

# Vendor to Watch: Graphiant Embraces True SDN to Solve Unpredictable and Complex WAN Topologies



## Graphiant

*Graphiant is a provider of flexible, secure, next-generation WAN services. It was founded in 2020 and is based in San Jose, California. This venture-backed company has received \$33.5 million in Series A funding from Sequoia Capital, Two Bear Capital, and Atlantic Bridge.*

## Going Beyond the SD-WAN Value Proposition

Graphiant is a wide-area networking (WAN) startup that aims to address the dynamic nature of today's enterprise networks. Graphiant argues that WAN topologies have become unpredictable in an era of multi-cloud networks and hybrid work, challenging the ability of software-defined WAN (SD-WAN) solutions to keep up.

Graphiant was founded by CEO Khalid Raza, a longtime veteran of Cisco and previously the founder and CTO of SD-WAN pioneer Viptela, which was acquired by Cisco in 2017 for \$610 million.

Raza told EMA that Graphiant aims to make the internet a private and programmable infrastructure by truly separating the network control plane and data plane, harkening back to the original architectural vision of software-defined networking startups from the late 2000s.

SD-WAN solutions offer centralized control and visibility across a WAN underlay, which theoretically would help with managing the complexity of today's networks. However, the control plane is still distributed, with most SD-WAN solutions creating an overlay of tunnels with a complex set of application and security policies. As networks scale up and topology unpredictability increases, SD-WAN solutions can struggle to keep pace. EMA research has seen evidence of increased SD-WAN complexity in recent years. Many enterprises told EMA that they have abandoned self-implemented and self-managed SD-WAN solutions in favor of managed SD-WAN services from network providers and MSPs.

Graphiant addresses the complexity driven by network unpredictability through true separation of the WAN control plane and data plane. Its data plane resides in the stateless Graphiant Core, a programmable and multi-tenant transit network that extends globally. The Graphiant core uses new, proprietary protocols to establish a label-switched network that routes traffic based on customer- and application-driven metadata. No tunnels are needed. Each traffic flow contains all the information needed for routing it to the right destination, from one network edge to another.

The stateless core allows for a very lightweight data plane element known as Graphiant Edge, a software component that is deployable in the cloud or on any off-the-shelf x86-based platform in a data center, corporate office, or branch. With the control plane offloaded, these edge components achieve maximum performance on standard computing platforms. Graphiant intends to partner with secure service edge and zero trust network access providers to bring remote workers onto its network. Given the stateless nature of the Graphiant network, adding new edge components is relatively trivial, with no need for establishing and mapping multiple tunnels from each endpoint.



## EMA Perspective

Network complexity continues to plague enterprise WAN infrastructure and operations despite the advent of technologies like SD-WAN, which provide centralized policy control but require the proliferation of tunnels across the WAN underlay.

EMA research found that by 2024, most IT organizations will support multi-cloud networks with three or more IaaS providers. Also, 85% of network operations teams have seen an increase in hybrid work since the beginning of the pandemic, and most of them are struggling to support work-from-anywhere employees. These new architectural realities are increasing the unpredictability of network topologies. Many network operations teams do not

have the time or the expertise to manage this much change on network platforms that require complex tunnel mapping and traffic engineering. In fact, EMA research has established that most enterprises are struggling to hire and retain the skilled personnel who are needed for these projects.

Graphiant is coming to market with a solution that offers to simplify WAN engineering and operations by embracing the original vision of SDN pioneers. It claims that it can deliver a faster return on investment than traditional SD-WAN solutions with lower operational overhead. For this reason, EMA has named Graphiant a Vendor to Watch.



**About Vendor to Watch:** EMA Vendors to Watch are companies that deliver unique customer value by solving problems that had previously gone unaddressed or provide value in innovative ways. The designation rewards vendors that dare to go off the beaten path and have defined their own market niches.

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