The 2015 Phone System Buyer's Guide

Communications for 2015 and Beyond

Contents

Phones 2015 and Beyond

If someone wants to see the impact of the revolution that has occurred in phone systems in recent years, they simply have to reach into their pockets.

The mobile phone - whether basic or smart - has revolutionized personal communication in less than a generation. It is personal and it is indispensible. Research shows that 80% of users check their smartphones within 15 minutes of waking up.

A similar revolution has occurred in business phone systems. However, since these phone systems aren't as personalized, a similar revolution isn't apparent.

Yet, with the features and the capability comes complexity in selection.

Some small businesses may even feel that getting a phone system for their company is an unnecessary expenditure that they can get by with employees using their personal smartphones. This is simply not correct.

While a smartphone may be easy to use and offers many features, there is no way you can get access to a virtual receptionist or an interactive voice response system, or provide information to callers or route calls to the right person. Even a very small business can gain by using a business phone system because it projects a professional interface to clients, staff and partners.

> Even a very small business can benefit from a business phone system by projecting a professional interface to clients, partners and employees.

We have put together this Phone System Buyer's Guide to help you shortlist candidates for your new phone system. Knowing what is available in the market in 2015 is the first essential step. Determining what these features mean to you and your business will help you decide if the added expenditure is worth it.

COMPARE BUSINESS PRODUCTS

Basic Terminology

There are various types of phone systems. While some have been around for years, others are new. They all have their place in the world of business communication. This section gives you a small explanation of each type so that the subsequent sections are easier to follow.

Landline Phones

Technically called the Public Switched Telephone Network or PSTN, these are analog phones that run over the copper wire pair that comes to each device in the office from a central telephone exchange. Power is supplied from the telephone exchange over the same wire, ensuring that these phones will work even if there is no power at all in the office building. Thoroughly dependable and proven, these phone systems are sometimes underestimated and dismissively called the "plain old telephone system" or POTS.

PBX

A Private Branch Exchange (PBX) is the hardware you would use to run a business phone system. The PBX can be owned by your company and maintained in your premises, and is called an On-Premise PBX. Sometimes the PBX is installed at another location and managed by another company, in which case it is called a Hosted PBX. A hosted PBX rents out a number of lines to your business whereas an on-premises PBX can be bought outright or leased. The difference in costs can be substantial. Also consider the added complexity of managing a system if you choose to go in for a company owned or leased PBX.

VoIP

Voice over Internet Protocol (IP) is the name given to a protocol - a method - of communication over the Internet. VoIP technology interfaces beautifully with standard computing capabilities and VoIP phones therefore have features that previously only Fortune 500 companies could afford. VoIP phone components need power to be provided

locally, so if a switch in your office looses power, all phones connected to that switch will go dead.

IP-PBX

An IP-PBX is a PBX that uses IP (see above) to handle calls. This gives the IP PBX all advantages that accrue with IP, as well as functions and features of PBX. An IP- PBX can be a hardware device or software that runs on a server. In all probability if you are buying or leasing a new PBX today, it will be an IP-PBX.

PRI

Primary Rate Interface is an early version of a digital voice transmission method that could also accommodate multimedia. PRI is associated with ISDN lines and can accommodate a number of voice and data channels.

CTI

Computer Telephony Integration is a powerful technology that links your phone system with your company's internal IT systems. If you have this feature set enabled, your contact center staff will get details of the caller's interactions with your company on screen *before* they answer a call. They will be able to get information, such as order details, that will enable them to save time and respond to calls more efficiently. CTI also allows people to click on a phone number in a document and dial out. In short, CTI permits better collaboration and improves overall efficiency.

Understanding your Needs

Before you begin market research, it is important to understand one's requirements. Here are a few issues you may want to think about.

Type of Phone Users

Companies' requirements can be classified as basic, mid-range and advanced.

Basic users

These users tend to have requirements for a few lines; they do not have a very complex organization structure and are probably confined to a single or couple of locations. Such users tend to use simple phone systems and are conscious of costs. However, with modern IP-based systems, very advanced systems are available to basic users at affordable costs. The question is - are they informed enough to use these systems optimally?

Have you just started your business and need a phone solution that will both help that business grow and project a professional image to your clients? If this is what describes you best, you are a basic user looking for a hosted solution where the entire phone infrastructure is hosted by a phone service provider and all you need is to procure IP phones to plug into your Internet switch. The entire phone system can be made operational in a single day. Costs will be a combination of the number of lines you hire and your phone use.

> Gartner estimated total IT spending in 2014 to be $3.8 trillion. VoIP as a subset of this is growing annually at 40% and is expected to reach $80 billion by 2017.

Intermediate Users

Intermediate users would have larger workforces and may operate out of several locations. Worker locations may not be fixed and parts of the business's networks might need to be reconfigured on the fly. In many cases, these users represent companies that are fairly large and have in-house IT expertise that may help in extracting the maximum advantage from their systems.

An intermediate user may already have a phone system in place but require additional capabilities. For example, you may want to add a small contact center to handle a growing customer support load. Depending on the capabilities you need, you could simply augment your system or go in for a fresh install. The actions you take will depend on the type of system you already have in place and how easy or feasible it is to upgrade or add to it.

Advanced Users

Advanced users tend to be from large companies. Their operations may be global in scale and they may have a large user base. Large numbers of calls may have to be handled each day; so using cutting edge capabilities can help these businesses stay agile and competitive.

An advanced user will already have several sophisticated phone systems reaching the limits of their capabilities. In all probability, they will be traditional PBXs that are getting difficult to maintain and reaching obsolescence. Such users will probably be looking to replace their PBXs with an IP PBX with far more capabilities than the original system.

Number of Lines and Gateways to Hire

Obviously not all your people will be talking on the phone all the time. Therefore, with a little careful planning, you can save considerably by hiring the right number of lines.

Phone users can be classified as light, moderate and heavy users. Light users make an average of one call per hour, moderate users make up to two and heavy users make three or more calls per hour. Typical job types are listed below:

User Type	Typical job description
Light	Security Guard, Accounting Clerk, Programmer, IT personnel
Moderate	Research staff, Marketing personnel
Heavy	Sales Representative, Call Center personnel, Field Support Engineers, Quality Control Staff

Microsoft recommends to buy or hire at least two gateways to connect the internal phone system to the public network. This ensures that each gateway can provide backup to the other. Each gateway has a number of ports or lines that connect it to the phone network.

In this section, we will talk about these ports or lines. Clearly you should look to use only as many ports as you need since you can add more with ease as your needs increase.

- Light users - get one line for every 15 users
- Moderate users - get one line for every 10 users
- Heavy users - get one line for every 5 users

In the older systems, there was one line per user, so by using the guidelines listed above, you can immediately see reduced costs.

Using the guidelines above, estimate the numbers of VoIP ports / sessions you want your system to handle. Do not hesitate to ask vendors to do these calculations as well.

The above calculations are not required if you are going in for a hosted solution. In this case the service provider maintains the entire infrastructure and you only take the required VoIP numbers for your people to use.

Basic Phone Features

While VoIP and IP PBX are rapidly becoming the norm, the average user is not concerned with technology but with functionality. It is only the technical staff that is concerned with issues of maintainability, capacity, security, and so on. Most users may not be concerned about what IP is so long as it gets them the calls they want. Executives will be concerned about generic issues such as:

> The average user is not concerned with the underlying technology but with the functionality.

- Reliability
- Maintainability
- Scalability
- Customer support
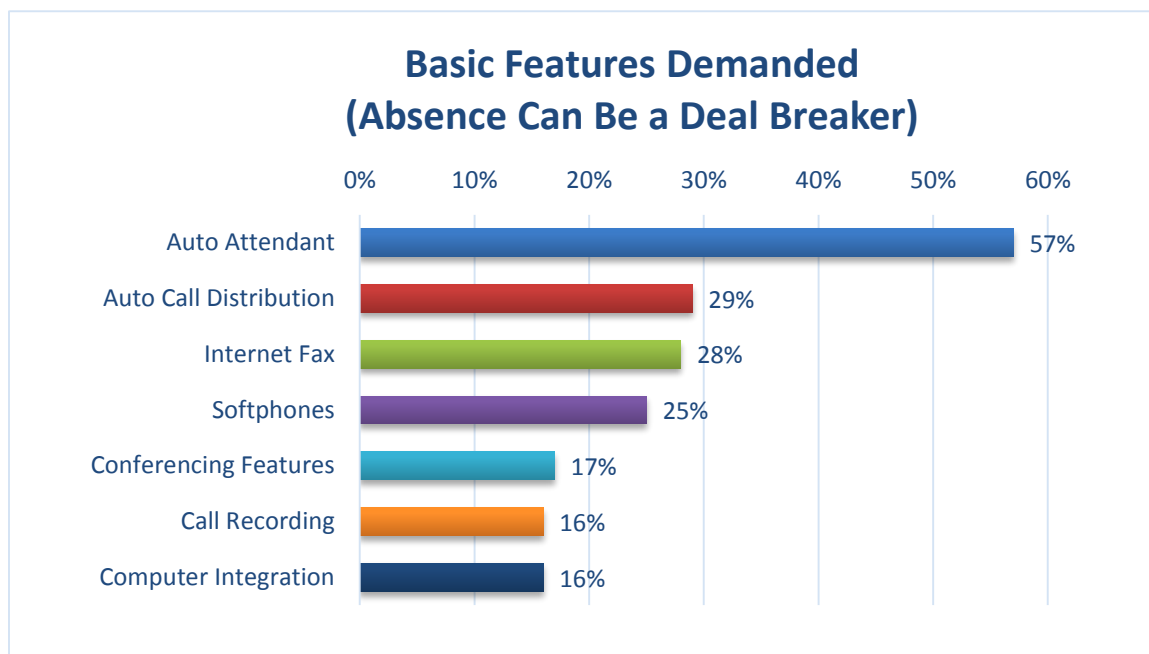- Cost of ownership (extending over at least 5 years)
- Vendor history

- Ability to route calls to mobiles
- Integration with computer systems
- Return on investment

Besides the above, most users of business phone systems value the following capabilities the most (see graph below).

Auto-attendant: also known as interactive voice response system (IVR), an auto-attendant will pick up the call as it comes in and will present a menu of choices to the caller. In many cases, the auto-attendant can handle the caller's requests (a bill look up for example). Only if the caller's needs cannot be met with the auto attendant will the call land on an individual's phone. The auto-attendant can handle a large number of calls simultaneously thereby reducing the costs of answering the phone and improving customer satisfaction markedly.

Automatic Call Distribution: the phone system takes the auto-attendant a step forward and holds the incoming call in a queue to be routed to the most appropriate agent based on the caller's query and the agents' skill set.

Basic Features Demanded (Absence Can Be a Deal Breaker)

Feature	Percentage
Auto Attendant	57%
Auto Call Distribution	29%
Internet Fax	28%
Softphones	25%
Conferencing Features	17%
Call Recording	16%
Computer Integration	16%

Other User Needs

Users have realized that legacy PBX systems were restricted when it came to applications beyond basic telephony. If you wanted capabilities beyond the ordinary, costs might soar. Most small and medium businesses could not afford these systems.

The situation has changed considerably in the last two decades. The Internet and the prevalence of mobile applications have introduced users to whole new functionalities. Users now demand much more besides basic telephone capability and are aware that these features are within their price range. These features are no longer merely convenient, they are essential.

Features Users Want
(Based on User Queries to Vendors)

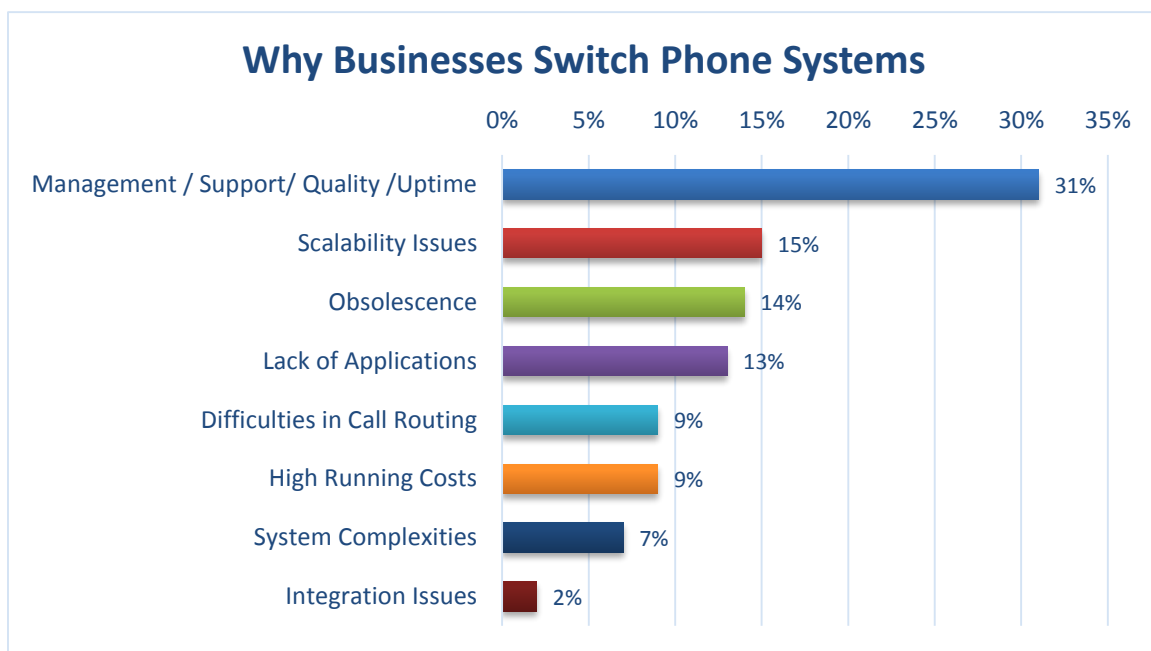| Feature	Percentage
Call Forwarding	29%
Voice Mail	25%
Mobile Interfaces	21%
Reporting Features	7%
Software Integration	6%
System Monitoring	6%
Voice Mail to Email	6%
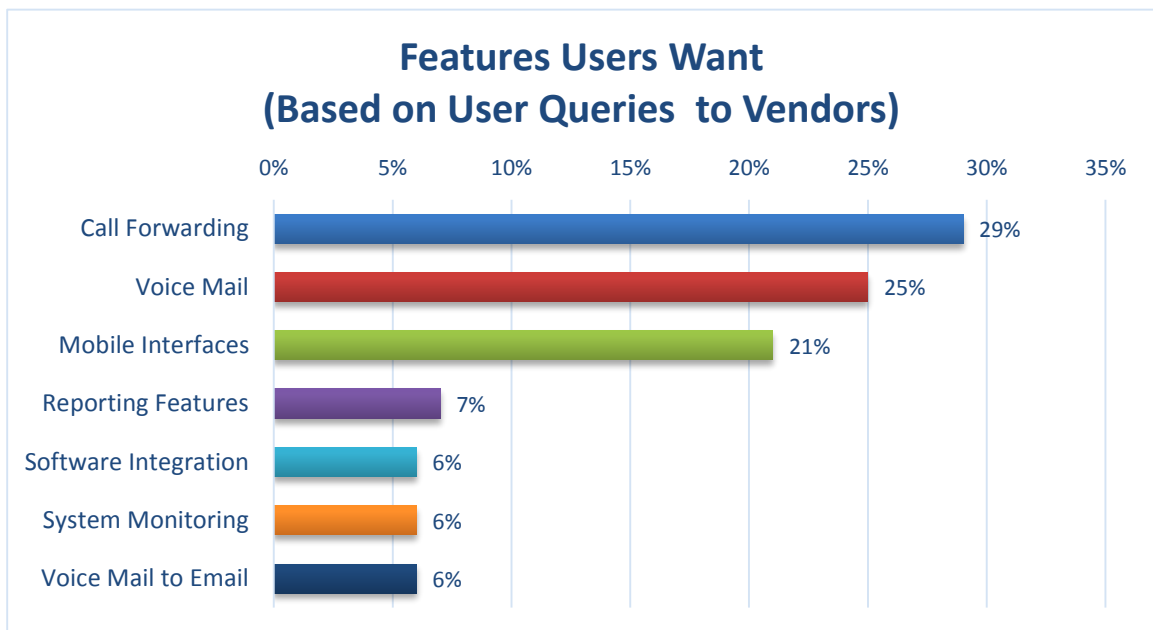
While the above chart indicates the features most users demand, it also shows that many users are still not very knowledgeable about the features that a modern phone system can provide. If, for example, 29% queries pertain to call forwarding features, does this mean that 71% take it as given that call forwarding will be available as a standard feature? Or could it be that they do not deem it important enough?

What emerges from an examination of this and other data is that many small businesses are not knowledgeable enough and need a guide such as this.

There are many reasons why users who already have business phone systems would want to change. Malfunction of the existing system is *not* the primary reason that motivates most users. The key issues are scalability, obsolescence, lack of applications, and so on.

When a number of users were polled about their primary motivation to look for a replacement phone system, multiple reasons emerged. These are shown in the graph below. Do some of them apply to you as well?

Why Businesses Switch Phone Systems

Reason	Percentage
Management / Support/ Quality /Uptime	31%
Scalability Issues	15%
Obsolescence	14%
Lack of Applications	13%
Difficulties in Call Routing	9%
High Running Costs	9%
System Complexities	7%
Integration Issues	2%

More Features

The section below contains a tabular listing of features that are commonly available, or in some cases will be available this year. Use the table on the next page as a checklist to select the features you think are important for your business. You can then use them to shortlist vendors.

Do note that we have not mentioned many of the more standard features that we have come to take for granted - e.g. music on hold, customizing ring tones, call back, speed dialing, alarms and reminders, intercom features and security and privacy features. These have become very prevalent and any phone system will have these as standard features.

Feature	Brief description	Need? Y/N
Single company number	Callers dial this number and are connected to an auto attendant to allow caller to access a specific department or function	
Toll free number	Allow callers to reach you without paying long distance charges	
Create local number	Offer local numbers in different areas. Allows remote workers to connect via local call, creates a local presence for your business	
Fax via email	Receive faxes via email and keeps all messages together in the inbox	
Fax computer documents	Send faxes without using a fax machine	
Toll free fax capability	Receive fax via a toll free number to improve connectivity with clients	
Direct inward dialing	Caller can dial an extension directly	
Announce call	Informs called person by calling out a customized information (for numbers you specify) before answering a call	
Three way call	Add a third person to an ongoing call	

Feature	Brief description	Need? Y/N
Call forwarding	Redirect incoming calls to any specified number (fixed line or mobile)	
Hold call	Put one call on hold to answer another	
Park a call	"Park" an ongoing call so that it can be retrieved by another person	
Transfer from mobile	Transfer a call you have taken on your mobile to desk phone without a call break	
Screen calls	Know caller identity before answering. If required send call to voicemail or to another extension	
Call waiting	Know if someone else is trying to contact you if you are already on another call	
Hide my caller ID	Block your caller ID from being displayed on calls you are making	
Create caller ID	The phone system can use any of your account numbers as a standard caller ID to be displayed to parties you call	
Integrate with cell phone	Use cell phone to access all VoIP functions	
Click to call	Include a button in your email signature or webpage that allows recipients to originate a call directly to you with a single click	
Fast dial out	Integrate your phone system to dial out when you click on a phone number in a file on your PC	
Do not disturb	Send all incoming calls to go to your voice mail	

Feature	Brief description	Need? Y/N
Find me / follow me	Calls for you will ring on multiple numbers in sequence till one is picked up	
Register multiple devices per extension	The phone system can connect several devices (generally 3) - desk phone, smartphone etc to a common number	
Common inbox	Voicemail, faxes and email all come to a common inbox	
Voicemail management	Access voicemail anywhere, convert to audio file and email	
Voicemail to text	Convert voicemail to text file and email	
Integrated phone apps	Access the complete functionality of your phone system on Apple and Android phones via apps	
Integrated desktop	Access the complete functionality of your phone system on your desktop	
Create caller groups	Calls will land on all numbers simultaneously	
Monitor calls	Check employee performance and improve training	
Manage call queues	Hold calls in queues till answered. Also includes queue management features	
Comprehensive call recording	Record every call and save securely	
On demand call record	Record on-going call as and when required	

Feature	Brief description	Need? Y/N
Create and manage paging groups	Create a group from extension numbers and broadcast messages simultaneously to the group	
Integration with search engines	Display publicly available data about your caller using a standard search engine	
Integration with CRM	Integrate phone system with most standard CRM solutions	
Launch a website	Launch specified websites on specific incoming calls	
Caller location	Display caller location, local time and local weather on incoming call	
Manage multiple sites	Connect offices in different locations via a single phone system	
Handle emergency numbers	Different countries may have different methods of contacting emergency services. The system can handle these.	
Cost management features	When choice of connection modes is available, system selects one with least cost	
Detailed logs	Create detailed reports of calls by phone number	
Manager's Portal	Control all features of phone system from a dedicated dashboard	

Conclusion

As the information and analysis above demonstrates, selecting a phone system to meet your business needs can be complex. Since many business owners and executives may have expertise in a different field, understanding and selecting features you need can be daunting. However, like most subjects related to running a business, the entire process is very logical. You just have to understand the underlying logic behind a feature and its applicability to your business becomes clear.

If your needs are small, a hosted solution will work best for you. However, be sure to check how this would compare to leasing or buying an IP PBX. This is particularly important if you plan on using the more expensive value-added features such as recording all your calls, voicemail transcriptions, elaborate call forwarding features, and so on. In such cases, it may make sense to own your own system. Be sure to do the math to determine which system is best for you.

Some sales persons may drown you in jargon. We have tried to avoid jargon totally in this paper; you should demand that persons explaining or demonstrating phone systems to you not use complicated jargon either. Let them explain how a feature will add to your business and how you can get a better return on your investment by activating certain features.

Finally, do not hesitate to read up. While technical literature can be sleep inducing, it is important to understand the issues involved. Armed with the relevant information, you will be poised to get the best from your phone system for years to come.

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