

The 2011
Hosted and
Cloud-based VoIP
and UC Services
Complete
Database Service

Gary Audin
Delphi, Inc.
and Steven Taylor
Co-Founder, Webtorials Analyst Division



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ABOUT THIS DOCUMENT:

This redacted document is provided to enable the reader to see the exact scope of the database service. As such, this document is redacted in that it has the same information that is contained in the complimentary [2011 Sourcebook for VoIP and Unified Communications Services](#). The information that was blank in the tables in the Sourcebook because it was “Not Available,” “Not Applicable,” or “Not Answered” is noted as “N/A.” All other columns are left blank in this version, allowing the reader to evaluate the scope of the report.

The full database access is available to subscribers to the [Webtorials / Delphi Consulting Services for Hosted and Cloud-Based VoIP and Unified Communications Services](#).

1. Executive Summary

This Sourcebook on cloud/hosted communications service providers was originally published in four redacted installments. In this document, all four installments are combined to provide a single, consolidated and concise reference with complete and detailed tables.

The survey was sent to 210 providers who promoted their communications services on their websites. A total of 60+ providers responded to the survey between late December 2010 and March 2011. The survey included 20 multi-part questions plus provider contact information.

- Chapters 1 through 3 cover the business value of cloud/hosted communications services and a directory of the providers who responded to the survey.
- Chapters 4 through 6 contain information and tables discussing the survey methodology (how the survey was conducted and the provider responses), provider descriptions (customer size, service names, CPE supplied) and market descriptions (wholesale, retail, service residency).
- Chapters 7 through 9 contain information and tables discussing service offerings (21 different services), network access technologies (Internet, MPLS, private line...) and IP and legacy device support (phones, modems, FAX...).
- Chapters 10 and 11 contain information and tables discussing provider geographic coverage, maintenance and on-site support (U.S., Canada, Mexico, international) and market/provider analysis (who buys what and their priorities and state of the market).

Disclaimer:

The entries in all of the tables were taken from the provider responses, not from their websites to insure as much accuracy as possible. Webtorials does not accept any responsibility for any inaccuracies in the information provided.

2. The Business Issues of Cloud/Hosted Services

Considering the Cloud/Hosted Service

Moving to a cloud/hosted solution for communications is the next big thing for CIOs to consider. The cloud/hosted solution offers rapid expansion capability, flexibility, cost control and expense reduction.

There are cloud/hosted IP Telephony (IP PBX), Unified Messaging (UM), call center and Unified Communications (UC) services. The services can also support backup and recovery for remote offices and deliver business continuity at a lower cost. Acquisition and support costs can be significantly reduced. Service levels may even be improved. Think of a cloud/hosted solution as Communications as a Service (CaaS), communications in the cloud.

The value of CaaS or hosted communications is that the enterprise accesses the services through the Internet (about 96%) or other network access technologies to gain use of managed technology services. The enterprise does not necessarily buy hardware (though in reality the enterprise needs endpoints, like IP phones, and some internal network to access the services) or software. The use of a pool of servers, either dedicated or shared at the cloud/hosted site, is a form virtualization shared by multiple customers.

The services, e.g., communications, are delivered as a common set of features and functions. The enterprise subscribes to the features and functions desired. The financial arrangements for access can be by the seat, the feature, usage (actual or unlimited) and flat fee. At this time there is no standard agreement on the service pricing model. The pricing models are still being evolving. This makes it somewhat difficult to compare cloud/hosted provider's charges. The promise of lower cost to the enterprise is the major attraction when considering cloud/hosted communications services.

Why Look at the Cloud/Hosted Solution

Reducing costs is almost always the primary driver for considering a hosted solution. The first benefit is a controlled and predictable cost. This is typically what drives the enterprise to look at cloud/hosted services. Because the cloud/hosted site is shared with many other subscribers, the overall hardware, software and operations costs can be prorated over the subscribing organizations.

However there are other advantages that can accrue to the subscriber to cloud/hosted communications services;

- *Flexible sizing* – The cloud/hosted solution can expand or reduce the number of seats very quickly. This is especially useful when the number of active seats varies by season or for special events or situations or emergencies.

- *Business continuity/reliability* – The cost of high availability (99.999%) may be beyond most budgets. The continued operation when a disaster occurs and the rapid recovery of communications services is financially more affordable with a cloud/hosted solution than if the enterprise tried to produce the same level of business continuity on the enterprise site(s).
- *Staffing* – The enterprise IT staff responsibilities are significantly less with a cloud/hosted solution. The IT staff can be smaller and will not require expensive certification training to support premise based/owned systems. The IT function will primarily deal with service administration.
- *Software* – The enterprise does not have to deal with and pay for software subscription fees and licensing costs.
- *Management* – The enterprise does not have to allocate significant time to managing the solution. Enterprise management will deal with a contract that can have very specific deliverables and Service Level Agreements (SLAs).
- *Features and functions* – The enterprise can gain access to features and functions that are not available on their existing system/service or that are too expensive to implement.

Cloud/Hosted Provider vs. Internal Solution

It is quite common that enterprises look at the features and functions offered by a purchased/leased system vs. what is offered by a cloud/hosted solution. The technical requirements are usually the initial concern. This is important, but the business issues will have longer lasting impact on the solution's acceptability. The table below summarizes the business issues that must be considered comparing the cloud/hosted service and premises system (owned by the enterprise) solutions.

Comparing the Hosted and Premises System Solutions

Issues	Cloud/Hosted	Premises System
Cost	Expense Dollars	Capital and Expense Dollars
Provider Financial Strength	An Issue for Startups	Probably Not an Issue
Contract Issues	Evolving and Can Be Complex	Dealing with Standard VAR and Vendor Contracts
Legal Implications	What Liabilities are Accepted by the Provider?	Enterprise Responsibility
Business Continuity	Network Connection is Biggest Concern	Enterprise Responsibility
IT Staffing	Mostly Provider Responsibility	Enterprise Responsibility
Certifications	Provider Responsibility	Enterprise Responsibility
Security/Privacy	Mostly Provider Responsibility	Enterprise Responsibility
Compliance and Regulations	Mostly Provider Responsibility	Enterprise Responsibility

Security, Privacy and Compliance

Regulatory, security and compliance issues can hinder the cloud/hosted solution implementation. How much responsibility will the provider accept? What happens when the requirements are not met? Is the enterprise left with holding the bag?

Contracts for the issues covering the services can become very complex with the provider trying to limit their liabilities. This could make the enterprise hesitant to move their functions onto the cloud/hosted solution.

The security issue is being pursued by the Cloud Security Alliance (CSA). The mission statement for the CSA is;

“To promote the use of best practices for providing security assurance within Cloud Computing, and provide education on the uses of Cloud Computing to help secure all other forms of computing.”

The CSA objectives and recommendations are the same for hosted services. [The CSA website](#) states that:

“The issues and opportunities of cloud computing gained considerable notice in 2008 within the information security community. It was at a security practitioners' conference, the ISSA CISO Forum in Las Vegas, November 20, 2008, where the concept of the Cloud Security Alliance was born. Following a presentation of emerging trends by Jim Reavis that included a call for action for securing cloud computing, Reavis and Nils Puhmann outlined the initial mission and strategy of the Cloud Security Alliance. A series of organizational meetings [were held] in early December 2008.”

The primary decision is to determine the risk associated with moving functions to a service, security being a major consideration. For anyone considering moving functions to a cloud/hosted solution, the security issue will probably be the hardest to resolve.

In December 2009, the CSA published “Security Guidance for Cloud Areas of Focus in Cloud Computing V2.1”, a [76 page document](#).

For those new to the cloud/hosted services, the CSA guidance document has an excellent introduction, section I, “Cloud Architecture”. The 17 pages of introduction cover the entire set of cloud/hosting considerations and how they operate. Mapping the cloud/hosting model for Compliance is shown to be a subset of the Security Control Model which in turn is part of the cloud/hosting model. What applies to cloud security applies to hosting security.

Legal Considerations

Cloud/hosted services have legal implications as well. Service planning should include the legal department. Should all users have access to all features and functions? For instance, one enterprise decided to limit UC availability for some of their users to deal with compliance regulations. If the communications is in any electronically stored form, E-Discovery as well as other requirements will be applied to the service. Plan for them and avoid the legal surprises.

When you contract for a service that needs to be secure and meet compliance and/or regulatory requirements, read the fine print. Have your lawyers be very critical and precise in their review of the provider's responsibilities and liabilities, including the liabilities not accepted by the provider.

Another issue is the ownership of the information resident at the cloud/hosted site. Most enterprises would automatically expect that the information passing through the site is theirs and not owned by the provider. What about the information on the individual users?

How about the traffic information that is sent and received? If presence is involved, can that presence information be sold to others? Will the provider use their access to the enterprise's users to send out information created by third parties for the sale of products or services? Would the provider be able to sell profile information of the enterprise's users to third parties?

The provider will define the Acceptable Use Policies (AUP). The AUP will probably favor the provider's business model and revenue. Read your AUP for your present ISP service to get an idea of the unbalanced arrangement that favors the providers.

Business Considerations

Independent of the technology concerns, there are a number of questions that need to be addressed when considering a particular service provider.

- *Financial Strength* – Is this provider venture capital backed or profit making? Is the provider going through any financial difficulties?
- *Delivery in the Enterprise's Geographic Market* – Can the services and supporting CPE be delivered wherever the enterprise has facilities?
- *Is The Solution A Combination of Vendors and Providers?* - Is the final solution made up of more than one vendor's products and services? If so, who is the prime solution provider and how do the other partners integrate their products and services?
- *Where Does the Service Fit in the Overall Vendor Product and Service Strategies?* – Is it the primary product/service, an addition to an IP telephony solution or a small part of the provider's portfolio?
- *Is the Provider Reorganizing its Structure?* – Reorganization can mean some discontinuity in service deployment and support as well as delaying service enhancements during and after re-organization.
- *Is the Solution Really a Partnership?* – Is the service offered really a collection of separate products and services combined under an umbrella service?
- *Is the Solution a Set of Recent Acquisitions/Mergers?* – Recently acquired components (software and hardware) may not interoperate well. The solution support may be fragmented. What is the state of the integration of the providers?
- *Is the Product Delivered Directly or Indirectly?* – When subscribing to a solution through a third party, then that third party's capabilities will be just as important as the primary provider's capabilities.

- *Is the Provider's Focus on All Elements?* – The focus may be more on IT or telecom, not the full range of communications capabilities such as UC, conferencing and call center functions.
- *Does the Provider Have an Established Record in Your Vertical Market?* – Experience counts for developing confidence in the provider. New vertical market services will almost always have some initial deployment problems. Experience in your vertical market produces confidence in the provider.
- *Does the Provider Have IT as Well as Telecom and Contact Center Experience?* – The broader the experience, the more likely that the provider will be able to deliver the range of communications features and functions successfully.
- *Is the Service a Recent Announcement?* –The newer the service, the less stability that service may deliver. You do not want to be the provider's test lab.

The decision to effectively outsource part or all of an enterprise's communications services is more than a technical decision.

3. Provider Directory Information

The following tables list all of the providers who responded to the survey. Not all of the entries in each column are consistent. The tables contain the provider responses and have not been modified by the authors. As can be observed, service names vary considerably so the enterprise should be cautious when trying to describe the service required with the providers since confusion may occur. The contact information may contain a person's name, phone number, e-mail address and/or the provider's website URL. Most of the providers focus on business services. A small number of providers offer services to both consumers and businesses.

Service Descriptive Names

The names that providers use for their services seem to be all over the map. The confusion about the cloud/hosted based communications services starts with what the provider calls their service. As can be seen from the table below, some providers use more than one name for their service.

Here are the common names used by the responding providers:

Descriptive Service Name	Response Percentage
Hosted/Cloud VoIP	65%
Hosted VoIP	72%
Virtual PBX	46%
Hosted/cloud call center	46%
Communications as a Service (CaaS)	52%

Some providers used unique names to describe their services such as:

- Hosted Unified Communications
- Cloud-based software SBC
- Message Broadcasting/SMS Broadcasting
- Cloud-based Unified Communications as a Service (UCaaS)
- Hosted IVR
- Voice Broadcasting Services

TABLE 1: DIRECTORY

Company	Service Name	Contact Information	Consumer Services	Business Services
8x8, Inc.	8x8 Virtual Office, 8x8 Virtual Office Pro	www.8x8.com 8x8sales@8x8.com (866) 879-8647	Yes	Yes
Abtech	Abtech Hosted PBX	www.abtech.com tcook@abtech.com , (410) 295-9000	No	Yes
Akabis, Inc.	Customer Service	www.Akabis.com customer.service@Akabis.com (866) 312-1070	No	Yes
Anveo Inc.	Anveo.com	www.anveo.com anveo.sales@anveo.com (215) 701-0680	Yes	Yes
Aptela	Aptela Business VoIP Phone Service	www.aptela.com info@aptela.com (800) 994-4496	No	Yes
AT&T	AT&T	www.att.com AT&T Contact (800) 248-3632	Yes	Yes
AVAD Technologies	Business Hosted VoIP Provider	www.avadtechnologies.com neal.gilbert@avadtechnologies.com , (800) 733-4136	No	Yes
Bandwidth.com, Inc	Phonebooth.com	www.phonebooth.com CustomerCare@phonebooth.com (855) 692-6684	No	Yes

Company	Service Name	Contact Information	Consumer Services	Business Services
Broadcore	Hosted Unified Communications	www.broadcore.com sales@broadcore.com (310) 921-7000	No	Yes
Broadview Networks, Inc.	OfficeSuite	www.broadviewnet.com marketing@broadviewnet.com (800) 276-2384	No	Yes
Broadvox	GO!VBX	www.broadvox.com/ info@broadvox.com (214) 303-9719	No	Yes
Bullseye Telecom Inc.	Telecommunications	www.bullseyetelecom.com sales@bullseyetelecom.com , (877) 438-2855	No	Yes
Call Center Development Services	Centcom	www.ccds.ca info@ccds.ca (800) 921-2237	No	Yes
CallTower Inc	Enterprise Unified Communications	www.calltower.com bbarnes@calltower.com (650) 520-2801	No	Yes
CosmoCom	CosmoCom	www.cosmocom.com info@cosmocom.com (631) 940-4202	No	Yes
Dialtel Inc.	Voice Broadcasting	www.dialtel.com erik@dialtel.com (774) 273-1355	No	Yes

Company	Service Name	Contact Information	Consumer Services	Business Services
Fastmetrics, Inc.	Hosted VoIP & Unified Communications Solutions	www.fastmetrics.com sales@fastmetrics.com (800) 724-7100	No	Yes
Five9	Five9 Virtual Call Center Suite	www.Five9.com sales@five9.com (800) 553-8159	No	Yes
FluentStream Technologies	FluentCloud	www.fluentcloud.com info@fluentstream.com (877) 312-6477	No	Yes
Fonality	Fonality Connect	www.fonality.com ashugart@fonality.com (249) 652-7400	No	Yes
Global Crossing	Global Crossing® Communications as a Service (CaaS)	www.globalcrossing.com James.Harney@globalcrossing.com (973) 937-0417 Kate Rankin	No	Yes
Grasshopper	Virtual Phone Systems	http://grasshopper.com Support@grasshoppergroup.com (800) 820-8210 x 2	Yes	Yes
IP5280 Communications	Business VoIP Services	www.ip5280.com john.scarborough@ip5280.com (303) 800-0000	No	Yes
ipSBS Managed Services, LLC	HostMyCalls Hosted PBX Service	www.hostmycalls.com info@hostmycalls.com (866) 242-6161	No	Yes

Company	Service Name	Contact Information	Consumer Services	Business Services
Iristel	Iristel	www.iristel.ca sales@iristel.ca (416) 800-4747	Yes	Yes
Junction Networks	OnSIP Hosted VoIP	www.onsip.com sales@junctionnetworks.com (800) 801-3381	No	Yes
LightEdge Solutions	LightEdge Solutions	http://www.lightedge.com info@lightedge.com (877) 771-3343	No	Yes
Masergy Communications Inc.	Masergy Marketplace	www.masergy.com andy.singleton@masergy.com (866) 627-3749 (MASERGY)	No	Yes
Orange Business Services	Business Together	Orange Business Services kathy.grashof@orange-ftgroup.com Orange Business Services	No	Yes
Pac-West Telecomm, Inc.	Telastic	www.pacwest.com esymons@pacwest.com (510) 380-5977	Yes	Yes
PanTerra Networks Inc.	WorldSmart	http://panterrannetworks.com info@panterrannetworks.com (800) 805-0558	No	Yes
PBX Central Corporation	KBx Hosted PBX Business Phone Services	www.pbxcentral.com mark@pbxcentral.com (512) 744-1490	No	Yes

Company	Service Name	Contact Information	Consumer Services	Business Services
Pingtone	Pingtone	www.pingtone.com sales@pingtone.com (877) 501-7464 (PING)	No	Yes
PosTrack Technologies, Inc.	Communications as a Service	www.postrack.net telecom.sales@postrack.net (815) 768-2040	No	Yes
Ringio	Ringio	http://www.ringio.com support@ringio.com (888) 727-5776	No	Yes
Segway Communications	Segway Communications	www.segwaycommunications.com sales@segwaycommunications.com (877) 734-9292; (310) 478-4949	Yes	Yes
Star Telecom	SIP solutions for call centers (LD, Toll Free, DID, Routing, Recording, Reporting)	www.StarTelecom sales@startelecom.ca (855) 782-7835	No	Yes
Telecentrex Communications	Hosted PBX	http://www.voipconsultant.com help@voipconsultant.com (888) 494-4681	No	Yes
TelStar Hosted Services, Inc.	TelStar Hosted Services, Inc.	www.TelStarHosted.com sales@telstarhosted.com (877) 483-5782	Yes	Yes
TLS.NET	TLS.NET	www.tls.net success@tls.net (812) 378-4100	No	Yes

Company	Service Name	Contact Information	Consumer Services	Business Services
UniVoIP Inc.	Managed PBX Service Provider	www.univoip.com sales@univoip.com (310) 747-3232	No	Yes
Versature Corp	Versature Hosted PBX	www.versature.com sales@versature.com (877) 498-3772	No	Yes
Virtual PBX	Virtual PBX Complete	www.virtualpbx.com sales@virtualpbx.com (888) 825-0800	Yes	Yes
Voice Carrier	Voice Carrier Office	www.voicecarrier.com rick@voicecarrier.com (650) 376-1204	Yes	Yes
VoiceNEXT, Inc.	PbxNEXT	www.voicenext.com support@voicenext.com (732) 653-5000	No	Yes
Xebba	Xebba Virtual PBX and IVR	http://www.xebba.com support@xebba.com (866) 558 2734	Yes	Yes

4. Survey Methodology

The information from the cloud/hosted communications providers was used to create the tables in the Sourcebook. The authors have not edited or changed any of the provider's survey responses. The accuracy of the data contained in this Sourcebook is solely the responsibility of the responding providers.

The survey provides material for understanding and appreciating the cloud/hosted communications market and providers. The survey was sent to 210 providers who promoted their communications services on their websites. A total of 60+ providers responded to the survey between late December 2010 and March 2011. The survey included 20 multi-part questions plus provider contact information. A Sourcebook was written in four parts, covering the details of each provider's responses to the survey. The survey questions can be found at [the Webtorials website](#).

The entries in all of the tables were taken from the provider responses, not from their websites to insure accuracy. No pricing information is provided because the cost of each provider's services features and functions offered are too varied for a fair comparison.

The survey does not cover the cost of the services but covers:

- What services are provided – 21 choices. See [Table 5](#) and [Table 6](#).
- The geographic coverage for the service (inside and outside the continental 48 states) See [Table 9](#) (North America) and [Table 10](#) (International)
- Did the provider sell their own service (retail and wholesale) or were they a reseller? See [Table 3](#).
- The customer size: 25, 100, 1000, 1000+ phones/seats. See [Table 2](#).
- Solution type--on premise, remote hosted, cloud based. See [Table 4](#).
- Network access technologies (Internet, MPLS....). See [Table 7](#).
- Device support (IP phones, legacy phones.....). See [Table 8](#).

5. Provider Descriptions

Service Implementation Models

There are several possible business models for the cloud/hosted communications providers. Different business models may complicate some and maybe all of the issues that can arise when subscribing to a cloud/hosted service. Here are the business models now in place:

- A total cloud/hosted service where the provider owns the hardware, software, and network and has the staff that implements and maintains the service.
- The cloud-based service can be a collection of dedicated or shared servers that run customer owned software, i.e. a private cloud. The Amazon Elastic Compute Cloud (Amazon EC2) platform is a cloud based business service that already exists. It is a web service that provides resizable compute capacity in the cloud. Here, the Service Level Agreement (SLA) covers the platforms and network but not the features and functions offered because the customer is responsible for the features and functions.
- A carrier or ISP uses a third party's communications service site to provide the service but bundles the network access and SLA into a total package.
- Another model is a communications software vendor operating on another provider's hardware, on a Platform as a Service (PaaS). The Amazon EC2 service is a candidate to support this model as well.
- A provider develops their own software and hosts the service on their site. The network access is usually through the Internet. The SLA covers the hosting site but not the network.
- The provider locates the system/solution on the enterprise premises, charges by the seat/phone but manages the system remotely. The enterprise becomes responsible for some of the business continuity capabilities as well as power and cooling costs.
- A reseller that owns nothing (no hardware, software or network) but resells cloud services for one or more, usually wholesale, providers.

The business model will have a great influence on the Service Level Agreements (SLA) and Acceptable Use Policies (AUP) that an enterprise will encounter. The stability of the service may be in jeopardy if the service provider business model is not successful. What if the cloud/hosted provider goes out of business? What if the provider decides to terminate some function and features? The enterprise should have a backup service plan in place in case any of these situations occurs.

Provider Performance Considerations

The Service Level Agreement (SLA) will be measured over a long period of time, possibly weeks. The SLA will be met when no one is using the service reporting successful SLA compliance. The SLA is most important when the call busy hour occurs. Experience with the SLAs of MPLS services is an example of the biased arrangements that clearly need to be renegotiated to satisfy the busy hour performance.

The demarcation point (where the SLAs start and ends) for accessing the service may be much further away than the enterprise expects. The distant demarcation point means that the provider is not responsible to meet the SLA at or near the customer premises or desktop. The network access is usually not included in the SLA.

Analyze the SLA and performance reports produced by the provider. Do they offer real insight into the usage? Are the reports demonstrating how to tailor the services to meet the enterprise's needs after the service is turned on? As more features and functions are introduced, the enterprise should be able to evaluate who uses what and how well so that only the features and functions of value continue.

6. Market Descriptions

Service Descriptions

There are a number of cloud/hosting services available, over 210 providers. Each has its own definition of cloud/hosted communications. Almost all of the services are accessed via the Internet, about 94%. Here are the types of cloud/hosted services available today. See [Table 5](#) and [Table 6](#).

- **Basic Telephony** - The features expected for small business and consumer phone service.
- **IP Telephony** - (IP PBX) The common features and functions found on a legacy PBX and newer IP PBXs are offered.
- **Unified Messaging** - A messaging service that includes a single storage and delivery of voice mail, e-mail, and fax messages.
- **Presence** - A system for collecting and managing an individual's status, ability to communicate, and preferences for mode of communication.
- **Conferencing** - Voice/audio, video and web conferencing services are part of the category.
- **Call Center Support** - This would include individual or combined functions such as:
 - Auto Attendant
 - Automatic Call Distribution (ACD)
 - Interactive Voice Response (IVR)
 - Auto/predictive Dialing
- **Unified Communications** - A communications service that includes several of the following elements: voice, unified messaging, video, mobility, web/data collaboration, and presence.
- **HD Voice** - This service uses wideband/broadband IP phones to deliver very high quality voice/speech, much better than legacy phone voice quality.

The more unique functions and features that an enterprise requires, like vertical market features, the more likely they will not be found on a cloud/hosted service unless that service targets the enterprise's vertical market. There will always be functions that are common to most enterprises. These will be the candidates for cloud/hosted services that are of greatest interest to the enterprise.

The customer size supported by the providers varies considerably from 25 seats/phones to over 5000 seats/phones. The majority of providers covered the range of 1 to 500 seats/phones. Some providers can support over 5000 seats/phones. The provider may

include the phones in the service or the customer needs to provide the phones or the provider will mix and match customer and provider supported phones. See [Table 2](#).

About 2/3 of the providers are not resellers of services. Most of the providers do not wholesale their services. The services are implemented at 2/3 of the providers sites, while 1/3 use cloud based sites. At least one provider places equipment on the customer's site to implement the service. See [Table 3](#).

Some providers sell flexibility as part of their service, but contract language hinders and may eliminate the achievable flexibility. Enterprises want flexibility in there traffic volumes and the number of phones/seats. Many providers support the traffic changes well. Flexibility also includes changing the balance of cloud vs. enterprise operations, hardware and software usage.

TABLE 2: WHAT SIZE RANGE(S) OF CUSTOMERS ARE THE BEST FIT?

Company	Up to 25 seats/phones	26 to 100 seats/phones	101 to 500 seats/phones	501 to 1000 seats/phones	1001 to 5000 seats/phones	Over 5000 seats/phones
8x8, Inc.						
Abtech						
Akabis, Inc.						
Anveo Inc.						
Aptela						
AT&T						
AVAD Technologies						
Bandwidth.com, Inc						
Broadcore						
Broadview Networks, Inc.						
Broadvox						
Bullseye Telecom Inc.						
Call Center Development Services						
CallTower Inc						
CosmoCom						
Dialtel Inc.						

Company	Up to 25 seats/phones	26 to 100 seats/phones	101 to 500 seats/phones	501 to 1000 seats/phones	1001 to 5000 seats/phones	Over 5000 seats/phones
Fastmetrics, Inc.						
Five9						
FluentStream Technologies						
Fonality						
Global Crossing						
Grasshopper						
IP5280 Communications						
ipSBS Managed Services, LLC						
Iristel						
Junction Networks						
LightEdge Solutions						
Masergy Communications Inc.						
Orange Business Services						
Pac-West Telecomm, Inc.						
PanTerra Networks Inc.						
PBX Central Corporation						
Pingtone						

Company	Up to 25 seats/phones	26 to 100 seats/phones	101 to 500 seats/phones	501 to 1000 seats/phones	1001 to 5000 seats/phones	Over 5000 seats/phones
PosTrack Technologies, Inc.						
Ringio						
Segway Communications						
Star Telecom						
Telecentrex Communications						
TelStar Hosted Services, Inc.						
TLS.NET						
UniVoIP Inc.						
Versature Corp						
Virtual PBX						
Voice Carrier						
VoiceNEXT, Inc.						
Xebba						

TABLE 3: RESELLER / SUPPLIERS, WHOLESALE / RESELLERS, MERGERS

Company	Reseller	Reseller - Suppliers	Wholesaler	Wholesaler - Resellers	Merged / Acquired / Consolidated	With Whom?
8x8, Inc.	No		No			
Abtech	No		Yes			
Akabis, Inc.			Yes			
Anveo Inc.	No		No			
Aptela	No		Yes			
AT&T	Proprietary		Proprietary			
AVAD Technologies	No		No			
Bandwidth.com, Inc	No		Proprietary			
Broadcore	No		No			
Broadview Networks, Inc.	Yes		No			
Broadvox	Yes		Yes			
Bullseye Telecom Inc.	Yes		Yes			
Call Center Development Services	Yes		No			
CallTower Inc	No		Yes			
CosmoCom	No		Yes			
Dialtel Inc.	No		Yes			

Company	Reseller	Reseller - Suppliers	Wholesaler	Wholesaler - Resellers	Merged / Acquired / Consolidated	With Whom?
Fastmetrics, Inc.	Proprietary		Proprietary			
Five9	No		No			
FluentStream Technologies	No		No			
Fonality	Proprietary		No			
Global Crossing	No		No			
Grasshopper	No		No			
IP5280 Communications	No		No			
ipSBS Managed Services, LLC	Proprietary		No			
Iristel	Proprietary		Proprietary			
Junction Networks	No		Yes			
LightEdge Solutions	Yes		Yes			
Masergy Communications Inc.	Yes		Yes			
Orange Business Services	Yes		No			
Pac-West Telecomm, Inc.	No		Yes			
PanTerra Networks Inc.	No		Yes			
PBX Central Corporation	Yes		Yes			

Company	Reseller	Reseller - Suppliers	Wholesaler	Wholesaler - Resellers	Merged / Acquired / Consolidated	With Whom?
Pingtone	No		Yes			
PosTrack Technologies, Inc.	No		Yes			
Ringio	No		No			
Segway Communications	No		Yes			
Star Telecom	No		Yes			
Telecentrex Communications	Yes		No			
TelStar Hosted Services, Inc.	No		No			
TLS.NET	No		No			
UniVoIP Inc.	Yes		No			
Versature Corp	No		No			
Virtual PBX	No		No			
Voice Carrier	No		No			
VoiceNEXT, Inc.	Yes		No			
Xebba	No		No			

TABLE 4: HOSTED / CLOUD LOCATION & SERVICES

Company	Location	VoIP	Hosted PBX	Virtual PBX	Call Center	CaaS	Other
8x8, Inc.	Cloud						
Abtech	Cloud						
Akabis, Inc.							
Anveo Inc.	Cloud						
Aptela	Hosted						
AT&T							
AVAD Technologies	Hosted						
Bandwidth.com, Inc	Cloud						
Broadcore	Hosted						
Broadview Networks, Inc.	Hosted						
Broadvox	Hosted						
Bullseye Telecom Inc.	Cloud						
Call Center Development Services	Hosted						
CallTower Inc	Hosted						
CosmoCom	Cloud						
Dialtel Inc.	Hosted						

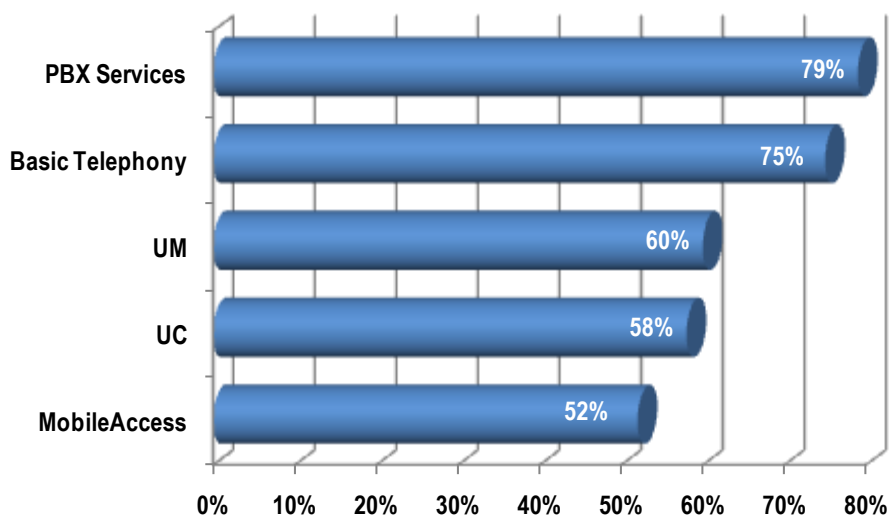
Company	Location	VoIP	Hosted PBX	Virtual PBX	Call Center	CaaS	Other
Fastmetrics, Inc.	Premises						
Five9	Hosted						
FluentStream Technologies	Cloud						
Fonality	Hosted						
Global Crossing	Cloud						
Grasshopper	Hosted						
IP5280 Communications	Hosted						
ipSBS Managed Services, LLC	Hosted						
Iristel	Hosted						
Junction Networks	Hosted						
LightEdge Solutions	Hosted						
Masergy Communications Inc.	Hosted						
Orange Business Services	Cloud						
Pac-West Telecomm, Inc.	Cloud						
PanTerra Networks Inc.	Hosted						
PBX Central Corporation	Hosted						
Pingtone	Hosted						

Company	Location	VoIP	Hosted PBX	Virtual PBX	Call Center	CaaS	Other
PosTrack Technologies, Inc.	Cloud						
Ringio	Cloud						
Segway Communications	Hosted						
Star Telecom	Hosted						
Telecentrex Communications	Hosted						
TelStar Hosted Services, Inc.	Hosted						
TLS.NET	Cloud						
UniVoIP Inc.	Hosted						
Versature Corp	Cloud						
Virtual PBX	Cloud						
Voice Carrier	Hosted						
VoiceNEXT, Inc.	Hosted						
Xebba	Hosted						

7. Service Offerings

The information from the cloud/hosted communications providers was used to create the tables in the Sourcebook. The authors have not edited or changed any of the provider's survey responses. The accuracy of the data contained in this Sourcebook is solely the responsibility of the responding providers.

The survey found that 75% of the providers offered basic telephony services and 79% of the providers offered PBX services. Unified Messaging (UM) was offered by 60% of the providers, Unified Communications (UC) was offered by 58% of the providers with mobile access support at 52%. There were 16 other services defined in the survey.



Sample Provider Business Service Offerings

The more sophisticated enterprises will discover that nearly half of the providers are not yet ready with the UC, UM and mobile access features. This reduces the number of candidate service providers that can be considered by the enterprise for sophisticated features and functions like UC, UM and mobile access.

When it came to call center services, the responses were widely distributed, for example, only 19% offered Predictive Dialing. At the other extreme, 77% offered Auto Attendant services. When an enterprise looks for cloud/hosted call center services, there appears to be no consistent definition of what these call center services should include. A few of the provider call center features can be combined with non-call center features, but a total call center feature list is not available from most of the providers.

Feature and Function Considerations

When the enterprise is ready to outsource part or all of its communications feature and functions, the menu of services becomes important. The enterprise should:

- Match the features and functions already in use by the enterprise.
- Consolidate disparate functions offered by in house operations or that are outsourced to individual providers
- Look for the next level of features and functions that may be required by each business unit in the next two or three years.

The best possible list of features and functions would be an ala carte menu so that only those features and functions will be paid for by the enterprise. Unfortunately, providers package multiple features and functions, so the enterprise may have to subscribe to features and functions that are not desired. If the provider really wants the enterprise business, there may be room to negotiate the package of features and functions.

Not all users in the enterprise will need all the features and functions that the enterprise subscribes for it operation. There may be reasons that some of the users are not allowed to access certain features and function because of regulatory and/or compliance requirements. The enterprise should then not pay for them. Look for user specific menus rather than accepting a one size fits all solution.

How to Read the Tables

1. Basic Telephony = small business and consumer features
2. PBX = features found on an IP PBX
3. HD voice = High Definition voice quality
4. Voice/audio = Video/audio conferencing
5. Video = Video conferencing
6. Web = Web conferencing
7. E-mail
8. Fax mail
9. IM = Instant Messaging
10. UM = Unified Messaging
11. UC = Unified Communications
12. Mobile support = wireless access

If the provider did not specify to the survey, the field is left blank. The entries in the fields are the provider responses to insure accuracy. None of these tables was extracted from the provider's website to insure the accuracy of the information.

TABLE 5: SERVICES (not including Call Center)

Company	Basic Telephony	PBX	HD voice	Voice / audio	Video	Web	E-mail	Fax mail	IM	UM	UC	Mobile support	Other
8x8, Inc.	Yes	Yes	Yes								Yes		
Abtech	Yes	Yes	Yes								Yes		
Akabis, Inc.	N/A	N/A	N/A								N/A		
Anveo Inc.	Yes	Yes	Yes								Yes		
Aptela	Yes	Yes	Yes								Yes		
AT&T	N/A	N/A	N/A								N/A		
AVAD Technologies	Yes	Yes	Yes								N/A		
Bandwidth.com, Inc	Yes	Yes	Yes								N/A		
Broadcore	Yes	N/A	Yes								Yes		
Broadview Networks, Inc.	Yes	Yes	N/A								N/A		
Broadvox	Yes	Yes	Yes								Yes		
Bullseye Telecom Inc.	Yes	Yes	N/A								N/A		
Call Center Development Services	N/A	Yes	N/A								Yes		
CallTower Inc	N/A	Yes	Yes								Yes		
CosmoCom	N/A	N/A	N/A								Yes		

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Company	Basic Telephony	PBX	HD voice	Voice / audio	Video	Web	E-mail	Fax mail	IM	UM	UC	Mobile support	Other
Dialtel Inc.	N/A	N/A	N/A								N/A		
Fastmetrics, Inc.	Yes	Yes	Yes								Yes		
Five9	N/A	N/A	N/A								N/A		
FluentStream Technologies	Yes	Yes	Yes								Yes		
Fonality	Yes	Yes	N/A								Yes		
Global Crossing	N/A	N/A	N/A								N/A		
Grasshopper	N/A	Yes	N/A								N/A		
IP5280 Communications	Yes	Yes	Yes								Yes		
ipSBS Managed Services, LLC	Yes	Yes	Yes								Yes		
Iristel	Yes	Yes	Yes								N/A		
Junction Networks	Yes	N/A	Yes								Yes		
LightEdge Solutions	Yes	N/A	Yes								Yes		
Masergy Communications Inc.	N/A	Yes	Yes								Yes		
Orange Business Services	Yes	Yes	Yes								Yes		
Pac-West Telecomm, Inc.	Yes	Yes	N/A								N/A		
PanTerra Networks Inc.	Yes	Yes	Yes								Yes		

Company	Basic Telephony	PBX	HD voice	Voice / audio	Video	Web	E-mail	Fax mail	IM	UM	UC	Mobile support	Other
PBX Central Corporation	Yes	Yes	Yes								Yes		
Pingtone	Yes	N/A	Yes								Yes		
PosTrack Technologies, Inc.	Yes	Yes	Yes								Yes		
Ringio	Yes	Yes	N/A								Yes		
Segway Communications	Yes	Yes	N/A								N/A		
Star Telecom	Yes	N/A	N/A								N/A		
Telecentrex Communications	Yes	Yes	Yes								N/A		
TelStar Hosted Services, Inc.	Yes	N/A	N/A								N/A		
TLS.NET	N/A	Yes	Yes								Yes		
UniVoIP Inc.	Yes	Yes	N/A								N/A		
Versature Corp	Yes	Yes	Yes								Yes		
Virtual PBX	N/A	Yes	N/A								N/A		
Voice Carrier	N/A	Yes	Yes								N/A		
VoiceNEXT, Inc.	Yes	Yes	Yes								Yes		
Xebba	N/A	Yes	Yes								N/A		

TABLE 6: SERVICES (Call Center only)

Company	Inbound	Outbound	IVR	Auto Attendant	ACD	Predictive Calling	Call Monitoring	Call Recording	Reporting
8x8, Inc.									
Abtech									
Anveo Inc.									
AVAD Technologies									
Bandwidth.com, Inc									
Broadcore									
Broadview Networks, Inc.									
Broadvox									
Bullseye Telecom Inc.									
Call Center Development Services									
CallTower Inc									
CosmoCom									
Dialtel Inc.									
Fastmetrics, Inc.									
Five9									
FluentStream Technologies									

Company	Inbound	Outbound	IVR	Auto Attendant	ACD	Predictive Calling	Call Monitoring	Call Recording	Reporting
Fonality									
Grasshopper									
IP5280 Communications									
ipSBS Managed Services, LLC									
Iristel									
Junction Networks									
LightEdge Solutions									
Orange Business Services									
Pac-West Telecomm, Inc.									
PanTerra Networks Inc.									
PBX Central Corporation									
Pingtone									
PosTrack Technologies, Inc.									
Star Telecom									
Telecentrex Communications									
TelStar Hosted Services, Inc.									
TLS.NET									

Company	Inbound	Outbound	IVR	Auto Attendant	ACD	Predictive Calling	Call Monitoring	Call Recording	Reporting
Versature Corp									
Virtual PBX									
Voice Carrier									
VoiceNEXT, Inc.									
Xebba									

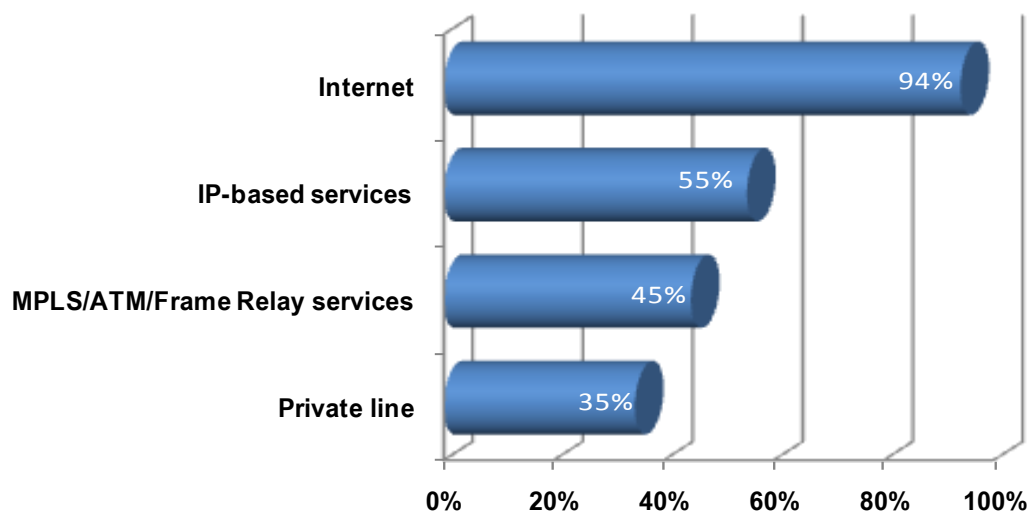
8. Network Access Technologies

Network access technologies are the means to connect to the cloud/hosted service. In most cases, the network access technology is the responsibility of the enterprise. This is commonly an ISP connection to the Internet. In some cases, the provider will include the network access technology, such as MPLS, as part of the provider's cloud/hosted service.

There are several considerations when selecting the service network access technology. If the access is through the Internet, then the Service Level Agreement (SLA) has the customer demarcation point at the provider's site, not the customer's location. Internet performance is not included in the SLA.

Secondly, some providers offer MPLS access to insure voice quality and the demarcation point moves to the customer site. Network performance is included in the SLA. Those using the Internet can not guarantee voice quality. MPLS service supports a high of Quality of Service (QoS) to ensure good voice quality.

Thirdly, private line access may be more expensive but insures voice quality. Security is an issue for all access technologies but can be solved through a VPN or MPLS or private line access.



Network Technology Access Distribution

The providers were given four choices for network access technology in the survey. As expected, 94% of the providers have access through the Internet. The survey found that there are other network technologies available for the service access, 35% through private lines, 44% through MPLS/ATM/Frame Relay and 56% have access through other IP based services (not the Internet).

TABLE 7: REMOTE SITE ACCESS THROUGH

Company	Internet	Private line	MPLS/ATM/Frame Relay services	IP-based services	Other
8x8, Inc.					
Abtech					
Akabis, Inc.					
Anveo Inc.					
Aptela					
AT&T					
AVAD Technologies					
Bandwidth.com, Inc					
Broadcore					
Broadview Networks, Inc.					
Broadvox					
Bullseye Telecom Inc.					
Call Center Development Services					
CallTower Inc					
CosmoCom					
Dialtel Inc.					

Company	Internet	Private line	MPLS/ATM/Frame Relay services	IP-based services	Other
Fastmetrics, Inc.					
Five9					
FluentStream Technologies					
Fonality					
Global Crossing					
Grasshopper					
IP5280 Communications					
ipSBS Managed Services, LLC					
Iristel					
Junction Networks					
LightEdge Solutions					
Masergy Communications Inc.					
Orange Business Services					
Pac-West Telecomm, Inc.					
PanTerra Networks Inc.					
PBX Central Corporation					
Pingtone					

Company	Internet	Private line	MPLS/ATM/Frame Relay services	IP-based services	Other
PosTrack Technologies, Inc.					
Ringio					
Segway Communications					
Star Telecom					
Telecentrex Communications					
TelStar Hosted Services, Inc.					
TLS.NET					
UniVoIP Inc.					
Versature Corp					
Virtual PBX					
Voice Carrier					
VoiceNEXT, Inc.					
Xebba					

9. IP and Legacy Device Support

Device Support

The phone is the primary device connecting to the cloud/hosted service. The survey asked the providers to specify what devices can be supported. All of the providers support some form of IP phone. The IP phone can be supplied by the providers or the customer. In some cases, the service only works with a specific manufacturer phones such as Cisco or Mitel IP phones. Other providers support a range of SIP based phones. In any case, the provider will probably require the enterprise LAN switches to support Power over Ethernet (PoE) for the IP phones or use a small transformer connected to an AC socket to power each IP phone.

Those Important Legacy Connections

It is almost always true that the non phone lines are and need to remain analog lines. This becomes an issue with the IP Telephony (IPT) gateway connecting to the cloud/hosted service that must support the non-phone devices. It is also annoying to many IT and communications managers that anticipate the retirement of all the analog lines and devices. So before attempting to eliminate the analog lines and gateways, consider the many cases where analog lines will continue operating for many years. The following list provides common examples of the continued use of analog lines that may have to be supported by the cloud/hosted service:

- Analog FAX machines that operate the T.30 standard
- Dial up modems mostly for PCs and possibly point of sale devices and credit card readers
- Alarm system connections
- Telemetry systems
- TDD (for the deaf)
- Elevator phones
- Secret lines for special conditions such as a whistle blower connection
- Analog phones in otherwise unoccupied buildings. There was a university that had 200 buildings with analog phones but only 100 buildings were continuously occupied.
- The janitor's closet
- Phones in common areas that have little physical security where it would be risk to deploy IP phones with Ethernet jacks.
- The guard shack that is 100s of feet from any building and can only be economically accessed on an analog line
- The phone line outside a building that is used to call the guards for off hours access should be an analog line to ensure security. Installing an Ethernet port there with an IP phone will be security vulnerability.
- Emergency phones as a lifeline to the PSTN use analog connections
- PSTN access for 911/E911 calls
- Warehouse phones where it is expensive to install Ethernet lines just for a phone

- Supervisory control and data acquisition connections that are designed for analog lines like telemetry devices
- Intercom lines
- Announcement lines

The analog line in the enterprise, government or educational institution is more common than even the average telecom person realizes. Enterprises invariably keep locating more analog lines in use that must stay as analog connections for the foreseeable future. Another advantage of analog lines is that some analog devices can be powered by the legacy PBX. This device powering over the analog line must be supported by the IPT gateway connecting to the service. If not, the device will not work. Therefore, the support of legacy devices may force some enterprises to continue connect to the PSTN. It is recommended:

- That an extensive inventory be made of all devices connected to the PBX and PSTN before issuing an RFP or entering into a contract for a cloud/hosted service.
- That the enterprise does NOT assume that any of these legacy devices will automatically disappear. They must be supported by the service.
- That the security department be consulted to determine what devices are currently connected or intended to connect to the service.
- That engineering, manufacturing and health groups be polled to see what they assume will be connectable to the service that may still operate on analog lines.

How to Read the Tables

Eleven IP/Legacy Device Support choices were specified in the survey and defined as:

1. **IP phones (SIP)** that support a standard version of the Session Initiation Protocol and are offered by a range of manufacturers
2. **IP phones (Proprietary)** are IP phones that use a vendor specific protocol such as IP phones from Cisco and Mitel
3. **Multimedia devices** are special-purpose devices such as the Avaya “Flare” could also be tablet/pad devices
4. **PC-based softphones** are PCs, laptops and other programmable computers supporting software supplied by the service provider
5. **Smart phone Apps** are applications that run on devices such as iPhones, Android-based phones, and tablets/pads such as the iPad and Motorola Xoom
6. **Analog phones** means a standard legacy phone, not a digital phone
7. **Channel Bank via T1/E1** refers to digital connections that adhere to standard TDM formatting for 24 to 30 PCM (64 kbps) channels connection
8. **Fax** refers to tradition analog fax devices that work over a voice circuit
9. **Modem** means support for any device operation with an analog modem that works on a voice circuit
10. **BRI ISDN** BRI access means that the service can support devices, usually digital phone that operate with the Basic Rate Interface (BRI) standard
11. **PRI ISDN** PRI access means that the service can support devices, that operate with the Primary Rate Interface (PRI) standard

TABLE 8: PHONES

Company	Phones provided by:	IP-based phones (SIP)	IP-based phones (Proprietary)	Multi-media devices	PC-based soft phones	Smart phone Apps	Analog phones	Channel Bank via T1/E1	Fax	Modem	BRI	PRI	Other
8x8, Inc.	Mix & Match	Yes	N/A		Yes		Yes						
Abtech	Mix & Match	Yes	N/A		Yes		Yes						
Akabis, Inc.	N/A	N/A	N/A		N/A		N/A						
Anveo Inc.	Customer	Yes	N/A		Yes		N/A						
Aptela	Mix & Match	Yes	N/A		Yes		N/A						
AT&T	N/A	N/A	N/A		N/A		N/A						
AVAD Technologies	Mix & Match	Yes	N/A		Yes		N/A						
Bandwidth.com, Inc	Mix & Match	Yes	N/A		Yes		N/A						
Broadcore	Mix & Match	Yes	N/A		Yes		Yes						
Broadview Networks, Inc.	Mix & Match	Yes	Yes		Yes		Yes						
Broadvox	Mix & Match	Yes	Yes		Yes		N/A						

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Company	Phones provided by:	IP-based phones (SIP)	IP-based phones (Proprietary)	Multi-media devices	PC-based soft phones	Smart phone Apps	Analog phones	Channel Bank via T1/E1	Fax	Modem	BRI	PRI	Other
Bullseye Telecom Inc.	Mix & Match	Yes	N/A		Yes		Yes						
Call Center Development Services	Customer	Yes	N/A		Yes		N/A						
CallTower Inc	Mix & Match	Yes	Yes		Yes		Yes						
CosmoCom	Mix & Match	Yes	N/A		Yes		Yes						
Dialtel Inc.	Customer	Yes	N/A		N/A		Yes						
Fastmetrics, Inc.	Mix & Match	Yes	Yes		Yes		Yes						
Five9	Mix & Match	Yes	N/A		Yes		Yes						
FluentStream Technologies	Mix & Match	Yes	N/A		Yes		Yes						
Fonality	Hosted Service	Yes	N/A		Yes		N/A						
Global Crossing	Customer	Yes	N/A		Yes		Yes						
Grasshopper	Hosted Service	Yes	N/A		N/A		N/A						

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Company	Phones provided by:	IP-based phones (SIP)	IP-based phones (Proprietary)	Multi-media devices	PC-based soft phones	Smart phone Apps	Analog phones	Channel Bank via T1/E1	Fax	Modem	BRI	PRI	Other
IP5280 Communications	Mix & Match	Yes	N/A		Yes		N/A						
ipSBS Managed Services, LLC	Mix & Match	Yes	Yes		Yes		Yes						
Iristel	Mix & Match	Yes	N/A		Yes		Yes						
Junction Networks	Customer	Yes	N/A		Yes		N/A						
LightEdge Solutions	Mix & Match	Yes	Yes		N/A		N/A						
Masergy Communications Inc.	Mix & Match	Yes	N/A		Yes		Yes						
Orange Business Services	Mix & Match	Yes	Yes		Yes		Yes						
Pac-West Telecomm, Inc.	Mix & Match	Yes	N/A		N/A		N/A						
PanTerra Networks Inc.	Customer	Yes	N/A		Yes		N/A						
PBX Central Corporation	Hosted Service	Yes	N/A		Yes		N/A						
Pingtone	Customer	Yes	Yes		Yes		N/A						

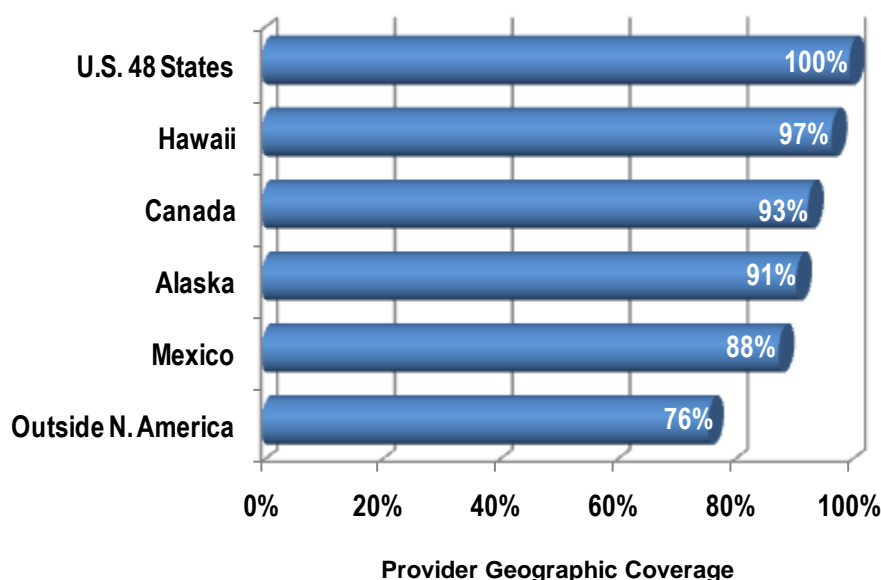
Company	Phones provided by:	IP-based phones (SIP)	IP-based phones (Proprietary)	Multi-media devices	PC-based soft phones	Smart phone Apps	Analog phones	Channel Bank via T1/E1	Fax	Modem	BRI	PRI	Other
PosTrack Technologies, Inc.	Mix & Match	Yes	Yes		Yes		Yes						
Ringio	Mix & Match	Yes	N/A		Yes		Yes						
Segway Communications	Mix & Match	Yes	Yes		Yes		N/A						
Star Telecom	Customer	Yes	Yes		Yes		Yes						
Telecentrex Communications	Mix & Match	Yes	N/A		Yes		N/A						
TelStar Hosted Services, Inc.	Mix & Match	Yes	N/A		Yes		Yes						
TLS.NET	Mix & Match	Yes	N/A		Yes		N/A						
UniVoIP Inc.	Mix & Match	N/A	N/A		N/A		N/A						
Versature Corp	Mix & Match	Yes	N/A		Yes		N/A						
Virtual PBX	Mix & Match	Yes	N/A		Yes		Yes						
Voice Carrier	Mix & Match	Yes	N/A		Yes		Yes						
VoiceNEXT, Inc.	Mix & Match	Yes	N/A		Yes		N/A						

Company	Phones provided by:	IP-based phones (SIP)	IP-based phones (Proprietary)	Multi-media devices	PC-based soft phones	Smart phone Apps	Analog phones	Channel Bank via T1/E1	Fax	Modem	BRI	PRI	Other
Xebba	Customer	Yes	Yes		Yes		Yes						

10. Geographic Coverage and Implications

The information from the cloud/hosted communications providers was used to create the tables in this part of the Sourcebook. The authors have not edited or changed any of the provider's survey responses. The accuracy of the data contained in this Sourcebook is solely the responsibility of the responding providers.

All the providers offered service in the continental 48 states. The geographic coverage outside of North America was specified in the survey as 12 different geographic territories. The international coverage varied considerably by provider. For example, one provider only supported one central European country, the U.S. and the Middle East.



As expected, the geographic coverage for the 48 continental states was 100%. Alaska coverage (91%) and Hawaii coverage (97%) were almost as complete as the 48 states. Canada was 93% covered while Mexico was covered by 88% of the providers. International coverage ranged from 70% to 76% but is not uniformly supported by all providers. Some providers focused on specific geographic regions, not worldwide coverage.

Why This is Important

The geographic coverage of a provider can be divided into at least four categories:

- Does the provider offer the service in the geographic area of interest?
- Does the service cover all of the geographic locations or only partially?
- Is premise equipment such as phones provided in that geographic area?
- Is on-site maintenance and support offered in that geographic area?

Since most providers locate their communications servers in a location other than the customer's, the geographic coverage becomes relevant. Nearly all the providers offer

their services through Internet connections, so theoretically there is not geographic boundary to the service. However, since communications to off net users will require connections to other countries' PSTN networks, coverage can be limited by this restriction. Providers have to place some remote technology in other countries to implement these off network connections or pay international calling fees.

Survey questions

The first question, **“Are your services available in North America”** was answered yes by 100% of the respondents; however these responses need some qualifications. Alaska, Hawaii, Canada and Mexico are served by most respondents, but not all.

The second question **“Please select the areas that you serve with each of the following functions. If you serve a subset of an area, please check “Partial Coverage” as well.”** The responses were by U.S. region, Alaska, Hawaii, Canada and Mexico divided into four possible answers.

- VoIP/UC Hosted/Cloud Service
- Providing Premises Equipment (Phones etc.)
- On-Site Maintenance and Support
- Partial Coverage

The respondents all said they had cloud/hosted service in all of the 48 states. When it came to premises equipment, less than half the providers offered equipment e.g. phones in the 48 states. On-site maintenance and support was limited to 25% or less of the respondents. Alaska, Hawaii, Canada and Mexico had about the same converge for equipment, 25% or less. On-site support was even less for these four areas, generally less than 13%. No respondent had a partial coverage in the 48 states. Partial coverage does exist for Alaska, Hawaii, Canada and Mexico.

Complete information with a detailed matrix of each coverage type (VoIP/UC Hosted/Cloud Service, Providing Premises Equipment, and On-Site Maintenance and Support) for each of eight geographic areas within the continental US is available below.

The third question was **“Do you offer international services?”** Roughly 60% have service coverage outside North America.

As with US-based coverage, the next question for these companies was **“Please select the areas that you serve with each of the following functions. If you serve a subset of an area, please check “Partial Coverage” as well.”** This question pertained to areas beyond North America (U.S., Canada and Mexico). Twelve international geographic areas are covered by the question. Again, the responses were divided into four possible answers.

- VoIP/UC Hosted/Cloud Service
- Providing Premises Equipment e.g. Phones etc.
- On-Site Maintenance and Support
- Partial Coverage

As with the US-based services, complete information with a detailed matrix of each coverage type (VoIP/UC Hosted/Cloud Service, Providing Premises Equipment, and On-Site Maintenance and Support) for each of twelve geographic areas outside North America is available below.

Geographic Coverage considerations

1. Get detailed information on the North American geographic coverage. If you are outside the continental 48 states, such as Alaska, Hawaii and U.S. territories, geographic coverage may be limited or nonexistent. The same is true for Canada and Mexico. Do not assume that those locations outside the 48 states have full coverage. The coverage may be limited to only some metropolitan areas.
2. Get detailed information about international (outside North America) geographic coverage. Do not expect that those locations outside of North America to have full coverage. The coverage may be limited to only some metropolitan areas. Many providers focus on certain international locations but have no services covering the entire world.
3. Enquire about what equipment will be provided. Do you need to buy the phones or can they be included in the usage fees and supported by the provider?
4. If phones are not provided, are there specific vendors and products that the enterprise must buy, or are the phone choices at the enterprise's discretion?
5. Weigh the choice of provider supplied phones versus enterprise provided phones. IP phones are constantly being improved. The IP phone technology life may only be three years and then they become obsolete. Newer phones offer extended features and functions. Buying the phone may require phone replacement in three years, a much shorter time than anticipated. It may be cheaper in the long run to have the phones included in the service fee and periodically updated by the provider.
6. If the enterprise buys the phones and wants to change providers, the old phones may not work with the new provider.

How to Read Table 9

- **New England** includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
- **Mid-Atlantic** includes New York, Pennsylvania, New Jersey
- **East North Central** includes Wisconsin, Michigan, Illinois, Indiana, Ohio
- **West North Central** includes Missouri, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa
- **South Atlantic** includes Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida
- **East South Central** includes Kentucky, Tennessee, Mississippi, Alabama
- **West South Central** includes Oklahoma, Texas, Arkansas, Louisiana, Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico
- **Pacific States** includes California, Washington, Oregon

TABLE 9: North America

Company	New England	Mid-Atlantic	East North Central	West North Center	South Atlantic	East South Central	West South Central	Pacific States	Alaska	Hawaii	Canada	Mexico
8x8, Inc.												
Abtech												
Akabis, Inc.												
Anveo Inc.												
Aptela												
AT&T												
AVAD Technologies												
Bandwidth.com, Inc												
Broadcore												
Broadview Networks, Inc.												
Broadvox												
Bullseye Telecom Inc.												

2011 Hosted and Cloud-based VoIP and UC Services Complete Database Service



Company	New England	Mid-Atlantic	East North Central	West North Center	South Atlantic	East South Central	West South Central	Pacific States	Alaska	Hawaii	Canada	Mexico
Call Center Development Services												
CallTower Inc												
CosmoCom												
Dialtel Inc.												
Fastmetrics, Inc.												
Five9												
FluentStream Technologies												
Fonality												
Global Crossing												
Grasshopper												
IP5280 Communications												
ipSBS Managed Services, LLC												

Company	New England	Mid-Atlantic	East North Central	West North Center	South Atlantic	East South Central	West South Central	Pacific States	Alaska	Hawaii	Canada	Mexico
Iristel												
Junction Networks												
LightEdge Solutions												
Masergy Communications Inc.												
Orange Business Services												
Pac-West Telecomm, Inc.												
PanTerra Networks Inc.												
PBX Central Corporation												
Pingtone												
PosTrack Technologies, Inc.												
Ringio												
Segway Communications												

2011 Hosted and Cloud-based VoIP and UC Services Complete Database Service



Company	New England	Mid-Atlantic	East North Central	West North Center	South Atlantic	East South Central	West South Central	Pacific States	Alaska	Hawaii	Canada	Mexico
Star Telecom												
Telecentrex Communications												
TelStar Hosted Services, Inc.												
TLS.NET												
UniVoIP Inc.												
Versature Corp												
Virtual PBX												
Voice Carrier												
VoiceNEXT, Inc.												
Xebba												

TABLE 10: INTERNATIONAL SERVICES

Company	Western Europe & UK	Central / Eastern Europe	Eurasia, including Russia	Australia / New Zealand	APAC	India	China	Other Asian Areas	Africa	Central America and Caribbean	South America	Middle East
8x8, Inc.												
Anveo Inc.												
Aptela												
AT&T												
Broadcore												
Call Center Development Services												
CosmoCom												
Dialtel Inc.												
Fastmetrics, Inc.												
Five9												

Company	Western Europe & UK	Central / Eastern Europe	Eurasia, including Russia	Australia / New Zealand	APAC	India	China	Other Asian Areas	Africa	Central America and Caribbean	South America	Middle East
FluentStream Technologies												
Fonality												
Global Crossing												
IP5280 Communications												
Iristel												
Masergy Communications Inc.												
Orange Business Services												
Pac-West Telecomm, Inc.												
PanTerra Networks Inc.												
PBX Central Corporation												
Pingtone												

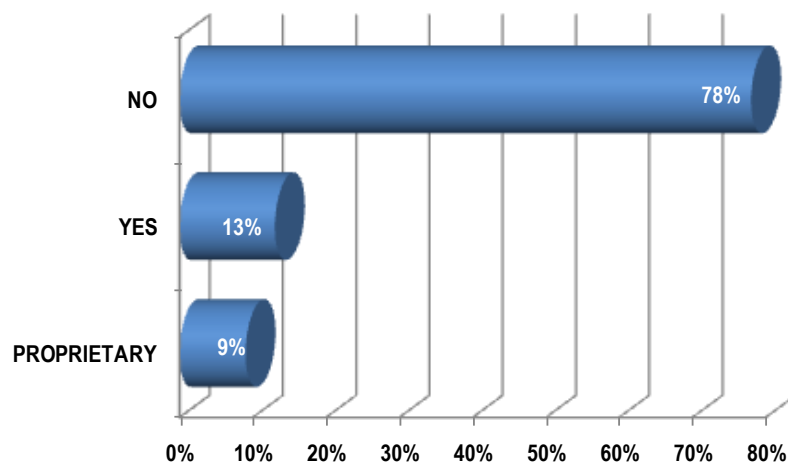
2011 Hosted and Cloud-based VoIP and UC Services Complete Database Service



Company	Western Europe & UK	Central / Eastern Europe	Eurasia, including Russia	Australia / New Zealand	APAC	India	China	Other Asian Areas	Africa	Central America and Caribbean	South America	Middle East
PosTrack Technologies, Inc.												
Segway Communications												
Star Telecom												
TelStar Hosted Services, Inc.												
UniVoIP Inc.												
Virtual PBX												
VoiceNEXT, Inc.												
Xebba												

11. Market Implications

Mergers, Acquisitions and Consolidations



Percentage of Respondents That Experienced a Merger, Acquisition or Consolidation

2010 saw a number of mergers, acquisitions and consolidations in this market. It appears that these business actions were directed towards creating larger and stronger providers. Nearly 13% experienced a merger, acquisition or consolidation. 78% did not change while 9% considered this to be proprietary information. There are still many small providers in this market, so it is very probable that the mergers and acquisitions will continue. A market served by 210 providers is probably not sustainable. Expect more mergers and acquisitions and possibly some bankrupt providers.

The Enterprise Communications Plans

In February of 2010, members of Avaya's user group were invited to participate in a survey about business communications requirements and investments. The results were published in April 2010 in the report, "2010 Business Communications Drivers; Integration, Optimization, and Cost Reduction Drive Investments in Business Communications, A Special Report by the Webtorials Analyst Division". The report demonstrates that enterprises are very interested in integrating multiple forms of communications.

The enterprise can accomplish this goal through premises based solutions. However, the integration of so many communications forms does require expertise that many enterprises do not have or the enterprise has to hire expensive IT employees or pay for considerable training to gain the necessary expertise. This is where cloud/hosted based communications services can reduce the integration complexity and deliver the multiple forms of communications to the enterprise's office, remote and mobile locations.

Roughly 82% of the more than 700 survey respondents were located in the United States, with another 9% in Canada. Respondents in the healthcare/pharmaceutical, higher education, government, and financial industries comprised the largest number of respondents (51%, collectively). Users from manufacturing, insurance, telecommunications, and other industries were also represented in single-digit percentages each.

The key findings of this analysis of the enterprise plans are:

- Enterprises are most interested in integrating and optimizing communications technologies and methods.
- Enterprises plan to make new investments in IP Telephony (IPT) and Unified Communications (UC) to meet their integration goals.
- The desire to integrate communications and provide support for mobile employees continues to drive interest in UC.
- Investments in Contact Centers are focused on agent productivity and the enablement of IP and/or SIP based solutions.

Business Requirements

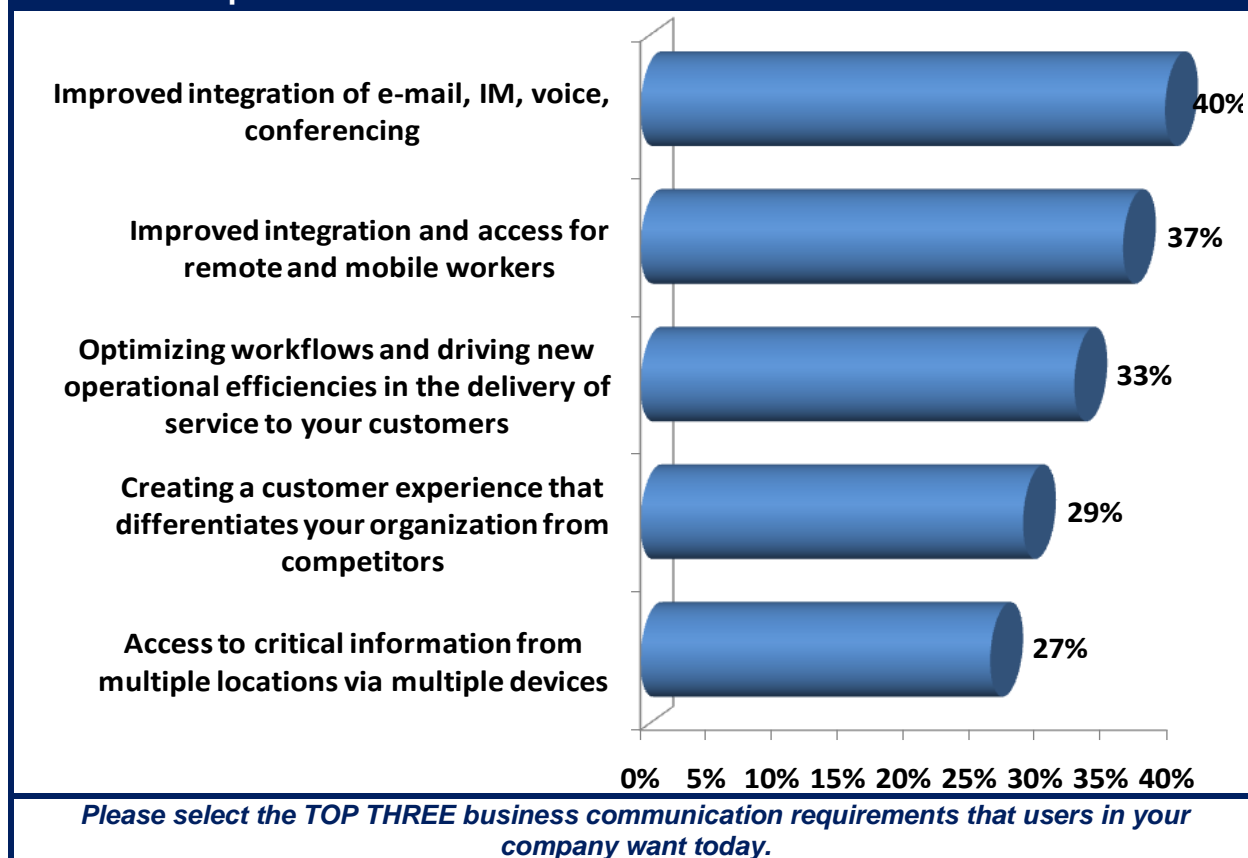
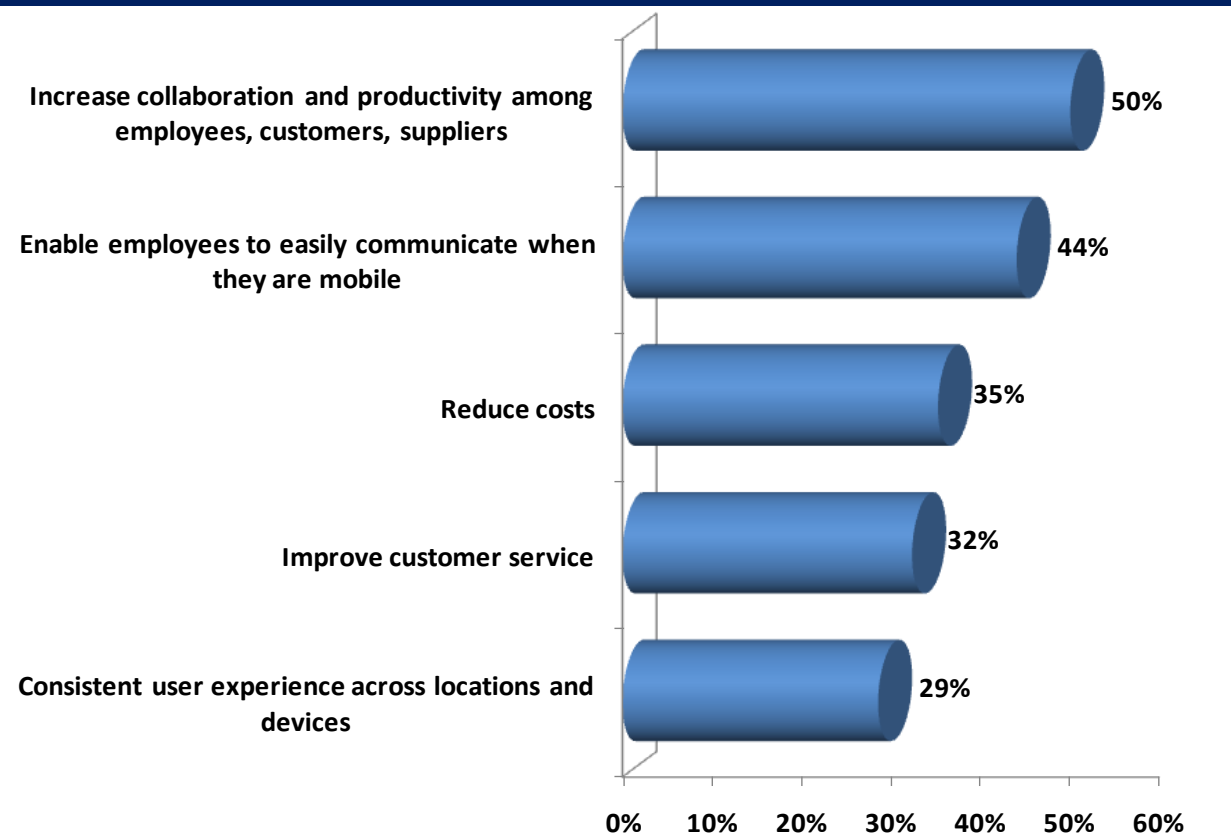


Chart from "2010 Business Communications Drivers; Integration, Optimization, and Cost Reduction Drive Investments in Business Communications" at webtorials.com

The primary business requirement, as shown above, is for improved integration of e-mail, Instant Messaging (IM) voice and conferencing was the most common goal at 40% of the respondents. Integrating mobile and remote workers came in second at 37%. Workflow optimization was the next goal at 33%. Improving the customer experience came in at 29% while critical information access through multiple devices was 27%.

UC Deployment Reasons

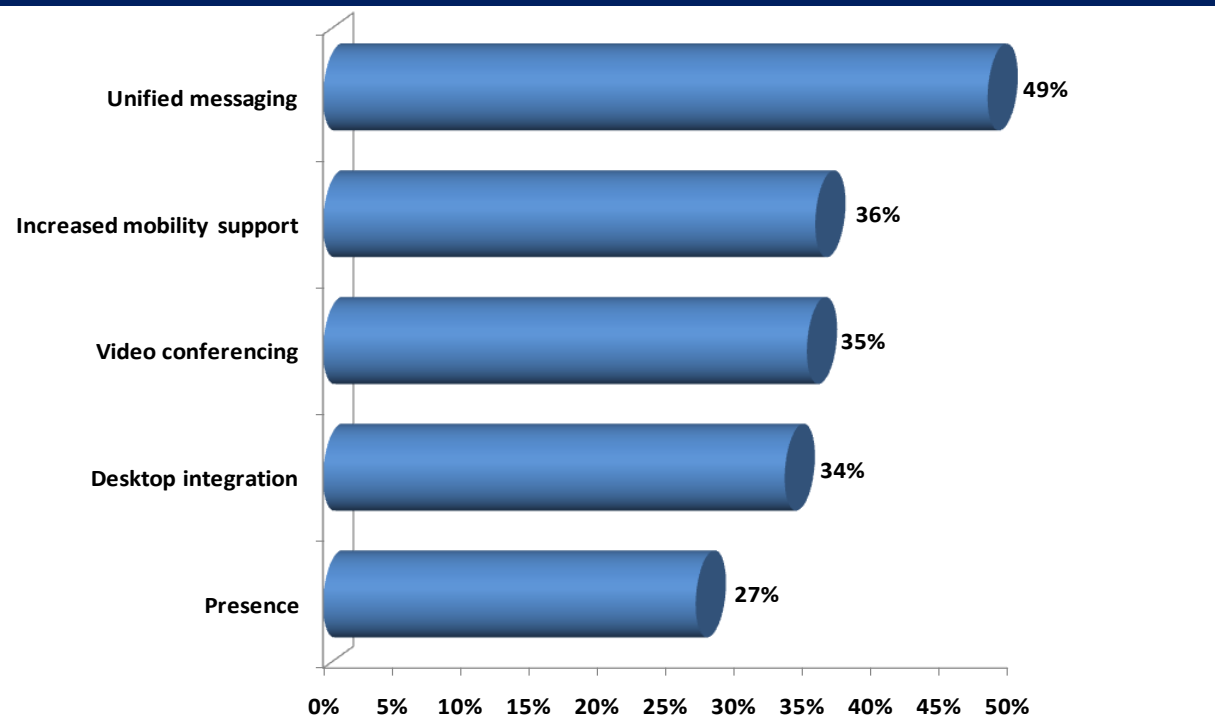


What are the TOP THREE reasons for your company's deploying UC?

Chart from "2010 Business Communications Drivers; Integration, Optimization, and Cost Reduction Drive Investments in Business Communications" at webtorials.com

As can be seen in the chart above, there several reasons for moving to Unified Communications. Notice that cost is not the top priority. It is third with 35% of the survey respondents selecting this choice. Increased collaboration at 50% and mobile communications at 44% were higher priorities. Improved customer service was fourth at 32% and consistent user experience across all locations was fifth at 29%. All of these goals can be met with a premises based system. However, the delivery of these goals would be much easier and faster to deliver and require a much lower capital investment if the enterprise selects a cloud/hosted solution.

UC Investments Over the Next 12 Months



In which aspects of Unified Communication do you plan to make a significant investment in the next 12 months?

Chart from "2010 Business Communications Drivers; Integration, Optimization, and Cost Reduction Drive Investments in Business Communications" at webtorials.com

The five choices for Unified Communications investment by the enterprise demonstrates that the cloud/hosted based services discussed in part II of the report, "[Service Offerings, Network Access and Device Support](#)" can fulfill these investments with operating expense (OpEx) dollars instead of capital expense (CapEx) dollars. Money is still hard to borrow in today's financial market. Using the enterprise capital for investments other than IT is very attractive. Subscribing to cloud/hosted services becomes very attractive to the enterprise avoiding the need for capital dollars.

SMB Communications Plans

In December 2010 and January 2011, the Webtorials database and other individuals who had demonstrated an interest in Cloud-based IP Telephony solutions were presented with a set of statements and asked to indicate their level of agreement with the statements. The report, "SMBs: Communications ROI Trumps Technology, 2011 SMB Communications Plans and Priorities State-of-the-Market Report" was published January 2011.

SMBs are caught between minimizing and controlling their cost of operations and improving their technological advantage within their companies as well as for their customers. SMBs are aware of cloud-based technologies and know that they can improve their operations. They know they need improvement in their internal and external communication methods and the technologies in use.

Minimizing the impact on their total cost of operations, maximizing their working capital and cash flow, and significantly improving their overall operations (particularly in the area of communications) are the factors that drive the business decisions of these SMBs. Any proposal to upgrade their technological advantage will be met with open arms if appropriately presented with the proper background and education.

The report posed several questions asking for the opinion of the SMBs. The most important question from this study is "Please indicate the extent to which you agree with each of the following statements...Answer options: Strongly agree, Agree, Disagree, Don't know or N/A; "Don't know or N/A" answers were excluded from percentages shown". The answers are shown in the chart below.

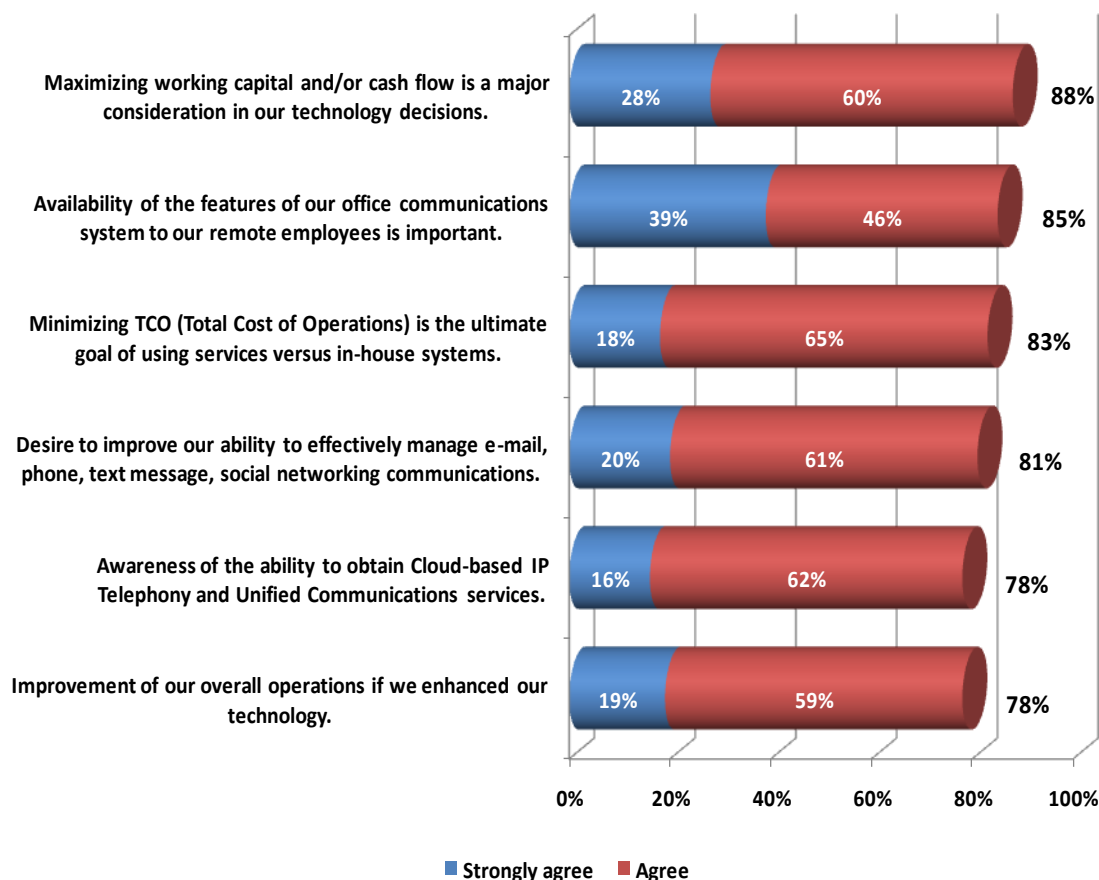


Chart from "SMBs: Communications ROI Trumps Technology, 2011 SMB Communications Plans and Priorities State-of-the-Market Report" at webtorials.com

The key findings from this SMB study demonstrate that:

- Financial considerations to ensure the maximum performance at the lowest price are the primary drivers for SMBs when compared to enterprises.
- Mobility and Unified Communications are recognized as key technologies very much the same as the enterprise.
- Most respondents see their current solutions as being "good," but they also would like to improve their capabilities. With a small or non-existent IT staff, the complexity of moving UC and conferencing solutions pushes the SMB towards a cloud/hosted solution.
- There is a very high amount of interest in cloud-based solutions.

Moving to cloud-based technologies is of great interest to the SMB because the move could provide

:

- From a technical perspective:
 - more efficient methods of operations
 - leading edge technology to enable their employees / their company to be / remain on the cutting edge
 - enhanced communications: internally, remote employees and their customers

- And from a financial perspective:
 - hard cost savings in terms of asset investments
 - soft cost savings in terms of increased employee productivity

The second report, ***“Unified Communications and Cloud-Based Services Yield Exponential Savings For SMBs, A Webtorials State-of-the-Market Report”*** was published February 2011. This report shows that two related IT capabilities, Unified Communications and cloud-based services bring tremendous power to companies of all sizes. However, many of the strongest advantages of implementing UC have eluded SMBs because of the cost of having an IT staff to support this effort. Bringing the two together - implementing Unified Communications as a cloud-based service - provides a perfect solution.

The most important goal for the SMB is to produce as much efficiency for its staff; that is to increase productivity. The report asked **“How much time per day (in minutes) do you think the average “Knowledge Worker” spends each day on each of the following tasks?”**

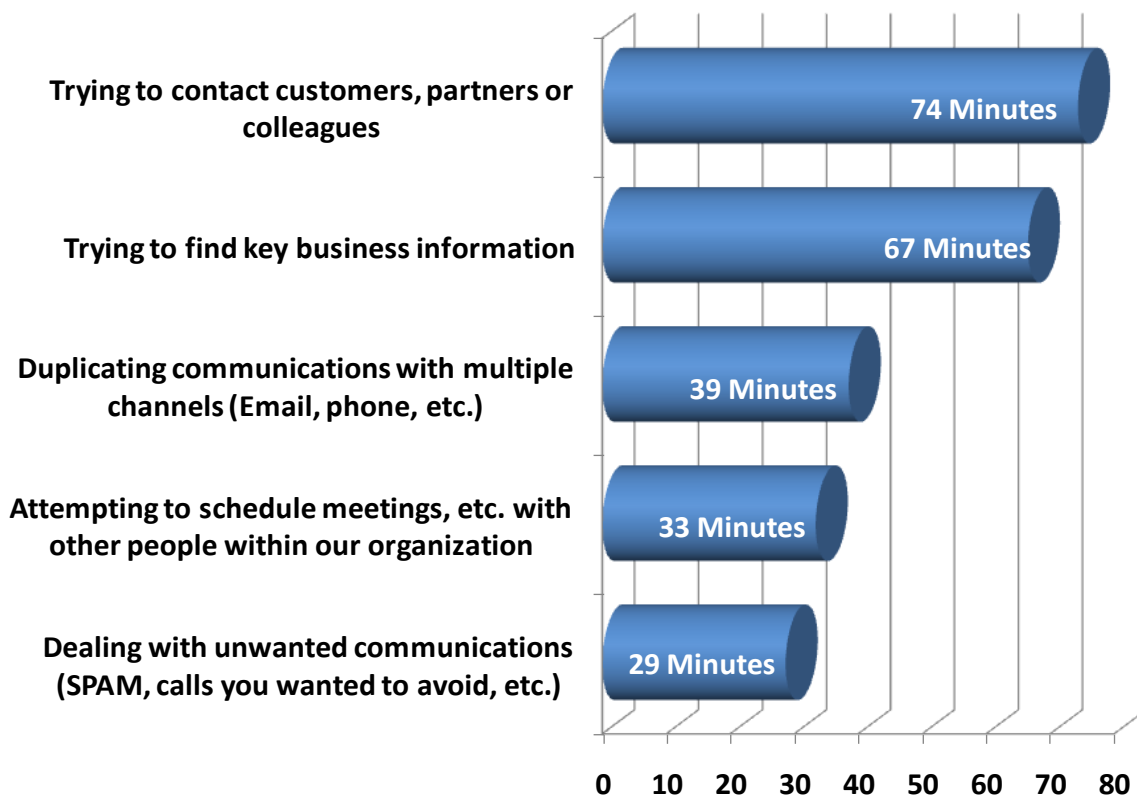


Chart from” Unified Communications and Cloud-Based Services Yield Exponential Savings For SMBs, A Webtorials State-of-the-Market Report” at webtorials.com

The annual recovered time-value for a theoretical company with 50 knowledge workers could be as much as \$942,500 by adopting the cloud/hosted approach. Providers of these services can demonstrate a rapid ROI both by minimizing capital costs and by optimizing the efforts of hard-to-find IT support staff allowing them to concentrate on business-specific needs. The bottom line is that support of UC for the SMB moves from being a major IT undertaking to be a commodity solution.

The enterprise and SMB should be careful not to make assumptions about what is offered with cloud-based communications services. Although many providers offer similar services, there are differences that should be considered when selecting a provider.

About Gary Audin

Gary Audin Delphi-inc@att.net has more than 40 years of computer, communications and security consulting and implementation experience. He has planned designed, specified, implemented and operated data, LAN and telephone networks. These have included local area, national and international networks as well as VoIP and IP convergent networks in the U.S., Canada, Europe, Australia, Caribbean and Asia. He has advised domestic and international venture capital and investment bankers in communications, VoIP, and microprocessor technologies.

Gary Audin's many articles can be found on www.webtorials.com, www.telecomreseller.com and www.acuta.org. He writes a weekly blog on communications subjects that can be found at www.nojitter.com and publishes technical tips at www.SearchTelecom.com, www.SearchNetworks.com and www.SearchUnifiedCommunications.com.

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www.Webtorials.com

Division Cofounders:
Jim Metzler
jim@webtorials.com
Steven Taylor
taylor@webtorials.com

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