

November 2013

S P E C I A L R E P O R T

Defining the Value of Hosted PBX/UC&C

Table of Contents

Introduction	3
What Is Hosted PBX/UC&C?	4
Definitions	
Integrations	
Deployment Models	
What Is the Demand for Hosted PBX/UC&C?	7
What Are the Benefits of Hosted PBX/UC&C?	8
What Are the Barriers to Hosted PBX/UC&C Adoption?	9
Concerns	
Challenges	
Is Hosted PBX/UC&C a Fit for Your Organization?	11
Buying Triggers	
Asset Inventory	
Staff Evaluation	
User Assessment	
What Should You Look for in a Hosted PBX/UC&C Provider?	13
Provider Types	
Market Leaders	
Selection Criteria	

Introduction

Organizations of all sizes struggle with selecting communication solutions that provide flexibility, reduce overhead and investment risk, and effectively support remote and mobile workers. That's the analysis from researchers at Frost & Sullivan, which also found many organizations turn to cloud communications — hosted IP telephony and unified communications and collaboration (UC&C) services — to meet these needs.

However, to ensure the long-term viability of cloud communications initiatives, Frost & Sullivan advise you to develop a comprehensive and sustainable communications infrastructure road map. Based on the findings of this initial assessment, you must then vet and select a cloud communications supplier.

This Report will help determine if hosted PBX/UC&C is right for your organization, by reviewing the features and benefits as well as considerations for evaluating internal needs and aligning them to supplier capabilities.

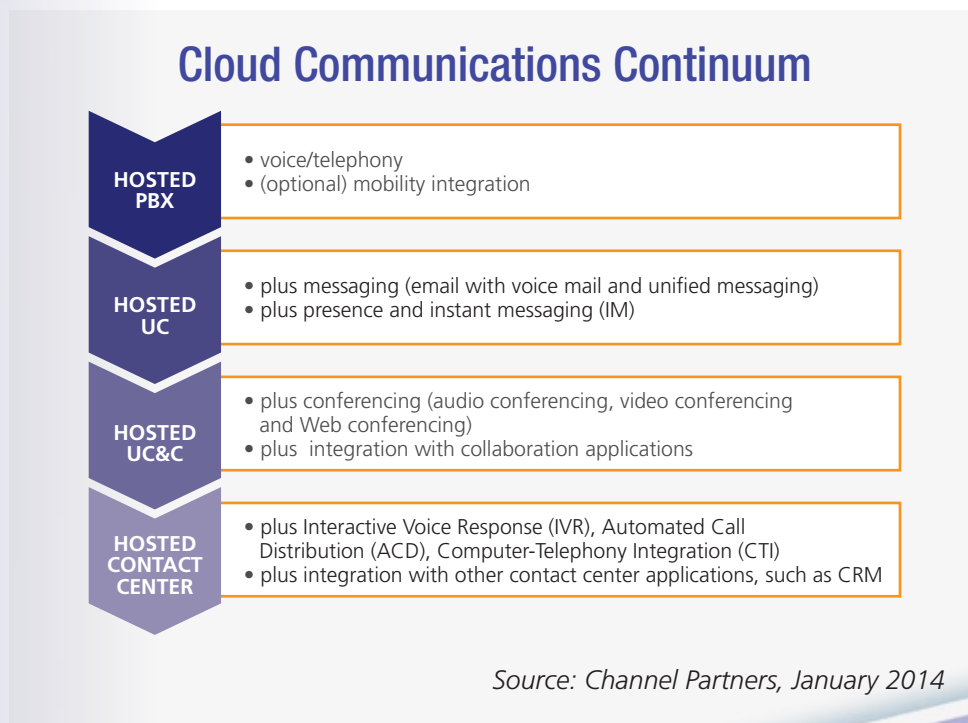
What Is Hosted PBX/UC&C?

Definitions

As with many emerging technologies, hosted or cloud communications capabilities are known in the market by many labels. Some of the common ones that you might see include:

- **Hosted IP Telephony, Hosted VoIP, Hosted PBX, Virtual PBX and Cloud PBX** all refer to the same thing, which is a service that provides the functionality of a private branch exchange (PBX) telephony system instead of locating it in your on-premises telco closet or data center.
- **Hosted UC, Cloud UC, Cloud UC&C and UC-as-a-Service (UCaaS)** also are used interchangeably. They build on the hosted PBX offer by adding unified communications (e.g., messaging, presence and IM) and collaboration capabilities delivered by a service provider instead of an on-premises solution.
- **Hosted Contact Center, Virtual Contact Center and Cloud Contact Center** also are synonymous. They add capabilities to a hosted PBX/UC system that are needed for call centers, such as interactive voice response (IVR), automated call distribution (ACD), computer-telephony integration (CTI), etc.

It may be helpful to think of these capabilities in a continuum as follows:



Integrations

The capabilities of hosted PBX/UC&C services can be augmented or enhanced through integrations that support your mobile workers or your business applications and processes.

Mobility. Support for mobility, while listed in the previous section as optional, is becoming increasingly important as workers use mobile endpoints (smartphones and tablets) — often to the exclusion of traditional desktop handsets. This may be the case for your business. Fortunately, many hosted PBX/UC&C services now enable PBX functionality on mobile devices. This can be done in numerous ways, such as mobile clients, Web interfaces and carrier integration; the functionality varies, so you'll want to ask providers or your technology adviser about specific capabilities.

Business Applications/Processes. You may be interested in embedding communications features into your business applications and processes, such as customer relationship management (CRM), enterprise resource planning (ERP), supply chain management and industry-specific applications. Presently, so-called “communications-enabled business processes” (CEBP) are happening most often with contact center and CRM. Many hosted PBX/UC&C service providers, for example, now offer integrations with popular CRM software solutions, including those delivered as a cloud service, such as Salesforce.com.



Many hosted PBX/UC&C service providers now offer integrations with popular CRM software solutions.

Deployment Models

Hosted PBX/UC&C services can be deployed in public, private and hybrid implementations, so make sure you understand the differences.

Cloud Architectures. There are two types of hosted/cloud communications architectures:

- **Multitenant** — all customers share a common software instance
- **Virtualized** — each customer receives its own software instance

According to research firm Gartner Inc., organizations, particularly those with more than 1,000 employees, prefer a separate software instance — sometimes marketed as “private cloud” — because of perceived security and customization benefits. However, the research firm said most implementations are with the multitenant approach because it is easier to support, manage and deliver.

Hybrid Models. Gartner describes two models for blending premises and cloud PBX/UC functionality. These include:

- **Functional** — some UC functions (for example, email and telephony) are located on-premises, with other UC functions (e.g., IM, presence and Web conferencing) delivered via the cloud
- **Geographical** — some locations (e.g., headquarters) receive premises-based delivery, while others (branch offices) receive cloud delivery

The functional model is gaining steam as providers and integrators develop capabilities to mix and match UC functions, Gartner stated in its November 2013 Magic Quadrant report on UCaaS for North America. The research firm noted it is increasingly common to have email and unified messaging delivered via the cloud with telephony and mobility secured on-premises.

Interest in the geographical hybrid model continues, especially with medium to large enterprises, but implementations remain limited, Gartner said. Most organizations to date choose either premises or cloud delivery, not both.

What Is the Demand for Hosted PBX/UC&C?

In North America, the hosted IP telephony and UC&C services market was \$1.09 billion in 2012 and is estimated to reach \$5.95 billion in 2019, according to a forecast published in fall 2013 by Frost & Sullivan.



The research firm found revenues are driven by growing demand and the delivery of new services, such as mobility, video, Web collaboration and contact center solutions. They also are boosted by improvements in voice over IP (VoIP) technologies as well as service provider IP communications networks.

The trend toward cloud communications is expected to continue. "As businesses seek to improve agility and gain a competitive advantage, they will abandon aging premises-based solutions in favor of flexible hosted IP telephony and UCC communications, which provide access to superior capabilities and a greater pool of technology expertise," Frost & Sullivan analysts wrote.

Researchers from Dell'Oro Group agreed. "We believe that while the PBX market is under attack from a premises-based point of view, that hosted or cloud offerings are an area of growth when looking at enterprise voice from a holistic point of view," said Alan Weckel, vice president of enterprise telephony research at Dell'Oro Group. "We believe customers are increasingly looking toward cloud/hosted voice solutions as they attempt to move towards an opex model for spending. Now that network infrastructure is extremely robust and bandwidth is ample, both the explosion of broadband data and advances in SIP trunking have also eased customers concerns."

What Are the Benefits of Hosted PBX/UC&C?

Hosted IP telephony and UCC services provide benefits to businesses of any size and any vertical industry. However, analysts at Frost & Sullivan noted certain scenarios where hosted communications can provide greater value, including:

- Small businesses and small sites
- Distributed organizations with a large number of remote and mobile workers

“Small and medium businesses (SMBs) in North America use hosted services to gain greater flexibility and access to more advanced communications capabilities, while large organizations are making the switch to consolidate infrastructure and streamline vendor relationships,” Frost & Sullivan analysts said.

Indeed, businesses like yours are turning to hosted PBX/UC&C services for many of the same reasons they are looking at cloud services in general, such as:

- Moving to opex spending models
- Enabling scalability by easily adding/subtracting users
- Providing more advanced communications features
- Extending capabilities to remote and mobile workers
- Reducing technology overhead
- Minimizing the risk of technology obsolescence
- Improving worker productivity
- Enhancing business continuity/disaster recovery plans
- Reducing management burdens on IT/telecom staff

As companies add more collaborative capabilities afforded by cloud communications, they stand to gain additional benefits, according to a May 2013 executive survey by Forbes Insights and sponsored by Cisco, which found:

- 55 percent said cloud services enhanced collaboration, such as information sharing and group problem solving, across time zones and functional boundaries
- 58 percent said cloud collaboration delivered more efficient business processes in areas such as purchasing, manufacturing, marketing, sales and technical support innovation
- 59 percent said cloud collaboration spurred innovation by providing new and effective ways of sharing information with people within and without their organizations.



Small and medium businesses in North America use hosted services to gain greater flexibility and access to more advanced communications capabilities.”

— Frost & Sullivan

What Are the Barriers to Hosted PBX/UC&C Adoption?

While there clearly are good reasons for your organization to move to cloud communications services, there also are reasons that might block or delay this decision.

Concerns

Barriers to adoption tend to be less about gaps in features and functionality and more about concerns related to the cloud delivery model, said Frost & Sullivan. These include things like security, control and reliability.

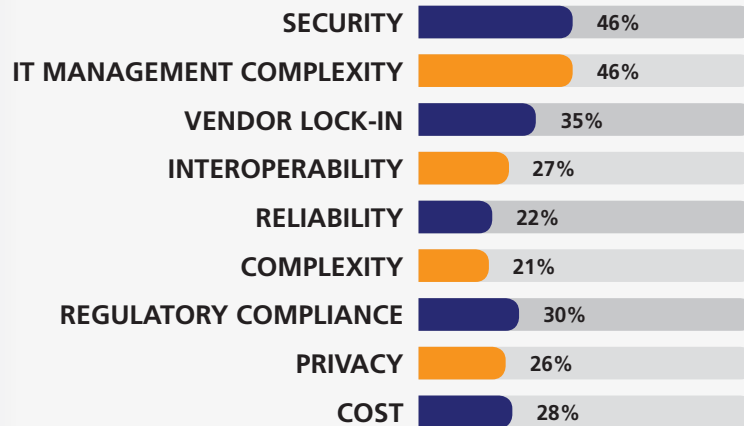
Security. The security of applications like communications moving to the cloud remains the No. 1 concern though one shared by increasingly fewer organizations. A study published in June by North Bridge Ventures found the percentage of executives that cited security as a top concern of moving to the cloud decreased from 55 percent in 2012 to 46 percent in 2013. The decrease may be attributable to successful deployments and a growing realization that cloud service providers are more likely to have state-of-the-art security solutions and monitoring than are individual businesses, particularly SMBs.

Control. Truthfully, moving to the cloud does require IT departments to give up some control, but Web-based portals enable administrative oversight and even the ability to offload some controls to users themselves. The net result typically is streamlined management. Depending on the provider, customization can remain a sticking point, however.

Reliability. Concerns about reliability make sense. If your communications don't work, your business doesn't either. Advances in VoIP technology have overcome issues like latency that degrade voice calling. And, cloud also offers the advantage of keeping calling capabilities live even in the event of a disaster at your offices.

There are other inhibitors to cloud adoption that apply to cloud communications. The North Bridge Ventures survey identified nine with the top one not surprisingly being security (see chart on [Page 10](#)). Other significant concerns were complexity and vendor lock-in. These both can be addressed best in consultation with a trusted technology adviser.

Factors Inhibiting Cloud Adoption



Source: North Bridge Venture Partners, "Future of Cloud Computing Survey," June 2013

Challenges

In addition to these concerns, Frost & Sullivan analysts noted that your ability to move to cloud communications may be hindered or delayed due to:

- Existing investments in premises-based infrastructure, especially those including customized solutions
- Pending business model evolution that delays investment in technology
- Continuing macro-economic challenges resulting in a more cautious approach to new investments
- Limited ability to customize or integrate cloud services with existing premises-based solutions.

Is Hosted PBX/UC&C a Fit for Your Organization?

To determine the viability of moving to cloud communications, you should evaluate your organization's needs, including timing, existing infrastructure, support staff and user needs. Enlisting the help of a trusted adviser can aid the speed, objectivity and thoroughness of this evaluation.

Buying Triggers

"There are certain factors that typically trigger the evaluation of new communications solutions and, potentially, the decision to move to hosted communications," said Elka Popova, North America unified communications program director for Frost & Sullivan. She noted these include:

- Aging (preferably amortized) premises-based infrastructure that is becoming expensive to maintain due to frequency of repair, service disruption, limited parts and skilled staff availability
- An expired Centrex contract
- Rapidly evolving user needs no longer met by current infrastructure
- Uncertain or frequently changing capacity requirements
- Need to gain a competitive edge through advanced communications solutions that reduce costs, enhance user productivity, or accelerate business processes



Evaluate your organization's needs, including timing, existing infrastructure, support staff and user needs.

Asset Inventory

Before deploying a new communications solution in the cloud, you must inventory your existing assets. Age, functionality, feasibility of upgrade and amortization schedules of existing investments must be considered before making a final decision, said Popova.

Staff Evaluation

The next step is to evaluate IT staff capabilities, such as their numbers, workload and ability to manage the increasingly complex communications environment along with other competing business priorities.

While cloud communications can offload a lot of the more complex requirements of system updates and upgrades, there is still an administrative requirement. IT staff are likely to continue to play a key role, especially in larger organizations with more complex needs and requirements.

User Assessment

Frost & Sullivan also recommended a holistic assessment of user needs to decide what new capabilities to deploy in order to ensure user productivity and job satisfaction. “The larger the gap between existing capabilities deployed on the premises, on one hand, and user demand, on the other, the more compelling the switch to advanced hosted communications solutions that deliver a comprehensive set of pre-integrated applications,” the research firm said.

What Should You Look for in a Hosted PBX/UC&C Provider?

With a needs assessment in hand, you are set to find a provider that can deliver the cloud communications services in the manner you require. This step is complicated by a highly fragmented market with providers of varying quality and capabilities. A solutions provider can help guide you to the best options.

Provider Types

In North America alone, it is estimated there are nearly 100 providers of hosted PBX/UC&C services from which you can choose. These providers fall into the following categories:

- **Pure-Play Providers** — these entrepreneurial players, such as 8x8 or Telephere, are focused on cloud VoIP/UC
- **Communications Services Providers** — legacy telecom carriers, such as AT&T, Sprint, Verizon, that have expanded into cloud services
- **Cable MSOs** — cable companies, such as Comcast, also have begun offering cloud communications either home-grown or via acquisition
- **PBX/UC Vendors** — hardware and software providers, such as Microsoft, Mitel and ShoreTel, that have migrated their premises platforms for cloud delivery
- **System Integrators** — managed PBX/UC providers, such as Avana and CSC, that are now entering the cloud space to serve large enterprise accounts.

In addition to these providers, there also are channel partners from which you can source hosted PBX/UC services. These companies fit under the “cloud services brokerage” model and include:

- **Resellers/Aggregators** — VARs that rebrand/rebill cloud communications providers’ solutions and offer professional services on the front end and management/help desk on the back end. (Some may offer customization or integration services.)
- **Agents** — These channel partners represent multiple cloud communications providers and can help you sort through the options in the market to find the best one for your needs.



In North America alone, it is estimated there are nearly 100 providers of hosted PBX/UC&C services from which you can choose.

Market Leaders

Infonetics Research in May 2013 released its annual North America Business VoIP Service Leadership Scorecard, identifying Comcast, 8x8, Verizon and West IP as the top hosted VoIP providers in North America. At the end of 2012, these companies reported more than 200,000 seats each while the cutoff to the top 10 was still slightly below 100,000 seat counts.

Top Hosted VoIP Providers 2012 — North America

1	Comcast
2	8X8
3	Verizon
4	West IP

Source: Infonetics Research, May 2013

“Comcast’s nationwide push of its Business VoiceEdge service helped Comcast grow its installed base and maintain its No. 1 position in Infonetics’ hosted VoIP leadership scorecard for the second year in a row,” said Diane Myers, principal analyst for VoIP, UC and IMS at Infonetics Research. “8x8 follows right on the heels of Comcast, making a big leap this year thanks to improved financial stability, continued growth of its installed base and a focus on service enhancements.”

Selection Criteria

Frost & Sullivan analyst Popova suggests beginning your due diligence process with a feature/functionality comparison. Follow up with a more holistic assessment that includes:

- Ease of use and management
- Networking requirements
- Endpoint requirements
- Total cost of ownership (TCO)
- Service quality and reliability
- Security and regulatory compliance

Additional factors that impact your decision to deploy a specific solution and provider may include :

- Integration with other platforms and services
- Ability to customize to your requirements
- Support for global deployments
- Access to Web-based management functionality

While price may not be your first consideration, it should be part of the overall TCO analysis. Gartner's November 2013 Magic Quadrant report on UCaaS found cloud VoIP offerings typically are \$15-\$20 per user per month, while cloud UC services are \$20-\$30 per user per month. In addition, there typically are a la carte fees for installation training and project management. A proper TCO review however will include a multiyear forecast of related costs, such as maintenance and upgrades. Your trusted adviser can help you with a comprehensive analysis.

Of course, don't forget about key service provider characteristics and attributes such as:

- Market Position — What is the supplier's market position, e.g., share in the segment?
- Customers — Who are the supplier's end customers? Are they similar to my business? Does the supplier have a good reputation with its customers?
- Financial Health — Who owns the company, e.g., is it public or private? If private, is there one owner or multiple? What are future plans for M&A, etc.? What is the annual revenue?
- Leadership/Management — Who are the key leaders and what are their backgrounds?
- Operations — What are their operational staff/systems processes for serving end customers? What are its metrics (and reputation) for provisioning and repair intervals?
- Legal/Contractual — What are the terms and conditions of service?



A proper TCO review however will include a multiyear forecast of related costs, such as maintenance and upgrades.