# Enterprise Connectivity on a Global Scale

A digital transformation is occurring as applications move from internally managed datacenters to multiple cloud locations, employees are globally distributed, and data is moving to edge locations.

These shifts increase the demands for enterprise connectivity. Enterprises must connect to many clouds, SaaS providers, and even partner and customer sites in different locations. Because data is moving away from centralized silos, networks no longer have a "center of gravity."

In this world of hybrid clouds and edge computing, deploying and managing enterprise connectivity solutions is a slow, fragmented, and complex process. Enterprise networks require extensive design - a time-consuming and complicated activity. Any change in business requirements (such as adding a new cloud provider or connectivity with a new partner) requires a redesign and reconfiguration.
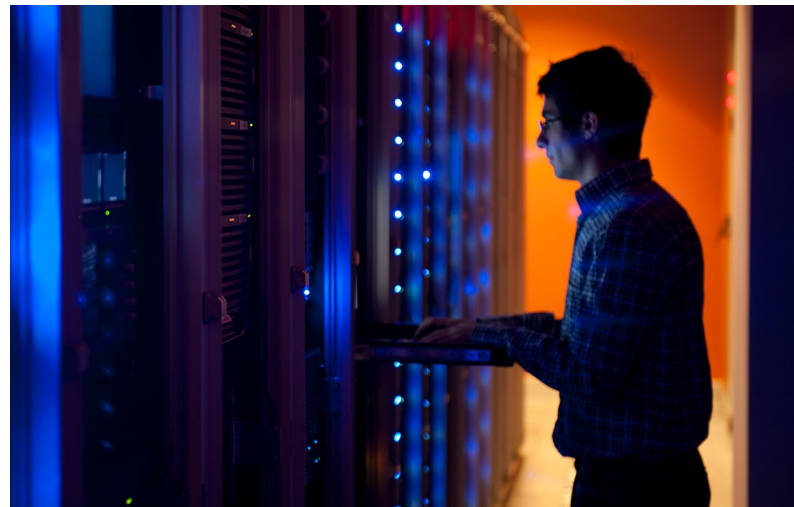
Network pricing constructs are not uniform, which makes them difficult to understand. Pricing for Cloud networking is based on compute, storage, and bandwidth. Pricing for SDWAN is based on locations and bandwidth. Products, services, and licenses must be bought separately and stitched together.

SDWAN and MPLS are the prevailing technologies for enterprise connectivity. Although MPLS carried the industry from 1996 to 2012, it lacks the agility required

for cloud networks of today. It is expensive, slow to provision, and lacks visibility. Making changes and adding new sites can take a long time and requires extensive coordination with the MPLS provider.

SDWAN solved some of these issues, but can't replace MPLS since SDWAN does not provide guaranteed SLA-based connectivity. Furthermore, it requires the customer to manage their own network and policy, which can get complex as the number of sites, clouds, application policies, and tunnels increases in the network.

Networking needs to be simple to consume and buy and be available as a service. MPLS, SDWAN, and other VPN technologies are insufficient for the business needs of enterprises. Enterprises require simple, secure, and reliable networks architected as a service, providing any-to-any connectivity with complete visibility.

Introducing Graphiant Network-as-a-Service:

Graphiant provides this networking service: It combines the scale and security of private MPLS networks with the agility and last-mile flexibility of SDWAN and public internet. Graphiant Network-as-a-Service (NaaS) is a new architecture for the service economy.

The main components of the Graphiant NaaS are as follows:

• **The Graphiant Core** is a natively multi-tenant core that handles reachability to Graphiant services. It is a high throughput, guaranteed delivery, stateless environment that allows enterprises to connect all their edges.

• **Graphiant edges** are deployed to customer sites that can deliver Graphiant's connectivity service.

• **Graphiant Portal** is a single pane of glass from where the customer can initiate connectivity, order new sites, set policies, and buy licenses and services.

The Graphiant NaaS is:

• **Simple,** because no tunnel management or complex configurations are required.

• **Secure,** because it uses end-to-end encryption with quantum-resistant ciphers.
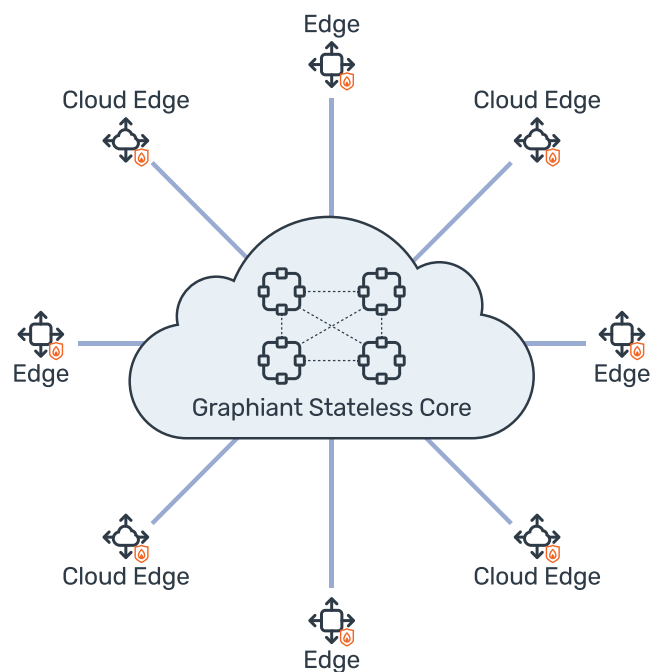

• **Private,** because there is no decryption outside the customer's domain.

• **Reliable,** because there are application QoS and end-to-end SLAs with guaranteed delivery.
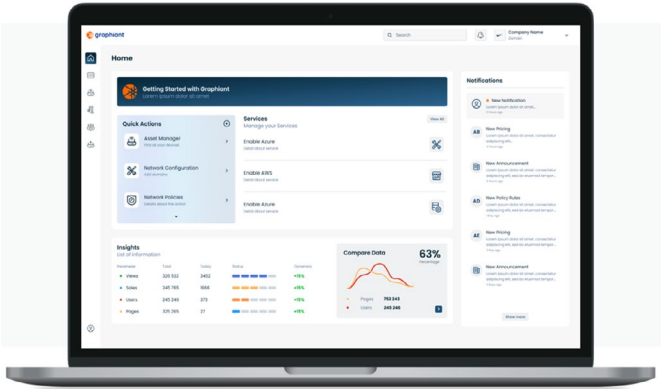
All points on the enterprise network connect to the Graphiant stateless core through edges. Any edge can connect to any other edge on the Graphiant network. All edges are multi-tenant. All traffic is encrypted edge-to-edge, and there is no need for any decryption within the Graphiant Core. It is a highly scalable architecture, with no tunnel management required. Graphiant edges are available in virtual, cloud, and hardware form factors.

The enterprise has access to intuitive management through the Graphiant portal - a single dashboard that provides administration, configuration, monitoring, analytics, reporting, and troubleshooting.

Software Edge   Cloud Edge   Hardware Edge
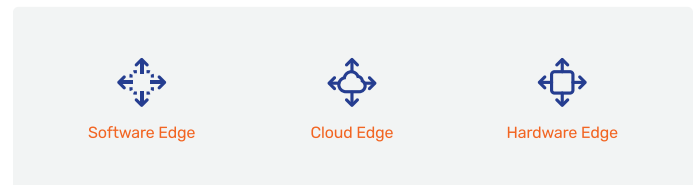
Graphiant NaaS Advantages:

Graphiant provides any-to-any connectivity with guaranteed delivery. The customer does not have to build or manage the Graphiant Core. Once connected to the Graphiant Core, an edge can reach any other edge.

All devices, offices, cloud, and IaaS services use the same unified, simple, and dynamic connectivity without the need for a mesh of tunnels. The result is a network that is simple to provision, manage, and scale with predictable performance, better security, and simple agility.

Graphiant offers significant benefits:

- **Time-to-market.** Public Internet class agility allows enterprises to deploy and scale cloud connectivity at the speed of business. This enables modern service economy enterprises to quickly serve new customers and introduce new services and applications.

- **Risk reduction.** Graphiant removes the need to decrypt traffic anywhere within the Graphiant network, reducing the threat surface, ensuring data sovereignty, maximizing privacy and simplifying compliance. The enterprise controls the encryption path and no outside entity will decrypt that traffic.

- **Security.** Implementing security measures when connecting dissimilar environments must be effortless and policy driven. Graphiant combines essential security services, such as application recognition, stateful traffic filtering, address translation, and more, using simple policy language that is embedded in the workflow. This advanced security model provides secure connectivity for all entities, from users and applications to offices or the IOT.

- **QoS and SLA.** Graphiant's private NaaS network delivers MPLS-class QoS and end-to-end SLAs.

- **Cost.** Graphiant provides MPLS-class performance, availability and security at a much lower price point.

What enterprises need is an entirely new, affordable solution that is robust, agile, scalable, and easily managed to support today's digital transformation—securely and dynamically. That is what Graphiant offers: a robust, flexible, secure, and efficient Network-as-a-Service.

Learn more at graphiant.com

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Next-Gen Networking that is Agile, Performant and Secure