

RED RIVER VIEWPOINT

# UNIFIED COMMUNICATIONS AS A SERVICE: MIGRATION TO THE CLOUD

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Red River

TECHNOLOGY DECISIONS AREN'T BLACK AND WHITE. **THINK RED.**



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## About Red River

Red River brings together the ideal combination of talent, partners and products to disrupt the status quo in technology and drive success for business and government in ways previously unattainable. Red River serves organizations well beyond traditional technology integration, bringing 25 years of experience and mission-critical expertise in security, networking, analytics, collaboration, mobility and cloud solutions.

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## INTRODUCTION

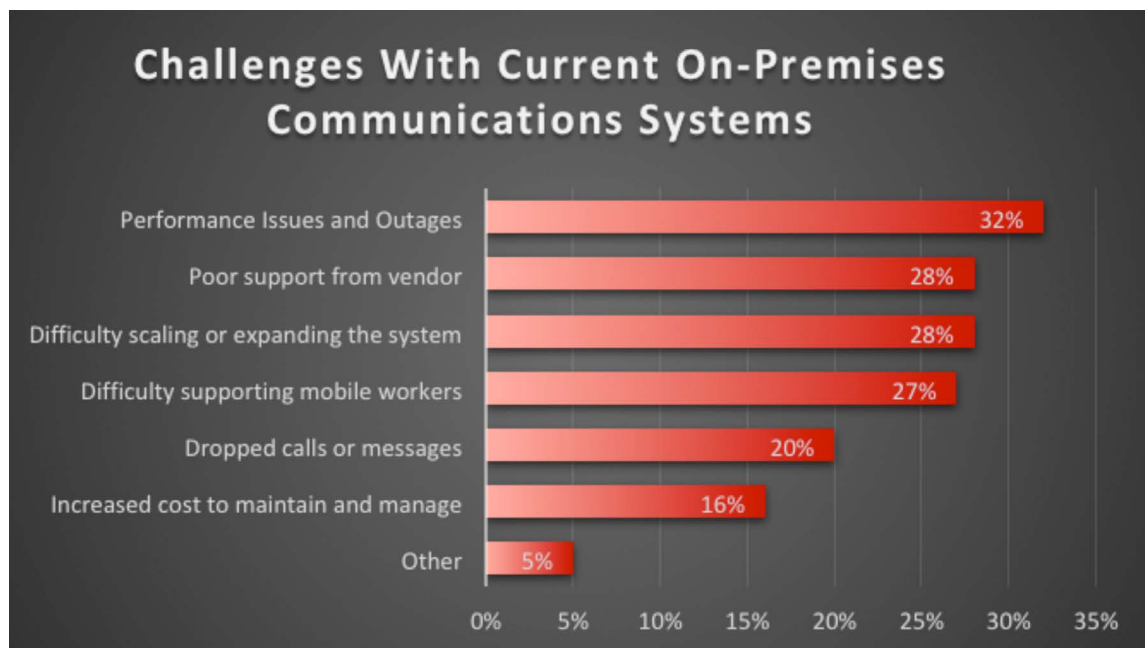
Every year we see different customers going through a common cycle that every organization must endure on a somewhat regular basis. Organizations spend large lump sums of their budgets replacing outdated hardware that is usually already well past the last day of support on a system that is essential to their business practices.

Communications technologies are becoming more advanced and, in the case of video calling, much more widespread. Quality is improving beyond the nearly idle state it has been for decades, there is a growing need to update or augment the hardware footprint in order to support these improvements and expansion of services throughout many organizations.

Although originally cloud hosted VoIP solutions were once best suited for small to medium business and organizations that had many small remote locations, the benefits are beginning to become clear for large enterprises as well. Customization is improving, integration support is becoming more and more available, and geographic footprints are growing quickly with many Unified Communications as a Service (UCaaS) providers.

## PROBLEM

While on-premises Unified Communications systems solve many business process requirements, there can be many problems aside from the need to refresh outdated hardware. One major pain point for businesses with an on-premises solution are performance and system outage issues. According to a Spiceworks Inc study, only 34% of IT professionals with on-premises UC solutions report that they have not experienced an issue with their system in the past 12 months. Top challenges identified by the study are shown in Figure 1.<sup>(1)</sup>



Challenges with current on-premises communications systems (Figure 1)

## BACKGROUND

As with all technology solutions, Hosted Unified Communication solutions have advanced over time. Prior to UCaaS, business communications were provided by Private Branch Exchanges or Key Systems that provided analog dial-tone at first, then systems progressed to digital signals, expanding capabilities and features. In the 1990's PBXs were beginning to be replaced by Voice over Internet Protocol (VoIP) giving organizations the ability to make use of their IP networks in a new way.

With the advent of VoIP, IT Professionals began to realize that the information on the phones was available to be shared with computer applications. As these integrations grew, so did new solutions that utilized this information. Integrations with systems like: Customer Relationship Management software, Instant Messaging, Email, Mobile Remote Access to connect UC systems to home phones and mobile devices, and the list goes on and on.

Along with the expansion of integrations into everyday workflow for organizations, processing and storage got faster, networking got faster, and virtualized server environments were created. PBXs for large office buildings, hospitals, and campuses went from taking up rooms equal to that of many server rooms, to being able to be housed in half of a server rack.

These advancements in network speed and server virtualization, along with improvements in audio compression, cloud-based datacenters, as well as increased security architecture, have all made remotely hosted Unified Communications systems a possibility.

## SOLUTION

Unified Communications as a Services systems are increasing IT leaders' ability to improve agility, support digital transformation, and provide access to emerging features that Webex has to offer like video conferencing, team collaboration, and advanced contact center solutions. That all comes joined along with improved availability and disaster recover as well as reduced IT administrator maintenance and upkeep, freeing up time for strategic initiatives.

As the market leader with 61% of the market share in UCaaS across their cloud offerings<sup>(2)</sup> as well as a UCaaS Leader in Gartner's 2019 "Magic Quadrant"<sup>(3)</sup> proving their ability to execute and completeness of vision. Cisco will, without a doubt, continue to expand the features and capabilities of Webex Calling when market requirements change.

### Cisco Webex Calling

Red River has multiple options for providing UCaaS, and at the top of that list is Cisco Webex Calling. Webex Calling is an enterprise-grade UCaaS solution that Red River provides to businesses as a turn-key solution to replace their PBX or on-premises Unified Communication system.

Starting with administration, Webex Calling provides a centralized administration portal, Webex Control Hub, that allows you to simply manage all of your Webex services and user accounts from a single pane of glass. Services in the Control Hub provide administrators the ability to configure user synchronization through Active Directory, Webex Teams and Meeting licensing and user configuration, as well as endpoint registration. With Analytics and Troubleshooting in Control Hub, you are able to analyze adoption trends and call quality issues as well. Registering endpoints with Webex Calling happens in Control Hub as well. With bulk administration, engineers are able to quickly add endpoints and assign features to users by simply entering data into a spreadsheet and uploading the file.<sup>(4)</sup>

Webex Calling enables organizations to choose the PSTN service that fits their environment the best. With Bring Your Own Carrier, Webex Calling gives administrators the option of selecting a PSTN service that terminates on-premises to a local gateway, allowing them to choose their local service provider. As a fully cloud deployment, Cisco partners with IntelPeer in the United States market to provide Cloud Connected PSTN (CCP).<sup>(5)</sup> With CCP, the authorized PSTN provider is integrated directly into Webex Calling and provides businesses an economical and reliable solution without the on-premises gateway requirement.<sup>(6)</sup>

With the Webex Teams client, users are able to collaborate using messaging, schedule and join meetings, and place and receive phone calls to their extension or Direct-inward-dial (DID) phone number. The Webex Teams client can be installed on any Windows, MacOS, iOS, or Android device and can connect to these services anywhere they have an internet connection. This provides mobile and remote employees the freedom that they need in today's less conventional mobile office. Remote employees can also be provided a Cisco 7800 or 8800 model IP Desk Phone that can connect securely over the internet directly into Webex Calling from their home office without the need for a VPN router. Remote employee devices are configured through Webex Control Hub the same way that a device would be configured to be deployed within the organization's enterprise network, however, they can be configured to send correct information when dialing 911 in order to ensure calls are not routed to the wrong Public-Safety Answering Point.<sup>(4)(9)</sup>

### **Cisco Unified Communications Manager Cloud**

To complement Webex Calling, Red River plans to expand our cloud calling portfolio this year to include Cisco Unified Communications Manager (UCM) Cloud which offers enterprises the same, well established, familiar Cisco UC experience as the on-premises suite provides. With UCM Cloud businesses have a seamless transition available to easily migrate from an on-premises Cisco UCM deployment to UCM Cloud with zero administrator training required to come up to speed on a new system. Best of all, UCM Cloud makes it so that you no longer need to worry about server host hardware refresh and version upgrades.<sup>(7)</sup>

UCM Cloud offers the highest integration and customization capabilities within Cisco's UCaaS portfolio, bringing together many options for Contact Center, Mass Notification, Call Recording, FAX Server, Call Data Records, System Monitoring, and Provisioning Management to name a few. Although UCM Cloud is hosted in Cisco's Data Centers, they have the ability to integrate with these solutions whether they are hosted in an organizations data center, private cloud, or even in a vendor cloud environment. Any system that is compatible with UCM on-premises is also compatible with UCM Cloud.<sup>(8)</sup>

While UCM Cloud is quite simply a deployment of UCM in Cisco's cloud environment, there are multiple ways to connect to PSTN services. Bring your own SIP trunk allows authorized partners to procure and provision PSTN services through certified SIP trunk providers and connect directly into the UCM Cloud environment using Professional Services to set up and configure. With Preferred Media Partners (PMP), Cisco has established "pre-interconnected" media partners that already have an integration into the UCM Cloud. Setting up PSTN services through a PMP requires working along with the partner provider to provision services and set up call routing within the UCM environment. The final way that we work with our customers to provide PSTN services to UCM Cloud is through a local gateway. Similar to Webex Calling, local gateway, PSTN services are brought into the local site through SIP trunks, PRI trunks, or any other traditional PSTN service. The benefit of using local gateway for PSTN service is that the Integrated Services Router used as a PSTN gateway will also allow the phones to register to the local gateway and continue to place calls through the local PSTN trunks in the event that connection to the UCM Cloud is lost.<sup>(8)</sup>

Through the use of Cisco Expressway in the UCM Cloud environment, customers will be able to provide their users a mobile and remote access similar to that of Webex Calling. There are multiple options to use for soft phone client. With Webex Teams client, administrators will be able to configure users to have direct registration into UCM Cloud as an endpoint, or they can choose to configure Hybrid Calling using Webex Teams Calling registration. Additionally administrators can choose to use IM and Presence servers in the UCM Cloud to support instant messaging and calling through the Jabber client.<sup>(8)</sup>

## CONCLUSION

For decades organizations have required a patchwork of upgrades and band-aid fixes, complete rip and replace of massive PBX systems, or complete virtual machine host hardware refreshes to keep their essential communications systems within vendor support requirements. Technology has advanced to the point where these telephony systems can be hosted in cloud-based data centers. With that migration, the requirement to complete major system upgrades has shifted from a responsibility of administrators in enterprise IT departments to the vendor who hosts the systems. This gives time back to IT administrators to focus on improving the solutions they offer to their end users. Cisco's Webex Calling and Unified Communications Manager Cloud offerings provide a seamless migration to UCaaS and opens up the possibilities for them to expand communications systems from just telephony to begin offering advanced solutions like team collaboration and video conferencing.

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