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The Cloud Gateway Cost Advantage

Why a stateless Network-as-a-Service core cuts enterprise cloud connectivity cost by 50%!

Summary

Enterprises pay to move data inside the cloud and most of that cost is invisible until the invoice arrives.

Cloud-native networking stacks meter every single element.

Transit gateways, NAT gateways, firewall endpoints, and egress, all bill per gigabyte, so the same traffic gets taxed several times as it crosses the network.

The result is a connectivity bill that grows with usage and resists planning.

A Network-as-a-Service model with a stateless core replaces that stack of metered services with a simplified private gateway connector. For a reference customer, it cut the monthly bill from $681,510 to $362,196, a 47 percent reduction.

The connectivity bill nobody forecasts

Cloud connectivity is the line-item enterprises cannot forecast. Bandwidth is cheap, but the toll for moving data between regions, clouds, and on-premises sites scales with every byte you send.

When a workload spans multiple VPCs and reaches back to a corporate data center, traffic passes through a chain of metered services. A transit gateway charges per attachment and per byte. A NAT gateway adds an hourly rate plus a data charge. Firewall endpoints bill by the hour and then bill again for the u-turn traffic they inspect. Egress to the internet carries its own per-gigabyte rate. Each service does one job, and each one meters the same bytes.

The charges compound because they stack. A single byte leaving a VPC for the internet can be metered by the transit gateway, the NAT gateway, the firewall, and the egress charge before it ever leaves the cloud. Network teams rarely see this layering until they reconcile a monthly bill against the traffic that produced it. Those are inspection and translation fees on traffic the enterprise already paid to transport. They scale with volume, not with value.

$292K

IN OVERHEAD CHARGES AND FEES

The same workload, two architectures

The figures below come from documented enterprise deployment: 50 VPCs moving 250,000 GB per month, split evenly between internet egress and traffic returning to on premises. The workload is constant. Only the network architecture changes.

AWS native solution

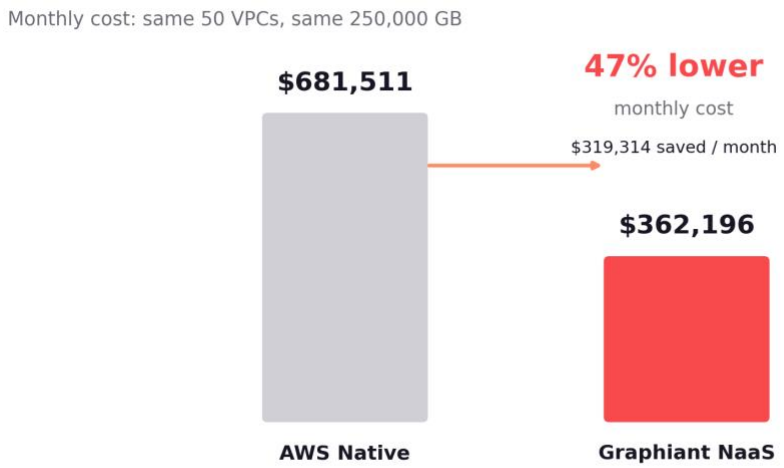
AWS native charge	Monthly cost
Transit Gateway attachments and data	$82,776
NAT gateway and data	$67,894
Firewall endpoints, data, and u-turn	$231,920
Direct Connect, circuit, and DX data	$141,420
Internet egress	$130,500
Total	**$681,510**

The native stack meters the same traffic across five separate billable layers, and inspection charges dominate the total.

Graphiant NaaS solution

Graphiant NaaS charge	Monthly cost
Graphiant utilization (10 Gbps, consumption-based)	$180,000
Transit Gateway attachments and data	$82,776
Direct Connect	$39,420
Egress at private rate	$60,000
Total	**$362,196**

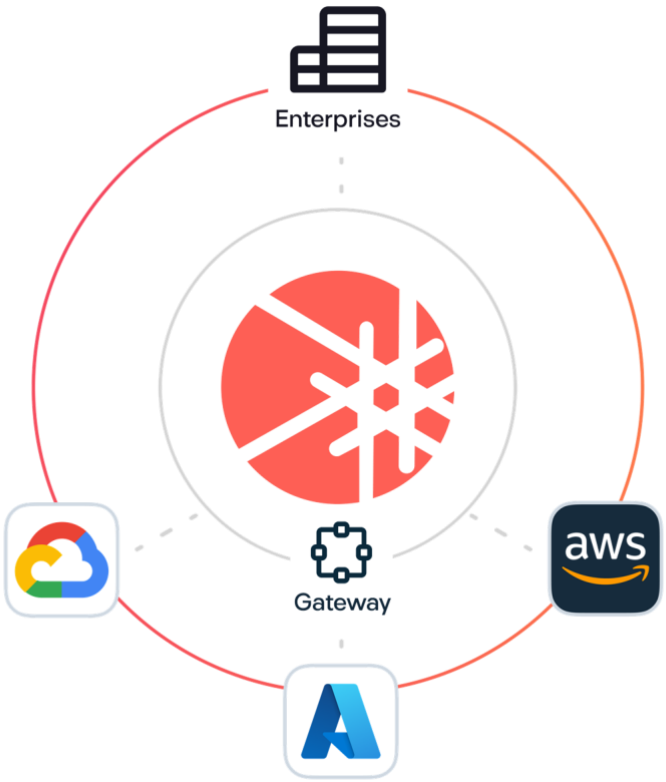
Routing the same workload through a stateless core removes the NAT, firewall, and inflated egress layers, and drops egress to a private rate.



Same 50 VPCs and same 250,000 GB per month. The architecture is the only variable, and it removes $319,314 from the monthly bill.

Why the model changes the math

The saving comes from removing billable layers. A stateless core consolidates the work that the native stack spreads across four separate metered services.



The inspection tax disappears. NAT gateways and firewall endpoints charge per byte to translate and inspect traffic. Routing through a private fabric removes layers and the u-turn data charges they generate.

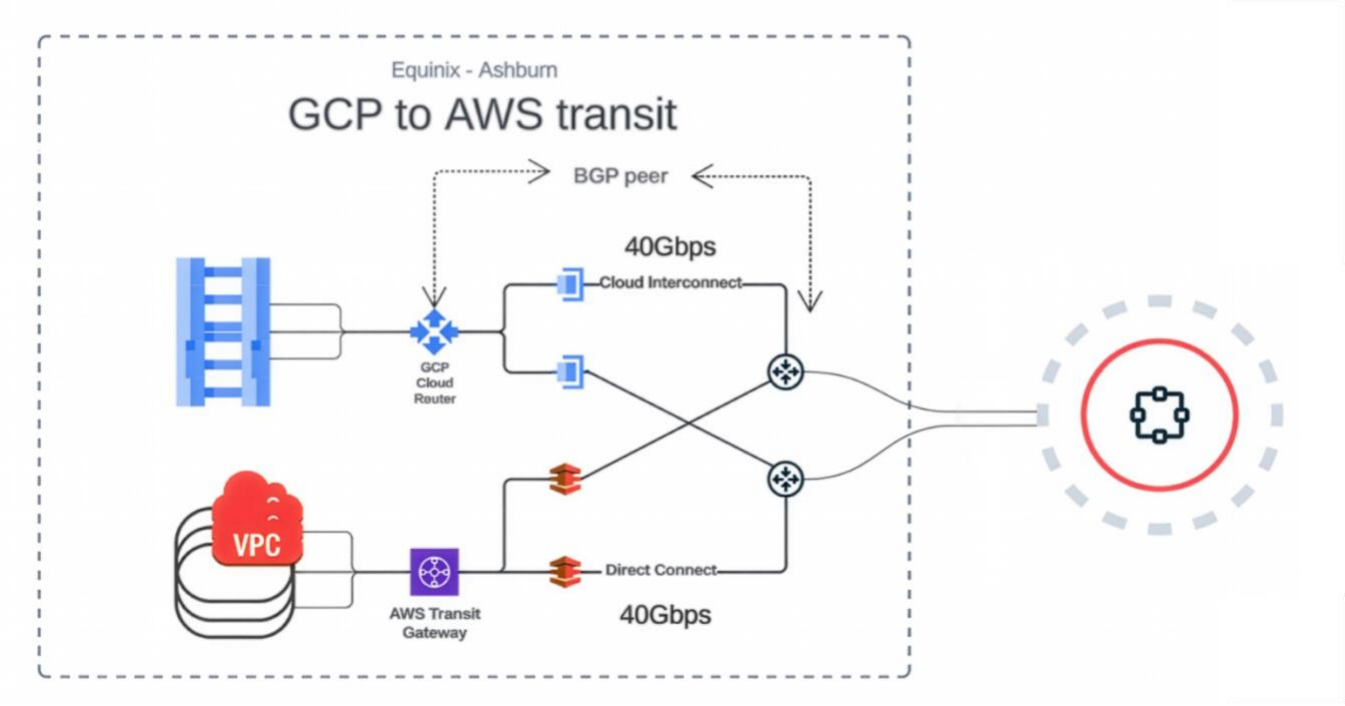
Egress drops to a private rate. Internet egress on the native stack runs at a premium rate. Moving the same traffic across a private backbone cuts that rate by roughly three quarters.

Connectivity bills once, not several times. Network-as-a-Service pricing meters bandwidth rather than charging a separate fee per byte, so the same data is not taxed four times on its way out.

The core holds no per-flow state. A stateless core forwards encrypted traffic without terminating or decrypting it, which is what lets one fabric replace the gateway, NAT, and firewall data path.

What the stateless core gives you

The architecture that produces savings also changes what the network can do. The same stateless core that removes the metered layers delivers capabilities the native stack charges extra for or cannot offer at all.



1 **Any cloud, any region.** Connect AWS, Azure, and GCP across regions through one fabric, without rebuilding the topology each time a workload moves.

2 **Encrypted end to end.** Payloads stay encrypted in transit and the core never decrypts them. Keys stay in your TPM or HSM.

3 **Zero egress between gateways.** Traffic that stays on the Graphiant fabric carries no egress charge on gateways.

4 **Configured in minutes.** Policy is set up through a portal, API or an Agent and takes effect in minutes, with service levels and up to 20 Gbps on a private backbone.

How to check the numbers against your own network

Measure your own environment. Audit where your multi-cloud network is being metered.

Separate transport cost from inspection cost. Pull NAT, firewall, and u-turn data charges out of the bill and total them on their own. That figure is the inspection tax, and it is the largest movable number.

Price egress at the private rate. Re-run your egress volume at a private-backbone rate rather than the public internet rate to see the gap on traffic you already move.

Model bandwidth. Bandwidth pricing bills sustained rate, not every gigabyte. Workloads with bursty peaks and lower steady-state usage benefit most.

Conclusion

Enterprises overpay for cloud connectivity because the native stack meters the same traffic for every network service.

A stateless Network-as-a-Service core removes the layers that do the metering. The documented result on an unchanged workload is a 47 percent lower monthly bill, with stronger encryption, broader cloud reach, and faster provisioning alongside the saving.

The cheapest network is the one that bills your traffic once.

Assured, Agile, Awesome.

Graphiant delivers a single, unified Network-as-a-Service platform built for the AI era. By combining a stateless core architecture with end-to-end encryption, real-time observability, and policy-driven routing, Graphiant helps enterprises and service providers connect users, sites, clouds, and AI workloads with the speed, security, and agility modern business demands.

Learn more at graphiant.com