



White Paper: Moving Your Business to VoIP

Avid Coffee Talk with TJ Sauder

Q: What is VoIP?

TJ: It's a way of carrying phone calls over data networks rather than over a separate network. The voice conversation is digitized and broken up into packets of data, which are given an IP address and routed over a private data network or a public network, such as the Internet.

Q: And what are the benefits?

TJ: It saves money and makes it possible to provide all the functions of a phone system from the Cloud. A service provider like Avid can invest in more reliable and more sophisticated equipment than would be possible for individual businesses to afford. And it greatly reduces the amount of capital that has to go for the phone system.

Q: What does a business need to do to ensure successful implementation of VoIP?

TJ: Here's a checklist of five key things to pay attention to:

- Essential features
- Quality of Service
- Internet connection
- Total cost of service
- Ongoing support

Q: Don't most providers deliver the same features ?

TJ: While it's true most have a very long list, there will be a handful of features that are crucial to you, while about 80% you'll never use. It's important to identify the ones crucial to you/your business and see how they work. For instance, there are several versions of the basic Call Transfer feature, and I can all but guarantee you the receptionist who transfers hundreds of calls a day is going to care a great deal about exactly how this feature works. If possible, get a demo of your key features.

Q: What do you mean by Quality of Service (QoS) ?

TJ: Here we're speaking of a technical description of how voice packets are routed over the data network. In laymen's terms, it describes whether voice packets get priority -kind of like an ambulance in traffic--or it gets stuck in traffic like everyone else.

Q: What happens if voice doesn't get priority ?

TJ: If the voice packets get stuck and arrive late, the call will start to echo or break up. It can even drop. Voice packets really need to get from start to finish in only 0.04 seconds. So if there's heavy traffic on the route, the packets won't get there on time.

Q: So is this just an inherent flaw in VoIP ?

TJ: No, it isn't. The provider can manage Quality of Service by giving voice packets priority. But they can only do this by managing all the routers between the customer and the provider's Call Server equipment located in the Cloud.



Q: How can you determine whether a provider is giving voice packets priority ?

TJ: If they manage the firewall at your site, and if their Call Server is located in your city, there's a good bet they're providing high QoS.

Q: Do the well-known, national providers of VoIP – such as RingCentral, 8x8 and Netiva – provide this level of QoS?

TJ: No, they are relying on the "best efforts" of the Internet to get voice packets to their servers. The farther the server, the more likely it becomes that you'll have problems. Avid can help you run a network test that will tell you how many Internet "hops" are between your location and the Call Server.

Q: So I have to evaluate my Internet connection for VoIP. Why ?

TJ: Even when your provider manages QoS, they are using your Internet connection to carry the VoIP traffic. Therefore, your connection needs to be really good. It must:

- Have enough capacity
- Be reliable
- Have low latency (transmission delay)

Q: Then, generally, what are the best types of Internet connections for VoIP?

TJ: Fiber-optic circuits are the best. The old workhorse T1s work well because they're reliable, but their small capacity means they aren't the best for data capacity. DSL connections and cable connections can be unreliable. Google Fiber, when available, is a great option. AT&T's fiber-based services work well, and are finally becoming more price competitive.

Q: I see a low, flat-rate VoIP charge per user on a provider's web site. Is that how I should compare providers from a pricing perspective?

TJ: Unfortunately it's not that simple. One of your essential features might require a more expensive service tier and you may not know this until you start setting up your service. There could be usage charges, even for local phone calls. And then, watch out for hidden fees.

Q: Hidden fees? Aren't they illegal?

TJ: Sadly, no. Not all providers charge them. But many do, and they can add as much as 20% to your bill.

Q: So how can I do an apples-to-apples cost comparison ?

TJ: Ask each provider to give you an itemized, monthly, after-tax and fees bill for all services you need. Only then will you know the real cost of the service.

Q: Anything else ?

TJ: I'd strongly advise you to investigate how they will provide ongoing service and support. Will they provide on-site training? Do they have locally based technicians who can troubleshoot on-site, if needed? And what do they charge for service and support. And how difficult is it to actually speak with an engineer?

Q: An engineer? Is that really necessary ?

TJ: In many ways a VoIP provider really takes on the role of making sure your entire network performs well. Some abdicate this role, leaving the issue for you to solve yourself. Issues that otherwise could be handled quickly can then stretch on for days or weeks. VoIP providers who have front-line engineering support can make your life a whole lot easier.



Q: But how can I determine this in advance ?

TJ: I'd recommend that your IT vendor or in-house IT expert call the VoIP provider to talk about firewall setup. If this doesn't go well, then you might want to be cautious about moving ahead with this provider.

Q: So is the move to VoIP really a good thing for my business ?

TJ: In nearly all cases, yes. Done well, VoIP is highly reliable, feature rich, low cost - and a way of future-proofing your business against technological change. We have hundreds of happy customers that we've moved to VoIP"

T.J. Sauder is an owner of Avid Communications.

For more information about deploying VoIP for your business, call Avid at [816.994.7070](tel:816.994.7070).