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The most advanced level of distributed enterprise connectivity is Ultra-Connecteds. Their priority is delivering critical business applications to the maximum number of offices and remote users.

# Optimizing Distributed Enterprise Performance for the Digital Age

## EXECUTIVE SUMMARY

Today's fast-paced business environment requires organizations to be highly agile and responsive, and as customer interactions are pushed to frontline employees, workers in remote locations and branch offices require greater levels of connectivity across the organization. Businesses with multiple locations need a reliable distributed enterprise network that provides employees access to critical business applications from any device, in any location with high levels of availability, security, and reliability.

To understand today's distributed enterprise landscape, IDC conducted a survey of IT professionals in U.S. businesses with five or more locations. While respondents gave great importance to distributed enterprise networking, we were surprised at how many companies are not getting it right. For example, most companies claimed to have redundancy in their distributed enterprise networks. This "redundancy" is often based on having multiple virtual networks from the same provider (i.e., coming into the location over the same physical connection), whereas true redundancy requires separate network connections.

## Companies Are at Different Levels of Advancement

IDC used this survey to develop a Distributed Enterprise Transformation Index describing the level of advancement of any given company and, based on this index, identified four levels of distributed enterprise networking sophistication. These levels, from highest to lowest, are as follows:

- » **Ultra-Connecteds:** The most advanced level of distributed enterprise connectivity is Ultra-Connecteds. Their priority is delivering critical business applications to the maximum number of offices and remote users. Because they also tend to be complex organizations, Ultra-Connecteds rely on third-party providers to supplement or take the place of in-

Digital transformation is one of the hottest topics in business today. And for good reason. A wealth of experience confirms the benefits of going digital.

house resources to manage their distributed enterprise networks. They use a mix of public internet and private WAN in their distributed enterprise network. They are more likely to deploy hybrid cloud solutions in their network as well as connect to cloud solutions via dedicated private network. They also have the highest percentage (69%) of business applications available to employees working from home/remote offices. Ultra-Connecteds are most concentrated in industries such as securities, healthcare, and retail.

- » **Branch-Centrics:** The next level of distributed enterprise connectivity is Branch-Centrics. They extend their use of web-based management tools to all locations, are great users of public cloud SaaS in their IT infrastructure, and provide remote office cloud connectivity through their datacenter via a private network. They enable 54% of applications to be accessible by employees working from home/remote offices. Representative industries include banking, IT, and energy/utilities.
- » **HQ-Centrics:** HQ-Centrics can be described as about halfway there in terms of their distributed enterprise connectivity advancement. Just 49% of their business applications are available to employees working from home/remote offices, and while they use web-based network management tools, these tools are managed by in-house staff and are available for larger locations only. They use direct ISP-based internet access to connect branch offices to the cloud. HQ-Centrics are often found in insurance and construction industries.
- » **Resisters:** Resisters have the lowest level of distributed enterprise network connectivity. They have the fewest number (39%) of business applications available to employees working from home/remote offices and tend to use their own in-house resources to manage distributed enterprise connectivity. They use traditional infrastructures and public cloud, and remote offices have little say in enterprise connectivity strategy. They are typically found in manufacturing, professional services, hospitality, and agriculture/mining.

## Distributed Enterprise Is a Core Component of Digital Transformation

Digital transformation is one of the hottest topics in business today. And for good reason. A wealth of experience confirms the benefits of going digital. Ultra-Connecteds are closer to realizing the promise of digital transformation because they are making enterprise applications better and more available to frontline employees and customers, improving the customer experience and driving greater flexibility for the enterprise.

Companies looking to improve their business outcomes should assess their distributed enterprise strategy and understand where they fit on the Distributed Enterprise Transformation Index.

## Being Distributed Is Good for Business

IDC found that companies with the most advanced levels of distributed enterprise network connectivity have the best business outcomes. Ultra-Connecteds outperform across all business key performance indicators (KPIs) studied, such as revenue growth, customer satisfaction, employee productivity, and time to market. For example, in our study, Ultra-Connecteds grew revenue at 21% over a three-year period, whereas Resisters grew at 11%. In other words, having a high Distributed Enterprise Transformation Index score is good for business.

## Companies Should Take Steps Now

We identified some of the key attributes and practices separating levels of distributed enterprise networking sophistication. The more advanced companies are characterized by:

- » Placing greater focus on distributed enterprise connectivity fundamentals
- » Recognizing that cloud is playing a central role in digital transformation for the business
- » Leveraging extensive use of third-party providers to deliver connectivity services

Companies looking to improve their business outcomes should assess their distributed enterprise strategy and understand where they fit on the Distributed Enterprise Transformation Index. Companies should consider new technologies and solutions to help them better improve connectivity, security, and redundancy and, critically, they should consider the use of third-party experts to help guide them through this journey, freeing up internal IT resources for other mission-critical tasks.

## About This Study

This IDC study is based on a survey of 501 IT professionals (C-level executives, vice presidents, and directors). The respondents came from organizations with five or more separate U.S. locations, representing a mix of industries, with emphasis on hospitality, healthcare providers, retail, and banking. For a more detailed description of the study methodology, see the Appendix.

## Definitions Used in This Document

- » **Distributed enterprise:**  
The ability to support employees and business applications from any device, in any location, at any time (inside or outside the firewall) with consistent quality of service, security, and reliability.
- » **Remote office:**  
All locations outside of an enterprise's headquarters location, which could include branch offices, storefronts, warehouses, distribution centers, or remote/auxiliary offices

## Distributed Enterprise Networking Is Critical to Today's Business

### Distributed Enterprise Networking Helps Employees Better Serve Customers

Today's dynamic business environment requires companies to be highly agile while providing the best possible customer experience. 93% of survey respondents said that time to market for new products/services is a top criterion for measuring overall business success. As responsibility for customer interactions and other critical business processes is pushed out to frontline employees, remote employees require greater degrees of enterprise application access. However, access to critical business tools and information can be problematic if delivered over an unstable network. An unreliable, insecure network with poor quality of service can have a negative impact on the customer experience and the organization's competitiveness.

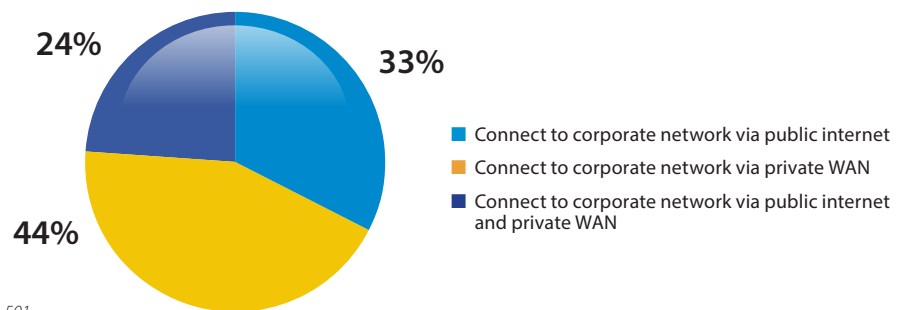
### Companies Connect in Many Ways

The survey revealed that companies are providing distributed enterprise connectivity in a variety of ways, with no single approach dominating (see Figure 1). Companies use a blend of technologies such as public internet, private WAN, and a mix of private and public networks.

FIGURE 1

### Approach to Distributed Enterprise/Remote Office Connectivity

Q. Which statement best characterizes your organization's approach to providing distributed enterprise/remote office connectivity?



n = 501

Base = all respondents

Notes:

Data is managed by IDC's Quantitative Research Group.

Data is not weighted.

Use caution when interpreting small sample sizes.

Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016

Ethernet services and Layer 3 IP are the most common network technologies used for distributed enterprise connectivity. Ethernet private line (EPL) and Ethernet virtual private line (EVPL) services were deployed by 51% of respondents; Layer 3 IP, including managed Layer 3 MPLS/VPN IPsec, was deployed by 45% of respondents; and E-LAN Ethernet services was deployed by 45% of respondents.

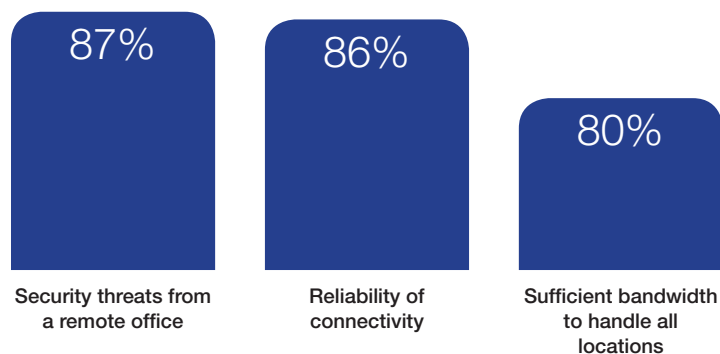
### **Enterprise Connectivity Needs to Be Secure and Reliable and Offer Sufficient Bandwidth**

With regard to providing distributed enterprise connectivity, organizations must get the basics right. Respondents indicated that the most important aspects of their distributed enterprise connectivity strategy are security, reliability, and bandwidth sufficiency (see Figure 2). They ranked these factors above other factors such as tailoring the network to specific connectivity needs.

**FIGURE 2**

## Important Aspects to Distributed Enterprise Connectivity Strategy

*Q. Top 2 box — How important is each of the following to your organization's distributed enterprise/remote office connectivity strategy? 1–5 scale response, where 1 = not at all important, 5 = extremely important*



*n = 501*

*Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016*

Another measure of the poor state of distributed enterprise connectivity is the degree to which companies entrust remote application access to the public internet.

### But Many Companies Aren't Doing Distributed Enterprise Connectivity Right

#### Nearly Half of Business Applications Are Not Available to All Remote Employees

Despite the importance of business agility and providing access to business applications to frontline employees, a surprisingly low number of businesses make all enterprise applications available to remote employees (i.e., employees working from remote offices or home offices or traveling on the road). In our survey, on average, only 53% of organizations' business applications are available to all remote employees, and one-third of companies make less than half of business applications available to remote employees.

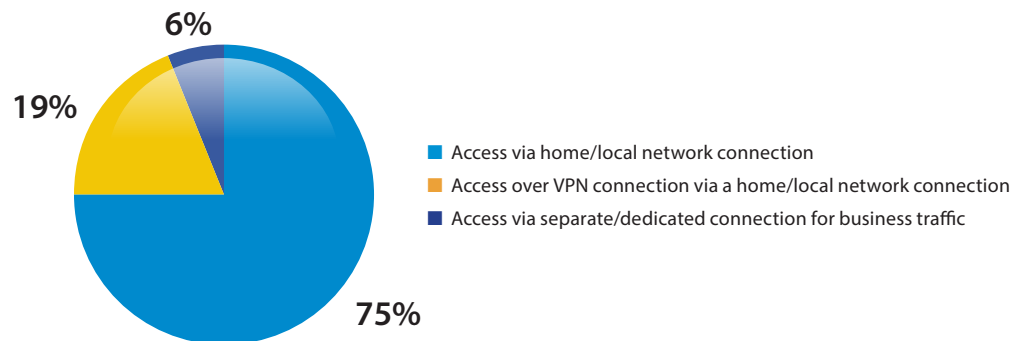
#### Most Companies Use Public Internet for Mission-Critical Applications

Another measure of the poor state of distributed enterprise connectivity is the degree to which companies entrust remote application access to the public internet. 75% of companies in our survey provide executives working from home with access to mission-critical applications over the public internet, and only 6% provide a separate connection for business traffic (see Figure 3). Relying on the public internet rather than a secured network opens companies to vulnerabilities such as security threats and connectivity issues and possibly insufficient bandwidth or disrupted service.

FIGURE 3

### Approach to Network Connectivity for Executives Working from Home

Q. Which of the following best characterizes your approach to providing network connectivity to executives working from home?



n = 310

Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016

### Companies Have Insufficient Remote Office Redundancy

Companies are putting their distributed enterprise connectivity at risk by not having a true redundancy strategy in place. In the survey, 57% of companies said that they are running “redundant private networks via a single provider,” with 23% using multiple service providers and 17% using the public internet as a backup to their private network. IDC notes that using a single provider, even with redundant private networks, does not provide full redundancy because carrying all traffic into remote locations over one physical connection represents a single point of failure. True redundancy requires separate connections coming into the building.

### Measuring Distributed Networking Advancement: The IDC Distributed Enterprise Transformation Index

To understand how companies are approaching distributed enterprise networking and draw lessons from the leaders, IDC categorized survey respondents by the level of advancement of their distributed enterprise networking strategy. IDC calls this the Distributed Enterprise Transformation Index. Companies were measured and ranked by distributed enterprise networking behaviors that were most closely linked to positive business outcomes. A description of the four levels is summarized in Table 1.

TABLE 1

Distributed Enterprise Networking Category Profiles				
Sample	<i>Resisters</i> 17%	<i>HQ-Centrics</i> 35%	<i>Branch-Centrics</i> 34%	<i>Ultra-Connecteds</i> 14%
Distributed enterprise connectivity strategy	Centrally managed using in-house resources	Hybrid of managed and unmanaged	Hybrid of managed and unmanaged	Centrally managed using third-party resources
Primary connectivity for remote office/work-from-home executives	Public internet	Public internet	Private WAN	Mix of public internet and private WAN
Primary method of remote office cloud connectivity	Through datacenter via private network	Direct via ISP-based internet access	Through datacenter via private network	Direct via dedicated direct private network/managed connection
Applications available to employees working from home/remote offices	39%	49%	54%	69%
Representative industries	Manufacturing, professional services, hospitality, agriculture/mining	Insurance, construction	Banking, information technology, energy/utilities	Securities, healthcare, retail

n = 501

Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016

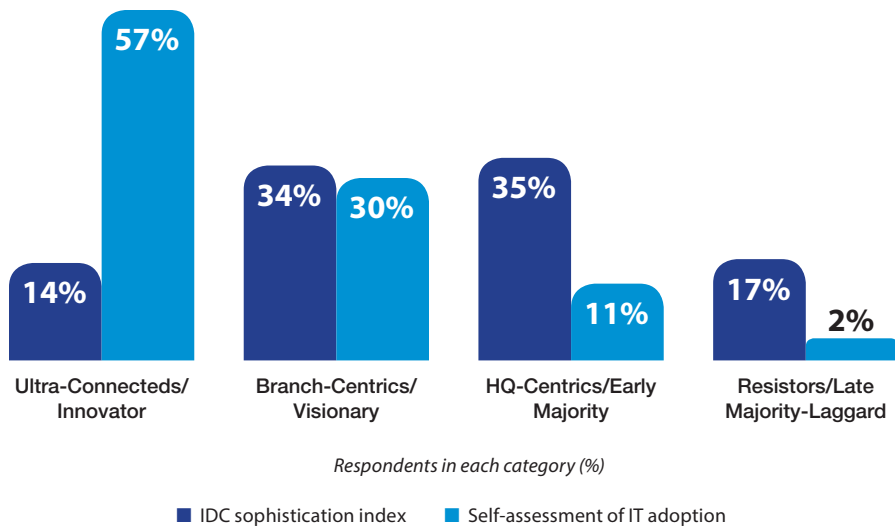
## Companies Are Not as Advanced as They Think

Companies believe that they are more advanced than they actually are. IDC compared how respondents characterize their companies' adoption of IT service delivery models with where they scored on the Distributed Enterprise Transformation Index. The results show a significant gap between perception and reality. In the survey, 57% of companies characterize themselves as IT "innovator" but, in contrast, only 14% are classified as Ultra-Connecteds, the top category in the Distributed Enterprise Transformation Index (see Figure 4). This discrepancy between perception (self-assessed IT sophistication) and reality (Distributed Enterprise Transformation Index) implies that the companies have a blind spot with regard to their level of distributed enterprise networking sophistication, which could leave them vulnerable to performance, reliability, or security concerns in the network.

**FIGURE 4**

### Adoption and Use of IT and IT Service Delivery Models

*Q. Which of the following descriptions best characterizes your company's adoption and use of information technology and IT service delivery models? Innovator, Visionary, Early Majority, Late Majority—Laggard*



*n* = 501

Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016



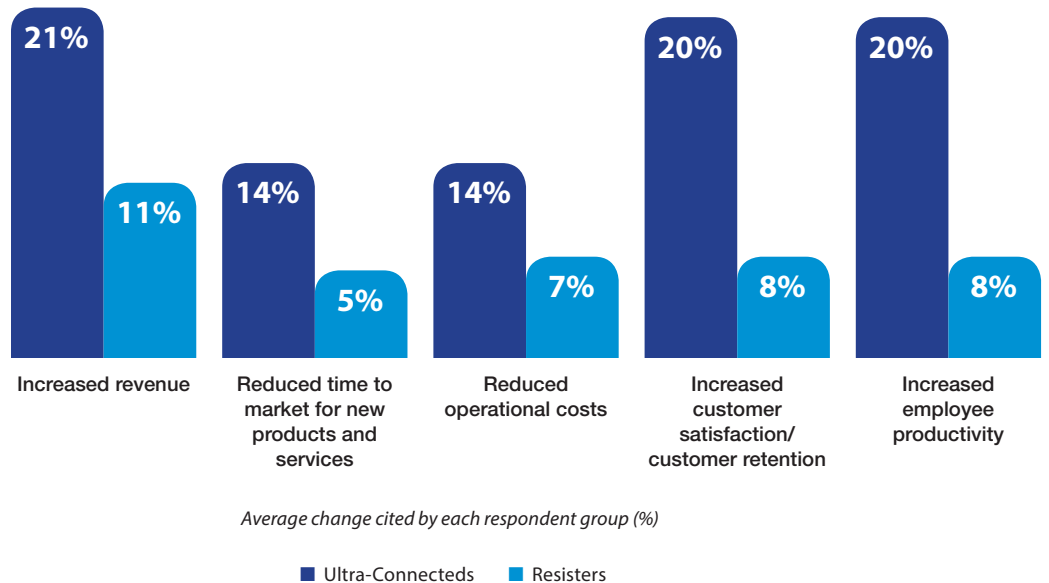
## Advanced Companies Have the Best Business Outcomes

Companies at the top of the Distributed Enterprise Transformation Index have the best business performance outcomes. This was true across all business KPIs in the study, including revenue, profit margin, customer satisfaction/retention, employee productivity, and time to market for new products and services. The contrast between the highest level and the lowest level of respondents in the index is shown in Figure 5.

**FIGURE 5**

### Distributed Enterprise Transformation Index and Business KPIs: Three-Year Average Percentage Improvement

*Q. Over the past three years, what has been your company's change in customer satisfaction, employee productivity, time to market, and revenue in percentage? [Percentage increase]*



*n* = 501

Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016

Distributed enterprise connectivity is built upon three fundamentals: security, cloud services availability, and sufficient bandwidth to support the needs of remote locations.

### Best Practices in Distributed Enterprise Networking

Achieving the greatest levels of distributed enterprise networking advancement requires organizations to focus on three critical areas identified by IDC, which characterize distributed enterprise networking sophistication:

- » Distributed enterprise connectivity fundamentals
- » Adoption of cloud solutions and connectivity
- » Third-party managed services

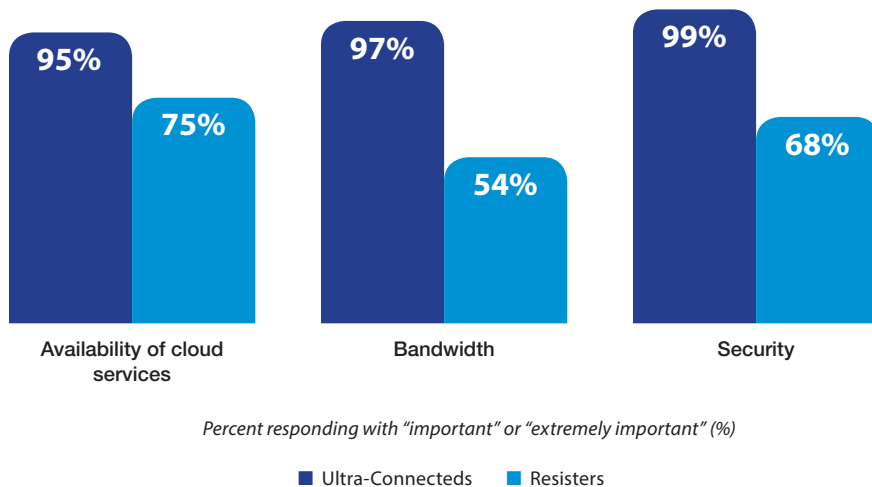
### Need to Provide Connectivity Fundamentals

Distributed enterprise connectivity is built upon three fundamentals: security, cloud services availability, and sufficient bandwidth to support the needs of remote locations. These were the three most important aspects of distributed connectivity among survey respondents across the board, with Ultra-Connecteds placing the greatest emphasis on these three connectivity fundamentals (see Figure 6).

FIGURE 6

### Importance of Security, Bandwidth, and Connectivity to Cloud

Q. Top 2 box — How important is each of the following to your organization's distributed enterprise/remote office connectivity strategy? 1–5 scale response where 1 = not at all important, 5 = extremely important



n = 501

Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016

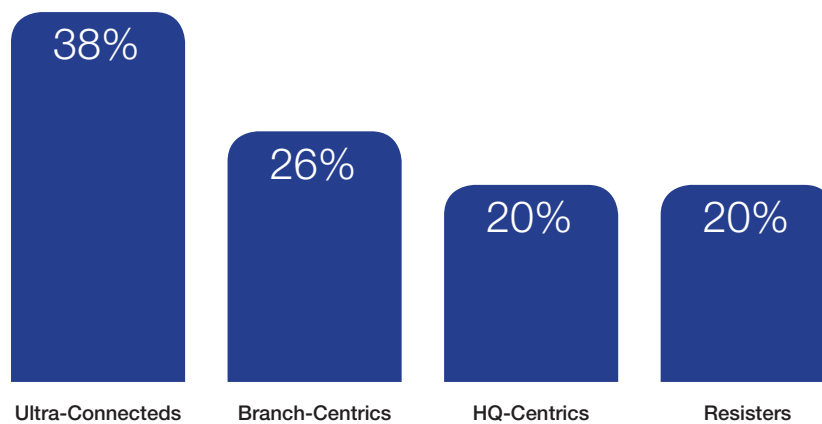
Ultra-Connecteds place greater importance on reliability of distributed enterprise connectivity — 86% of Ultra-Connecteds said this is important compared with 76% of Resisters. They are much more likely to provide separate business connections for executives working from home — 22% of Ultra-Connecteds provide separate connections compared with 4% of Resisters. They are also more likely to make business applications available to executives working from home — 70% of Ultra-Connecteds provide access compared with 40% of Resisters.

Ultra-Connecteds are more likely to factor in connectivity needs of their remote offices as part of managing their distributed enterprise strategy. In other words, the more advanced companies are listening to the needs of their remote offices and responding to them (see Figure 7).

**FIGURE 7**

### Percentage of Respondents for Which Remote Offices Have Significant Influence in Organization’s Approach to Managing Distributed Enterprise

*Q. Which of the following best characterizes the influence your remote offices have on your organization’s approach for managing distributed enterprise connectivity? They have...*



Percent of respondents citing “significant influence” (%)

*n* = 501

Source: IDC’s Enterprise Network and Managed Solutions Survey, April 2016

Many companies are using cloud applications, but they are doing so over the public internet and managing them in-house over a traditional IT infrastructure.

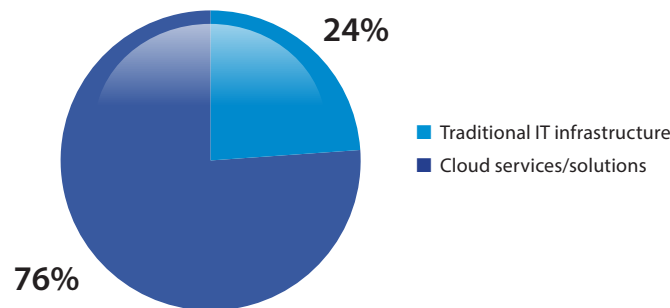
### Importance of Cloud

Cloud is critical to distributed enterprise connectivity strategy, with survey respondents reporting 76% of business applications carried over the cloud today (see Figure 8). Further, the more advanced companies are both using more cloud (83% of Ultra-Connecteds versus 71% of Resisters) and placing a higher importance on cloud (53% of Ultra-Connecteds said providing connectivity to SaaS solutions such as salesforce.com and Microsoft Office 365 is important to their distributed enterprise connectivity strategy compared with 35% of Resisters).

**FIGURE 8**

### Percentage of Business Applications Running in Traditional IT Infrastructure Versus Cloud

*Q.What percentage of business applications are you running in each environment?  
Mean Summary Table (including 0)*



*n = 501*

*Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016*

Increasing use of cloud has an impact on distributed enterprise connectivity. Organizations must now consider bandwidth and security requirements associated with hybrid cloud and splitting applications. Many companies are using cloud applications, but they are doing so over the public internet and managing them in-house over a traditional IT infrastructure. With greater use of cloud services (78% of survey respondents are using Microsoft Office 365), organizations must also consider the impact on bandwidth needs and the ability to migrate congestion during peak times.

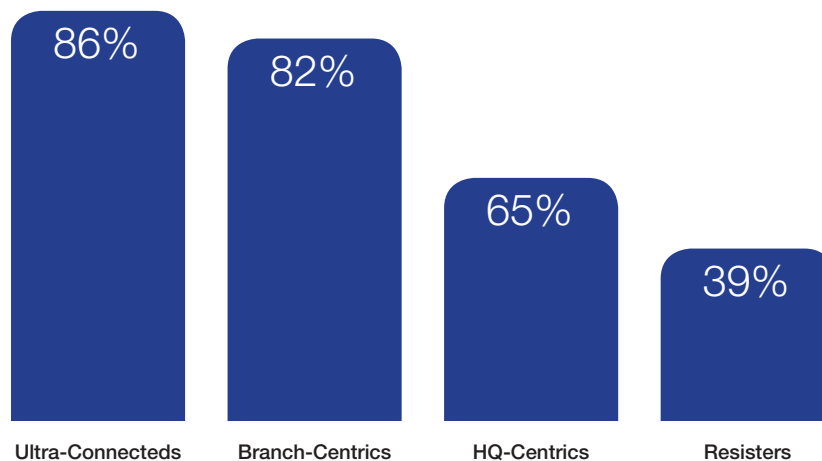
Ultra-Connecteds understand this better than anyone does because they are using cloud to the greatest degree. For example, they are more likely to have hybrid cloud in their distributed enterprise network (see Figure 9).

To address these needs, Ultra-Connecteds are taking a demonstrably different approach to their distributed enterprise connectivity. 42% of Ultra-Connecteds are providing dedicated private networks for cloud services compared with less than 12% for the rest of the sample (see Figure 10). IDC notes that this is still fewer than half of Ultra-Connecteds, which means there is still room for improvement, and IDC expects this figure to grow in the future.

**FIGURE 9**

## Deploying Hybrid Cloud Solutions in the Distributed Enterprise Network

*Q. Does your organization run any of the following environments? [Hybrid cloud solutions]*



*Respondents deploying hybrid cloud solutions (%)*

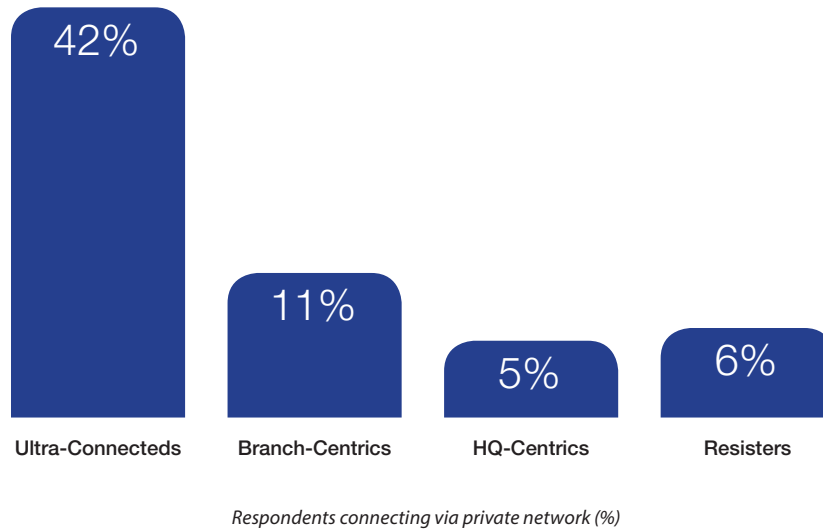
*n = 501*

*Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016*

FIGURE 10

## Connection to the Cloud via Dedicated Direct Private Network

Q. Which of the following best describes the way your organization provides connectivity to cloud applications from remote offices?



n = 501

Note: Users connect to the cloud via dedicated direct private network (MPLS VPN, Ethernet) with a managed cloud connect service.

Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016

### Use of Third-Party Managed Services

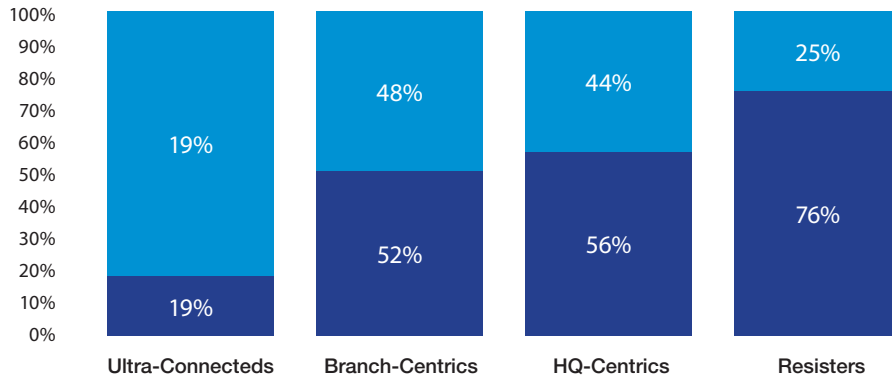
A defining characteristic of more advanced distributed enterprise networking companies is their use of third-party managed services. These companies appreciate that the use of third parties frees up their internal IT staff to focus on tasks more central to the business' focus. Outsourcing networking services to third parties enables these companies to take advantage of the expertise the third parties bring to the table without having to hire in-house world-class networking and security staff.

Ultra-Connecteds are much more likely to use third parties for managing some or all of their distributed enterprise connectivity. 81% of Ultra-Connecteds outsource distributed enterprise connectivity to third parties compared with 25% of Resisters, which are still relying heavily upon in-house staff to manage distributed enterprise connectivity (see Figure 11).

**FIGURE 11**

## Use of In-House IT Resources or Third-Party Providers for Distributed Enterprise Connectivity

Q. Which statement best characterizes how you provide distributed enterprise/remote office connectivity using in-house IT resources or third-party providers?



Respondent distribution by management style

- Third party manages some or all
- Internal IT staff manages all

n = 501

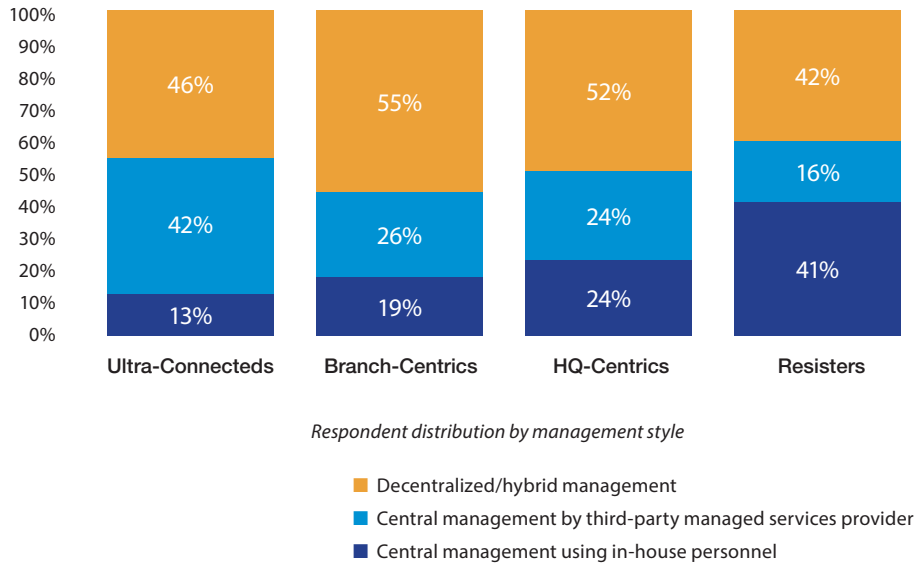
Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016

Some organizations practice a centralized approach and some practice a decentralized approach to managing distributed enterprise connectivity, but the core difference is that the most advanced companies are using third parties to perform their centralized management, while the least advanced are managing using in-house resources. Ultra-Connecteds make greater use of third-party providers (42%) for central distributed enterprise network management, whereas Resisters are more likely to use in-house resources for centralized network management (41%) (see Figure 12).

**FIGURE 12**

## Approach to Distributed Enterprise Strategy Using Third-Party Managed Services

Q. Which statement best characterizes your distributed enterprise/remote office management strategy?



n = 501

Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016

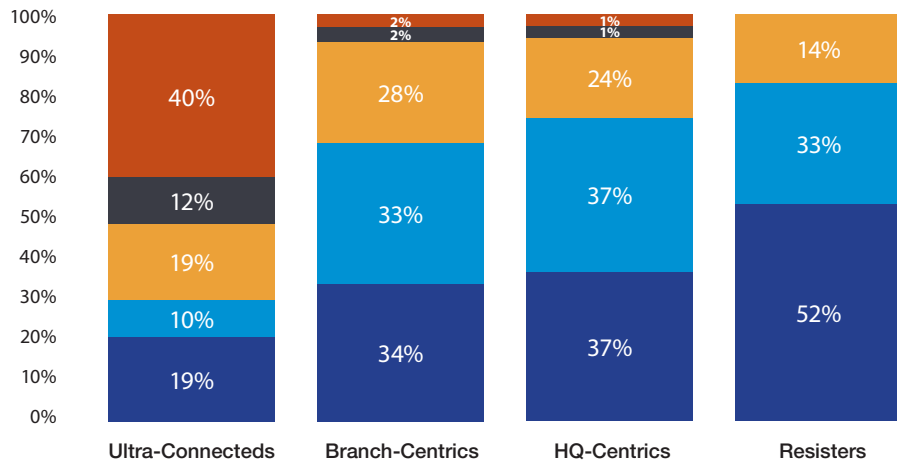
More advanced companies are also more likely to select their managed services partners in a sophisticated way, using multiple metrics to assess their providers. When implementing third-party managed services, Ultra-Connecteds are more likely to consider multiple factors such as device types, applications, and cloud connectivity needs. In comparison, Resisters tend to base their partnering decisions on location only (see Figure 13).



**FIGURE 13**

## Approach to Using Third-Party Managed Services for Managing Distributed Enterprise Connectivity

Q. Which of the following best characterizes how your organization implements third-party managed services today?



Respondent distribution by management style

- All of the above
- By cloud connectivity requirements
- By application (internet access, VPN, VoIP)
- By device type (e.g., CPE router, PBX, firewall)
- By location

n = 237

Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016

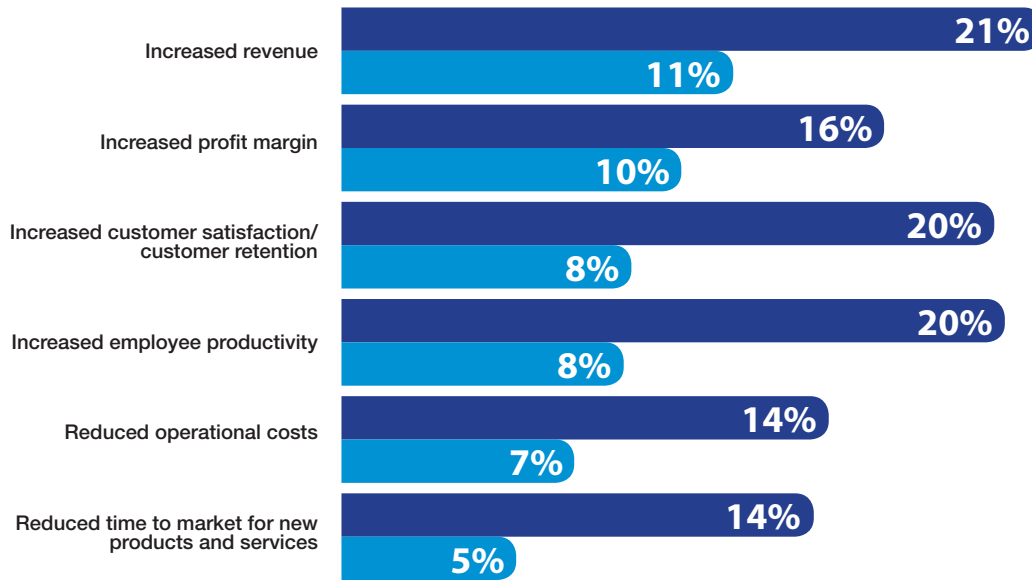
### Better Business Outcomes

This study shows that the higher a company is on the Distributed Enterprise Transformation Index, the better its business outcomes. This was true across each of the outcomes studied, meaning that more distributed enterprises had more robust revenue growth, lower costs, better customer satisfaction, and better employee productivity (see Figure 14).

**FIGURE 14**

## Improvement in Business Outcomes

*Q. Over the past three years, what has been your company's change in percentage?*



*n = 501*

*Source: IDC's Enterprise Network and Managed Solutions Survey, April 2016*

■ Ultra-Connecteds   ■ Resisters

Distributed enterprises have the competitive advantage of being closer to their customers than more centralized organizations and should derive better business outcomes as a result. By optimizing their distributed enterprise networking strategy, Ultra-Connecteds are seeing better business outcomes and enjoying two to three times the business benefits compared with Resisters.

### ***But Even the Most Advanced Companies Have Room to Grow***

Even though Ultra-Connecteds display the most advanced level of distributed enterprise connectivity, they still have room for improvement. While they rely more on their distributed enterprise networks and provide greater levels of service to their users, they can do more to maximize their connectivity fundamentals and utilize outside expertise.

Distributed enterprise networking plays a crucial role to the business. It is the connective tissue fastening together companies' remote locations, applications, and devices.

## Essential Guidance

Distributed enterprise networking is key to a business' success, not least of which is because of its role in delivering enterprise applications to frontline workers. Yet, this study found only 14% of companies to be Ultra-Connected, the category with the most advanced distributed enterprise connectivity. Companies at all levels can improve their distributed enterprise connectivity and, by implication, realize greater business performance outcomes. Key steps include the following:

- » **Assess your distributed enterprise strategy.** Take stock of how well your network performs with all applications, devices, and remote offices/locations. Ensure all executives working from home can access the business applications and cloud services to perform their critical business functions. While you can do this assessment using in-house staff, it is likely even better to find an expert third-party service provider to do it for you.
- » **Understand where your organization stands on the Distributed Enterprise Transformation Index scale.** IDC has developed a tool to assess where you fit on the Distributed Enterprise Transformation Index as well as what you can do to improve your position on the scale and business benefits you could expect for doing so. The tool can be found at [www.distributedenterpriseindex.com](http://www.distributedenterpriseindex.com).
- » **Upgrade your networking technology accordingly.** Assess distributed enterprise solutions and consider new technologies that can be utilized to bolster connectivity, improve security, and establish true redundancy.
- » **Get help from the experts.** The most advanced companies turn to third-party providers for their expertise. With the growing complexity of applications, devices, and remote locations, it is becoming more difficult to maintain the required networking and security staff to manage a distributed enterprise network in-house. By leveraging expertise from third parties, your staff can focus on what you do best and outsource the rest.

## Conclusion

Distributed enterprise networking plays a crucial role to the business. It is the connective tissue fastening together companies' remote locations, applications, and devices. Companies require seamless, responsive accessibility to business applications to ensure business agility and allow for digital transformation initiatives.

This study identifies four categories of distributed enterprise networking sophistication: Ultra-Connected, Branch-Centrics, HQ-Centrics, and Resisters, with the greater level of enterprise

networking sophistication corresponding to greater levels of business success, such as reduced time to market and operational costs, increased employee productivity, customer satisfaction, revenue, and profit.

For Ultra-Connecteds, the companies with the greatest levels of distributed enterprise networking, the business outcomes are the greatest. Ultra-Connecteds are placing greater attention on getting their connectivity right with better network security, bandwidth, and connectivity. They are adopting more cloud-based solutions to enable wider and secure access to business tools and information. They are freeing up their IT staff to focus on tasks more central to business success and growth by using more third-party managed services. In addition, Ultra-Connecteds listen more to the connectivity needs of their remote/branch offices.

Unfortunately, many companies are not acting on these practices in the most productive way. To highlight a few shortfalls, only slightly more than half of business applications are available to remote office employees; most companies in the survey that allow access to mission-critical applications are doing so over public internet, and many of the companies have insufficient network redundancy in place, which leaves them vulnerable to a host of issues that can negatively impact business performance.

Companies at all levels should draw lessons from the leaders, assess their distributed networking strategy to see where they fit on the Distributed Enterprise Transformation Index scale, and implement appropriate new technologies. Importantly, they should take a page from the Ultra-Connecteds and look to third-party expertise for help in their journey.

## Appendix

### Methodology

The information for this white paper came from IDC's April 2016 Enterprise Network and Managed Solutions Survey, sponsored by Comcast Business. IDC surveyed 501 U.S. IT professionals (C-level executives, vice presidents, and directors) with responsibilities for their organizations' planning, implementation, and purchasing of distributed enterprise/remote office networking and connectivity services. They came from organizations with five or more United States-based locations across a set of key industries including hospitality (n = 100), healthcare providers (n = 100), retail (n = 100), banking (n = 100), and other industries (n = 100) (excluding government/education). Survey respondents were asked about their current approach to providing distributed enterprise/remote office connectivity, technologies used, criteria for implementing third-party managed services, cloud connectivity, and services

and applications deployed. In addition, they were asked about a variety of KPI metrics, which enabled IDC to create an index linking IT infrastructure and accessibility to business applications/tools to KPIs.

On the basis of the survey results, IDC classified companies into four different sophistication categories — Resisters, HQ-Centrics, Branch-Centrics, and Ultra-Connecteds — using the following methodology:

- » Responses to all questions in the survey were scored on a 4-point maturity scale. For example, for the question “Which statement best characterizes your organization’s approach to providing distributed enterprise/remote office connectivity?” public internet = 1 point and private WAN = 3 points.
- » IDC performed statistical analysis to identify questions best correlated to positive business outcomes. For example, the question “What is the importance of ERP cloud applications in distributed enterprise?” had a high correlation to the 6 measured business outcomes.
- » IDC selected a subset of 13 questions with the highest statistical correlation that also balanced the range of distributed enterprise strategy and cloud topics addressed in the survey.
- » Using the 13 questions, IDC created a maturity scoring histogram for all respondents and identified cut-off ranges for the four Distributed Enterprise Transformation Index sophistication categories based on mean and standard deviations.

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