AITHERAS

[uh-THEAR-us] means pure air in Greek, deriving from "Aither" defined by Aristotle as the "fifth element of air in continuous, circular motion." Similarly, with continuous collaboration with our clients and technology partners, we strive for pure innovation and excellence.

CUSTOMER-CENTRIC INNOVATIVE SOLUTIONS

SD-WAN ARCHITECTURE

ABOUT

AITHERAS, LLC is a customer-centric innovative IT consulting firm delivering timely and cost-effective solutions for our federal, state, local, and commercial clients. Since 2002, our clients have entrusted us with mission critical projects relying on our services and expertise in Data Analytics, Cloud Computing Services, IT Engineering and Application Development, Records and Data Management, Litigation Support, and Cyber Security. We are headquartered in Rockville, MD, an ISO 9001:2015 certified firm, a designated Small Business by the U.S. Small Business Administration (SBA), and a Minority Business Enterprise (MBE) by the State of Maryland Department of Transposition (MDOT).

As an accomplished technology solution provider, we prioritize understanding the challenges that our clients face to support achieving scalable and customer-centric solutions. Whether the challenge is expanded mission requirements, or budgetary pressures or shrinking workforces, we design custom solutions that maximize the investment for long-term success.

AITHERAS has served and partnered with over a hundred clients since 2002. We continue to be driven by seeing our clients excel and thrive in their mission. Let us know how we can partner with you to integrate innovative and sustainable solutions for your success.

SD-WAN

Our SD-WAN architecture design includes multiple layers of redundancy, with three circuits and highly configurable SD-WAN appliances that create an optimal, highly effective and efficient traffic routing model. Internal traffic can be routed on one circuit, with internet traffic routed on another, separate circuit, and the third for usage spikes and as a backup should one of the other two fail. Configuration of VLANs on the edge devices routes traffic more efficiently by eliminating bottlenecks. SD-WAN provides a fast, secure, and efficient WAN solution, offering integrated VPN and Internet/Cloud connectivity with classes of service and end-to-end monitoring as a more cost-effective option than other solutions. If you are at risk of outgrowing your existing MPLS IP-VPN, while simultaneously seeking higher security and more integrated Internet/Cloud connectivity, SD-WAN is the right answer to your multi-site connectivity challenges.

KEY BENEFITS

- **Speed:** SD-WAN operates with high-end Customer Premises Equipment (CPE) and minimal overhead, ensuring performance at 85% of line speed – unlike other solutions.
- **Security:** Traffic on our SD-WAN is fully encrypted using AES256.
- **Efficiency:** Your VPN and Internet/Cloud traffic share a common, easily scalable pipe, with up to three classes of service – ensuring your most important traffic gets the highest priority.
- **End-to-end Monitoring & Analytics:** Network administrators can use a unique, cloud-based portal to see each connected location on the network, along with traffic flow analytics. This enables quick diagnosing of trouble spots, and identification of locations or applications that might be slowing traffic down.

Category	SD-WAN Network	MPLS Network
Data Security [Traffic Encryption]	Application Data and Control traffic fully encrypted End-to-End	Data is left in the clear and can be accessed, replaced, and/or used by anyone with access to it
Shared Infrastructure	Packets from a single flow can be sent over tunnels using multiple transport methods	Packets are tagged only for forwarding purposes
Shared Nodes	Packets from a single flow can be sent over tunnels using multiple transport methods	Routing interfaces are shared between entities with different service types
Routing Exposure	Routing and Control traffic fully encrypted and completely independent from the transport and service providers	Routing controlled by the service providers; misconfigurations may present security risks
Customer IP Subnet Visibilities	Customer IP subnets are completely hidden and not visible to the transport service provider	Customer IP subnets are part of the routing (VRFs) and misconfigurations could pose a security risk
Misconfiguration Vulnerabilities	Can lead to downtime but _not_ security issues	Can lead to downtime _in addition to_ security issues
Network Segmentation	Support full End-to-End Network segmentation	The WAN is one flat network with no network segmentation
Protection/ Detection of Sniffing/ Snooping	All traffic is encrypted (AES 256)	Sniffing or replication of data is impossible to detect

CONTACT US

Contact us to see the difference we can make in meeting your solutions needs and goals. AITHERAS appreciates the opportunity to earn your business. Email us at contact@aitheras.com or call us at 800-592-5436.