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Technology Solutions, Delivered with Care

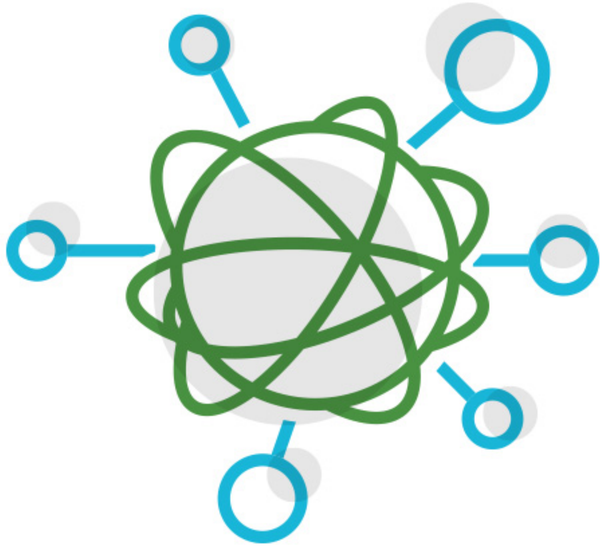
SD-WAN AND SD-INTERNET:

Bulletproof Networks to Support Mission-critical, Cloud-based Applications

Software-Defined Wide-Area Networks (SD-WAN) and Software-Defined Internet (SD-Internet) are the latest networking technologies. Collectively, we refer to the pair as Software-Defined Networking (SDN) services.

The excitement around these services is based on:

//01 HITLESS FAILOVER



SDN aggregates multiple Internet connections into one large, redundant connection. In this configuration, you can lose your primary network connection with zero noticeable effect upon your employees and customers.

//02 AGGREGATED BANDWIDTH

SDN combines the bandwidth of the network links attached to it and uses the bandwidth as you dictate. For example, a 100Mb fiber-optic circuit could be combined with a 75Mb coaxial service, resulting in total speed of 175Mb. No longer do “back-up” circuits sit idle, waiting for a failure of the primary circuit – they actively provide bandwidth to users.

//03 DEPENDENCE ON CLOUD-HOSTED APPLICATIONS

If your mission-critical business applications are in the cloud, at an offsite data center, or in a single corporate office, you need unbreakable connectivity to the cloud/Internet/your private network. SDN provides that unbreakable connectivity. With all of your business applications in the cloud, your entire operation comes to a standstill without connectivity.

//04 POTENTIAL COST ADVANTAGES

SDN can be used in a “carrier independent” fashion. Unlike MPLS or other networking technologies, you don’t have to use a single provider of Internet/network access for each of your business locations. SDN can be used to sew far-flung disparate networks together giving you full control over the selection of your network providers.

//05 CLOUD-BASED PRIORITIZATION OF DATA

With SDN, you can prioritize the delivery of certain types of traffic vs. others ensuring that your critical applications are given priority (both upstream and downstream) over YouTube, Facebook, Spotify, Pandora and other “less work-related” applications.

This is a comparatively new technology for some businesses, and no one wants to roll the dice hoping a new solution will work perfectly in its initial iteration. So let's take a closer look at SD-WAN and SD-Internet to see just what they should do, what they can do, and help to inform your decision regarding the technology.

WHAT IS SD-WAN?

SD-WAN is, essentially, a wide-area network (WAN) with elements of software-defined networking (SDN) applied to it. SD-WAN looks to migrate control of the network into cloud-based elements, thus providing software definition to it. It's commonly used to connect multi-location businesses.

WHAT IS SD-INTERNET?

SD-Internet combines multiple internet connections into a single, highly reliable, high-bandwidth Internet connection. It is the SD-WAN equivalent for single-location businesses. It provides failover and aggregates the bandwidth of the Internet services connected to it. SD-Internet will also provide Quality of Experience (QoE) for VoIP and hosted phone systems, and it improves the service experience for any real-time application.

HOW CAN SD-WAN/ SD-INTERNET IMPROVE MY BUSINESS?

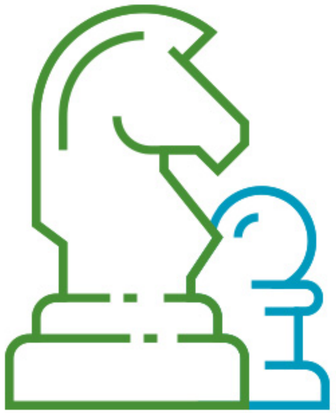
Putting SDN principles to work in a current network can deliver plenty of benefits, ranging from cost savings to overall network quality improvement.

COST SAVINGS.

SDN is network agnostic. This means greater network selection options, especially for your more remote locations. You aren't locked into a single provider, as you can be with multiprotocol label switching (MPLS). This allows businesses to select network providers from whomever is best for each individual location.

GREATER FLEXIBILITY.

In addition to network provider flexibility, SDN can also be integrated with an existing MPLS network allowing customized configurations that meet your exact needs.



AGILE DEPLOYMENT.

Bringing in SD-WAN isn't like installing a new network. While legacy technologies such as MPLS can take up to 120 days to install, SD-WAN requires much less. Putting it into place, or making changes down the line, is often a much simpler operation, making SD-WAN a more flexible technology and better suited to scalability and future growth.

CONTRACTUALLY OBLIGATED RELIABILITY.

SD-WAN/SD-Internet providers use service level agreements (SLAs) as governing documents of the SDN arrangement. These often come with remedy measures should the provider fail to live up to the SLA's terms (which frequently are more stringent than those for other types of connectivity, due to the naturally redundant nature of the service).

GREAT WITH VOIP.

If your legacy phone system is letting you down, you are considering a switch to VoIP or UCaaS, or you already have an IP-based phone solution and call quality isn't meeting your expectation, SDN should be on your radar. SDN improves the operations of a network and improves VoIP quality by prioritizing that traffic over non-real-time applications. Some SD-WAN/SD-Internet providers take voice quality a step further with patented data management techniques related to the optimization of the IP voice experience that improve call quality and reliability.

WHAT SHOULD I KNOW ABOUT SDN FOR MY BUSINESS?

Understanding a few key points about SD-WAN will allow you to better address potential issues that may affect your overall experience.

HAVE THE RIGHT NETWORK.

SD-WAN and SD-Internet are great ways to make a network better, but they can't do that job alone. Having the right broadband providers is crucial to ensuring that you'll be able to take full advantage of what SDN has to offer.

A CONTROL SPLIT.

There is a certain amount of loss of control that comes with every cloud-based operation; the provider decides when to make upgrades to internal systems and the like. In an SDN environment, the user retains a high degree of control through the selection of broadband providers and bandwidths and often adds an online portal to review and orchestrate traffic.

HYBRID MPLS/SD-WAN IS AN OPTION.

If you're already using MPLS, that's good news. SD-WAN can integrate seamlessly with an existing MPLS network. It also allows new sites to be activated via SD-WAN and any Internet service provider reducing the cost of the network in small or remote locations.

A BETTER NETWORK CAN BE YOURS, TODAY

Knowing what you know now about SD-WAN/SD-Internet can help improve your business and can help you make the most of this powerful new networking technology. If you're ready to get started with SD-WAN, visit us online at **accessoneinc.com** or email us at **info@accessoneinc.com**. We can help you figure out how best to put it to work to make your network work for you.

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