



Software Defined - Wide Area Network (SD-WAN)

Like MPLS or Ethernet, SD-WAN is applied to WAN connections and used to connect enterprise locations across vast geographic distances. It connects branch offices, data centers, and other business sites to a central corporate network and/or to cloud providers.

SD-WAN's primary difference is that software is used to manage the data over the WAN, offering many benefits. In some cases, SD-WAN can totally replace WAN connectivity via MPLS or Ethernet. However, it is very important to note that SD-WAN can be an overlay to, and work in conjunction with, either or both MPLS and Ethernet. Additionally, it can link a combined MPLS and Ethernet WAN configuration with broadband and wireless connectivity. SD-WAN can be totally transport-method agnostic

MPLS vs. SD-WAN

Below is a comparison of some pros and cons of MPLS and SD-WAN. However, many of the pros can be multiplied and/or enhanced, and many of the cons can be offset and/or eliminated by utilizing a USA Digital custom-designed deployment of both MPLS and SD-WAN

MPLS vs SD-WAN



MPLS Pros

- ✓ The reliable delivery of packets.
- ✓ Ability to provide QoS.
- ✓ Predictable traffic routing.
- ✓ SLAs are available

- ✓ Enhanced visibility, scalability, performance, and control.
- ✓ Can use less expensive Internet circuits to increase bandwidth.
- ✓ Ability to provide QoS over SD-WAN tunnels.
- ✓ Better access to Cloud Services.



SD-WAN Pros



MPLS Cons

- ✓ Bandwidth cost is typically higher.
- ✓ Failover is not available or difficult to integrate.
- ✓ Usually no direct access to the Internet.
- ✓ Site deployments involve slow and rigid process.

- ✓ Can be complicated to self install.
- ✓ SD-WAN will not fix bad or unreliable Internet connections.
- ✓ Internet traffic can still be unpredictable.



SD-WAN Cons

Benefits of SD-WAN from USAD

The ability of SD-WAN to dynamically route traffic makes it ideal for your solutions requiring higher network reliability. SD-WAN can “glue” multiple underlying networks together to be used in an all-active configuration which can minimize the impact of outages. SD-WAN also blurs the lines of what is traditionally thought of as a “primary” and “backup” network configuration. SD-WAN can allow for both networks to be operational and achieve more combined bandwidth availability than any single network due to dynamic routing. USA Digital can also engineer SD-WAN solutions that include wireless access.

Additional benefits include:

- **Centralized management** across your network
- **Analytics** gives visibility into your SD-WAN network
- **More options** for connection types and access selection.
- **Auto failover** between access circuits.
- **Prioritize applications** across your SD-WAN network.

SD-WAN from USAD

When engineered and deployed by a knowledgeable team, SD-WAN and MPLS can work incredibly well together. Applications vary and we have the expertise to help you design and build the data solution that best fits your needs. On top of that, USAD is a voice services provider and we own and operate a geo-redundant nationwide voice network. Combining and merging data and voice networks, optimized to fit your custom needs, is our specialty. For over 20 years, we have been helping our customers improve their efficiency and profitability.

Discover the USAD Difference

USA Digital offers a robust suite of long distance, voice, and data communications services for small and medium-sized businesses, Fortune 500 companies, and local exchange and national telco carriers across the country. USAD's custom solutions enhance connectivity, communications, and profitability. Our clients also rely on USAD—a leading national interexchange carrier—for our deep expertise in telco provisioning, engineering, implementation and service. From our deep bench of technical and engineering professionals to our vast and reliable network, our array of platforms and cost-saving technology to our superior support ... **we're passionate about performance.**

Find out how USAD's SD-WAN optimizes your data and voice services.

Contact USA Digital at 888-872-3787 or sales@usad.com.