefits due to the restrictions introduced by the remaining legacy components. Outdated technology creates bottlenecks in the flow of information and overall performance.

Organizations would benefit from an orchestration layer that connects all these point solutions, enabling consistent, end-to-end service delivery with effective coordination and common objectives. The lack of such a layer may help explain why executives remain concerned about alignment between IT and the business, as well as their lack of confidence in tomorrow's networks being ready to meet business needs.

**Figure 10: Maturity of the new network paradigm.**



# Time for a new network paradigm

Like other critical IT systems, networks have had to evolve to accommodate the New. Nearly half of respondents reported that their organizations were already employing IoT (51 percent), big data/analytics (48 percent), digital customer experiences (45 percent) and digital employee experiences (47 percent). Between 27-35 percent of respondents said they were in the process of deploying these advanced technologies. This is placing a significant strain on networks.

Just 36 percent of executives reported being “very satisfied” with their network’s ability to meet current business demands. Only slightly more (39 percent) said they were “very satisfied” with their network’s ability to meet future business demands. This indicates that organizations have much more work to do to ensure that network limitations do not prevent them meeting their current and future business goals.

The findings also indicate a need for companies to improve collaboration between IT and the business when making decisions about the network. Ninety-one percent of executives described the decision-making process as “always” (47 percent) or “somewhat” (44 percent) collaborative between IT and the business. However, “misalignment between IT and business needs” was most frequently cited as a top-three barrier to networks keeping pace with business demands (48 percent).

We believe a new network paradigm is needed to ensure networks meet current and future business needs. However, although there are signs of progress, the pace of change is slow. Companies must undertake significant work before they achieve a unified and standardized enterprise capability that will offer the bandwidth, performance and security necessary to support business needs today—and tomorrow.

## **ABOUT ACCENTURE**

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions—underpinned by the world’s largest delivery network—Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With 482,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at [www.accenture.com](http://www.accenture.com).

## **ABOUT THE RESEARCH**

An online survey of 300 IT and Business line executives in Banking, Capital Markets, Insurance, Energy, Chemicals & Natural Resources, Consumer Goods & Services, Retail, Electronics & High Tech, Health & Public Services and Life Sciences across Europe and North America. The study was conducted between May and June 2019.