



2017

Quick Take

- The Internet access connection is key to a small or medium sized business.
- Small businesses typically use shared services for internet access.
- DIA is currently the most preferred.
- There currently is a large cost difference between DIA and shared services.

Considerations

Network reliability is best with

Dedicated Internet Access or DIA.

DIA can be 4 to 5 times more expensive than shared services

Cost differential is an opportunity for new technology such as SD-WAN.

This is a rapidly changing area of technology with good revenue opportunities.

Shared Services or Dedicated Internet Access?

The most important part of a good communication strategy is the service that you have purchased for internet access. Most small businesses opt for the service that does not guarantee a bandwidth but provides best available. This service will be advertised with large bandwidth capabilities such as 300Mbps but in the fine detail of the service it will state only "when available". The other option for a business is Dedicated Internet Access or DIA. This service is dedicated to you and provides the internet at a set rate. Typically, this service will cost 4 to 5 times as much as the shared service.

The shared service is advertised with two numbers – a download and upload speed. These speeds are the maximum you will obtain over the course of the day. During peak times, the speeds will be reduced to a lower speed to facilitate the shared service with other businesses or users. Another factor with a shared service is the latency of the service. This is the delay, typically in milliseconds, of network

traffic on the shared service. Due to the shared nature of the service, latency can bounce fairly dramatically over the course of the day.

DIA is advertised with one number. This dedicated internet access is a single number for both upload and download speeds. Also, the latency of this service is relatively stable over the course of the day.

The cost of DIA can be daunting to the business owner compared with shared service pricing. A shared service can be priced one-fifth the cost of DIA with an advertised capability of service twenty fold. For example, a shared service of 200Mbps download and 70Mbps upload might be obtained for around \$150 per month while a DIA service of only 10 Mbps (yes—1/20th of the shared service) may be obtained for anywhere between \$300 and \$550 per month – up to a four fold cost increase over shared services with speeds advertised for 1/20 of the capability. Why would you ever go with DIA?

The communication connection to the outside

world from a business location is critical for smooth communications and efficient processing. Using a service that can be governed down or up depending on demand can jeopardize smooth communications or efficient processing. If the C-suite is holding a conference call at 10:00 AM and the connection begins to warble, would this be acceptable in a competitive business environment? Additionally, if during the last day of the month closing activities are delayed by 10% because of latency online, is that margin of sacrifice worth the savings of shared services over DIA? Like many technologies and services, getting that 99% over 95% is expensive.

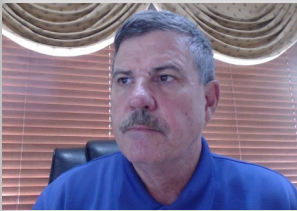
DIA has been and continues to be the desired service for business owners especially when the user count of the facility exceeds around 5 employees. DIA will ensure that voice calls are received without interference, conference calls are clear, and online processing is not affected by communication

deficiencies.

This large gap in cost between shared services and DIA, providers are trying to provide the high quality experience of DIA with shared services either using software or new equipment.

One such method to mitigate the high cost of DIA over shared services is to add another layer of network software over the topology. Software Defined Wide Area Network software (SD-WAN) places a network controller above your wide area network that optimizes traffic and chooses best routes. Instead of having a single cable shared services connection, you might add a second connection using DSL. The SD-WAN software is able to optimize traffic and utilize both services actively in maintaining best performance. So instead of having a \$800/month DIA site, you support it with two \$100/month shared services connection running with a SD-WAN. This an example of how the wide gap between DIA and shared services costs creates opportunity for new technology or equipment.

At this time, if the business wants a solid, clear communication link along with consistent processing on the internet, DIA is recommended. But as with technology, this subject should be reviewed on a yearly basis due to the ever changing landscape.



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