White Paper

The Future of Cloud Communications: A Success Roadmap

Sponsored by: RingCentral

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IN THIS WHITE PAPER

Cloud phone systems are a powerful tool for modern workforce communications, but the in-the-cloud deployment model raises buyer concerns about security, reliability, service control, and support. This IDC White Paper investigates those concerns and describes the measures taken by RingCentral to solve them. Further, it defines how cloud phone systems expand the horizons of business communication by infusing presence, messaging and collaboration, and by integrating communications with applications and business processes.

SITUATION OVERVIEW

Business Communications Transformation

Voice has been the primary business communications tool forever. But workforce communications are rapidly evolving to include a broad mix of voice, email, IM, presence, conferencing, video, and IP messaging all fully accessible from mobile phones and tablets as well as desk phones. The nature of work is also undergoing a radical transformation. As workforces become increasingly distributed, mobile, and not tied to a physical location, the tools they use are becoming virtualized and accessible via websites and mobile apps. Mobile enterprise device usage is outpacing overall market growth, with IDC estimating there will be more than 1 billion mobile workers worldwide by year-end. Companies are embracing cloud delivery capabilities including software-as-a-service (SaaS), virtual desktop infrastructure, cloud storage, security-as-a-service, and mobile edge computing. Mainstream acceptance of cloud delivery for IT solutions paves the way for cloud-based communications solutions.

Cloud Services

Cloud solutions are the most rapidly growing segment of the IT marketplace. As Figure 1 shows, IDC's forecast for U.S. public cloud services spending will double from $37.1 billion in 2014 to more than $75 billion in 2018. SaaS will dominate public cloud services spending because most customer demand is at the application level.

Most IT vendors have adopted "cloud first" strategies in their product roadmaps. For IT buyers, every system purchase or design specification is done with virtualization and cloud in mind. This does not mean that every procurement is a cloud procurement, but rather that a top buying criteria is consideration of the cost efficiencies of a cloud approach.

Adoption of public cloud services is being driven by the benefits of reduced complexity, productivity gains, and lower costs due to pay-per-use pricing. Cloud delivery models promote business agility and

ease of use as ownership and management of technology is the responsibility of the vendor, while the scalability of cloud services allows companies to be more efficient with resource utilization.

FIGURE 1

U.S. Public IT Cloud Services Revenue by Segment, 2014-2018 ($M)
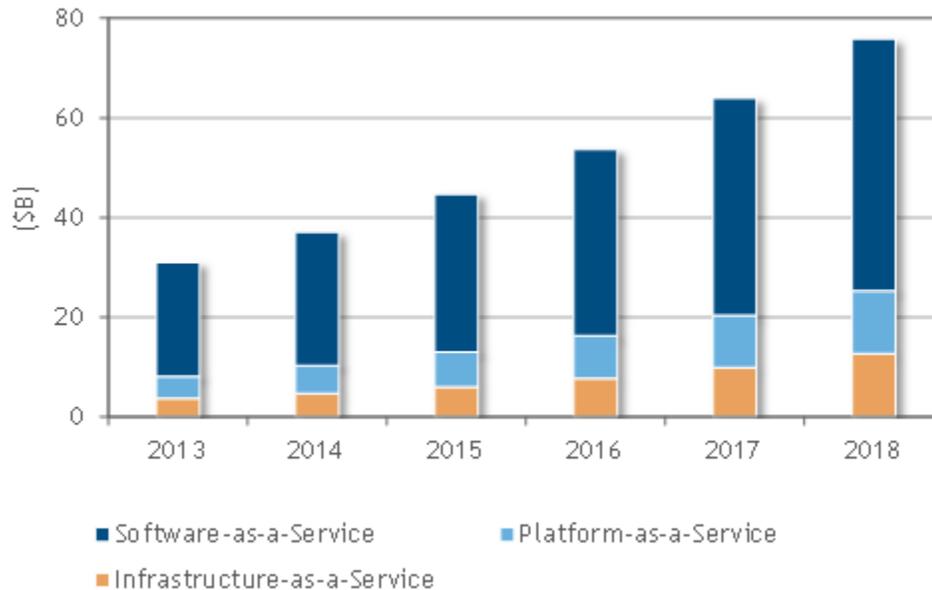
Source: IDC, 2015

ENTERPRISE BUYERS AND THE DEBATE ABOUT CLOUD PHONE SYSTEMS

The benefits of cloud phone systems do not come without raising important concerns about security, reliability, service control, and support. Replacing existing phone systems with a cloud-based system remains a topic of debate among IT managers. To understand the specifics of these concerns, RingCentral and IDC conducted a national online survey of 1,016 IT professionals responsible for purchasing business phone systems. Fielded in June 2015, the survey investigated the details behind both the perceived benefits and concerns that businesses have about cloud phone systems.

More than 80% of respondents' organizations have multiple locations and roughly one-third said they currently use a cloud phone system. Three-fourths indicated they face challenges with their current phone system, with the majority citing cost and management as the top challenges. Respondents were asked to rank the top three benefits of and concerns about cloud phone systems. The top benefits from most to least compelling were: cost reduction, ease of use, scalability, increased reliability and, finally, security. Among concerns, security topped the list, while service reliability, cost of service, and call quality tied for second place. Other concerns included service control and vendor support of cloud phone systems.

Security

Not surprisingly, security is top of mind for most businesses as a concern about cloud phone systems with 37% of respondents' ranking security as their greatest concern. But security encompasses a lot, so we broke security concerns about cloud phone systems into six sub-categories. As Figure 2 shows, the greatest concern is security around voice calls, call records, and so forth (67%), while physical security of the data center was of least concern. Other security concerns for businesses, particularly larger enterprises, are data privacy and regulatory or compliance issues. According to the survey, businesses with 500 or more employees were more concerned about compliance with industry standards (HIPAA, PCI, etc.), whereas smaller companies with 29-49 employees reported being more concerned about toll fraud and anomalous calling. Many cloud providers have developed customized solutions targeted to key verticals such as healthcare and financial services–solutions that address their industry-specific security concerns and needs such as compliance.

While the concerns are real, cloud phone systems offer better security than many organizations' own IT departments, particularly SMBs, which often lack the IT staff and/or dedicated resources of larger businesses. Most cloud phone systems have built multiple layers of security into their architectures. Security capabilities and settings reside in the application and infrastructure layers as well as within the service delivery and operations processes. Many CSPs also do quality of service (QoS) engineering for secure data transfer and place protections on network and customer connections.

RingCentral has a three-pronged security philosophy that revolves around encryption, with the three types of data–data at rest, data in motion, and data that stays on clients and travels on devices–encrypted throughout. RingCentral encrypts data at every point throughout the organization and the platform undergoes a thorough compliance process annually. RingCentral's platform is also fully HIPAA compliant, with two levels of security. The first happens at the platform level (secure and closed, with restricted physical access) and the second at the switch level involving a per-account discriminator that restricts what customers can and cannot do/access–for example, the system can force a user into secure voice transfer. RingCentral encrypts voice and messaging so that, even if unauthorized users are able to get access to the voice stream, encryption prohibits them from reassembling it.

Security at RingCentral is a 24x7x365 operation. Because of the platform-based nature of RingCentral's technology, all customers benefit from updates. As RingCentral encounters new security requirements, the company adds them into its platform so that best practices and the latest security threat protections are accessible to every customer on the platform.

RingCentral's security policy and technology has been vetted by its largest carrier partners–AT&T, BT and Telus–all of which are very security-minded. RingCentral has also been recognized by Google and, after being vetted by a third-party security firm, has been named a "Recommended for Google App for Work" solution. RingCentral also is able to tap into its partners' respective expertise and requirements, thereby improving its own security position. To mitigate security threats, RingCentral strives to maintain a low profile in order to avoid becoming a target of hackers and large data breaches. One way the company does this is by not storing SSNs or business EINs on its system.

FIGURE 2

Summary of Security Concerns

Q. How concerned are you about the following security factors for cloud phone systems? Please rate on a scale of 1 to 5, with 1 being not at all concerned and 5 being very concerned.
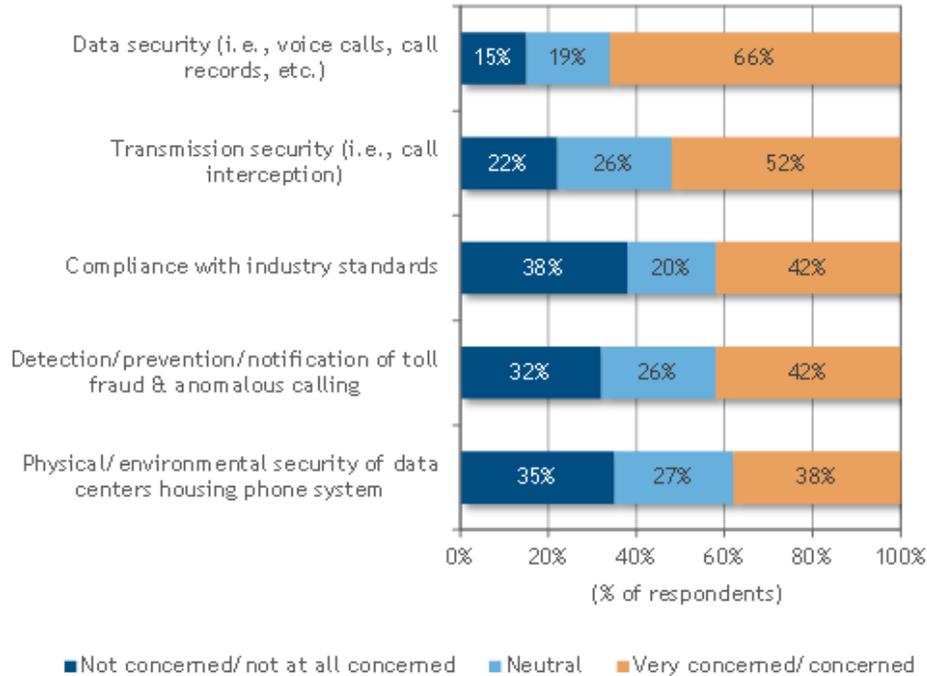
Source: RingCentral Business Phone Survey, 2015

Service Reliability

IT managers also expressed concern about service reliability—the availability and accessibility of the cloud phone solution—with 28% ranking reliability as a leading concern (see Figure 3). Specific service reliability sub-component concerns included configuring the network connection and configuring data switches, routers, and firewalls for voice calling, with nearly half of respondents very concerned about both factors. Only slight differences were reported by size of business.

For many businesses, service availability is a critical concern. Lack of telephone service can directly impact revenue. Similarly, businesses have high expectations for service uptime and call quality. Reliability in terms of service uptime is another instance where cloud services may perform better than corporate IT departments can provide with traditional software deployments. Nonetheless, the perception remains that downtime and response time are potential issues with moving to the cloud.

Business continuity and disaster recovery is another area where cloud phone systems often offer superior performance over traditional solutions. Most cloud phone solutions support failover conditions in case of emergency; a cloud service is built with geographically distributed active-active operations so that service operations continue if one location is not available.

RingCentral is fully redundant geographically in every location where the company operates. This is a key differentiator between RingCentral and its competitors as many are not geographically redundant internationally. RingCentral has a direct trunk connection with the PSTN and does not rely on multiple hops through aggregators, with the goal of enabling all calls to make one hop to their destination. As a result, RingCentral has high mean opinion scores (MOS)—an important indicator of quality.

RingCentral also has the ability to detect incorrect network configurations and proactively notify customers. For example, a customer with 100 lines experienced a decrease in call quality every afternoon at the same time. RingCentral reviewed network settings (RingCentral has a lab that can test 70+ routers settings) and discovered that the customer's IT department ran a remote backup at the same time every afternoon, effectively consuming all the available bandwidth. As a result, by proactively monitoring and reviewing the network settings, RingCentral prioritized the network traffic and successfully resolved the customer's issue.

RingCentral also utilizes a next-generation audio codec specification, called Opus, designed for interactive real-time audio transmission over the Internet. Opus includes very robust protection against packet loss and jitter as well as other capabilities designed to compensate for network issues. RingCentral is already using Opus on all software end-clients, mobile apps, etc. and views Opus as a key competitive differentiator as many of its competitors have yet to implement the Opus codec.

FIGURE 3

Summary of Service Reliability Concerns

Q. How concerned are you about the following service reliability factors for cloud phone systems? Please rate on a scale of 1 to 5, with 1 being not at all concerned and 5 being very concerned.
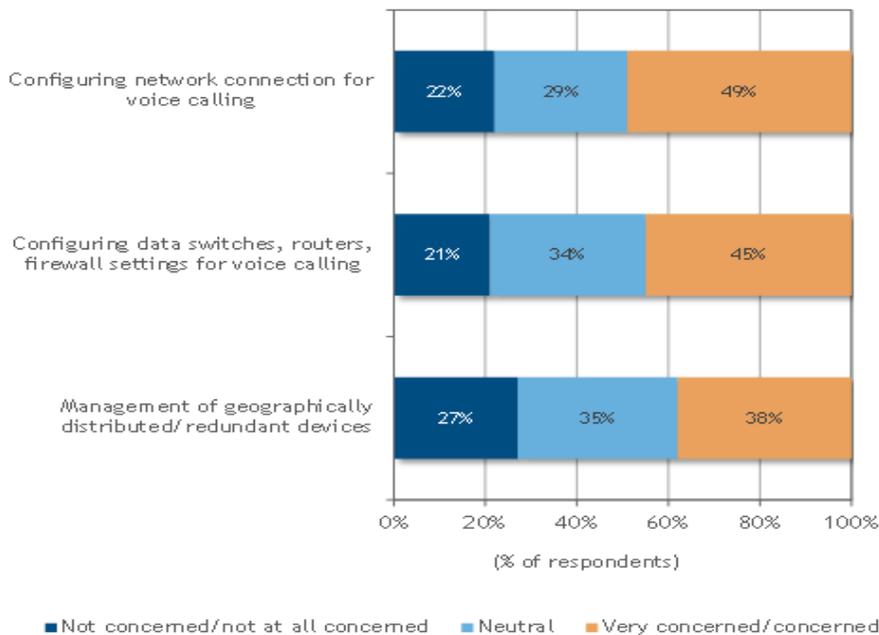
Source: RingCentral Business Phone Survey, 2015

Service Control

Service control concerns relate to the ability to administer, configure and upgrade the phone system for a specific organization's use. Although this has never been an easy task, some IT managers have been concerned that an in-the-cloud phone system will be harder to control than one that is in the closet. Service control factors of greatest concern include administrative tasks, operations activities, and managing/upgrading client software (see Figure 4).
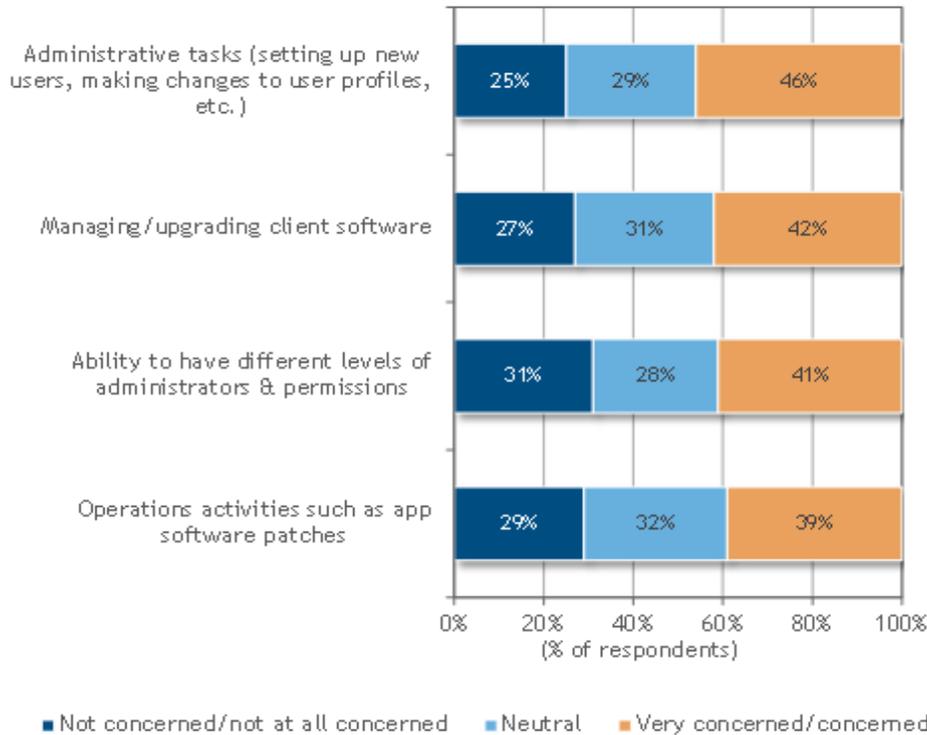
While all companies, regardless of size ranked administrative tasks (setting up new users, making changes to user profiles, updating features) as the service control factor of greatest concern, small companies (20-49 employees) were significantly more concerned with admin tasks than they were about the ability to have different levels of administrators and peers. Conversely, large enterprises with 1,000 or more employees ranked the ability to have different levels of administrators and permissions as the service control factor of most concern.

In response to concerns about service control, RingCentral's system is designed to make it easy to add users–on average it takes three minutes or five "phone presses/clicks" to add a new user–and users can be added either individually or in batches. In addition, RingCentral has a global UI that has the same look and feel whether accessed in a Web portal, on a mobile client, or on a tablet. Because RingCentral has an intuitive user interface, there is no learning curve across various devices, eliminating the need for training, and it's not necessary to use an administrative console. Given the significant growth of BYOD users–in which clients are "self-upgrading"–RingCentral maintains reverse compatibility as new updates and upgrades are released. Analytics is another important capability of the RingCentral system, enabling administrators to leverage call metrics and other data insights to track productivity and system usage.

FIGURE 4

Summary of Service Control Concerns

Q. How concerned are you about the following service control factors for cloud phone systems? Please rate on a scale of 1 to 5, with 1 being not at all concerned and 5 being very concerned.

Source: RingCentral Business Phone Survey, 2015

Vendor Support

All companies regardless of size ranked priority treatment for service affecting outages as their top vendor support concern. Initial set-up/customization of the phone system and commitment to first call resolution of customer support issues tied for second place with 50% of respondents ranking them as most concerning. Conversely, few companies were concerned with premium support and professional services, although 42% of businesses with 20-49 employees ranked professional services options on par with initial setup/customization of cloud phone systems as support factors of greatest concern (see Figure 5).

RingCentral provides dedicated customer success managers, account managers, online case submission, and 24x7 global technical support via phone and chat. This direct support model, combined with RingCentral's extensive network monitoring framework, proactive service interruption communication processes (via email and SMS), and online service status website ensures that customers are promptly notified via a range of channels in the event a service interruption occurs. As a

complement to its multi-layered redundancy architecture, RingCentral's Global Network Operations Center is also highly skilled at assessing and mitigating potential service interruptions.

RingCentral's cloud-based service is instantly provisioned and simple to set up. But to ensure successful implementation of the service, RingCentral also assigns a dedicated Implementation Advisor that works with each customer on number porting, administrative setup, user configuration, call routing, and training requirements. Additionally, large customers go through an Enterprise Project Management implementation process that includes a full statement of work, network assessment, project managed porting, advanced administrator and user training, and production testing. Upon completion of the implementation, customers are aligned with RingCentral's customer support teams and online success portal, which includes start-up guides, tools, videos, knowledgebase, and best-practices documentation. RingCentral also conducts follow-up surveys after each implementation and support case is completed to assess customer satisfaction.

For customers that have limited IT or engineering staff and/or that want to utilize RingCentral's experts for onboarding and support, a variety of professional services options are available. RingCentral's professional services engagement offerings include network assessment, network design, complex project management services, management services, on-site deployment and training, and premium technical support. Additionally, RingCentral uses internal methodologies anchored by best practices and experience with the Plan, Design, Implement, Operate (PDIO) model. A key benefit often cited by customers that have engaged with RingCentral's professional services team is the knowledge transfer that occurs between RingCentral's engineers and a customer's engineering and technical staff.

FIGURE 5

Summary of Vendor Support Concerns

*Q. How concerned are you about the following vendor support factors for cloud phone systems?
Please rate on a scale of 1 to 5, with 1 being not at all concerned and 5 being very concerned.*
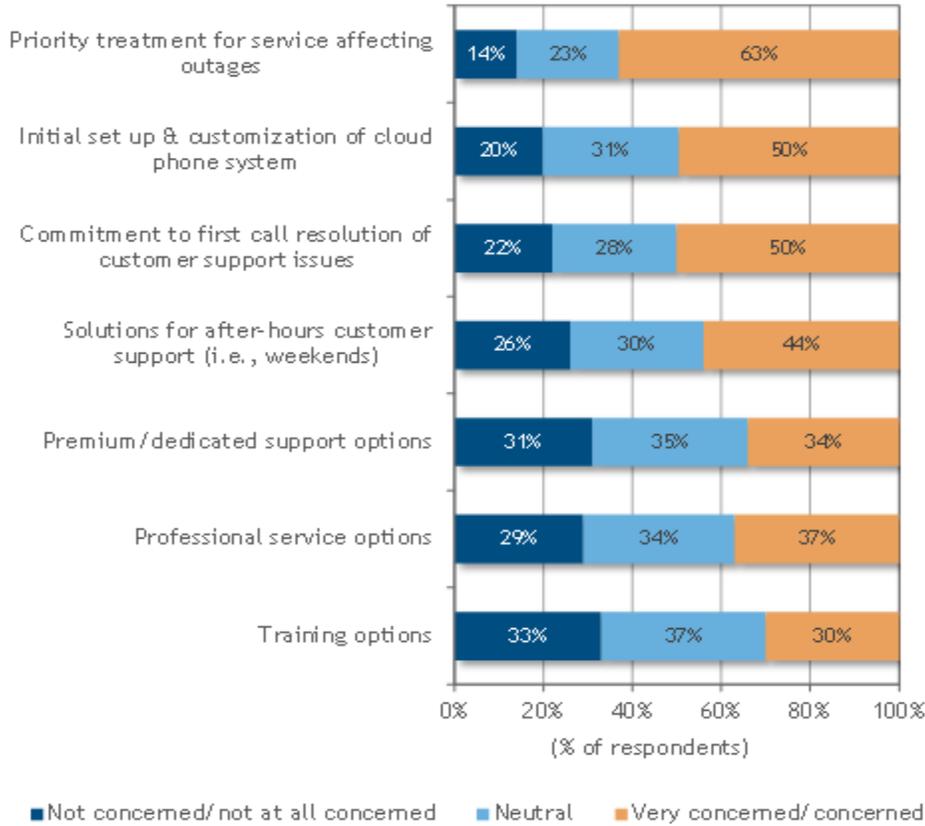
Source: RingCentral Business Phone Survey, 2015

FUTURE OUTLOOK

The ubiquity of mobility and BYOD, the increasingly distributed, mobile, and virtual nature of work, and growing demand for pay-as-you-go delivery is transforming business communications. RingCentral is capitalizing on the potential of unified communications and collaboration by infusing messaging, IM, and collaboration into cloud telephony systems. For example, collaboration with text messaging and integrated productivity tools are being merged or integrated with communications via Glip, a messaging hub for team collaboration acquired by RingCentral in June 2015. Integrated communications solutions also help simplify management and delivery of services. For example, allowing a user to log in to one system for phone service, email, IM, and conferencing using a single login simplifies service delivery. Nearly all business applications benefit from having real-time communication embedded in the application. RingCentral enables this by improving and simplifying the ability to have communications integrated in Salesforce, Zoho, Office 365 and many other sales, marketing, and CRM applications.

RingCentral is extending key UC features and functionality to mobile devices and offering mobile UC solutions to support flexible work environments, facilitate management of geographically dispersed workforces, and provide dynamic collaboration tools such as consolidated presence and messaging management to help facilitate collaboration. Mobile application development is contributing to a renewed wave of UC&C adoption and mobile devices will continue to set the trend with the integration of UC with consumer social and communications platforms such as Skype, Google, and Twitter.

CONCLUSION

Business communications are rapidly evolving impacted by the ubiquity of mobility, the changing nature of work as the workforce becomes more mobile, virtual, and global, and the growing appeal of cloud delivery models. However, many organizations are still hesitant to migrate from premises-based phones to cloud phone systems because of concerns about security, reliability, service control, and support.

Cloud phone systems provide many benefits. They require less up-front capital investments and can reduce lifecycle costs. Cloud phone systems are highly scalable and provide significant agility and flexibility in managing numerous geographically disparate locations. Cloud-based platforms can facilitate the timely and rapid network and device configuration, upgrades, monitoring, and management, which can provide significant cost benefits for IT decision makers.

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