2016: Microsoft drives Cloud PBX To Cloud or not to Cloud? That is the Question A practical guide for embracing the communications future



Presented in Cooperation with



# From the Perspective of CCG Telecom...

The definition of Unified Communications has a tendency to take on different meanings depending on who you are speaking with and the size of their network. In the large enterprise networks, Unified Communications usually lends its self to other terms such as collaboration. In the 8+ million small to medium sized businesses across the United States, Unified Communications is a method to a means of growth and prosperity. Unified Communications removes the last barrier of restrictions keeping employees tied to a single desk or platform in order to perform their job. It levels the playing field with competitors and puts you on the customer desktop!

Unified Communications continues to drive cost containment and provide the flexibility of Software as a Service (SaaS) with a rich portfolio of features and functionality in addition to supported devices. The AudioCodes CloudBond365 is the foundation of our on premise and hosted solutions offering to enable Unified Communications within the enterprise network. At CCG Telecom we leverage our experience with Microsoft Unified Communications to deliver an affordable offering of voice enabled services from the smartphone to the desktop for any size organization.

Specifically, for the small to medium sized business our experience in Unified Communications coupled with the AudioCodes CloudBond365 platform enables the SMB to divert the resources that would normally be used to support and implement an effort from CAPEX to OPEX. Define your own cloud with immediate long term savings and increased productivity with just a single phone call.

#### **Christopher Ready**

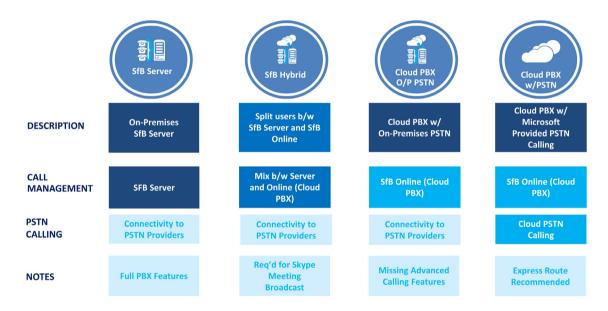
Director Professional Services **CCG Telecom** 

### **Executive Summary**

The drumbeat of Microsoft announcements surrounding enterprise voice for Skype for Business in the cloud continues to cause significant waves in the market. Cloud PBX and PSTN calling will have a dramatic impact on the ecosystem. Since the online offering does not yet have all the features of Skype for Business Server, many companies have concerns about making an immediate and full transition to the cloud. These include:

- Availability and regulatory issues requiring local PSTN connectivity
- The current Online enterprise voice feature set is limited
- Quality of Service over the open Internet can be problematic
- Customers may not be in a rush to forgo existing carrier contracts and working network devices
- Customers may prefer a gradual migration of users to the cloud

Microsoft understood this and implemented a strategy to offer a solution for this market reality. By offering a hybrid solution, where cloud-based PBX services are complemented by an enterprise's on-premises based PSTN connectivity, Microsoft took their customers' concerns into account. Their approach includes four deployment options, the middle two being hybrid versions. Each of these deployment options is examined in this paper.



Four Key Scenarios - Not mutually exclusive

- 1. Skype for Business Server On-premises: Users are registered to the local Skype for Business server; call management and PSTN connectivity are based on-premises. The Skype for Business server can also be hosted in a private cloud.
- 2. Skype for Business Hybrid: This is a hybrid offering that consists of a Skype for Business Server on-premises deployment modified for hybrid PSTN. Users in the organization, whether homed in the cloud or on- premises, will be able to send and receive calls with landlines and mobile phones through the existing on-premises voice infrastructure.
- **3.** Cloud PBX with on-premises PSTN Connectivity: Allows users in Skype for Business online to utilize PSTN connectivity via on-premises PBX or SIP Trunk, using a qualified Gateway or Session Border Controller (SBC). Cloud Connector Edition (CCE) is the Microsoft recommended deployment technology for this scenario.
- 4. Cloud PBX with PSTN Calling: Cloud PBX with PSTN calling connects the organization to the Public Switched Telephony Network (PSTN) and provides users with a primary phone number in Skype for Business so they make and receive phone calls.

Market data shows that the trend towards moving to the cloud is clear. The same trend shows that the transition to the cloud will be gradual and will leverage hybrid architectures for the foreseeable future. Given that reality, a wise deployment of Skype for Business will mix on-premises functionality for corporate and call center users, allowing integration with legacy systems, with initial deployment of cloud services. This will lay the foundation for a smooth transition to the full cloud solution down the line. The best way to protect the enterprise's current investments, ensure a full enterprise voice feature set, guarantee that all company branches around the world are serviced and comply with regulations, is with a hybrid solution which offers the best of both worlds and allows the benefits of Unified Communications today with a secure and smooth migration to voice in the cloud over time.

#### Overview

The recent Microsoft announcement surrounding enterprise voice for Skype for Business in the cloud caused significant waves in the market. Cloud PBX and PSTN calling will have a dramatic impact on the ecosystem. The move to the cloud is in full gear but it will likely take some time for everyone to fully benefit from it. It will take some time, too, for the online offering to have all the features as Skype for Business Server. With their recent announcement about Cloud PBX and PSTN calling, Microsoft has correctly set the stage for the market dynamics. And while enterprises have much to consider as they plan their networks, the ability to benefit today from full enterprise voice hosted on-premises while enjoying the benefits of Office 365 and other online features to be offered in Microsoft's new E5 licensing scheme, is very real.

Yet questions remain. How soon can enterprises start enjoying voice in the cloud? When will enterprise voice in the cloud have the same feature set, Quality of Service and SLA as on-premises? What do enterprises do with existing contracts with Service Providers and existing legacy equipment which still have value? And what about

local fax machines and analog devices that won't be supported by Skype for Business Online? What does the migration path look like?

Microsoft's go to market takes all this into account and the result is the ability to immediately benefit from Office 365 and other powerful online functionality including a cloud PBX, without compromising on the benefits of on-premises connectivity to existing PSTN providers, all the while laying the foundation for an eventual full migration to the cloud. Kirk Koenigsbauer, Corporate VP, Office 365: "Organizations can now replace their legacy meeting and phone systems with innovative services built on the familiar Skype for Business experience, all naturally integrated within Office 365."

#### Microsoft's Announcement

At both the Enterprise Connect conference in March 2015 and Microsoft's Ignite conference in May 2015, Microsoft committed to deliver enterprise voice for Skype for Business Online, and on November 30th, at the Microsoft Convergence Conference in Barcelona, Microsoft announced the general availability of the new communications services in Office 365.

In the words Kirk Koenigsbauer, Corporate Vice President for Office 365 on the official Microsoft blog:

"Today, we are excited to announce the availability of several new Office 365 communications services designed to modernize voice, video, and meeting experiences, while saving companies substantial costs in their communication infrastructure. Organizations can now replace their legacy meeting and phone systems with innovative services built on the familiar Skype for Business experience, all naturally integrated within Office 365—the world's most-used collaboration and productivity platform."

Earlier, in July 2015, at the Worldwide Partner Conference, John Case, Microsoft's Corporate Vice President, announced the Company's new E5 Licensing. This new scheme and pricing structure, which is all about bundling value in the various software suites Microsoft offers in the cloud, includes enterprise voice. But it isn't alone. Also offered are new analytics, advanced security features and more. As he wrote in the corporate blog:

I am also pleased to announce our plans to introduce a new premium Office 365 Enterprise Suite called E5 before the end of this calendar year. E5 will encompass the core value of the modern productivity and collaboration capabilities Office 365 provides today, as well as significant new capabilities including Skype for Business services for **real-time communication** such as <u>Cloud PBX and PSTN Conferencing</u>, **new analytics** features like <u>Power BI Pro</u> and Delve Organizational Analytics, and new **advanced security features** such as <u>eDiscovery</u>, <u>Customer Lockbox</u>, Data Loss Protection (DLP) and <u>Advanced</u> <u>Threat Protection (ATP)</u>. The E5 suite will provide a significant new opportunity for Partners to build service offerings to reach new customers and enhance value for existing ones.<sup>2</sup>

E5, which will be replacing E4, will be more expensive but will also provide significantly more value, all in the cloud. It goes a long way in making a statement that to Microsoft, it's not just about voice but about overall value to an organization.

E5, which will be replacing E4, will be more expensive but will also provide significantly more value, all in the cloud.

#### The Move to the Cloud is Inevitable but it will happen in Stages

Microsoft's Zig Serafin makes it clear that his company understands their customers' reality and is in sync with it. Speaking about the company's direction in the company's official blog he says, "These investments will benefit our on-premises customers as well as those using our cloud. We are enabling cloud plus on-premises hybrid options so that you can rely on our cloud when you need it without having to give up what you want to manage on-premises."<sup>3</sup>

There are some real-life reasons for offering a hybrid solution, where cloud-based PBX services are complemented by an enterprise's on-premises based PSTN connectivity.

- Availability: For one, while online PSTN Calling is available in the US, it may not be available in Europe for still some time. In other parts of the world, it will take even longer. Further, around the world there are regulatory issues which may only allow for local PSTN connectivity or local SIP Trunking.
- **Feature Set**: The current enterprise voice offering in the cloud does not have a complete feature set. While the Microsoft Cloud PBX will support everyday telephony features like hold, resume

Zig Serafin, Corporate VP, Skype for Business Team: "We are enabling cloud plus on-premises hybrid options so that you can rely on the cloud when you need it without having to give up what you want to manage on-premises."

and transfer, support for other business productivity telephony functions like contact center, IVR, ACD, and fax are likely not included yet.

• Quality of Service: When providing enterprise voice in the cloud, the service is as good as the Internet connection. Express Route, a dedicated premium network connection to Microsoft's datacenters, is highly recommended. However, enterprises need to carefully check availability and costs.

- Existing Contracts and Network Devices: Many customers also have existing contracts for their PSTN connectivity that they are not in a rush to forgo. The same can be said for existing PBX equipment which may not have reached end of life. So at least until these customers are ready to migrate to the full cloud solution, they need to maintain on-premises connectivity. Microsoft's first step to address this challenge was the April 2016 release of Cloud Connector Edition (CCE).
- **Migration:** And speaking of migration, many customers may find the vision of moving all users to the cloud in a "clear cut transition" somewhat challenging and would prefer a gradual migration of users. The hybrid option solves this problem by allowing users to exist either in the cloud or on- premises, based on the customer's needs and pace of migration.

For all these reasons, the cloud vision will be embraced, but in stages. Since the online offering does not yet have all the features of Skype for Business Server, many companies won't want to fully move to the cloud until it exists. Microsoft understood this and implemented a strategy to provide a solution for this market reality.

#### Microsoft's Deployment Options

Let's focus on enterprise voice and the options made available by Microsoft and define a common taxonomy, looking at four major deployment scenarios: Skype for Business Server On-Premises, Skype for Business Hybrid, Cloud PBX with On-Premises PSTN Connectivity and Cloud PBX with PSTN Calling.

- **1.** Skype for Business Server On-premises: Users are registered to the local Skype for Business server; call management and PSTN connectivity are based on-premises.
- 2. Skype for Business Hybrid: This is a hybrid offering that consists of a Skype for Business Server on-premises deployment modified for hybrid PSTN. Users in your organization, whether homed in the cloud or on-premises, will be able to send and receive calls with landlines and mobile phones through the existing on-premises voice infrastructure.
- **3.** Cloud PBX with on-premises PSTN: Allows users in Skype for Business online to utilize PSTN connectivity via on-premises PBX, SIP Trunk, or qualified gateway to E1/T1 lines:
  - Cloud Connector Edition (CCE) is a hybrid offering that consists of a set of packaged Virtual Machines (VMs) that implement on-premises PSTN connectivity. By deploying a minimal Skype for Business Server topology in a virtualized environment, users in your organization, whether homed in the cloud are on premises, will be able to send and receive calls with landlines and mobile phones through the existing on-premises voice infrastructure, by using a qualified Gateway or Session Border Controller (SBC).
  - Leveraging an existing (or new) Skype for Business deployment (see Skype for Business Hybrid in point 2)
- 4. Cloud PBX with PSTN Calling: This is the service plan you can add to Cloud PBX to enable calling to landlines and mobile phones around the world (depending on the level of service being licensed). Your users are homed in the cloud and are enabled for Cloud PBX with PSTN Calling provided by Microsoft. The PSTN Calling offering is an add-on to Office 365 that does not require an on-premises server deployment. PSTN Calling only works with Cloud PBX--you can't use it with another PBX system. While this currently offers only a subset of on-premises Enterprise Voice features, and only in limited regions, both features and regions will expand over time.

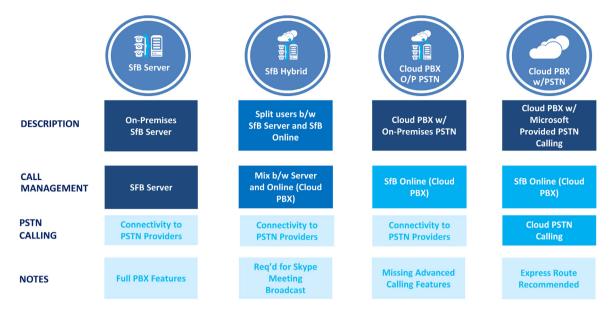
It is important to keep in mind that the four deployment scenarios mix-and-match two major factors:

- Unified Communications software: Skype for Business Server (on-premises) and Skype for Business Online (Cloud PBX). This defines which calling features are available for the users.
- **PSTN Connectivity**: Bring your own carrier plan or choose a Microsoft provided PSTN Calling plan. This defines geographical availability and integration scenarios with existing infrastructure.

#### Let's evaluate the pros and cons of the different deployment scenarios:

	PROS	CONS	RECOMMENDED FOR
SKYPE FOR BUSINESS SERVER ON-PREMISES	<ul> <li>Full SfB PBX feature set</li> <li>Integration with existing systems</li> <li>Meets local regulations worldwide</li> <li>Keep existing calling contracts</li> </ul>	<ul> <li>Requires larger initial investment</li> <li>Local infrastructure to manage</li> </ul>	Customers worldwide who need full PBX features and want to keep full control over infrastructure
SKPYE FOR BUSINESS HYBRID	<ul> <li>Flexibility to assign users to the server (Full SfB PBX feature set) or to the online service (more limited feature set)</li> <li>Office 365 OpEx subscription plans</li> <li>Integration with existing legacy systems</li> <li>Meets local regulations worldwide</li> <li>Keep existing calling contracts</li> </ul>	<ul> <li>Requires larger initial investment</li> <li>Local infrastructure to manage</li> </ul>	Customers worldwide who need full PBX features for part or all of the user population and want a managed and gradual migration from their existing PBX systems.
CLOUD PBX WITH ON-PREMISES PSTN CONNECTIVITY	<ul> <li>Office 365 OpEx subscription plans</li> <li>Meets local regulations worldwide</li> <li>Keep existing calling contracts</li> <li>Limited local infrastructure to manage</li> </ul>	<ul> <li>Limited PBX feature set</li> <li>Some infrastructure to manage</li> <li>Greenfield deployments only (using Cloud Connector Edition (CCE))</li> </ul>	Customers worldwide who do not need full PBX features and have little or no customization needs. Calling plans will have to be managed by their local service providers locally (due to regulations or contractual obligations).
CLOUD PBX WITH PSTN CALLING	<ul> <li>Office 365 OpEx subscription plans, including PSTN calling plans</li> <li>Limited to no local infrastructure to manage</li> </ul>	<ul> <li>Limited PBX feature set</li> <li>Only available in US (check roadmap for local availability in other countries)</li> <li>Cost of the recommended Express Route services to maintain QoS</li> <li>No integration with existing PBX, analog devices, common area phones, fax machines, call centers, etc.</li> </ul>	US customers (at first rollout phase) who are not bound by PSTN calling contracts and do not need advanced PBX calling features and have little to no customization needs. PSTN calling plan from Microsoft not included in E5 licensing plan.

#### Recommendation: Cloud Wisely and Gradually



Four Key Scenarios - Not mutually exclusive

Due to the wide variety of needs for most Microsoft enterprise customers, Microsoft has announced that these deployment options will NOT be mutually exclusive. Considering that most enterprise customers will have legacy systems to phase out (or to co-manage) the most **recommended approach will be a mix of the two Hybrid scenarios mentioned above (which in practice, can be handled by the Skype for Business Hybrid architecture)**:

- Skype for Business Hybrid: this will help manage the co-existence with any existing legacy systems and previous PBX solutions, enable call centers, connect to analog devices, fax machines and give full Skype for Business server features to all the employees who require a full PBX feature set.
- Cloud PBX with On-Premises Connectivity: for the population of worldwide employees who do not need advanced calling features (such as remote employees, sales people, etc.). Where available, the Microsoft PSTN calling plan can be evaluated if customers are not bound by contracts with local service providers. For those with existing PSTN contracts, Microsoft Cloud Connector Edition (CCE) can be evaluated to fit this requirement. Care should be taken to understand current limitations, such as lack of co-existence with existing SfB on-premises deployment.

Modern appliances (such as **AudioCodes CloudBond™ 365**) allow for co-existence and provide the flexibility to assign users to the local Skype for Business Server or to the cloud service at any time, when the company's needs evolve.

It is important to note that the Cloud PBX with PSTN Calling scenario does not support analog devices, fax machines, call centers, etc.

Considering that most enterprise customers will have legacy systems to phase out (or to co-manage) the most recommended approach will be a mix of the two Hybrid scenarios.

which are typical equipment in almost every enterprise. In such cases, some amount of on-premises equipment will be required.

### Market Research Supports that the Move to the Cloud is happening, but not for everyone and not everywhere yet

The fact that the trend is towards moving to the cloud is undeniable. Yet industry analysts seem to think that the hybrid approach (such as offered by Microsoft) will be valid for the foreseeable future. Consider the following:

Rapid growth of the cloud market can be clearly seen in Research from MarketsandMarkets which shows that the hosted UC market will grow from \$13.1 billion in 2014 to \$23.34 billion in 2019, a compound annual growth rate of more than 12% per year!<sup>4</sup>

Computerworld's 2015 Forecast Study predicted that 42% of IT decision makers are planning to increase spending on cloud computing in 2015, with the greatest growth in enterprises with over 1,000 employees (52%). Cloud computing spending was only second to Security Technologies (46%).<sup>5</sup>

A recent survey conducted by **No Jitter** showed that almost 50% of large enterprises are using the cloud for communications. "Among respondents of the survey whose enterprises had at least 1,000 employees, 48% had at least one service in the cloud, while 52% reported having no cloud communications services.<sup>6</sup> 48% is a significant number, though it also points to the fact that not everyone is there yet. Other research bears this out.

> IDC Report - Successful Cloud Partners Higher, Faster, Stronger: "The hybrid model is the reality. Customers will have a mix of on-premises, hosted and

> Almost 50% of large enterprises are

using the cloud for communications.

An IDC report commissioned by Microsoft in 2013, had the following to say:

"While cloud growth rates are undisputedly stellar, a balance between on-premises and cloud spending is the reality. In fact, a partner's ability to offer hybrid options to customers results in optimal revenue capture opportunities." The report stated that 74% of customers wanted their trusted cloud service provider to be able to offer comparable on-premises expertise. The report stated flatly, "The hybrid model is the reality. Customers will have a mix of onpremises, hosted and cloud solutions."7

T3I, in its annual report on the impact of Enterprise Voice on Skype for Business showed the increasing trend towards enterprise voice in the cloud. It also showed that the vast majority of enterprises are still not planning

on moving to enterprise voice in the cloud just yet.<sup>8</sup> The report says that 90% of enterprises surveyed had indicated that enterprise voice had been or will be included in their Skype for Business trials. That's a serious number. They also asked: Of those employees expected to use Skype for Business for Enterprise Voice in the future, what percent would most likely be using it on Office 365 instead of the premises-based version at the end of 2016, 2017 and 2018? Here the numbers doubled from 2016 to 2018, from 3% to 7% respectively.

But that means that of those planning on using Skype for Business Enterprise Voice, 93% of those enterprises will still be using the premises-based version in 2018.

MarketsandMarkets Hosted UC market will grow from \$13.1 billion in 2014 to \$23.34 billion in 2019.

No Jitter

cloud solutions."

According to T3I Research, 93% of those

enterprises planning on using Skype for

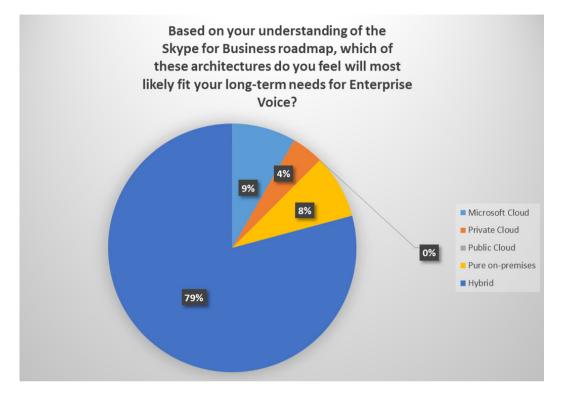
Business Enterprise Voice in the future

will still be using the premises-based

version in 2018.

In an **April 2015 survey on Skype for Business, Enterprise Connect Research** found that while interest in Skype for Business is strong, the majority have yet to adopt Enterprise Voice for Skype for Business (75%). The report projects that enterprises will be supporting a multi-vendor environment for quite a while.<sup>9</sup>

An AudioCodes survey among participants of the Company's last two Enterprise Unified Communications customer forums, also supported the general analyst view highlighted above. 80% of the attendees of those events, all large enterprises and Microsoft EPG customers, reported that they plan to use a hybrid premise/cloud architecture.



Thus, the reality is that the hybrid solution will be the one of choice for many companies for the foreseeable future.

## Feature Comparison: Skype for Business Server vs. Cloud PBX

In planning their enterprise networks, IT administrators have to be pragmatic and flexible. Telephony system are more encompassing than just allowing for phone calls: they also include alarms, emergency systems and analog devices, including faxes. Administrators need to understand the way employees use the corporate telephony system and how they are embracing Unified Communications. Large companies cannot just decommission all of their systems at once. A migration path needs to be planned. And ultimately, networks have to be flexible enough to handle the decision when it is made to move users to the cloud and adapt to new realities as the network grows.

No one disputes the vision of moving to the cloud and that it has tremendous advantages. But as we have described above, the details "under the hood" make the move more complicated. There are differences between an on-premises solution and an online solution, each with advantages and limitations.

Below is a comparative chart of enterprise voice features supported in the on-premises and online options:

# Feature comparison (as of April 2016)

I			
Skype for Business Capabilities	SfB On-Premises	Cloud PBX with on-prem PSTN Connectivity	Cloud PBX with PSTN Calling
Basic call features (hold/receive/transfer/forwarding)	$\checkmark$	$\checkmark$	$\checkmark$
Voice mail	Exchange UM	Cloud PBX voice mail	Cloud PBX voice mail
USB peripherals	$\checkmark$	$\checkmark$	$\checkmark$
Delegation, team call	$\checkmark$	Users should be in the same environment	$\checkmark$
Voice resiliency	$\checkmark$	$\checkmark$	Secured by SLA
Branch survivability	$\checkmark$	_	—
Location based routing	$\checkmark$	_	_
Call admission control	$\checkmark$	-	—
Integration with on-premises PBX	$\checkmark$	$\checkmark$	—
Call via work	$\checkmark$	_	—
Private line	$\checkmark$	_	—
Dynamic 911	$\checkmark$	—	—
RGS/Call Park Service (CPS)	$\checkmark$	_	—
Media bypass	$\checkmark$	_	—
Number porting	—	_	$\checkmark$
IP phones "optimized for SfB"	$\checkmark$	$\checkmark$	$\checkmark$
IP phones "compatible with SfB"	$\checkmark$	$\checkmark$	$\checkmark$
Analog devices	$\checkmark$	Using on-premises deployment	_
Common area phone	$\checkmark$	Using on-premises deployment	_

There are benefits to using a pure cloud solution, such as not having to upgrade software (as it is automatically updated to the latest feature set), requiring a minimal initial investment, offloading management and more. However, the same online solution presents significant limitations. While there is no absolute right or wrong, we

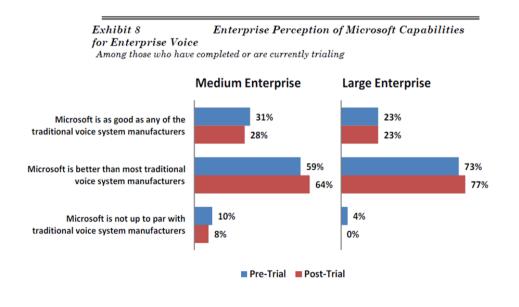
The hybrid option, combining onpremises and online functionality, provides the best of both worlds.

believe that the hybrid options, combining on-premises and online functionality, provide the best of both worlds and address most of enterprises' communications needs. Not only does it support all the attributes listed above, it also provides the following benefits:

- A scalable cloud solution with a standardized offering and an attractive price per user, per month compared to an on-premises PBX solution
- Local PSTN or SIP Trunk connectivity to the preferred PSTN or SIP Trunk provider(s) allowing enterprises to leverage existing contracts and bundles
- Support for features such as Attendant Console, Call Center/Contact Center, Message diversion, Mobile Extension (MEX) / Mobile integration, Line state from cellular network to PBX extension
- Support for analog devices such as fax machines, alarm systems, common area phones, DECT phones, etc.
- Allows gradual, self-paced migration in line with corporate needs, budget and growth

#### Conclusion: To Cloud or not to Cloud? Cloud Wisely

Customers who have deployed Lync or Skype for Business, are overwhelmingly pleased with what it offers them and certainly see the benefits of enterprise voice from Skype for Business. The T3I report showed that Enterprise's perception of Microsoft Capabilities for Enterprise Voice is very high, with 92% of Medium enterprises and 100% of large enterprises saying that Microsoft was either as good as or better than traditional voice system manufacturers. This stems from a very positive view of Microsoft in general and Skype for Business in particular.<sup>10</sup>



Source: InfoTrack: End-user Primary Research, 2Q2015

Once a customer is convinced to go with Microsoft's Skype for Business for unified communications, the question remains: to cloud or not to cloud?

Most companies may not be able to make a drastic transition to Microsoft's Cloud PBX in a very short time. While the pure cloud approach may be the way of the future, it will still take some time to get there, especially globally. Over the course of the years, enterprises built a dependency on their legacy systems and service providers and the pure cloud approach does not allow for a smooth migration.

A wise deployment of Skype for Business will mix on-premises functionality for corporate and call center users, allowing integration with legacy systems with initial deployment of cloud services for some users. This will lay the foundation for a smooth transition to the full cloud solution down the line. The best way to protect the enterprise's current investments, ensure a full enterprise voice feature set, guarantee that all company branches around the world are serviced and comply with regulations, is with a hybrid solution which offers the best of both worlds and allows the benefits of UC today with a secure and smooth migration to voice in the cloud when fully available.

In short, cloud wisely!

#### Endnotes

- Zig Serafin, "Skype for Business is here and it's only the beginning", (official Microsoft blog) March 18, 2015, https://blogs.office.com/2015/03/18/skype-for-business-is-here-and-this-is-only-the-beginning/
- John Case, "News from WPC Invested in Partner Growth", (official Microsoft blog), July 15, 2015, <u>https://blogs.office.com/2015/07/13/news-from-wpc-invested-in-partner-growth/</u>
- 3. From Microsoft presentation at the World Partner Conference, July 2015, Miami, Florida
- Unified Communication as a service (UCaaS) Market Global Advancements, World-wide Forecasts and Analysis (2014-2019)," MarketsandMarkets, May 2014
- 5. Computerworld's 2015 Forecast Predicts Security, Cloud Computing And Analytics Will Lead IT Spending.
- Eric Krapf, No Jitter Survey: Enterprises Warming to Cloud Comms... Slowly, No Jitter, July 21, 2015, <u>http://www.nojitter.com/post/240170302/no-jitter-survey-enterprises-warming-to-cloud-comms-slowly</u>
- 7. IDC Research, Successful Cloud Partners HIGHER, FASTER, STRONGER: An IDC InfoDoc, Sponsored by Microsoft, 2013
- 8. T3I, 2015 Report on Enterprise voice impact on Skype for Business
- 9. Enterprise Connect Research: Microsoft Lync/Skype For Business Survey Fielded: April 7-14, 2015
- 10. T3I, 2015 Report on Enterprise voice impact on Skype for Business

#### International Headquarters

1 Hayarden Street, Airport City Lod 70151, Israel Tel: +972-3-976-4000 Fax: +972-3-976-4040 AudioCodes Inc. 27 World's Fair Drive, Somerset, NJ 08873 Tel:+1-732-469-0880 Fax:+1-732-469-2298

©2016 AudioCodes Ltd. All rights reserved. AudioCodes, AC, HD VoIP, HD VoIP Sounds Better, IPmedia, Mediant, MediaPack, What's Inside Matters, OSN, SmartTAP, VMAS, VoIPerfect, VoIPerfectHD, Your Gateway To VoIP, 3GX, VocaNom, AudioCodes One Voice and CloudBond are trademarks or registered trademarks of AudioCodes Limited All other products or trademarks are property of their respective owners. Product specifications are subject to change without notice.

Ref # LTRM-80037 05/16 V.2



Contact us: www.audiocodes.com/contact Website: www.AudioCodes.com

CCG Telecom Email: Sales@CCGTelecom.com Twitter: @CCGTelecom Website: www.ccgtelecom.com Phone: 401-596-3100

