TECHNOLOGY SPOTLIGHT

Cloud-based Communication & Collaboration Solutions are catching a Spark

December 2016

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Sponsored by Tata Communications

Introduction

Enterprises around the world have begun the long, complicated journey towards digital transformation. They are embracing emerging technologies and building competencies that will fundamentally transform the way they do business. The core technologies helping to drive these changes are referred to by IDC as 3rd Platform technologies, including cloud, mobile, big data and social.

One of the key areas of dynamic growth is in the segment of enterprise communications and collaboration, commonly known as unified communications and collaboration (UC&C) technologies. UC&C technologies and solutions have been around for nearly a decade with mixed success. However, more recently, 3rd Platform technologies are driving growth and innovation in the worldwide UC&C market, especially the proliferation of cloud services and the increasing adoption by employees using mobile devices (BYOD) for enterprise-grade communications and collaboration.

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Enterprises are realizing that being nimble and flexible in their business approach is critical for success. With an increasingly mobile workforce, knowledge sharing, virtual teams, near-real-time collaboration, and faster feedback loops are crucial to business success. The strategic imperatives driving enterprises to look increasingly at cloud-based collaboration options include:

- The need for enterprises to improve productivity among their employee base
- Reducing costs by shifting from a capex-intensive model with on-premises deployments of UC&C solutions to an opex model that is based on cloud deployments
- Reducing complexity, both in terms of ease of installation and scalability but also by providing better user experiences and seamless integration with new applications
- The need to ideally deploy a standardized solution across the organization; barring that, unifying siloed deployments across different business units and functions.

The full gamut of solutions run from point offerings that provide audioconferencing to full-fledged, cloud-based UCaaS suites like Cisco Spark which seamlessly provides call, meet and messaging capabilities across mobile, desktop and collaboration endpoints.

Figuring out the correct and best-fit solution is hard enough, but this choice must be made in conjunction with the right partner, with the right product, managed services capabilities, and technology roadmaps. **Enterprises can now consider communication service providers (CSPs) as a viable option to help them with collaboration deployments**, bringing integration and consulting capabilities. The bigger question for enterprises to ponder is the opportunity cost of waiting for the right cloud-based collaboration suites that include all the features that suit the specific enterprise's requirements. In many cases, **enterprises would be well served by adopting interim solutions that afford them many of the features that will be common to future cloud-based suites**. For example, enterprises should consider adopting solutions like Webex, offering PSTN calling and several features that will only be available to Cisco Spark in the near to medium term.

Trends

The center of gravity for workplace productivity is shifting towards messaging

In recent years, a confluence of factors has come together to enable the steady rise of messaging as the new "control point" for workplace productivity. The consumerization of IT, backed by trends like BYOD, sophisticated smartphones and tablets, rising employee mobility and shifting consumer preferences have all had a profound impact on the workplace. Just as over the top (OTT) services like WhatsApp and WeChat have effectively replaced SMS as the default messaging app for consumers, a similar trend is playing out within the enterprise. The immediacy, intimacy and "real-time" impact of messaging is causing employees to increasingly collaborate over this medium compared to more 'traditional options like email. This rise of "business messaging" will have far-reaching impacts on communication and collaboration within the enterprise. **Organizations must seriously consider how they are going to facilitate this critical business messaging need via a flexible platform that supports the BYOD user expectations while simultaneously providing security and enterprise management of this new collaboration platform**.

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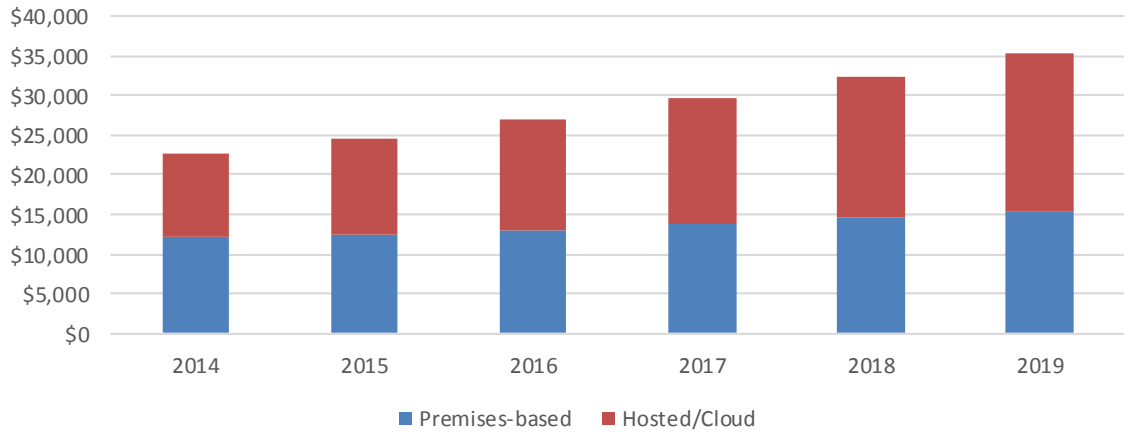
The rising importance of cloud-based relative to on-premises solutions

The worldwide market for UC&C, including both premises-based solutions as well as hosted/cloud offerings, is forecast to increase to $35.3 billion by 2019, representing a CAGR of 9.3% over the period 2014-19. Revenues in 2016 would reach nearly $27 billion.

Figure 1

Worldwide Unified Communications and Collaboration Technologies Revenue Snapshot, 2014–2019 ($M)



Source: IDC, 2016

Traditional on-premises-based IP Telephony and UC&C solutions still accounts for a large market, but these revenues are flat or declining. The total market for on-premises solutions will reach $15 billion by 2019. In contrast, cloud-based communications and collaboration solutions are experiencing healthy double-digit growth rates as many businesses of all sizes (small, medium-sized, and large) consider the advantages of leveraging a monthly subscription model (i.e., operational expense) for their next deployment. **The cloud portion of the worldwide UC&C market is expected to grow to $20 billion in 2019, surpassing on-premises revenue in 2016. Organizations are now looking at a range of managed, hosted and cloud-based UC&C and specifically unified communications as a service (UCaaS) solutions. In fact, UCaaS solutions are taking the lion's share of the cloud-based deployments.**

Enterprise mobility is causing enterprises to increasingly consider UCaaS

Organizations are dealing with an increasingly mobile workforce, a trend that is having a profound impact on their thinking and approach to UC&C solutions. The traditional on-premises model worked very well for a workforce that is largely concentrated in large campuses, with branch offices connected securely to the headquarters. In these typically large, static environments, employees could avail of IP-based telephony, messaging and other business application and features.

However, **an increasingly mobile workforce coupled with the BYOD trend, has meant that organizations have begun looking at new cloud-based models.** Indeed, the barriers to entry for new UCaaS solutions are relatively low for service providers; in many cases, they allow for setup and delivery of multitenant UC&C functionality in a matter of hours or days. **Vendors have already taken note of this rising trend and adapted their portfolios to offer cloud-based solutions with innovative features.** For example, Cisco has extended their WebEx portfolio to be easily accessible from mobile devices through mobile apps, including voice conferencing capabilities.

Enterprises have a host of use cases and fragmented UC&C deployments

Beyond the increasing mobility of their employee base, companies are also looking at the numerous use cases that are unique to their specific business and operating environment, whether they have significant legacy on-premises equipment deployed, or multiple and sometimes overlapping solutions and platforms deployed for different use cases. Some companies and lines of business (LOBs) that are keen to stay ahead of the competition have gone ahead to adopt their own cloud-based or 'freemium" technology solutions, sometimes resulting in "siloed" implementations. There is an increasing and strong need for interoperability, between different internal systems as well as cross-platform.

The essential point is that with the number of use cases expanding rapidly, this increasing complexity is another key driver for enterprises to consider adoption of cloud-based solutions. However, many enterprises may not move all their applications to the cloud, due to either compliance and regulatory considerations, security and other concerns. As a result, enterprises are increasingly looking at virtualized, multitenant as well as hybrid deployments (mix of on-premises and cloud).

Enterprise demand for UC&C integration with business applications is rising

Another trend fueling rising demand for cloud-based solutions is the desire of enterprises to incorporate communication and collaboration tools into their business applications and workflow integration. One simple example of this trend is the integration of Skype or Cisco's Jabber into email. However, enterprises are looking for deeper integration of UC&C functionality into a host of business applications. They have realized that **the key to solidifying adoption and achieving the productivity gains is through natively integration and having the ability to connect to other services to automate recurring tasks and create custom workflow scenarios that allow for more seamless collaboration over the right communication medium**. For example, a messaging or collaboration feature built into a finance or sales application that allows for automated updates to a distributed team and the ability to escalate to a message, call and multiparty video session with the key stakeholders.

To enable such integrations, vendors are increasingly focusing on cloud delivery models. These platforms enable much faster iteration and development cycles, API integrations and generally quicker time to market compared to dedicated on-premises solutions that are closely tied to hardware. Again, specific requirements will vary widely across enterprises and across verticals. **Enterprises will also closely link possible future deployments to the existing systems in place, with a view to leveraging legacy investments and ensuring as seamless an end user experience as possible.**

Benefits to the Business

IDC believes that communication and collaboration apps are becoming increasingly important to enterprises globally. Moreover, enterprises are increasingly comfortable with and using cloud-based solutions, either as stand-alone or complementary hybrid solutions. An example of such a cloud-based collaboration application is Cisco's Spark, previously known as Project Squared. The three key components of Spark services are messaging, meeting, and calling, making up a complete collaboration solution driven by mobile access for "every room, desktop, and pocket" and delivered via the cloud. Cisco Spark lets companies buy messaging, meeting, and voice calling from the cloud in a subscription model — paying for services on a per-user per-month basis. It will be hosted by Cisco and sold through its channel partners that will determine pricing. Spark also offers calling services but these are currently restricted to peer to peer; that is, Spark does not offer calls to regular phone numbers or PSTN connections.

There are numerous benefits to the adoption of cloud-based UC&C apps like Spark, including:

- **Increased performance and productivity**. Business growth is increasingly tied to "team" performance and productivity driven by the rise of mobility and shifting workforce patterns, necessitating flexible and scalable cloud-based solutions. Teams need to collaborate effectively, either through usage of the innovative real-time messaging features, or use of video and Web conferencing features which allow users to shift seamlessly between devices and end points as they move in and out of meetings and physical locations.

- **Universal and constant access with improved user experiences and reduce costs**. Enterprises can now "connect" all of their employees to each other, regardless of physical location, time, endpoint availability or other constraints. Beyond efficiency gains and improved engagement levels, hardware costs will come down as dedicated hardware is not always needed. Cloud-based apps will also change the per user licensing costs for enterprises in positive and predictable ways.

- **Hybrid cloud-based solutions can complement legacy systems.** Enterprises can use cloud-based collaboration apps like Spark either as stand-alone or as hybrid deployments that complement the existing on-premises deployments. For example, team members gathered in a meeting room on campus may be using a Cisco Telepresence system but others from remote locations may dial in to a virtual meeting room using their mobile devices via Spark. **There will be numerous hybrid use cases and the ability for companies to leverage existing deployments will go a long way towards driving return on investments (ROI) but also cater to the varied use cases.** Spark room systems and the seamless integration that it offers between phones and/ or room-based systems and Spark clients offers a high level of interoperability – something which is very much needed by enterprises that intend to leverage their existing investments in the legacy systems.

- **App integration services via APIs, BOTs and SDKs will enable important work flow integrations that drive improved user experiences and efficiency.** Native integration and the ability to connect real time communications into standard workflow processes and applications via APIs and BOTs are increasingly critical in today's software-as-a-service environments. Having a solution that enables developers and users to build, extend and customize collaboration experiences based on their own applications and environment is critical to achieving productivity and competitive advantage. In the case of Cisco Spark, the solution offers preconfigured APIs, BOTs and allows for native integrations for more casual users, enabling access to popular apps like Evernote and Trello from within Spark.

- **Security standards fulfilling compliance and regulatory considerations.** Most cloud-based collaboration apps are designed with stringent security considerations and are constantly updated and patched for newer vulnerabilities. Additionally, since these are delivered for multiple enterprises at a global scale, they are compliant and fulfil most regulatory guidelines around the globe. Both of these factors provide enterprises with ease of mind and allow them to focus on their core business rather than worry about the security and compliance of their setup. In the case of Cisco Spark, the security is further strengthened by offering complete, end-to-end encryption to not just the data at rest, but also for search – which is currently a unique differentiation for enterprises to consider.

Essential Guidance

Enterprises today have many UC&C solutions available to tackle the increasing diversity and complexity of use cases. Coupled with the increasingly fragmented landscape for UC&C deployments, enterprises should take particular care in analyzing their situation and requirements.

Enterprises need a roadmap for adoption of cloud-based collaboration solutions

Actual benefits of cloud-based collaborations apps may be different for various organizations due to their size, portfolio of services offered, employee mix, and other organization-specific factors. Before embarking on this migration journey, enterprises must establish clear objectives for their deployment strategies. Enterprises should be mindful of the fact that it's not just about the capabilities of the UCaaS solution, but about their own problems they are trying to address, and the organizational capabilities they are trying to build.

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- **Enterprises should begin with a needs assessment that helps identify pain points and desired business outcomes.** Objectives can then be mapped to strategic goals of the company, current initiatives underway and under consideration, current usage models for communication and collaboration tools and so on.
- **Enterprises should then conduct a technology review** to gauge current technologies adopted by the organization, existing vendors and the extent to which these technologies are integrated into their business application environments.
- **Enterprises should conclude with a gap analysis** that helps to sync up different business units that are not in sync with each other

Enterprises should establish a migration plan for deployment of cloud-based apps

In practice, very few enterprises can simply adopt a brand new solution and "replace" with a cloud-based solution. Technology migration has always been a challenge, and this migration to UCaaS is no different. Hence, enterprises should assess their current infrastructure and associated costs, business strategy, and application mix to decide on their migration to modern age UCaaS tools.

Today, most enterprises prefer to use a hybrid model for cloud migration by integrating the existing premise-based and new cloud-based services. A good example of this approach is the migration of voice services to the cloud. Phased migration to cloud-based tools allow the old and new infrastructure to continue to work in parallel and with each other until the migration to cloud-based solutions or UCaaS is complete. The migration plan must also include plans for phasing out the legacy equipment.

Enterprises should recognize challenges in adoption of cloud-based apps

Early feedback from the adoption of cloud-based solutions like Cisco Spark are positive and point to the promise of UCaaS for many enterprises. However, enterprises must be careful to recognize the challenges.

Figure 2

Every CIO's Dilemma — Bridging the Gap Between Vision and Reality

No single UCaaS solution will likely cater to every use case and requirement of an enterprise as there is simply too much diversity and complexity and each enterprise (including its LOBs) will have unique needs. **Companies should carefully assess each solution to gauge how well it meets specified requirements and whether the product roadmap fits with the organization's longer term goals and objectives.** For example, enterprises with requirements for large, online team meetings would do well to persist with WebEx or similar solutions as these solutions specifically cater to this type of use case today. These enterprises could consider solutions like Cisco's Collaboration Meeting Rooms (CMR) as a way to combine WebEx with the disparate video solutions available on various client devices. Additionally, they could also consider Cisco's Cloud Connected Audio (CCA) solutions, which could go a step further than CMR and offer native audioconferencing features based on WebEx.

Many of the feature sets, either current or planned, are not necessarily available in every region at the same time. If we continue to take Cisco Spark as an example, the solution does not support currently PSTN calling outside of the United States, nor does it interoperate with other applications like Skype for business or Telepresence and video conferencing end points. **Enterprises with specific needs must consider the potential impact of immediate deployment of such a solution and monitor the timelines for future availability.** Cisco's WebEx solution supports PSTN calling today as well as interoperability with other platforms, making it a possible interim solution.

Enterprises should be careful to choose the right technology partner

Enterprises also need to assess which technology partner can best help them achieve their goals. Depending on their geographic location and size, enterprises have numerous options available to them. They can approach a vendor directly, a systems integrator (SI) or even go with a communications service provider (CSP). There are numerous considerations to take into account when looking at a migration to cloud-based collaboration apps

Looking at a solution like Cisco Spark, messaging and meeting functionality are available by default and can be leveraged using the Internet. However, to enable Spark Calling (hybrid) for regions where

native Spark calling is not available as yet, additional infrastructure may be required, including integration with SIP trunking, call management suites like Cisco UCM or HCS may also be needed. **Enterprises should consider going to a CSP who can be an effective one-stop provider, integrator and administrator of all the necessary pieces that would be required**, thereby not only saving considerable resources over doing it themselves, but also benefit from the expertise which ultimately saves them the pain of doing it themselves. Also, for regions where native Spark calling is available, CSPs who are Spark Preferred Media Partners (PMP) would be in a better position to offer an integrated solution to enterprises saving enterprises the pain of having to choose and stitch Spark components on their own. These PMP certified partners are enlisted on Spark marketplace and can be seamlessly contracted by enterprises to enable Spark calling

Indeed, **CSPs are becoming an increasingly viable option for enterprises looking at collaboration deployments, with integration and consulting service capabilities. Moreover, CSPs are also the best positioned to handle the connectivity elements that are essential for cloud-based collaboration tools, offering SIP networks and end to end service level agreements (SLAs)**. CSPs can potentially offer flexibility and a more holistic approach for enterprises to consider. Additionally, enterprises may benefit by not having to deploy a dedicated call management setup for themselves (to enable Spark Hybrid), but leverage cloud based multi-tenant solutions offered by CSPs which will deliver the Spark Calling functionality.

Conclusion

Enterprises are increasingly embracing digital transformation, adopting emerging technologies like UCaaS and building competencies that will fundamentally transform the way they do business. The journey towards the promise of adopting cloud-based collaboration solutions is long and complex. The immense promise and potential benefits that can accrue from adoption of such solutions but also be tempered with realistic assessments of what each proposed solution can do for organizations, today and in the future.

In many cases, adoption of new technologies can come at the cost of lost investments, significant transition challenges as well as fragmented solutions and user experiences. As an example, enterprises choosing to wait for the promised land of Cisco Spark may be overlooking potential business benefits from adopting mature technologies like WebEx CCA as an interim solution. Some of the available technologies today are already mature, with a feature list that could potentially cover the majority of use cases for the enterprise. Enterprises would do well to consider these “interim” solutions as a bridge to the eventual migration to fully cloud-base collaboration solutions. In fact, enterprises should even consider adopting these solutions in the near term to further their productivity and collaboration objectives. For example, enterprises could choose to adopt solutions like Collaboration Meeting Room (CMR) and Cloud Connected Audio (CCA) in tandem with Spark Message and Meeting to create a hybrid solution that blends the advanced messaging capabilities of Spark with the essential Call functionalities delivered by WebEx CCA. As they evaluate these potential solutions and roadmaps, enterprises should also pay attention to the choice of service provider partner as they migrate from on-premises to hybrid and cloud-based models. Choosing the right service provider partner will go a long way towards alleviating some of the complexity and cost associated with such necessary but long transitions.

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