



White Paper: Getting the Best Business Internet in KC

Q&A with Jeff VanOrsdal

- **Q:** So what kinds of Internet connections do I have to choose from and which can Avid provide? Jeff: T1, fiber, coax, DSL and fixed wireless. Avid delivers them all.
- **Q:** So what's your favorite type of connection?

 Jeff: That's easy: Google Fiber. Very fast, very reliable, very inexpensive. Increasingly, however AT&T's

fiber offerings are attractive, and often it's available when Google Fiber isn't. In both instances, we're talking about a fiber-optic connection.

Q: And your least?

Jeff: We try to steer clients away from using high-speed coaxial cable or DSL, which uses rather old copper lines. Both have much faster download than upload speeds, which is becoming more and more of a problem as businesses move to the cloud. And their upload speeds are inconsistent.

- **Q:** And what about that old workhorse: the T1? Does it still have a place?

 Jeff: It does. A T1 has small bandwidth, but it's consistent and reliable. VoIP uses only a small amount of bandwidth, so it can be carried on a T1, and there's enough bandwidth left over if the business isn't a bandwidth hog. It's important that the voice traffic be given priority over the data, and not all providers can do that. Avid always does.
- **Q:** How much bandwidth do I need?

 Jeff: I'm tempted to be flip and say as much as you can afford. If Google Fiber is available, it'll give you all you need, and most businesses can probably get by on the lesser-expensive version of it. AT&T Business
- **Q:** And if Google Fiber isn't available?

Fiber can also be a good choice.

Jeff: Then the question is more complex. Except for fairly small businesses, I'd say that the goal should be to get a minimum of 10 MB download and 10 MB upload. That will satisfy about 80% of all businesses. But specialized requirements can push that higher: number of employees, transmitting large files and video, operating with Cloud-based business systems. If most of your applications are in the Cloud, then I'd say you should seek a minimum of 50 MB down and 50 MB up.

Avid can help estimate how much you'll need, but we'll have to know a bit about your operations to do so.

- **Q:** What about fixed wireless?
 - Jeff: We've always been pretty bullish on fixed wireless--it is a lot of bandwidth for the money--but we usually don't run VoIP traffic over it. So there's the extra expense of a T1 for voice and analog lines such as fax, alarm lines and elevator lines. But stay tuned, because fixed wireless gear is becoming much better, and we see voice over fixed wireless as reliable in the not too distant future.
- **Q:** We've talked about capacity and price? What else is there to worry about?

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Jeff: Uptime. I'm not sure if it will comfort you to realize that the #1 reason for downtime is loss of power at the customer's site. And when that happens, the Internet is only one of your worries. An uninterruptible power supply (UPS) unit can keep your network going, but probably not everything you'll need--like all your computers.

- **Q:** But what about businesses who really can't afford downtime?

 Jeff: Then "dual WAN" service makes sense. The router/firewall can be programmed to fail over to a backup connection. It still won't protect against every eventuality, and the backup connection should be chosen carefully. And programming the router to properly fail over is tricky.
- **Q:** What is the most common problem when someone complains about slow Internet?

 Jeff: Malware on someone's computer that is causing a huge amount of illicit Internet traffic. We get lots of calls requesting bandwidth upgrades, and after some sleuthing, we are able to kill the malware and restore good performance. If it's not that, then it's poor wifi. That, too, is easy to fix without taking on a lot more monthly expense.

Jeff VanOrsdal is Avid's Chief Engineer, with experience in designing and delivering hundreds of Internet connections for Kansas City businesses.

For more information about an Internet connection for your business, please call us at 816.994.7070.