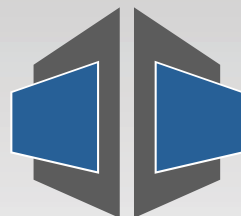# 5 Mistakes to Avoid in Buying a Business Phone System

COMPARE BUSINESS PRODUCTS

Why learn things the hard way? In working with thousands of business buyers, we've heard too many sad tales about expensive mistakes they've made when making large purchases for their organizations without adequate information on the best vendors and best products for their needs. To help you avoid a choice you regret when purchasing your next phone system, here is a list of five mistakes to avoid.

Mistake 1:
Not Thinking Through Your Backup Needs and Options

If you're moving to a VoIP system, it's a good idea to keep a landline or two. One reason is that while fax transmissions can work over IP networks, they don't work as easily or as smoothly as with traditional lines. So your faxing needs alone may necessitate keeping a landline. This use is not so much about backup as about filling your daily business needs. But even if you do little or no faxing, you should still keep a landline for actual backup purposes.

That's because since VoIP runs on IP networks, which may not work during emergencies and natural disasters. If you have a power outage at your office or facility, neither your internal IP network nor your broadband Internet access equipment can function. In other cases, you may

have power but your Internet provider may not be operating. Without IP connectivity, no E911 or other important calls are possible. Landlines, which have their own power, will save the day.

But it's also important to avoid focusing on landlines as the only solution to disasters. VoIP has its own advantages when it comes to backup. VoIP phone systems can run on servers or similar hardware anywhere – they don't need to be located on your premises, although they can be. So if disaster strikes one or more of your locations, you can simply move call handling to a server elsewhere. Then all you need do is plug in IP phones anywhere you can find an IP connection. That done, you can handle calls as if you were still in your old office. If the emergency is lengthy, you might find this approach works better than trying to muddle through on a handful of landlines you might otherwise never use.

Your move:

Analyze all the possible emergency scenarios you could face, and choose an approach that will let you best deal with those you are most likely to encounter.

Mistake 2:

Not Making Sure Your Internet Connection Matches Your Needs

The kind of Internet connection you need depends on the kind of phone system you're going to be using. With hosted VoIP, all of your calls will travel to and from your office over your broadband Internet connection. With premises systems, whether VoIP or traditional, your calls may – but won't necessarily – travel over your broadband link (see below).

If your calls do travel over your Internet link, it raises issues of both bandwidth and quality. The voice calls will put additional traffic on the connection, which means you may have to boost

> Think about using internet connections as a voice-calling fallback for landlines.

its bandwidth. You may also need to do something to ensure quality. This may mean using a provider or technology that guarantees quality of service for real-time traffic such as voice.

In either case, your fallback for voice calls in the rare instances where your Internet provider fails completely isn't typically a backup Internet connection. Rather, it is either fallback to a landline, or a switch to another location that does have Internet connectivity (see above). If you are worried about the day-to-day reliability of your Internet provider, however, you can use something like link bonding. This technology lets you combine Internet connections from different providers into a larger pipe that acts as one. This is not just helpful during outages. It also tends to average out the performance variations among different providers so overall quality and reliability are higher.

Your move:

Make sure you are aware of the considerable changes you may have to make to your Internet connection depending on the phone system you choose.

Mistake 3:
Not Exploring Your Full Range of Connectivity/Call Transport Options

A common problem when shopping for a business phone system is not understanding the differences between phone system types and connectivity types. Premises phone systems can be VoIP or traditional. Calls can travel to and from VoIP or traditional systems via either VoIP (IP) or traditional connections. VoIP connections are usually, but not always, SIP (session initiation protocol) trunks. This gives you at least four possibility combinations of premises phone system and call transport:

- A traditional phone system with calls transported over traditional lines

- A VoIP system with calls transported over traditional lines

- A traditional system with calls transported over an IP connection

- A VoIP system with calls transported over an IP connection

If you choose hosted VoIP, the only transport option is for calls to travel to and from your premises over an IP connection.

Each type of call transport has advantages and disadvantages:

- IP transport lets you put all your communication and data traffic on one Internet connection. There is no need to deal with different providers and bills. This approach can save you considerable money.

- Traditional transport is the most reliable. It is immune to the consistency problems of the Internet. It works even if your power is out, although in such case you will need to have a traditional phone connected, since your IP phones won't work. It also works when your power is on but your Internet provider has crashed, which is fairly rare but possible.

- Even if you use traditional transport, as long as you have a VoIP premises system, you may be able to save money on inter-branch calls, which can travel over your corporate wide-area IP network (WAN) rather than over long-distance circuits.

Your move:

Make sure you understand the differences not only between VoIP and traditional phone systems but also between VoIP and traditional transport. Then look at all the possible combinations of phone systems and transport, even those no one mentions to you, before deciding which one will work best for your particular circumstances.

Mistake 4:
Not Clarifying Your Scalability Options

With traditional premises phone systems, the number of users they support is hard-wired. Each box has fixed a number of ports. If you need to add users, you need to buy more equipment to get more ports. Alternatively, you may have to buy equipment with more ports than you need, either to accommodate future growth or because there are no boxes with the exact capacity you need. In any case, scaling to fit your needs is difficult and expensive.

Premises VoIP systems give you more flexibility. Because they are software-based, the number of users they can support depends in part on the processing power and storage capacity of the hardware they are running on. If the hardware, which is typically a server or something similar, can handle the increased load, adding users may be simply a matter of adding seat licenses. You may also of course need to increase your network bandwidth to accommodate the higher call volume. In any case, you have a lot more flexibility and scalability when it comes to adding users.

Hosted VoIP makes scaling even easier: If you need to add users, you just tell your provider you need more extensions or seats. You will of course also have to buy phones for your new users, and again perhaps add network bandwidth. In any case, hosted VoIP is the most flexible and scalable of the options. An added benefit is that it lets you cut user numbers as easily as you can add them. But there is one big drawback: You have to keep paying fees forever, rather than being able to write down the cost of a phone system that you bought outright.

> Premises systems give you more flexibility...but hosted systems are more easy to scale.

Your move:

Examine the possible combinations carefully to see which best fits your expectations of future growth. And don't hesitate to consider a hybrid approach, such as relying on a premises VoIP system to meet your ongoing needs, while using a compatible hosted VoIP service to give you the flexibility you need to deal with changes.

Mistake 5:
Confusing the Causes of Voice Quality

A lot of confusion surrounds the issue of call or voice quality. The conventional wisdom is that traditional calls always have the best quality. The flip side of this is the belief that the quality of VoIP calls is questionable, particularly when they travel over the public Internet. Though these beliefs may have once had some basis in reality, the situation today is not so clear-cut. It's true that traditional phone systems are remarkably reliable and consistent. But VoIP systems can deliver far superior call quality when things are right. And most importantly, said call quality depends as much on connectivity as on the phone system itself.

HD voice technology has almost become standard in IP phones. It transmits double the tonal range of traditional voice calls. Among other things, this makes it easier for listeners to differentiate among similar sounds. The result can be outstanding clarity. With a good end-to-end IP connection, it's like being in the same room.

One common problem is that many calls may not be end-to-end IP. If they start or end on the PSTN (public switched telephone network), of course they will have no better quality than traditional calls. The only calls that can take advantage of HD quality are those that stay on the same IP network. This may be the corporate network or one that is physically connected to it, as with inter-branch calls. Or it may mean the public Internet, as with calls between users of hosted VoIP services.

A second problem is that the IP connection may be inconsistent, full of delay and other glitches that play havoc with real-time services like voice. Especially with calls traveling over the public Internet, this is still a significant possibility. One solution to this is to employ technologies that guarantee priority to voice traffic. Another is to have your calls transported over a separate IP connection provided by a company that ensures the quality of voice traffic, rather than by your existing broadband inet provider.

Your move:

Remember that while traditional telephone technology is the most reliable, its actual voice quality is limited. Similarly, while VoIP technology can provide the clearest voice calls, you have to set up the connections to make this happen consistently.