Cloud Backbone

ACE Team

Cloud Backbone Definition

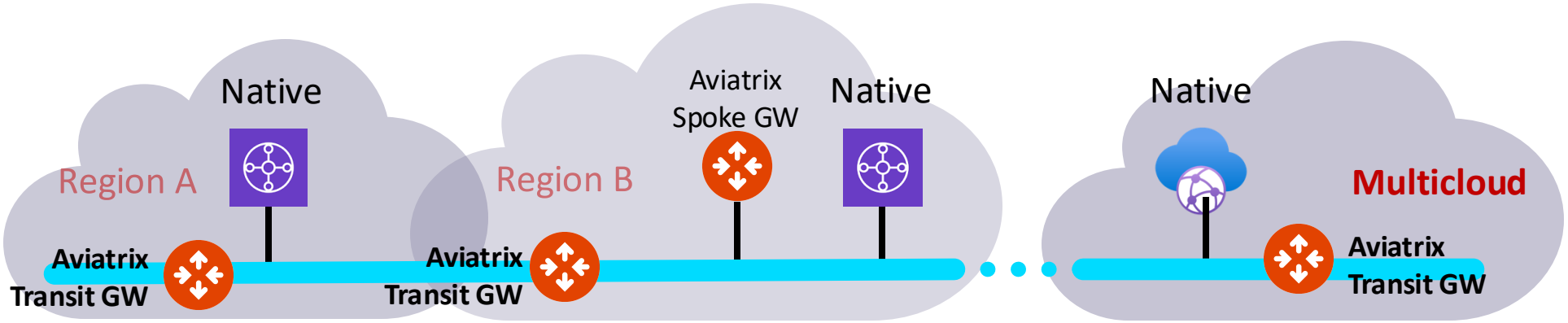
Backbone Definition

- Physical Networking
  - Core infrastructure connects LAN, WAN, DMZ, SAN, etc.
- Cloud Networking
  - Core infrastructure connects various cloud resources, such as VPC/VNET, Multiple CSPs (multicloud), On-premise DC/Colo/WAN, SD-WAN, Storage etc.
- Cloud Backbone is Critical
  - Providing the foundation for reliable, high-performance, and scalable cloud services.
- Following terms are interchangeable
  - Aviatrix Transit Gateway = Backbone Gateway = Core Gateway = Core MCNA Layer

Aviatrix builds a secure high-performance backbone using Aviatrix Transit Gateways

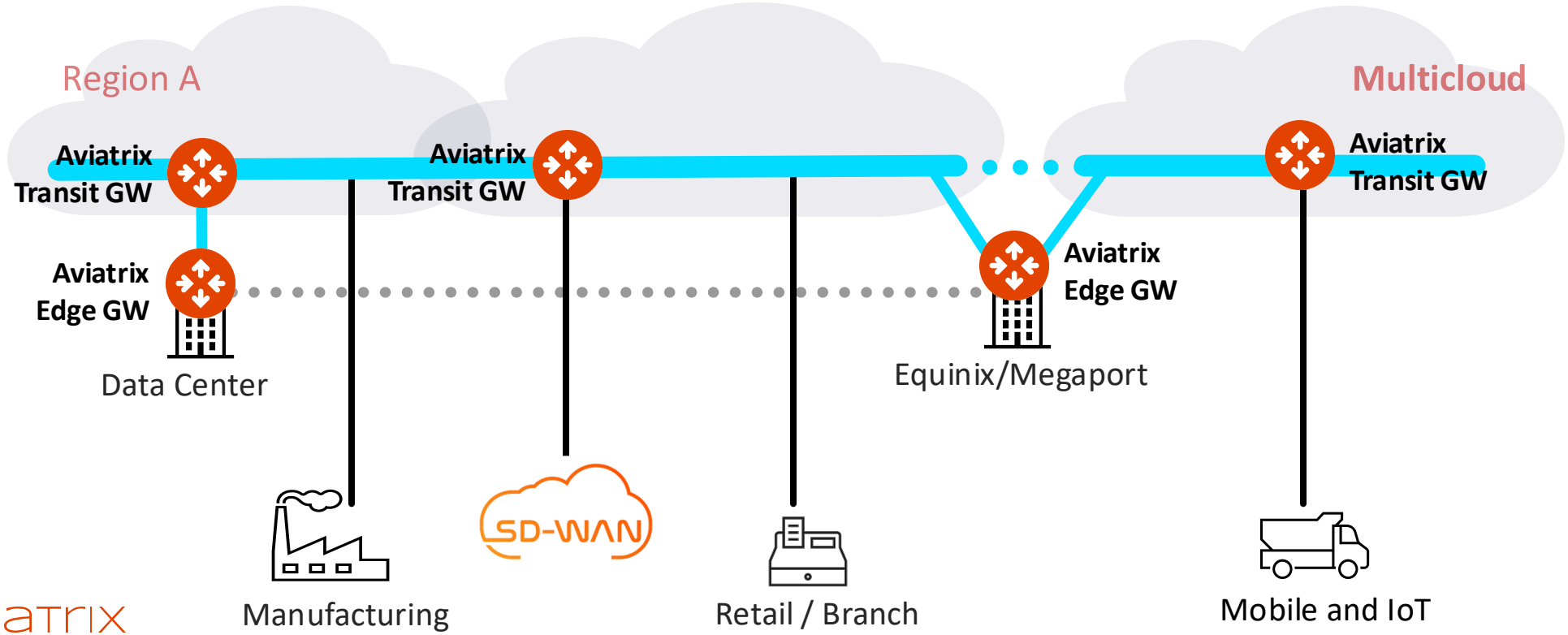
North-Side Connectivity: Aviatrix Transit to Cloud Resources

- On the north side, Aviatrix Transit Gateway can connect to
  - Directly with Aviatrix Spoke VPC/VNET
  - CSP transits such as AWS-TGW and Azure-vWAN
- On the south side, Aviatrix backbone can connect to on-premise locations using Internet VPN/DX/ER/etc.
- Backbone can also connect to the INTERNET for centralized egress internet access

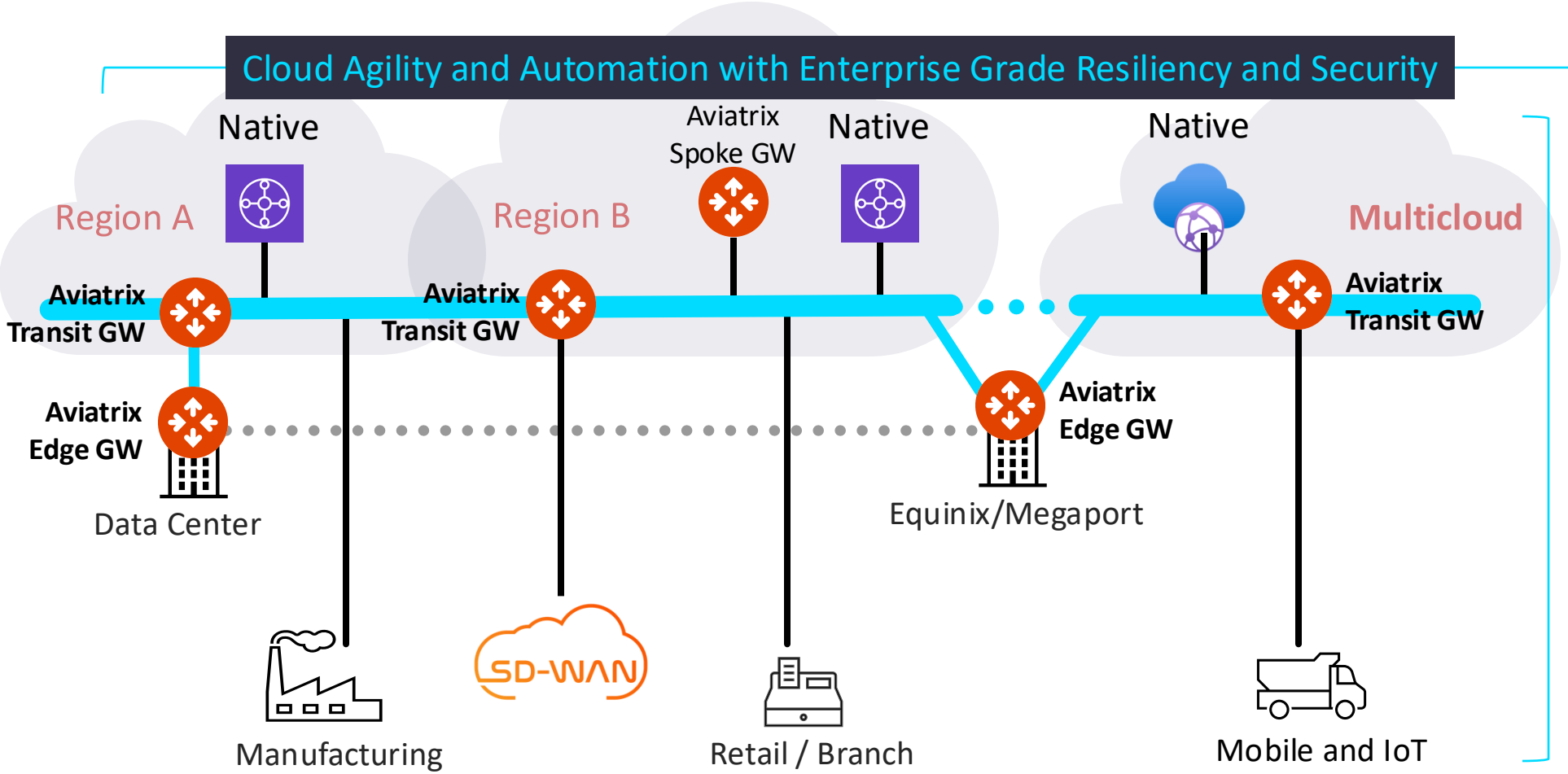


South-Side: Aviatrix Transit to On-Premise Resources

- On the south-side (on-premise side), Aviatrix Transit gateways can connect to
  - Aviatrix Edge Gateway or non-Aviatrix devices in Data Center/Colo/Campus/etc. locations
- For best performance recommendation is to connect to Aviatrix Edge Gateway
  - Aviatrix Edge Gateways can be deployed as physical hardware or virtual appliances
  - Only Aviatrix Edge Gateway allows for high performance IPSec secure connectivity over DX/ER/etc.



Aviatrix Secure Cloud Networking | Backbone



Simple to manage region-to-region, cloud-to-cloud, & cloud-to-on-prem connectivity with ability to integrate with other systems

Backbone Focused Use- Cases

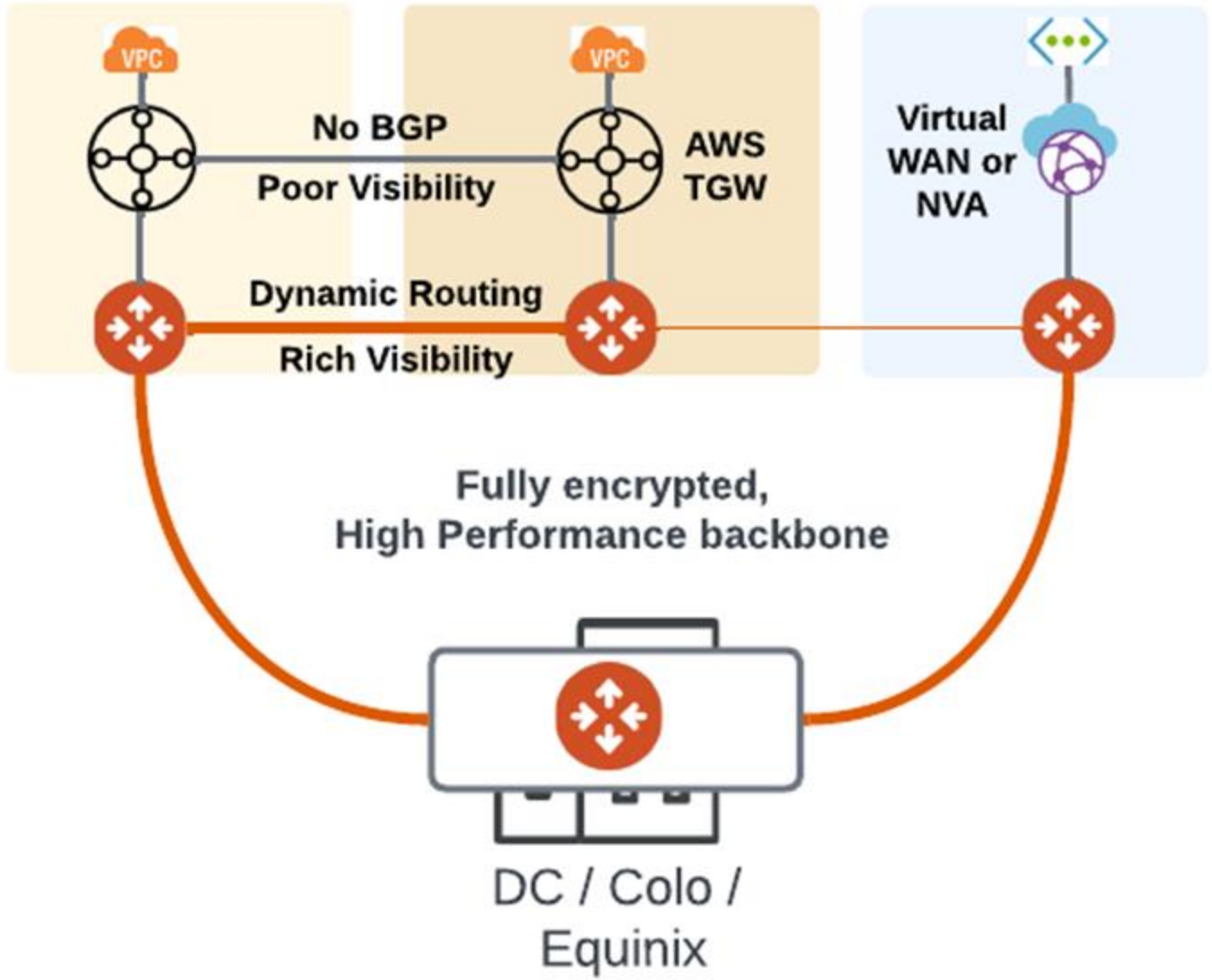
Secure High-Performance Datacenter Edge

Secure High-Performance Cloud Interconnect

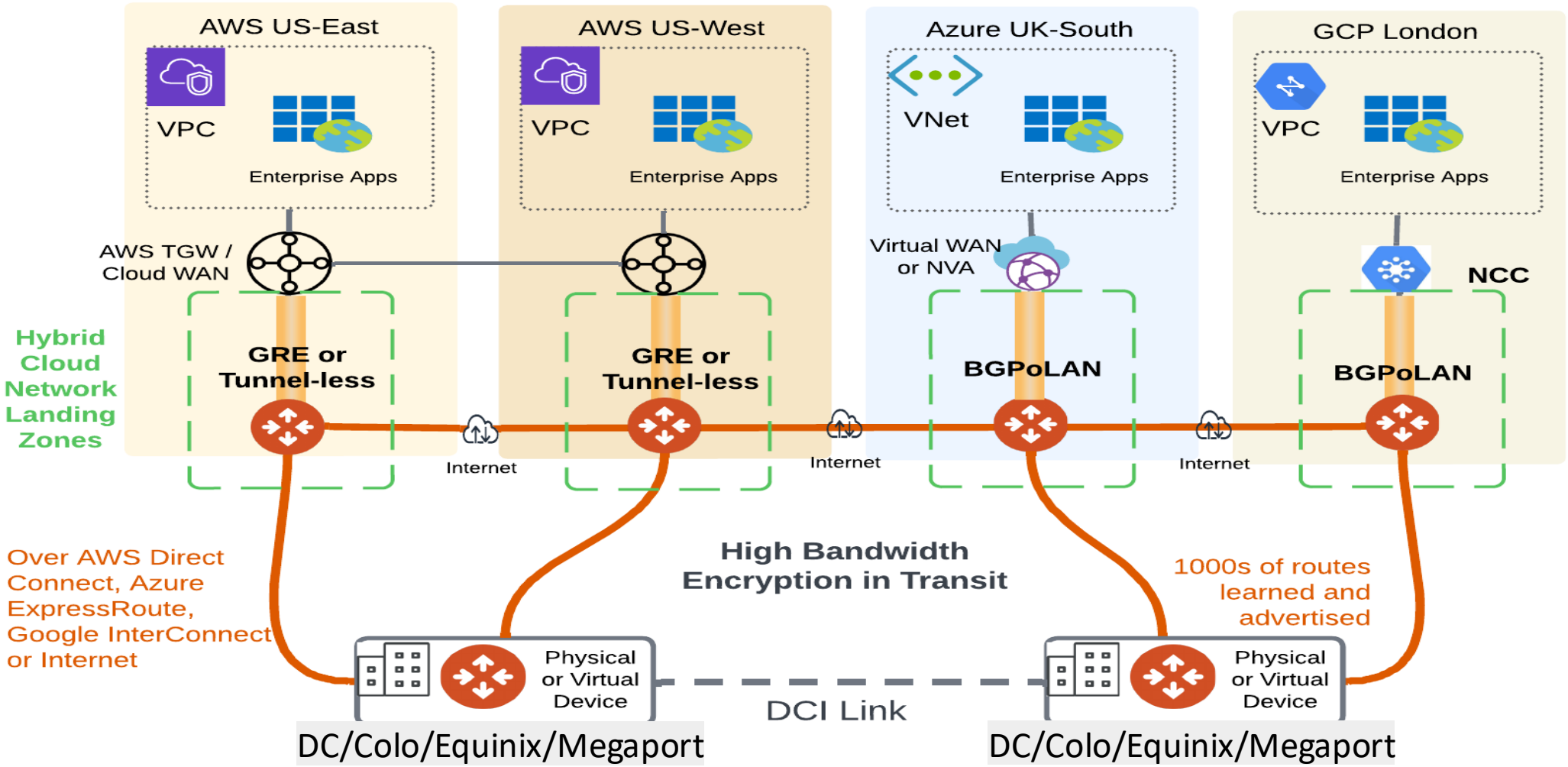
Secure High-Performance Data Connectivity for LLMS

aviatrix

Aviatrix Secure Cloud Networking | Backbone



Aviatrix Hybrid Cloud Network | Landing Zones & Protocols



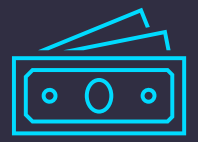
https://community.aviatrix.com/backbone-25/aviatrix-hybrid-cloud-network-landing-zone-1445?postid=2838 - post2838

Why Start with a Secure Cloud Backbone?

- **Resiliency – Dramatically Reduce Cloud Networking MTTR, Maximize Uptime**
  - Quickly Overcome Native CSP Limitations
  - Dynamic Traffic Engineering and No Route Table Limitations
  - Single Pane-of-Glass Network Operations, Deep Visibility and Multicloud Consistency

- **Security – Reduce Business Risk**
  - Security Embedded Into the Cloud Network
  - High-Performance Encryption
  - L7 Service Insertion

- **Agility – Move at Speed of the Business**
  - Simple, Non-Disruptive Insertion and Multicloud Readiness
  - Single Terraform Provider Infrastructure as Code Automation
  - Removes Skills Gaps to Increase Flexibility to Support Dynamic Business Requirements



- **Cost Optimization – Direct Impact on Revenue and Margins**
  - Modern architecture reduces cost over sub-optimal architectures
  - Reduces the number and experience level required to operate cloud networking

Next: Use Cases