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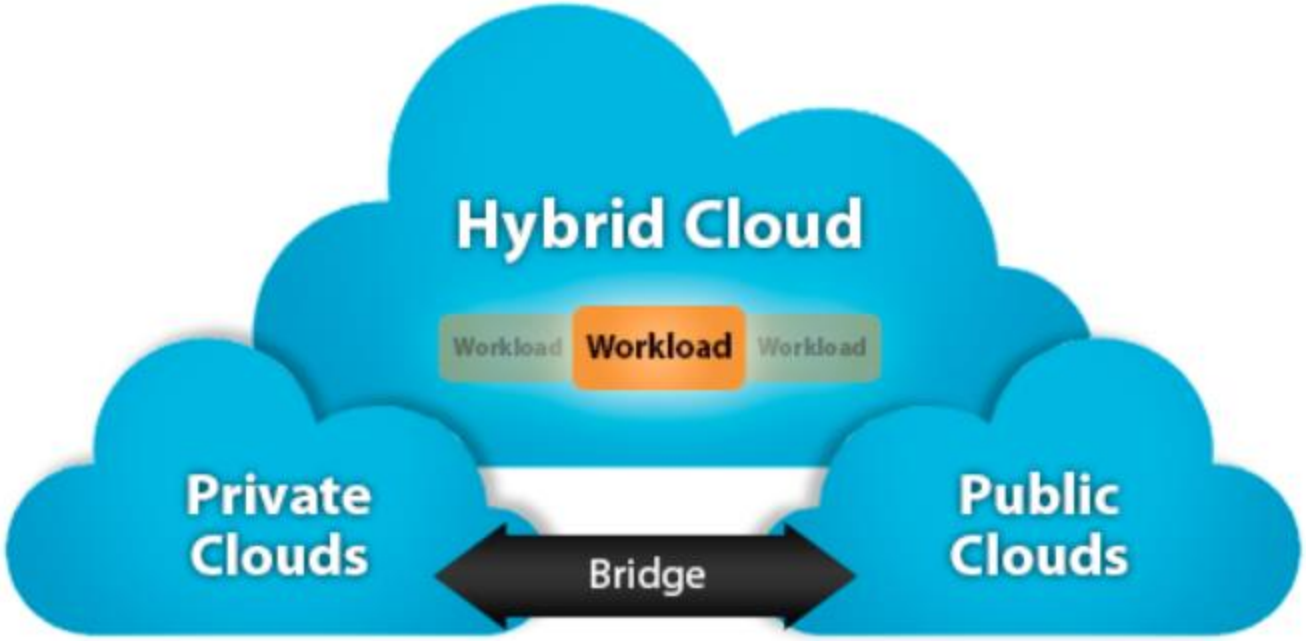
Aviatrix Secure Edge and Hybrid Cloud Overview

ACE Team

Need for Hybrid Cloud



The **flexibility to shift workloads** between on-premises and cloud is offered by hybrid cloud.

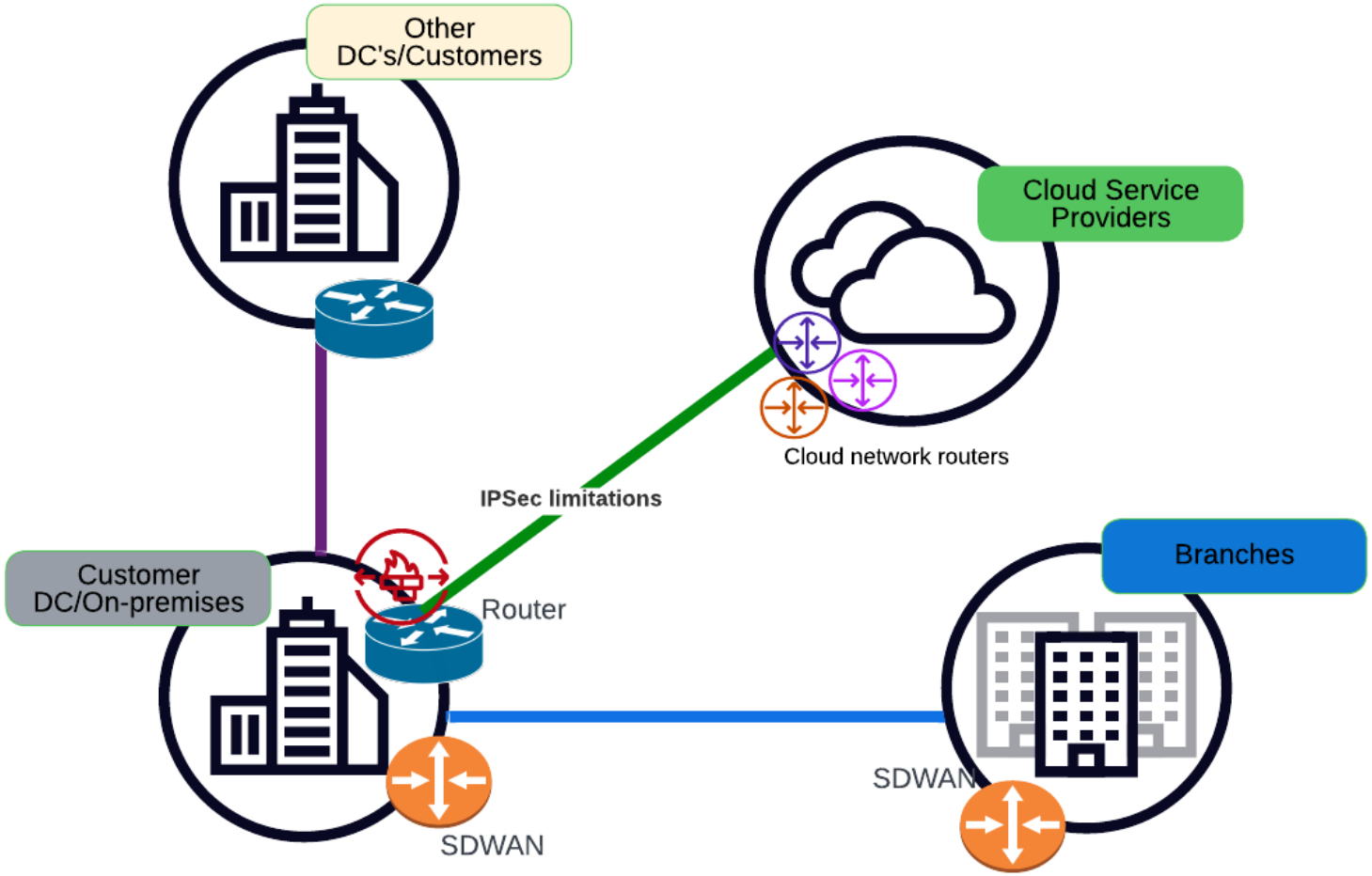
Cost-effective scaling and resource utilization are enabled through hybrid cloud.

Redundancy and disaster recovery capabilities are provided by hybrid cloud.

Compliance with **data residency requirements** is allowed by hybrid cloud.

A **phased approach to cloud** adoption is enabled by hybrid cloud.

Problem
Existing Hybrid and multi-cloud network solution challenges



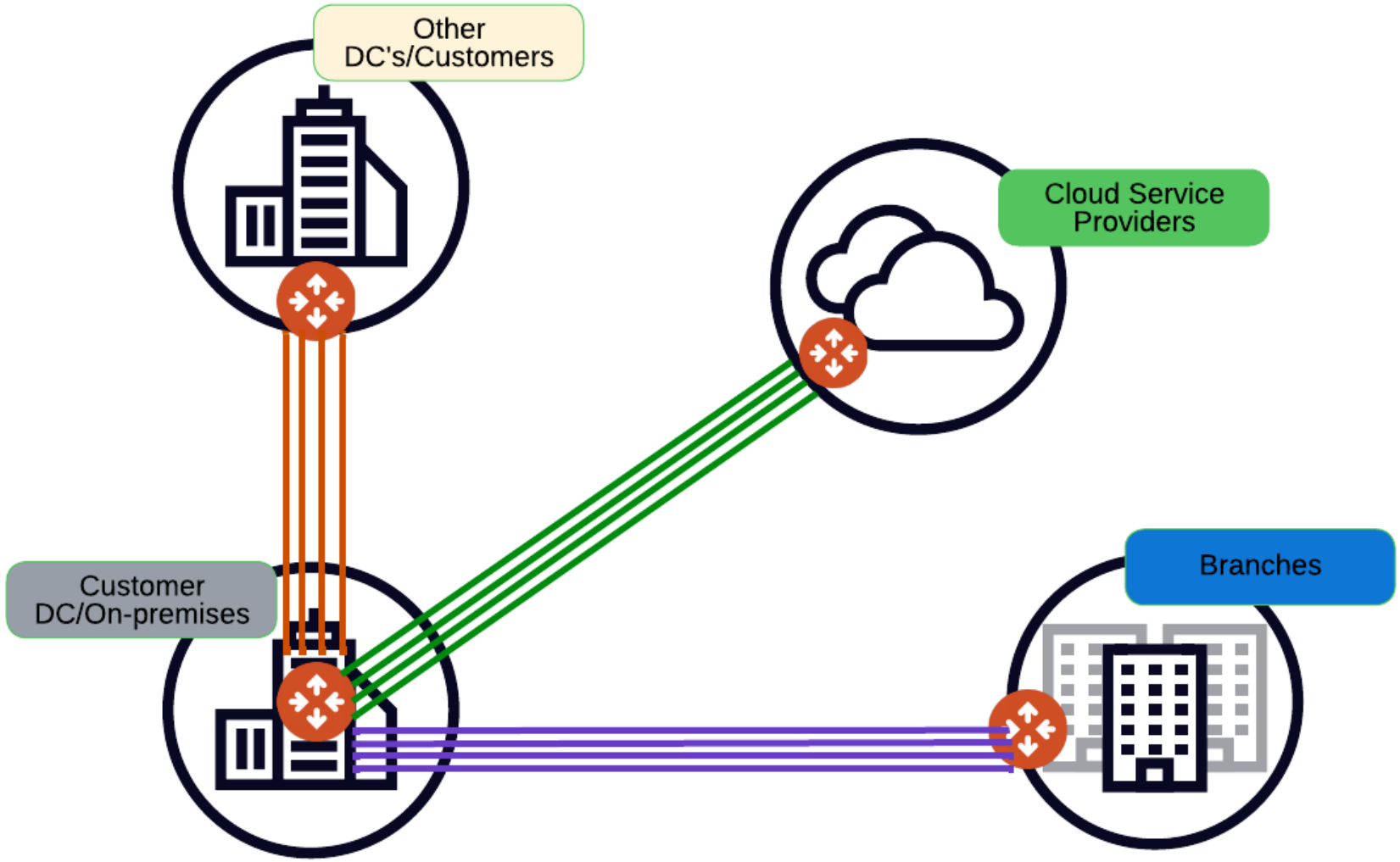
Performance limitations due to encryption requirement and disparate network stacks

Complex Routing and Deployment complexities connecting applications across Cloud, On-premises and business partner locations

Operational difficulties in visibility, troubleshooting, and management

High costs of managing hybrid-cloud connectivity manually.

Solution with Aviatrix Transit Edge – Secure high performance hybrid cloud solution



Provides **high-performance encrypted connectivity** for hybrid cloud deployments.

Integrates with **Equinix and Megaport** for on-demand interconnectivity.

Utilizes **cloud-native transit gateways** features like dynamic routing and active mesh resiliency.

Enhances **visibility** with real-time network insights and seamless integration with enterprise tools

Automates deployments via **Terraform** and CI/CD pipelines, reducing operational complexity.

Aviatrix Secure High-Performance Datacenter Edge

Problem

Companies are increasingly using cloud environments, but they still need to connect their data centers to the cloud.

- Traditional methods force you to choose between high-speed connections and secure connections.
- Setting up and managing these connections can be complex and time-consuming.
- You may not have good visibility into how your network is performing.

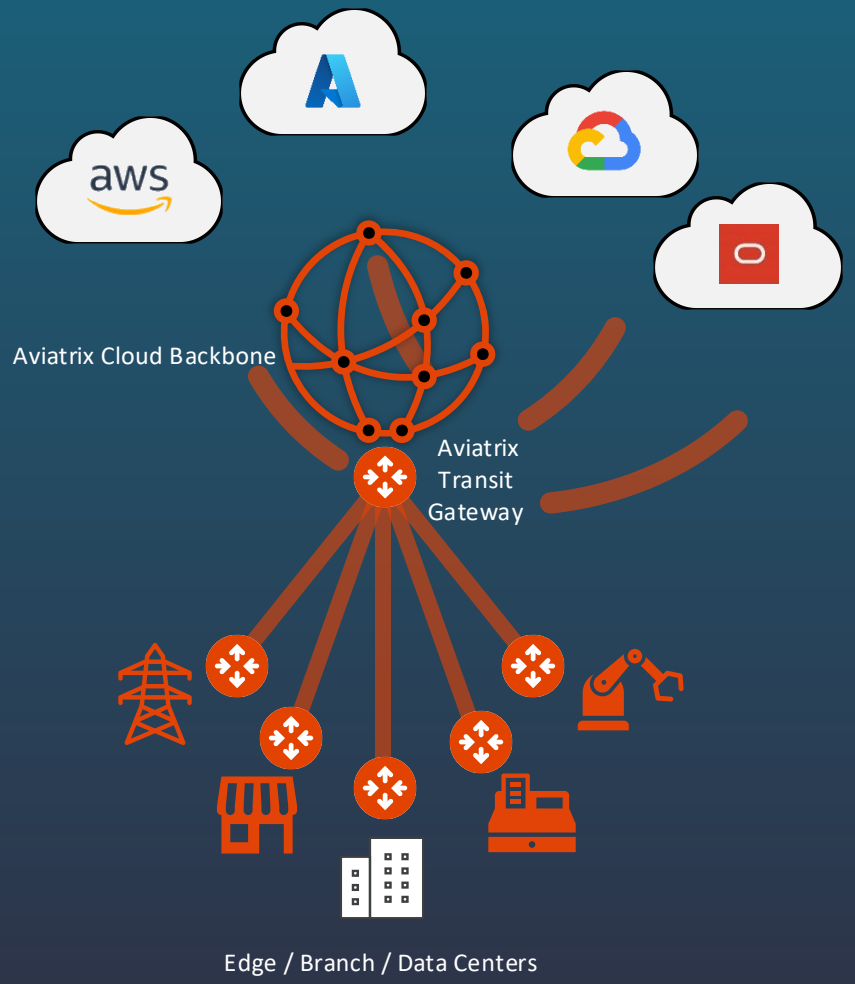
Solution using Aviatrix

- **Line-rate encryption:** Keeps your data safe while moving it between your data center and the cloud at super-fast speeds.
- **Centralized control:** Makes it easy to manage and troubleshoot your connections from a single place.
- **Advanced features:** Provides things like dynamic routing, network segmentation, and support for multiple cloud providers.

Business Benefits

- **Protect sensitive data:** Safeguard critical customer information with end-to-end encryption.
- **Disaster recovery:** Ensures you can still access critical data and systems if there's a problem.
- **Faster cloud migrations:** Makes it easier and faster to move your applications and data to the cloud.
- **Support for edge computing:** Provides the foundation for connecting remote locations and processing data closer to where it's generated.
- **Securely connect to partners:** Enables secure data exchange with your business partners.

Aviatrix Secure Edge

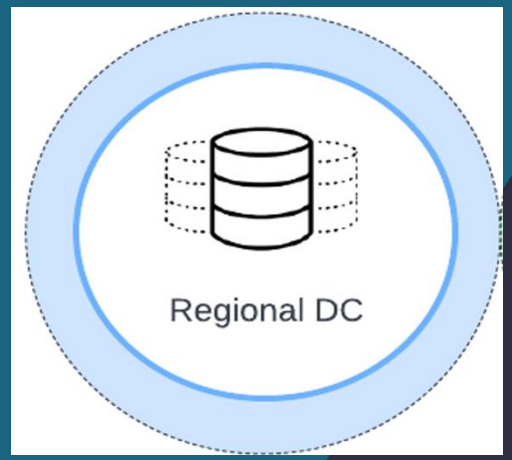


- Extends the cloud operational model to the edge
- Designed for Multi-cloud connectivity
- Single unified control and management plane
- Encrypt high-speed circuits at line-rate with High Performance Encryption
- Secure edge with distributed firewall and network segmentation
- Provides deep traffic visibility and granular controls for edge locations
- Remote orchestration of edge hardware and software with full lifecycle management.
- High-Availability Edge Gateways for failover.
- Flexible form factors to support data center high throughput needs.

Use- Cases Examples:

Secure High-Performance Data Center Edge	**Secure M&A Connectivity and Onboarding**	**Secure High-Performance Data Connectivity for LLM**	**Zero Trust Network Access**	**Cloud Visibility and Tooling**

Aviatrix Secure Edge locations



Regional Data Centers

Server infrastructure in customer data centers. Mixed workloads which some continue to reside in DCs. These workloads also require access to and from cloud.

Office/branch locations

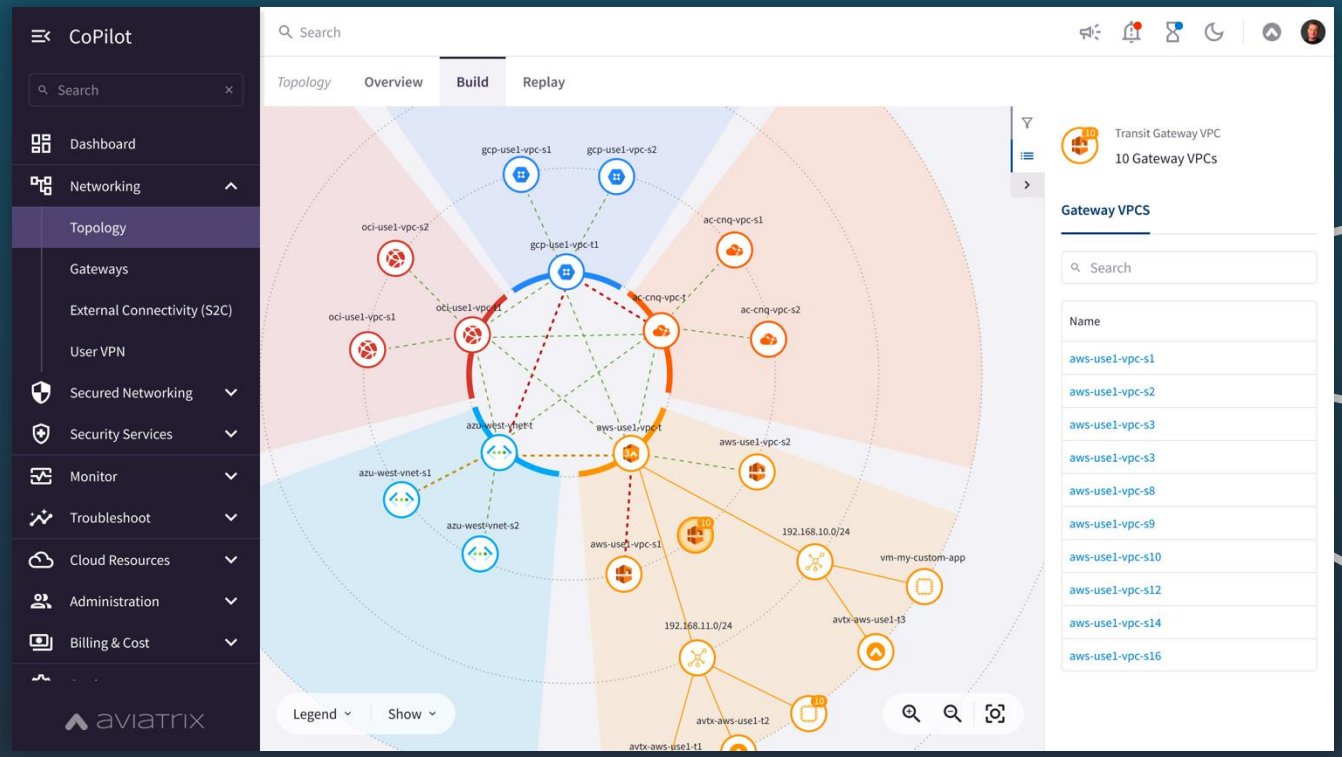
Access to workloads from cloud

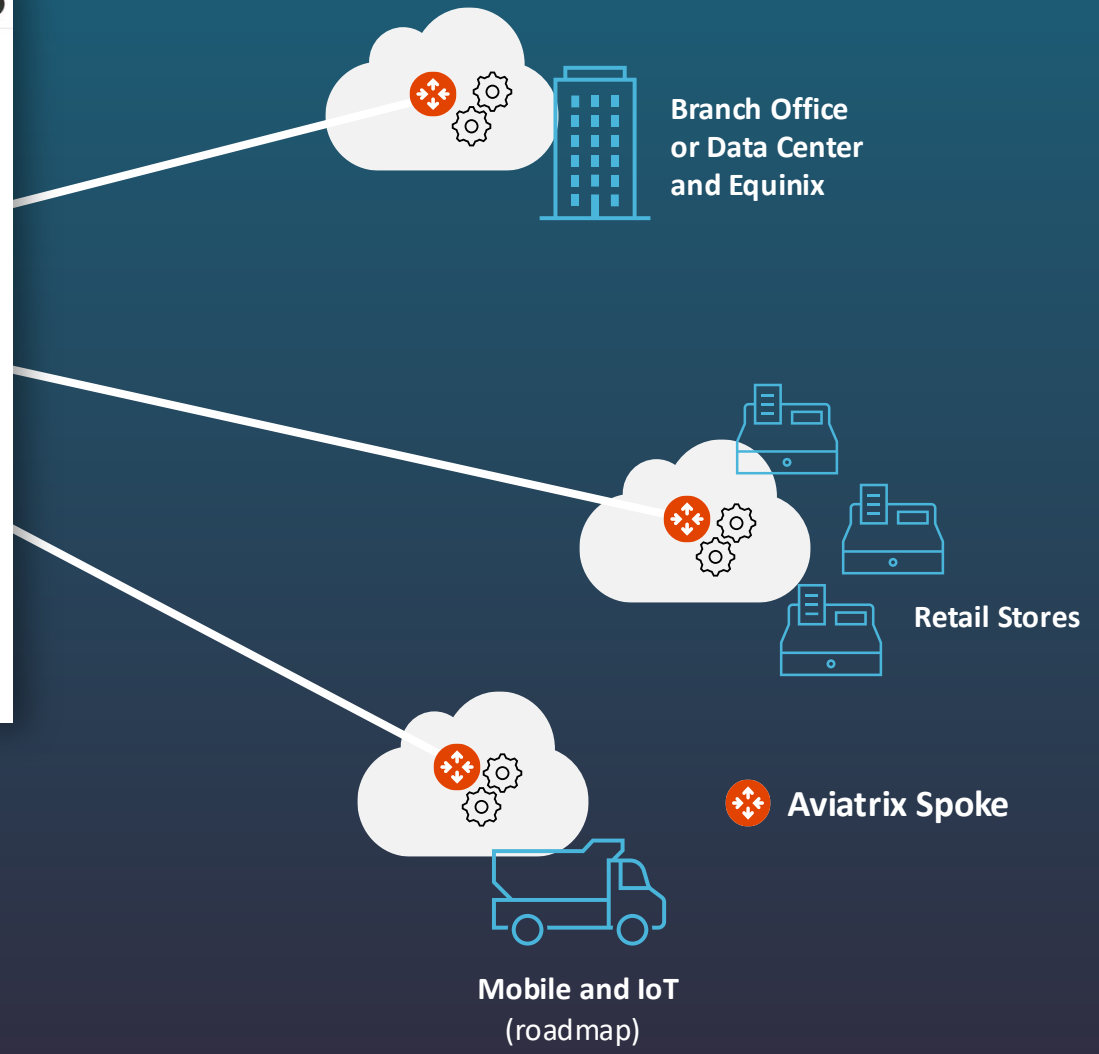
- Partner locations –SaaS hosted applications
- Enterprise branch/office locations

Mid Mile Providers

Hosted infrastructure and VNF providers where customers aggregate the network connections and use private connectivity to cloud

Extend Cloud to the Edge





- **Extend the Cloud Operational Model to the Edge**
- **Manage Your Edge Like a VPC or VNet**
- **Infrastructure as Code Automation**

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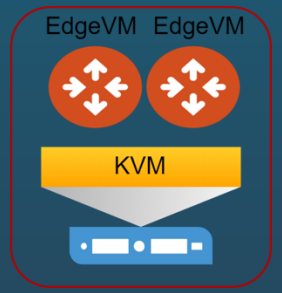
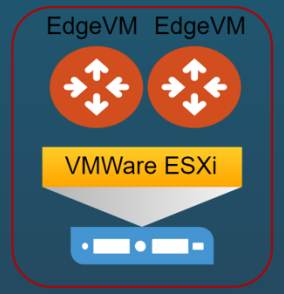
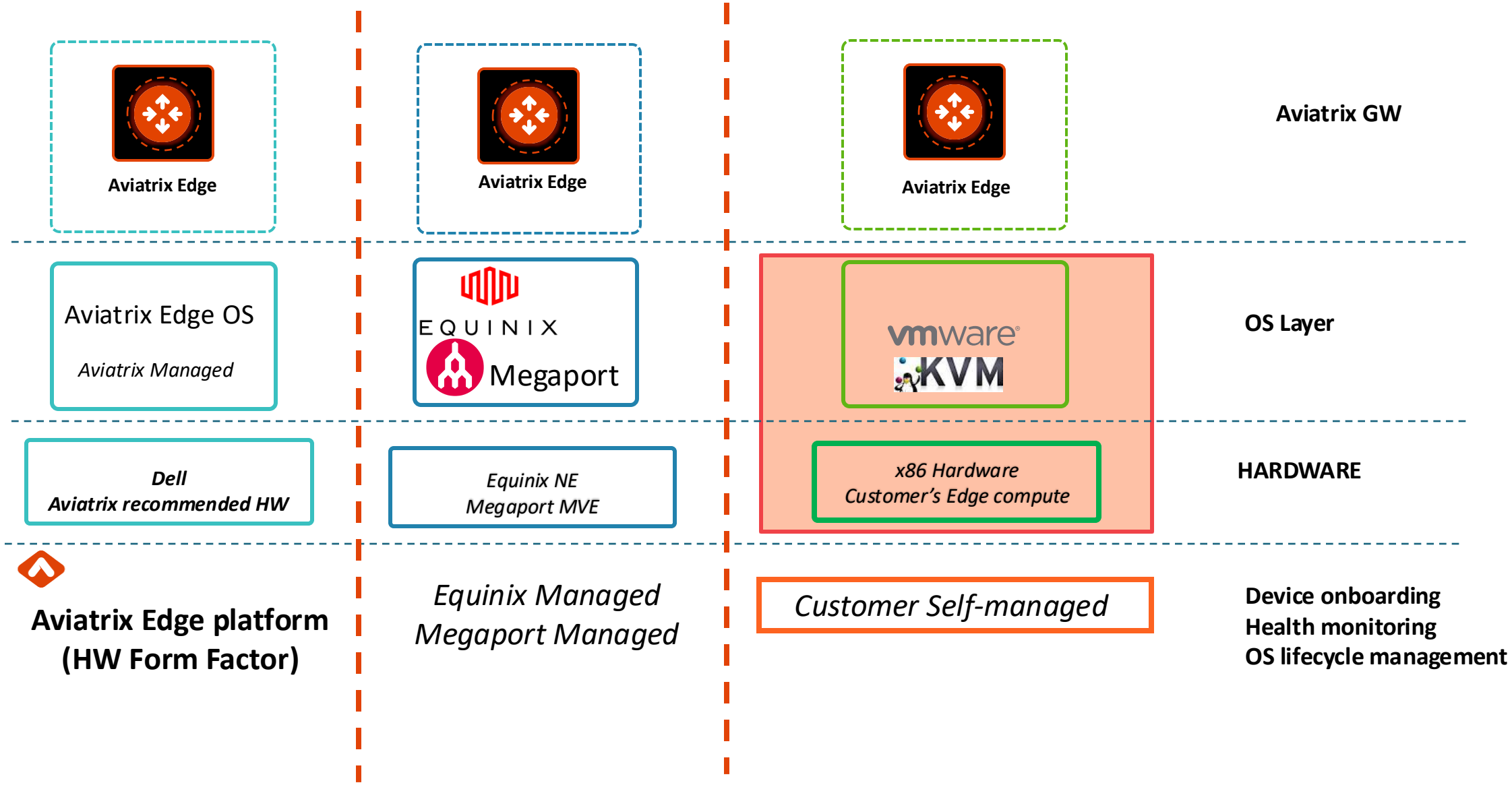
Aviatrix Secure Edge

- **Edge Platform Deployment Options**
  - **Aviatrix Edge Platform (AEP as HW Form Factor)**
  - **Equinix Network Edge**
  - **Megaport Virtual Edge**
  - **Self Managed on your own location**
- **Virtual Formfactor**
  - ESXi
  - KVM
  - Upto ~10G Throughput
- **Hardware Formfactor (Edge Platform)**
  - For Enterprise DC/Colo (Dell Power Edge R450)
- **Single Terraform Provider**
  - Multicloud Networking Software (MCNS)





Aviatrix Edge – Enabled platforms



Aviatrix Edge Types

Edge as Spoke (EaS)

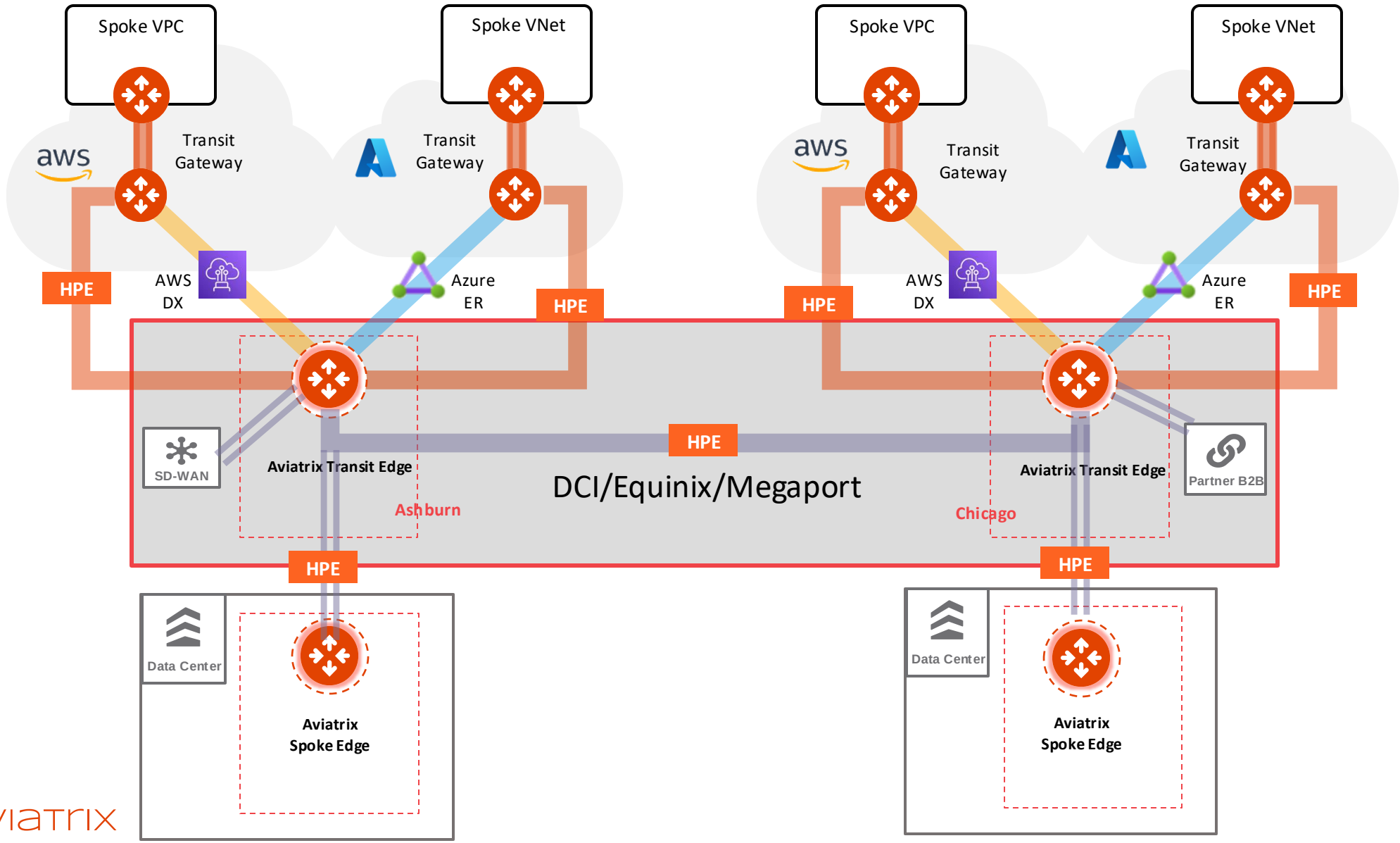
- Has LAN, WAN and Management Interfaces
- Similar to Aviatrix Spoke Gateway on CSP
- Can attach to Aviatrix Transit Gateway on CSP or EaT.
- Support Local Internet Breakout
- DCF Functionality
- Support Vlan connectivity with multiple Vlan interfaces with VRRP support
- Typically deployed at branch offices, remote sites, or data centers.
- Revolve around integrating remote sites and on-premises resources with cloud environments.
- Support BGP underlay with Equinix and Megaport

Edge as Transit (EaT)

- Has WAN and Management Interfaces.
- Similar to Aviatrix Transit Gateway on CSP.
- Can Peer to Aviatrix Transit Gateway on CSP or Other EaT
- Only EaS can attach to EaT
- DCF for Site2Cloud connections
- Deployed centrally within the Hybrid-cloud infrastructure
- Involve connecting and managing traffic in multi-cloud or inter-region architectures.
- Supports BGP Underlay in all Flavors

Aviatrix Hybrid Cloud Networking

Seamless and Secure hybrid cloud networking at distributed edge and mid-mile locations.



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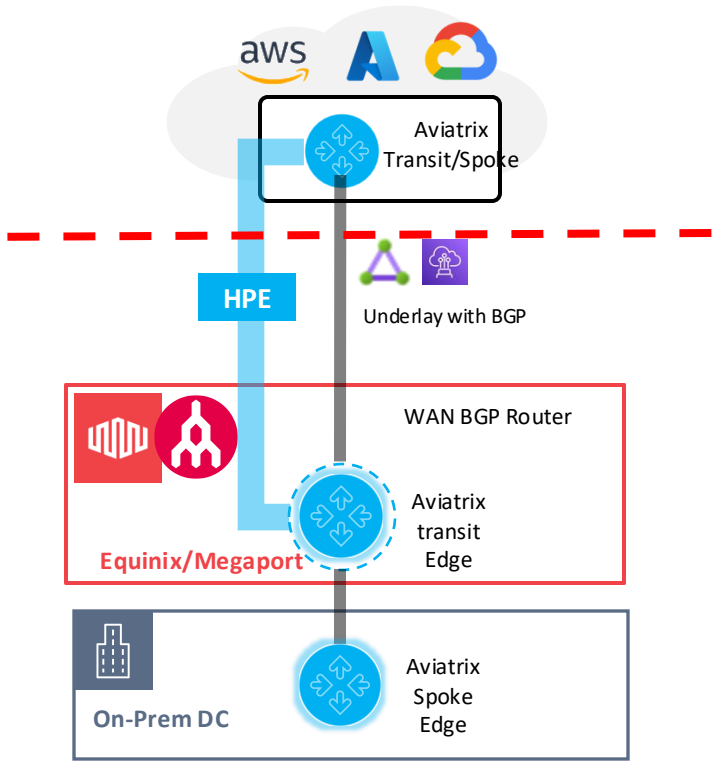
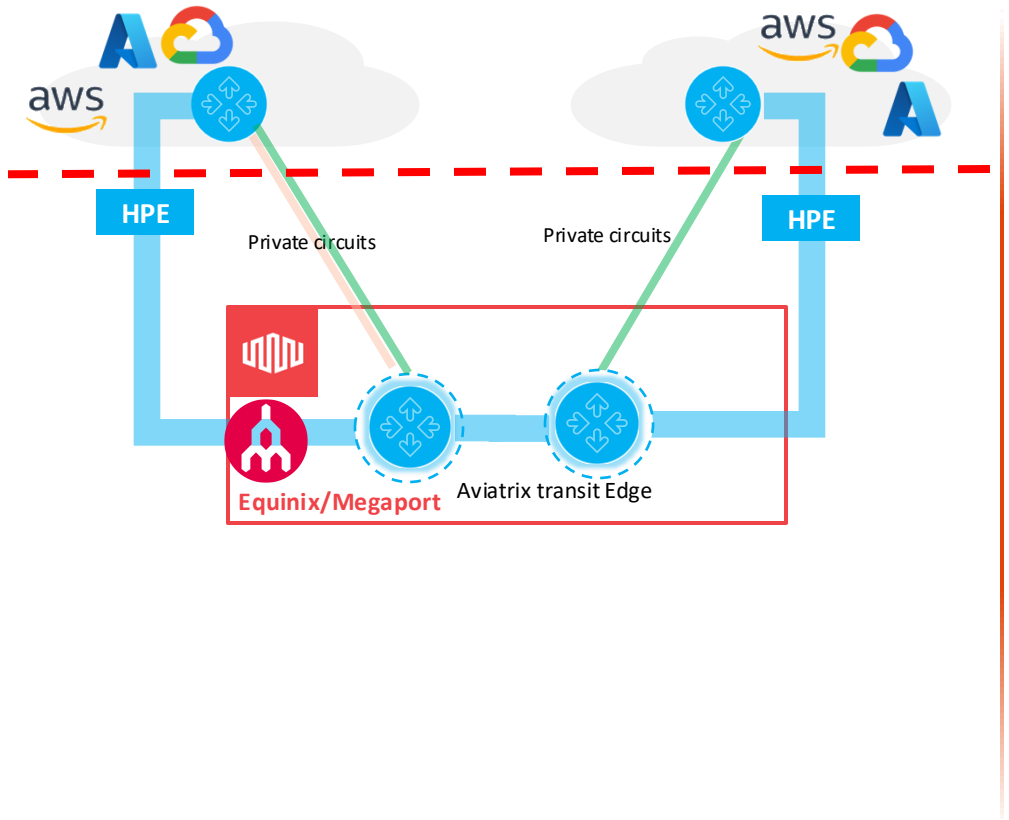
Aviatrix Edge as Transit with MidMile Providers

Deploy as virtual service- No hardware requirement

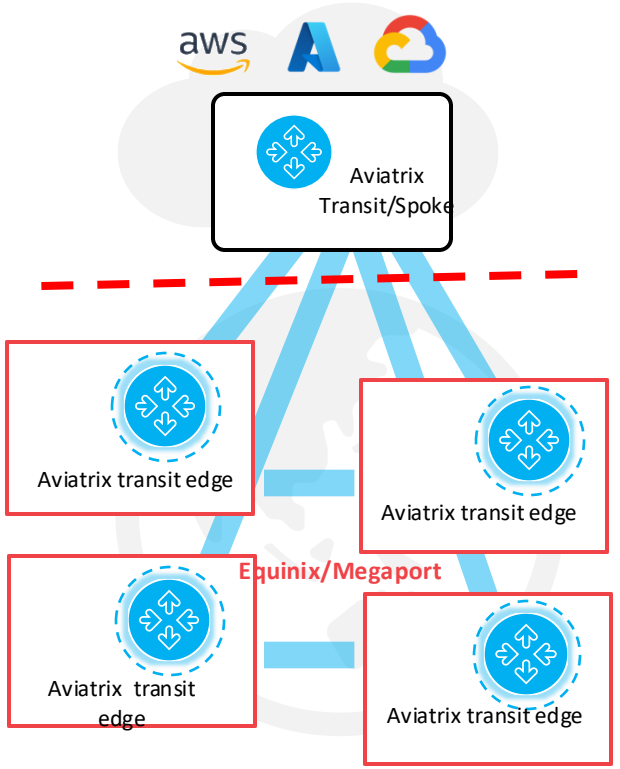
Hybrid Connectivity
for End-to-End Encryption and reduced complexity



Multi-Cloud Connectivity



Expand Cloud Networking Globally



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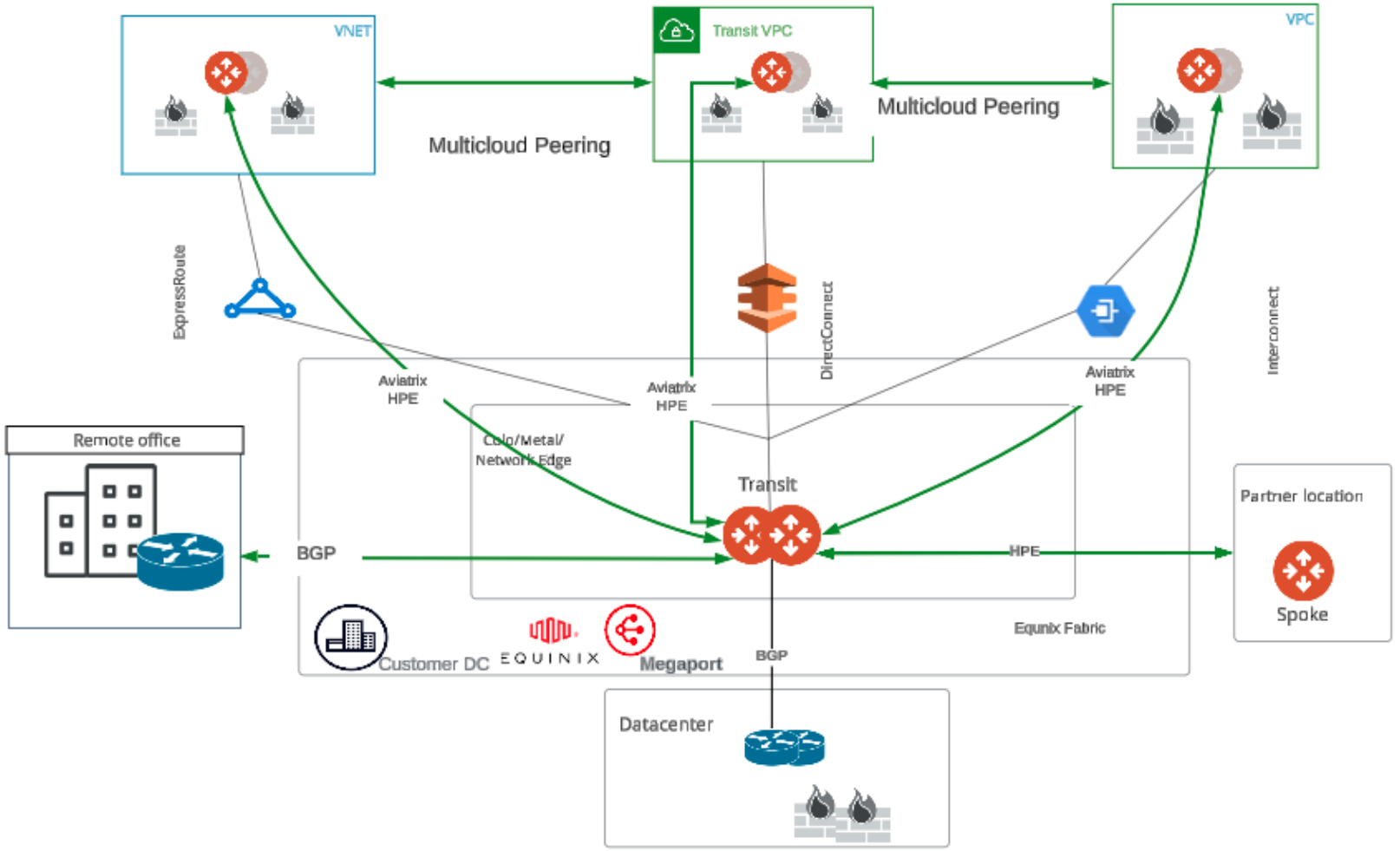
Aviatrix Edge as Transit(EaT) with Site-2-Cloud (S2C)

Transit Edge S2C

Why?

For partner connectivity or remote site connectivity on Aviatrix - in non-CSP locations



S2C - BGPoIPSec, BGPoGRE (GA)

S2C- Static Routing (Preview)

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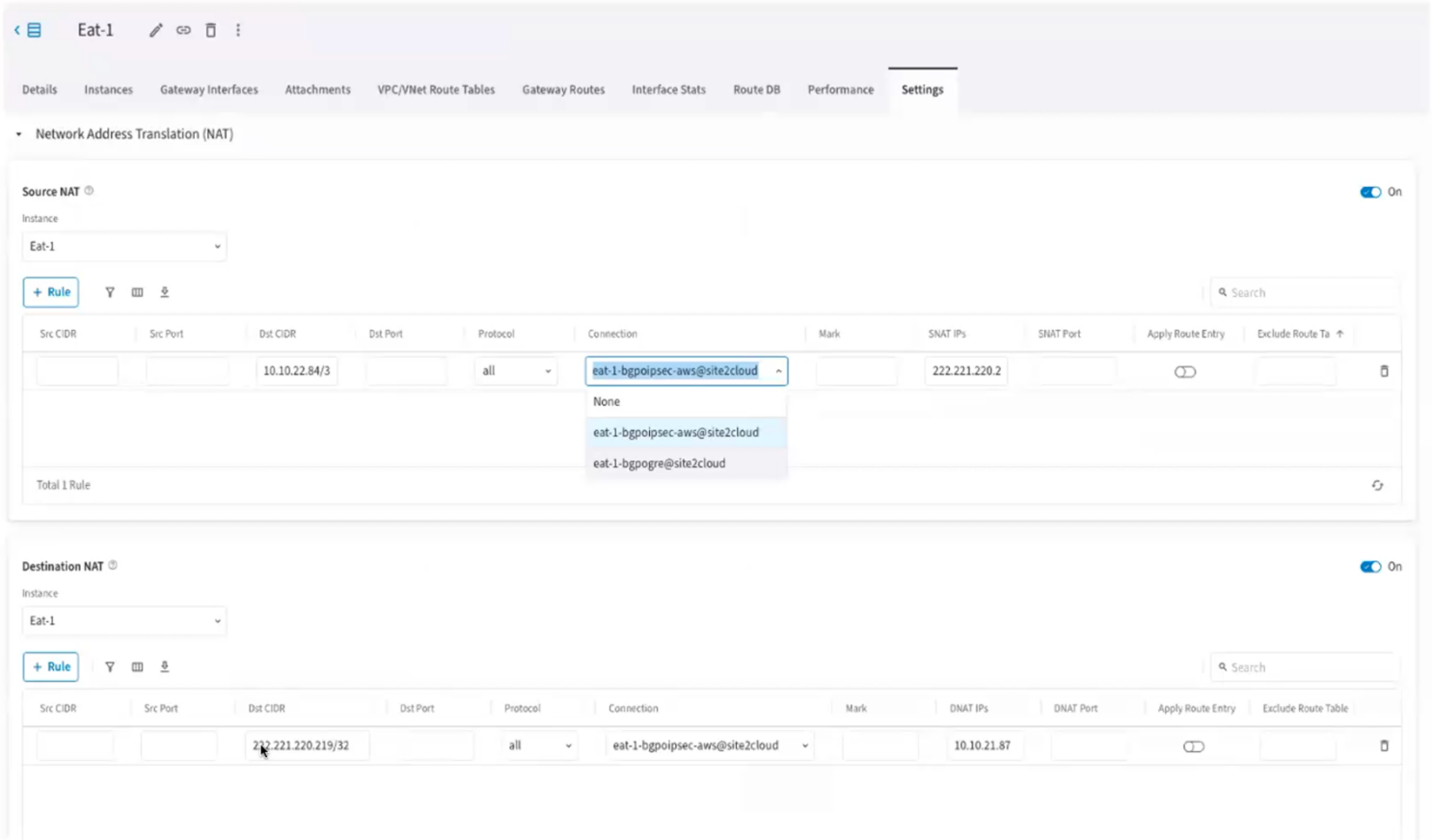
Aviatrix Edge as Transit(EaT) with Site-2-Cloud (S2C)

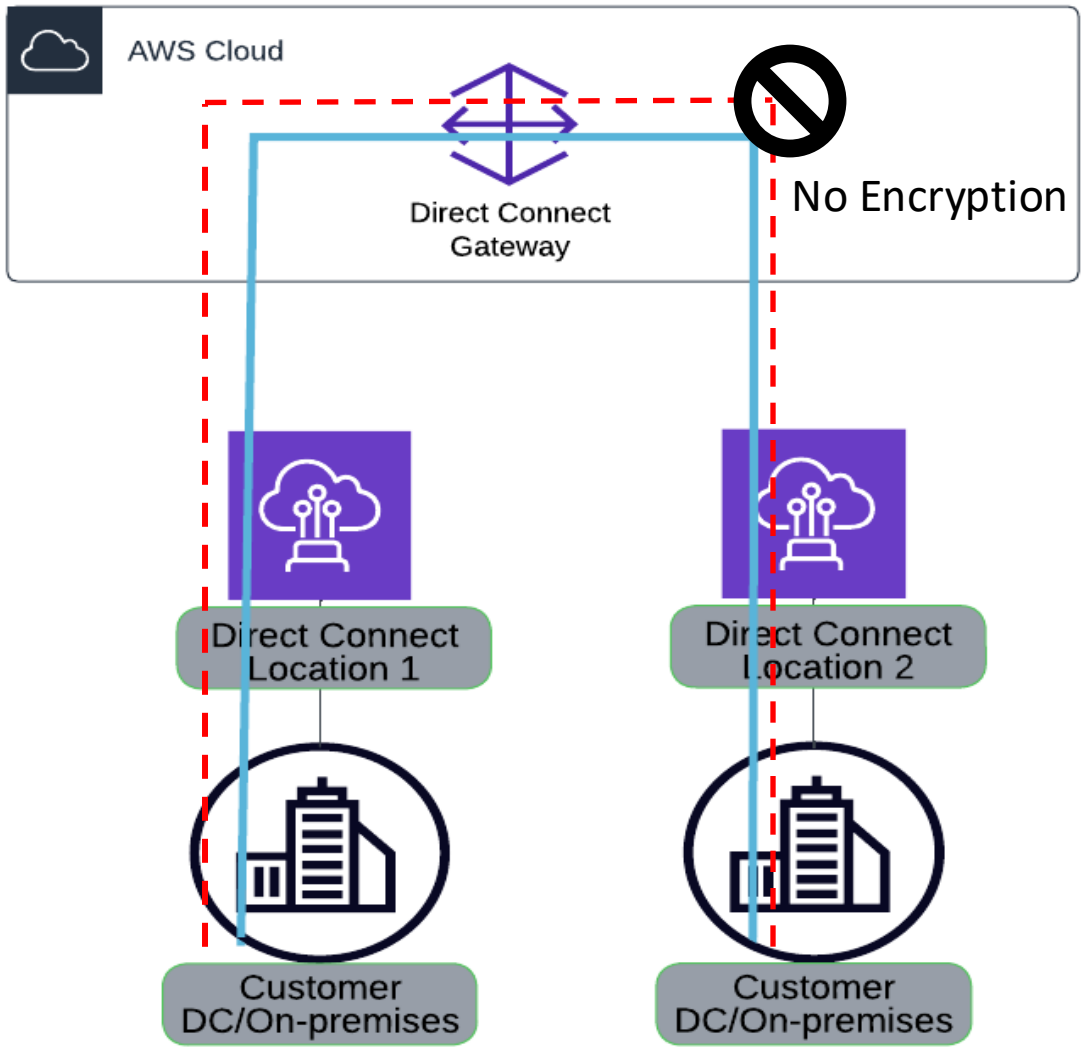
Config (NAT for S2C connections on EaT)

SNAT/DNAT for these S2C connections on EaT are supported.

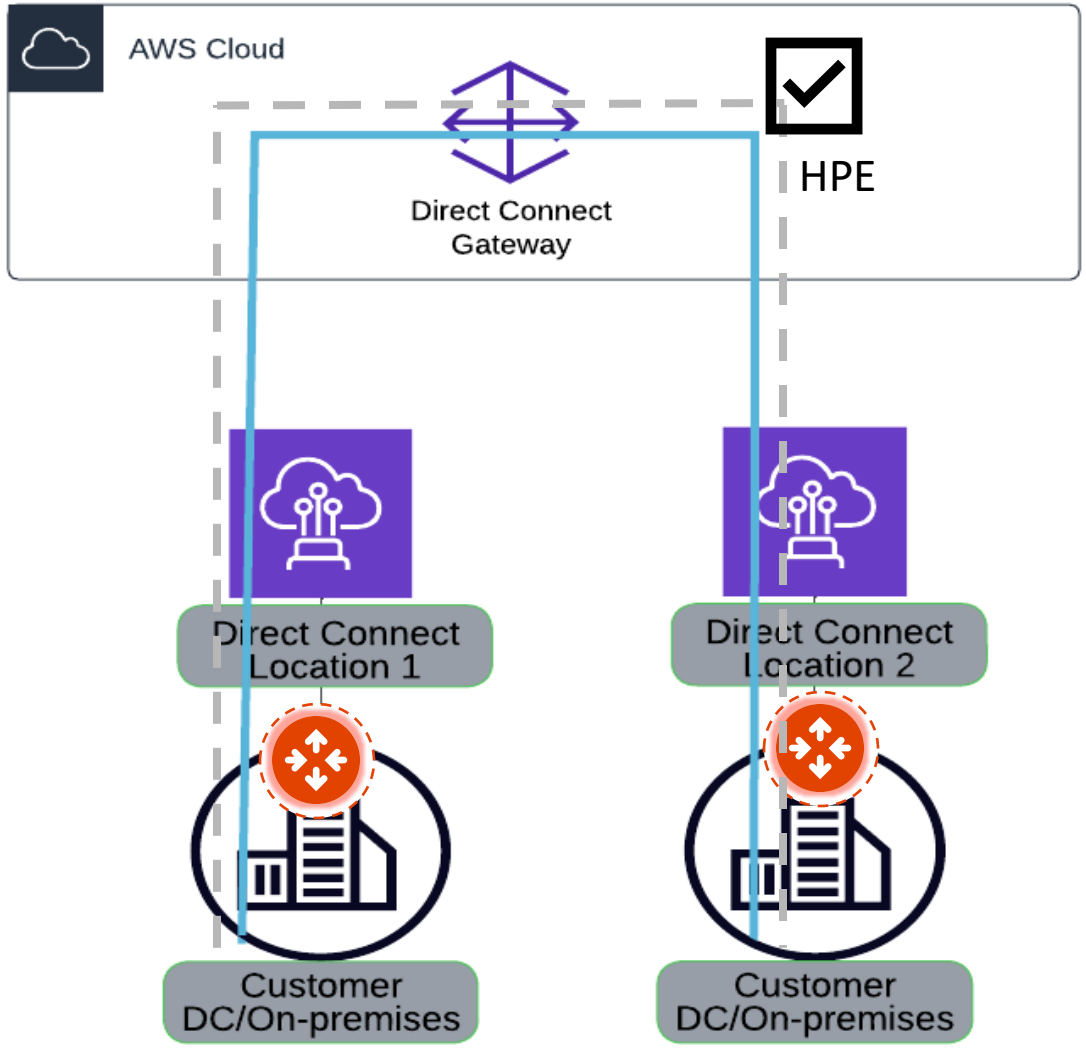


AWS site link use case

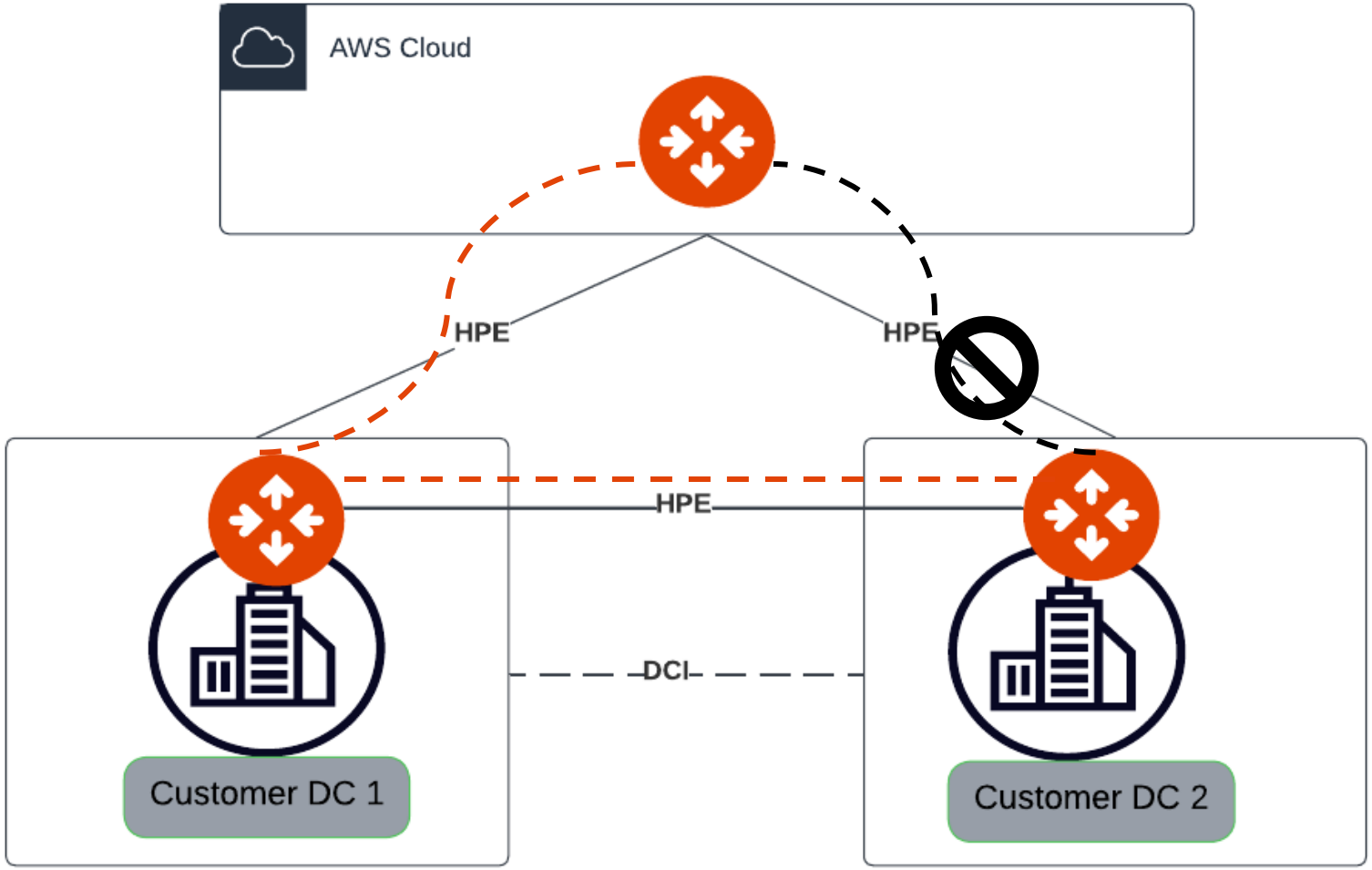
Before



After



Aviatrix Edge-DC overlay use case



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