Cloud-Based Unified Communications and Collaboration: Transformation of the Work Experience

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IDC OPINION

Unified communications (UC) is a platform that combines advanced voice, IP telephony calling, and management; unified messaging (email, fax, and voice messaging combined); web conferencing, audioconferencing, and videoconferencing; instant messaging (IM), and pervasive presence management and awareness – all accessible through a common user interface on desktop and mobile devices using voice or tactile controls.

The adoption of mobile networking in the enterprise has facilitated the convergence of IP, cloud, and the mobile segments. The ubiquity of mobile devices in the enterprise is a key foundation and enabler of enterprise digital transformation. IDC has identified mobility as one of the four essential pillars of the 3rd Platform, which will enable next-generation technologies and drive IT spending for the next decade. A dynamic enterprise mobile strategy can facilitate increased productivity and workplace efficiency. Mobile platforms can enable and streamline access to corporate information in real time, facilitate presence, and improve customer service through automated call routing and workflow processes to mobile agents.

Mobile unified communications and collaboration (UC&C) technologies leverage the bring-your-own-device (BYOD) trend and integrate mobile capabilities such as messaging, telephony, and videoconferencing, offering the benefits of communication capabilities on a ubiquitous, anytime basis. This has transformed the capabilities of the mobile workforce across multiple industries.

IDC is predicting that the U.S. mobile worker population will grow at a steady rate over the next five years, from 98.1 million workers in 2016 to 105.4 million workers in 2020. IDC expects that by the end of the forecast period, mobile workers will account for approximately three-quarters of the total U.S. workforce.

IN THIS WHITE PAPER

This IDC White Paper highlights the impact of the cloud and mobility in transforming UC. It explores the impact of the mobile revolution on unified communications and collaboration and the benefits of leveraging BYOD and mobile networking combined with UC in the business environment. It also analyzes recent survey results about enterprise attitudes toward mobile and cloud-based UC.

Mobility and the Evolution of the Workforce

As a pillar of the 3rd Platform, mobility, as well as future IT accelerators generated by mobile platforms, will have an incredible impact on the future of business. In 2016, the mobile worker population continued its steady growth for a number of reasons. The acceptance of BYOD programs will remain a key driver for mobile worker population growth alongside smartphones and tablets becoming increasingly affordable. In addition, innovations in mobile technology such as biometric readers, wearables, voice control, NFC, and teleconferencing are enabling workers in completely new ways, increasing productivity by enhancing communication and business workflows.

These market trends in mobility are driving the acceptance and need for mobile devices in the workplace. As a result, mobile technology suppliers are developing solutions specifically intended to manage the challenges associated with the growing mobile workforce.

The U.S. mobile worker population will grow at a steady rate of 1.9% over the next six years, increasing to more than 105.4 million mobile workers in 2020. The total U.S. installed base of smartphones was 259.9 million in 2016, growing 8.1% over 2015, and will reach 320.9 million in 2020. Mobile workers include corporate employees who work at a home office during normal business hours. The threshold for telecommuters is three days a month or more, though some telecommuters may spend no time in traditional offices. (In effect, they are telecommuting full time.) These workers may have an informal arrangement with their supervisors, or the work arrangement may be more formalized with a written policy and enrollment. In addition, enterprises spent over $13 billion on UC&C services and platforms in 2016. See Figure 1 for IDC's forecast.

FIGURE 1

IDC's Worldwide UC&C Revenue Forecast, 2016 and 2021
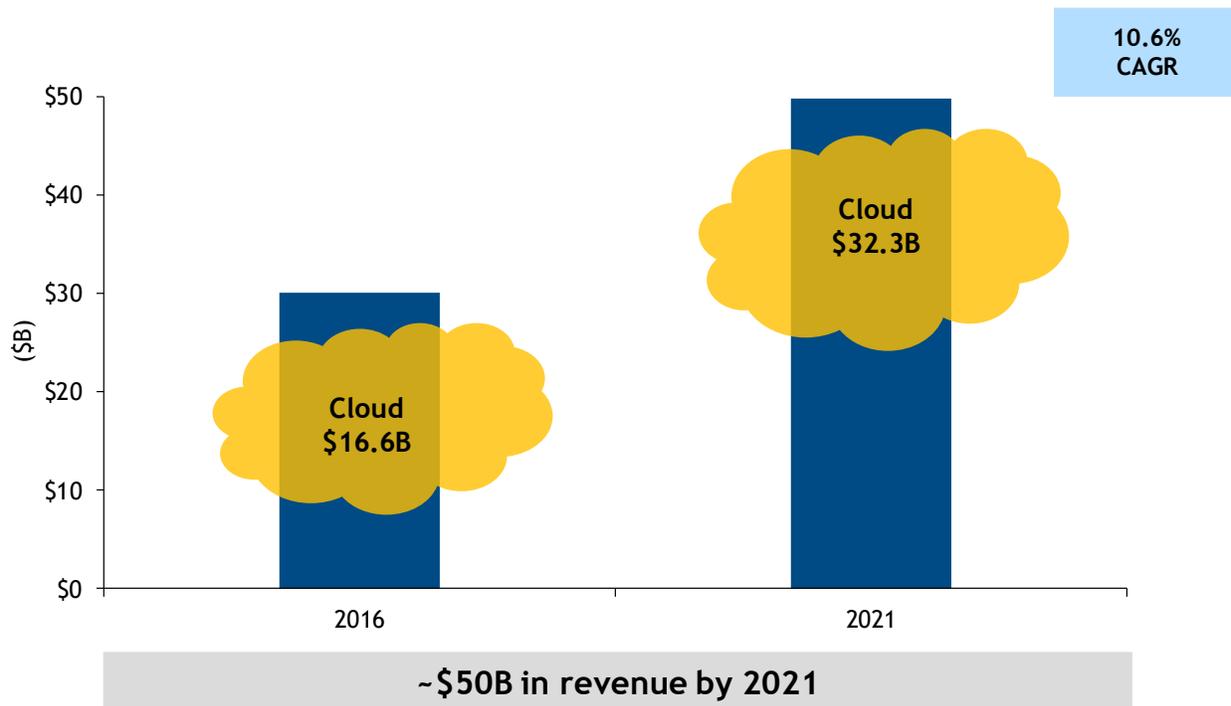
Source: IDC, 2017

Mobility and Unified Communications and Collaboration

UC has extended the definition of the "office." Cloud-based UC and mobile integration leverage the power of the UC platform providing secure corporate access to employees, wherever they are, as well as the ability to conduct conferences and collaborate. This facilitates improved employee productivity, while reducing capex and operational expenses.

UC solutions have become a central component of many organizational strategies to optimize employee performance. Figure 2 shows end-user plans for UC&C adoption. Moreover, mobility is a core part of the UC story, increasingly offering end users multiple device support; a simpler, more intuitive experience; a mobile-centric design (i.e., mobile device support from the ground up and focused on end-user needs), device independence (i.e., features, functions, and rules associated with the user, not the mobile device), and mobile business applications to communicate and collaborate internally in real time as well as externally.

Mobile collaboration will grow as a critical aspect of the enterprise communications infrastructure. Already, the majority of employees are either using mobile devices in the workplace or are working outside of the office for a portion of the day. Since upward of 50% of emerging business employees are working out of the office for at least a portion of every day, mobile integration provides an extraordinarily important tool for acquiring new customers and for serving existing clients. IDC defines mobile workers by their physical location and segments the mobile worker population into two core categories: office-based mobile workers (mobile professions, telecommuters, and non-travelers) and non-office-based mobile workers (mobile field workers and location-based workers).

FIGURE 2

User Adoption Is Expanding

Q.   Does your organization use unified communications and collaboration solutions?

Nearly three-fourths of businesses use or plan to use UC&C within two years.
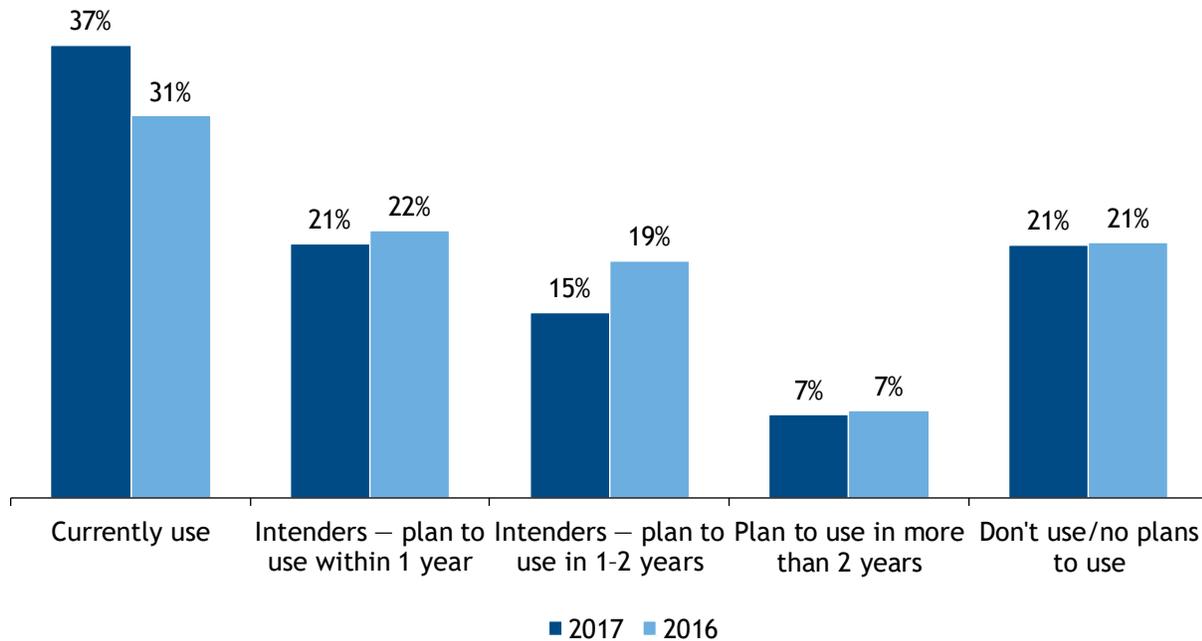
2016 n = 1,204

2017 n = 1,201

Base = all respondents

Source: IDC's *U.S. Enterprise Communications Survey,* 2017

The Impact of BYOD

Over the past several years, the IT industry has undergone a major shift as companies evolve their infrastructures to better take advantage of mobile and cloud technology. In parallel, the traditional models for business technology procurement and consumption have also experienced a significant change, often referred to as consumerization of IT (CoIT). CoIT is a broad trend that may impact an organization in many different ways, but one of the most visible outcomes of the trend is bring your own device. BYOD environments stand in stark contrast to the days when employees carried out their work tasks via IT-managed applications and devices only. Today, a growing population of devices connecting to the corporate network are employee owned, and these devices contain a mix of corporate and consumer applications.

BYOD phones are expected to increase in prevalence, and organizations expect that in 2017 just over half of employees will have organization-issued mobile phones. Increasingly, most companies will move toward a hybrid solution of corporate- and individual-liable smart devices. On average, 53.9% of employees who have mobile phones are using applications (email and messaging aside) for work purposes. Figure 3 shows the importance of mobility as an integral aspect of UC and collaboration.

FIGURE 3

UC&C Priorities

Q.   What are your organization's key priorities around UC&C in the next three years?
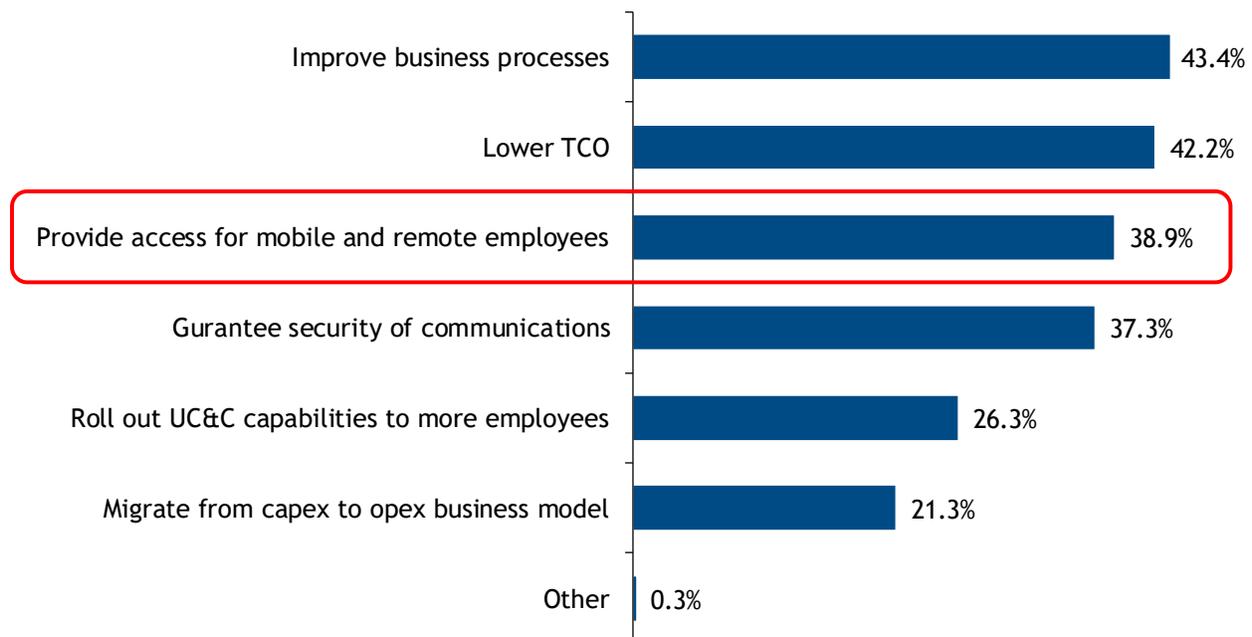
n = 872

Base = current UC users and UC intenders

Note: Multiple responses were allowed.

Source: IDC's *U.S. Enterprise Communications Survey*, 2017

UC is a cost-effective platform as UC solutions are designed to provide a way of delivering, managing, and supporting all of the various types of IP communications that an organization or individual requires in both horizontal and vertical industry business processes and applications. Unified communications and collaboration is a more recent term that emphasizes the increasingly important role that collaboration applications software and services are playing in support of the UC&C market. Collaborative applications software and services provide the user interfaces, repositories, and computer logic required for individuals and groups of users to interact, coordinate tasks, and share information in real-time and non-real-time models.

The Impact of UC&C on the Enterprise

Cloud-based collaboration platforms facilitate a reduction in premise-based hardware and capital investments. Cloud-based UC functionalities such as IP telephony, audio and web collaboration, and mobile messaging capabilities provide companies with the benefit of a converged platform. This reduces complexity and provides centralized management and visibility across the entire platform.

Businesses are adopting UC&C in an effort to increase productivity, control and reduce costs, and encourage collaboration both internally and externally. In IDC's most recent UC survey, current users and UC&C intenders said reducing costs (41.7%) was the most important factor in their decision to adopt UC&C, followed by increasing productivity (38.8%). This differs from the 2016 survey in which increasing productivity was the most important factor, followed by cost reduction. The features and capabilities most commonly associated with UC&C such as email web conferencing, and VoIP/IP telephony were among the most widely used by U.S. organizations with UC&C. The adoption of collaboration tools is still growing in the business segment. IDC estimates that approximately 20% of business have integrated UC&C into a broader set of business applications or use mobile UC clients/mobile integration. Although collaboration is gaining traction among current UC&C users, 42.5% and 35.8% of respondents said they use document sharing and collaboration, respectively.

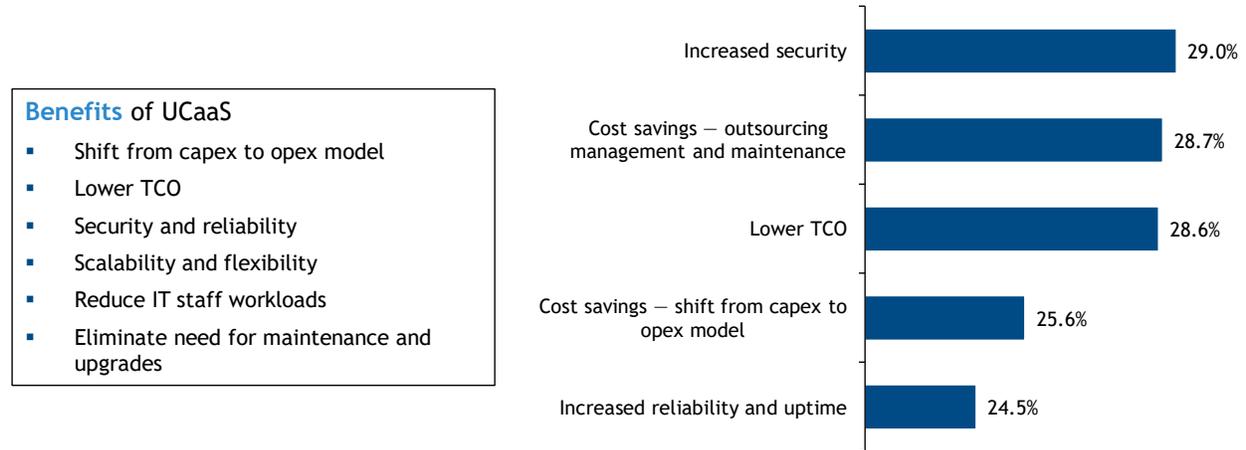## The Benefits of Cloud-Based UC

Cloud is leading UC&C growth in the United States. Although businesses will continue to invest in on-premises solutions, cloud-based UC&C solutions are quickly gaining traction and will soon become the leading UC&C delivery model – 59% of current users indicated they have an on-premises solution and 54% said they deployed a cloud/multitenant UCaaS solution. However, roughly one out of every two UC&C intenders said they plan to deploy a cloud-based UCaaS solution and a hybrid premises-based and cloud-based solution.

Figure 4 shows enterprise benefits of UC&C solutions.

FIGURE 4

UCaaS Benefits: Cloud Changes Everything

Q.   What are the most compelling benefits of a UCaaS solution?

Benefits of UCaaS
- Shift from capex to opex model
- Lower TCO
- Security and reliability
- Scalability and flexibility
- Reduce IT staff workloads
- Eliminate need for maintenance and upgrades

Benefit	Percentage
Increased security	29.0%
Cost savings — outsourcing management and maintenance	28.7%
Lower TCO	28.6%
Cost savings — shift from capex to opex model	25.6%
Increased reliability and uptime	24.5%

n = 872

Base = current UC users and UC intenders

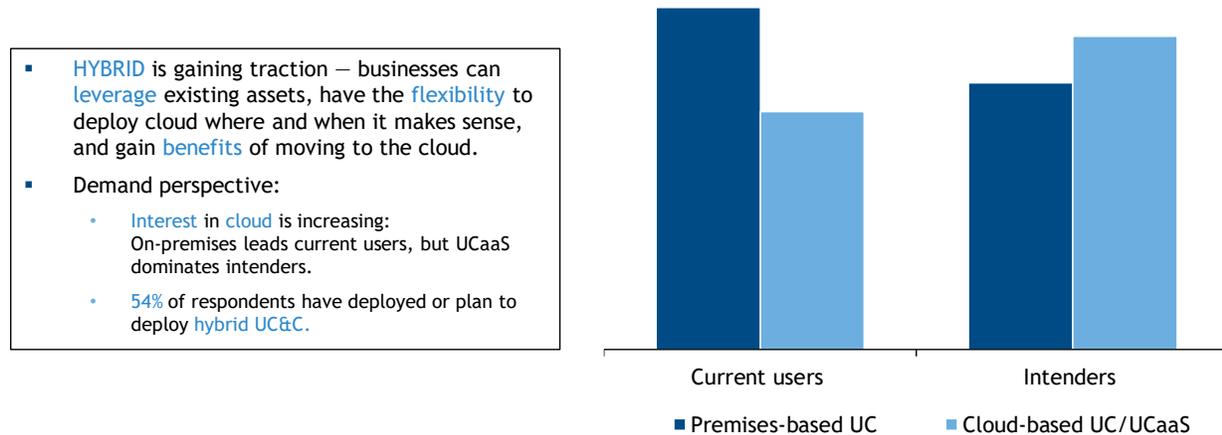Source: IDC's *U.S. Enterprise Communications Survey*, 2017

There are various options for managing UC capabilities from the cloud, including hosted, multitenant, dedicated, and hybrid solutions. However, the key distinction for cloud-based UC solutions is that it is offered on a per-seat basis that typically includes a standard suite of UC features as part of the monthly seat cost. Capabilities are provided in the cloud, with business continuity and a consistent service experience intrinsic to the offering. The service should be integrated with existing infrastructure investments and platforms as much as possible. Today many enterprises are choosing to adopt a hybrid approach — implementing a hosted or cloud-based solution in one or several locations while continuing to leverage existing on-premises investments in other locations where it makes sense.

While the top 2 benefits of implementing UC are cost savings and increased productivity gains, companies are also experiencing several other benefits. The most important is the reduction in capital spending for multiple hardware and software systems as well as the savings from training and operating expenses of maintaining those systems.

Figure 5 shows current and intended use of premise and cloud solutions.

FIGURE 5

Cloud and Hybrid Are Driving UC&C Adoption

- HYBRID is gaining traction — businesses can leverage existing assets, have the flexibility to deploy cloud where and when it makes sense, and gain benefits of moving to the cloud.
- Demand perspective:
  - Interest in cloud is increasing: On-premises leads current users, but UCaaS dominates intenders.
  - 54% of respondents have deployed or plan to deploy hybrid UC&C.

Current users n = 443 and intenders n = 429

Base = current UC users and UC intenders

Source: IDC's *U.S. Enterprise Communications Survey*, 2017

Cloud-based solutions also have the advantage of flexibility. The service provider facilitates regular and coordinated software upgrades that can be distributed to the entire workforce, regardless of location of device usage. Managed service providers can also provide timely technical support and ensure that organizations have the most relevant technology solution. This allows the IT manager to focus less on IT issues and more on mission-critical business decisions.

Other key benefits include the following:

- Proactive monitoring and support
- Detailed analytics of employee usage
- Design and implementation support
- CRM integration
- Communications-enabled business processes
- Compliance support
- Global deployment

Tips for Successful Implementation of Mobile UC

The most important feature of a mobile UC deployment effort is the readiness of the enterprise infrastructure. A robust wireless LAN that that can support and scale up as the enterprise requirements grow is essential to maintain quality communications. It's essential that IT managers leverage the expertise of their provider to ensure the most appropriate solution and that mobile VoIP can experience the optimal in-building roaming solution.

Other key features include the implementation of secure VPN and a solution that will support multiple mobile OSs. The enterprise will have to implement a comprehensive mobile enterprise management policy that spans multiple devices and compliance requirements.

On a wired network, most voice and video traffic traverses a dedicated VLAN to ensure quality of service (QoS). Moving that traffic to wireless devices will demand similar VLAN tagging and QoS policies as mobile voice traffic moves across both wireless networks and wired networks.

UC managers also have to look at how mobile users will access the corporate network with their mobile unified communications clients. How robust is the enterprise infrastructure? Can it support high-quality VoIP and scale up via SIP trunking? What external mobile solution will be implemented, and what messaging and directory standards will be supported? In addition, is there a security VPN protocol in place that will support a wide range of devices and mobile OSs? The following checklist should also be considered:

- Selection of messaging systems that can be synchronized with consumer-oriented messaging
- Multidevice standardization
- Presence management and corporate directory integration
- Migration/integration of legacy PBX to SIP-based infrastructure

See Figure 6 for a list of leading UC&C service providers based on IDC's most recent survey of enterprise users.

FIGURE 6

UC&C Service Providers — Hosted/Cloud-Based UCaaS

Q.   Who supplies your UC&C solution?
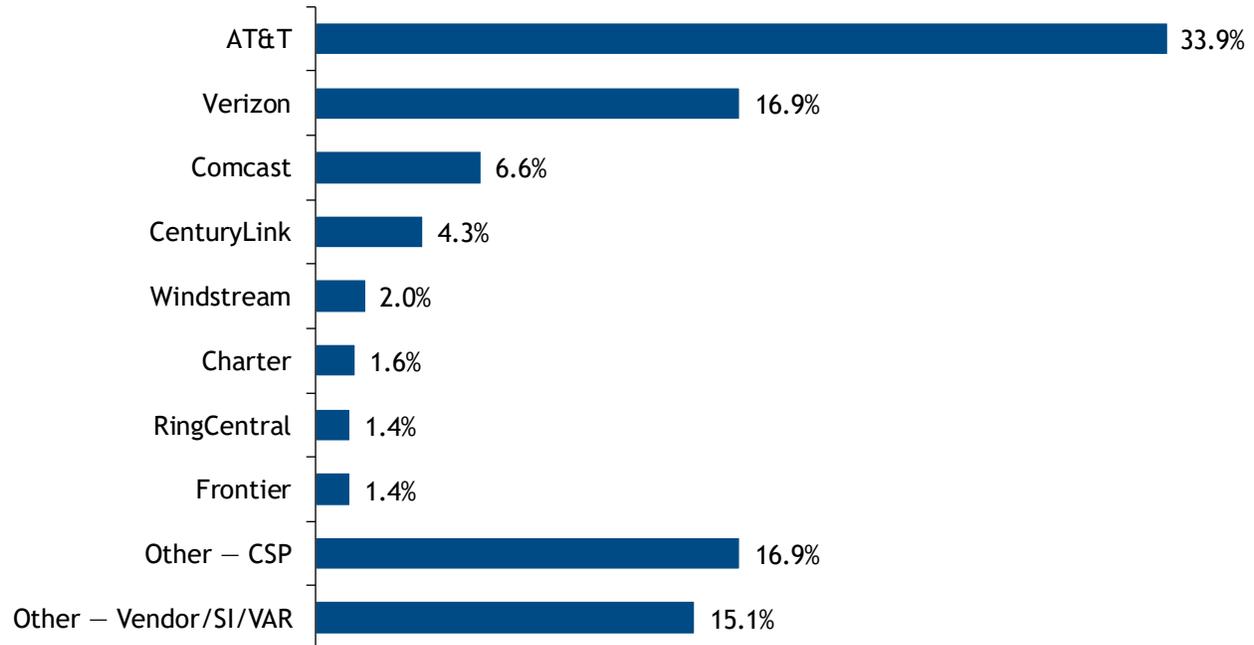
n = 443

Base = current UC users

Source: IDC's *U.S. Enterprise Communications Survey,* 2017

CONCLUSION

Selecting the best and most appropriate service provider can be a challenge for CIOs. IDC recommends the following considerations in selecting a UC service provider:

- **UC expertise and services portfolio:** Over the past several years, dozens of companies have emerged in this sector. Select the provider that can demonstrate a proven history of delivering high-quality service. The best provider should have a diverse array of expert personnel to guide you on your journey from design to implementation and beyond. In addition, the best provider will be able to support multiple vendor platforms that include Cisco and Microsoft as well as the two major mobile OS platforms and other platforms as needed.
- **Global infrastructure and support:** Many companies have already begun the journey to implementing UC with VoIP and SIP trunking. According to IDC research, approximately 70% of businesses have implemented some VoIP and 25% have implemented additional UC features. Most companies are seeking guidance on adding additional UC features and

extending the platform by integrating mobile access, leveraging WLAN, and the mobile infrastructure. As such, CIOs will require a CSP that can offer a converged infrastructure that integrates the IP/cloud and mobile infrastructures and offers global support capabilities.

- **Design/implementation support:** Most companies are in the early stages of leveraging the benefits of UC&C. CIOs require a CSP that offers a future road map that will simplify the UC implementation process while providing the tools to stimulate internal usage to realize the most optimal return on investments for UC. Among the biggest challenges of realizing the benefits of UC are educating employees on using the features and integrating the platform into the daily routines of employees. CIOs should select the provider that offers the best tools for managing internal analytics of usage, providing visibility and transparency of the platform internally.

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