Network Segmentation

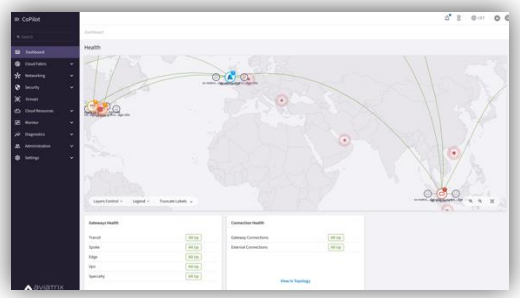
ACE Team

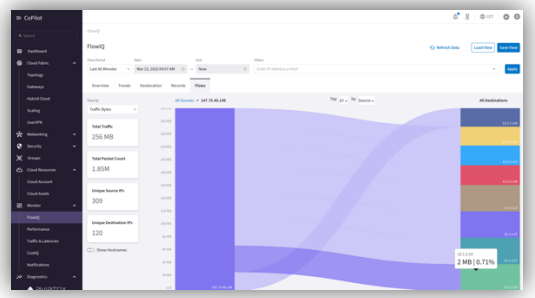
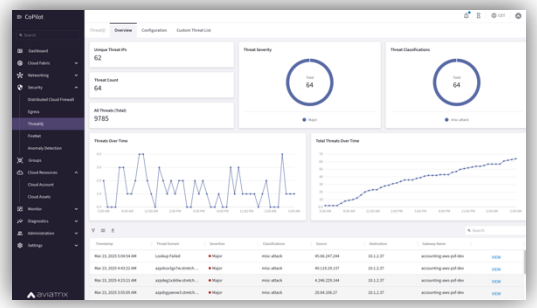
Segmentation

- **Main Purpose:** Enables ZTNA across multi-region and multicloud, including on-premises environment
- Group VNets/VPCs/VCNs/Apps with similar security policies
- Define your own domains
- Use Cases
  - Compliance
  - Governance
  - Audits
- The Network Segmentation is also called **Macro-Segmentation**
  - A Network Domain can encompass one or multiple VPCs as a unique logical container (i.e. **Routing Domain**)

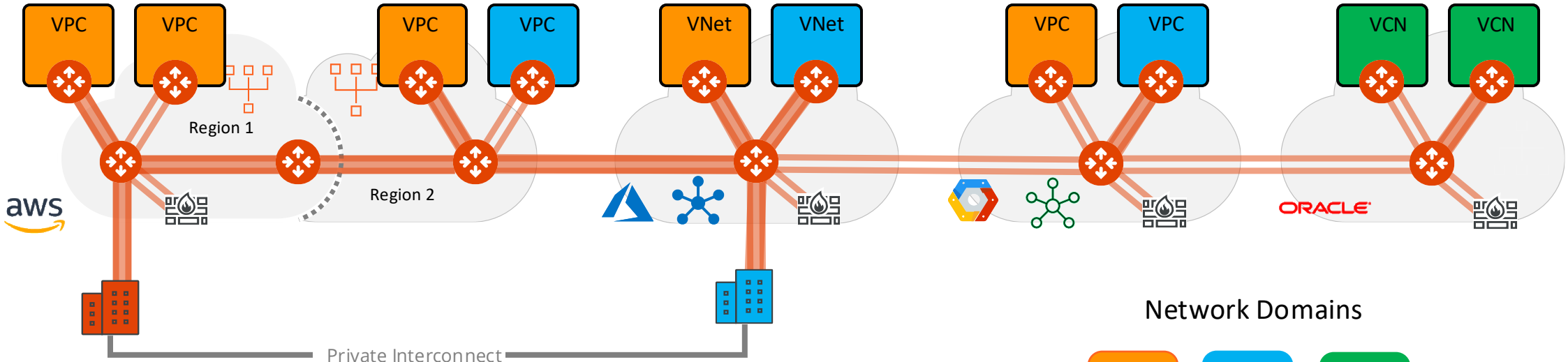
Multicloud Network Segmentation

Aviatrix CoPilot



Network Granularity and Control



Network Domains

LOB1 LOB2 LOB3

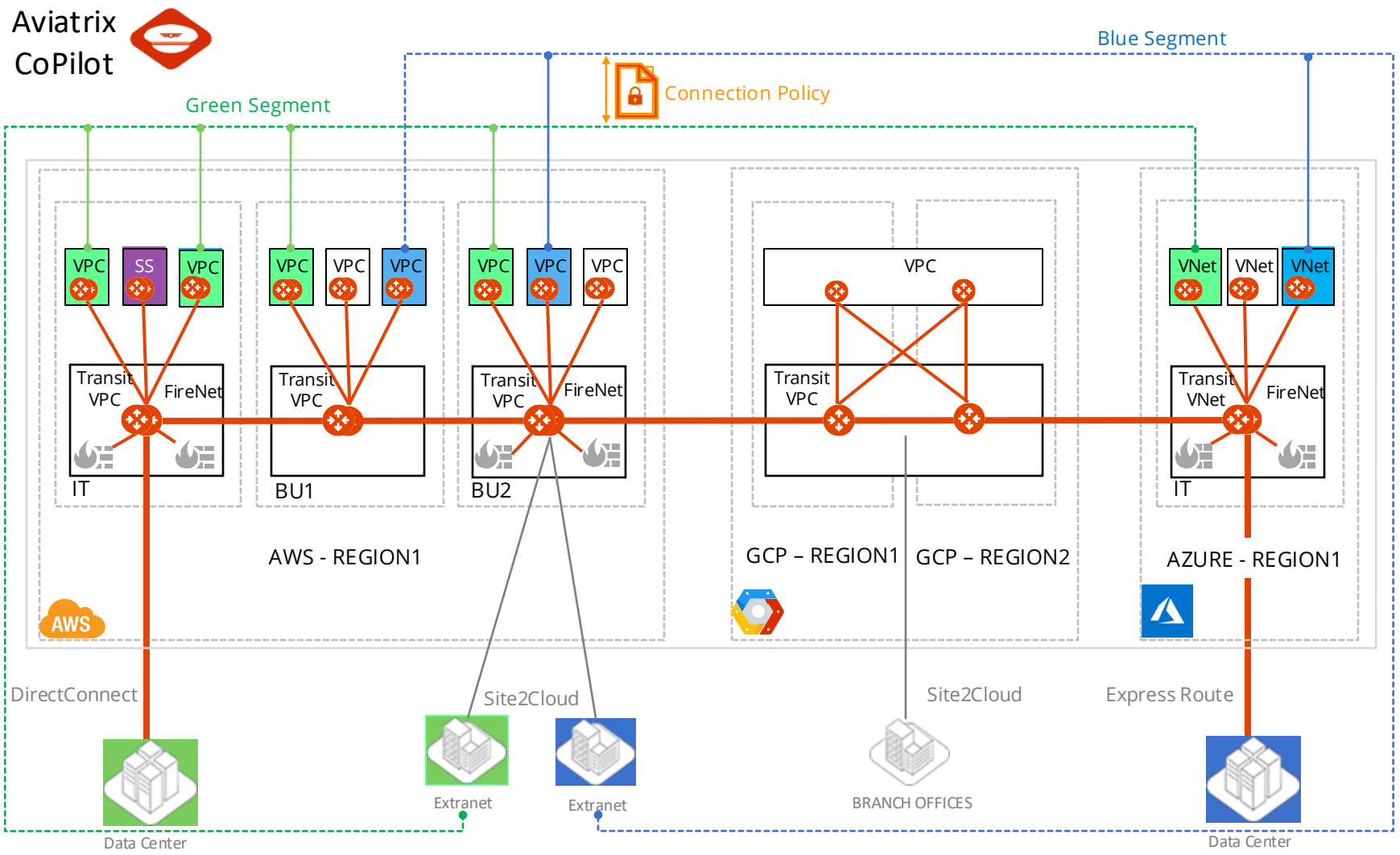
Multicloud Network Segmentation

Policy Based Network Segmentation
- Global
- Consistent / Repeatable
- Across accounts, subscriptions & projects

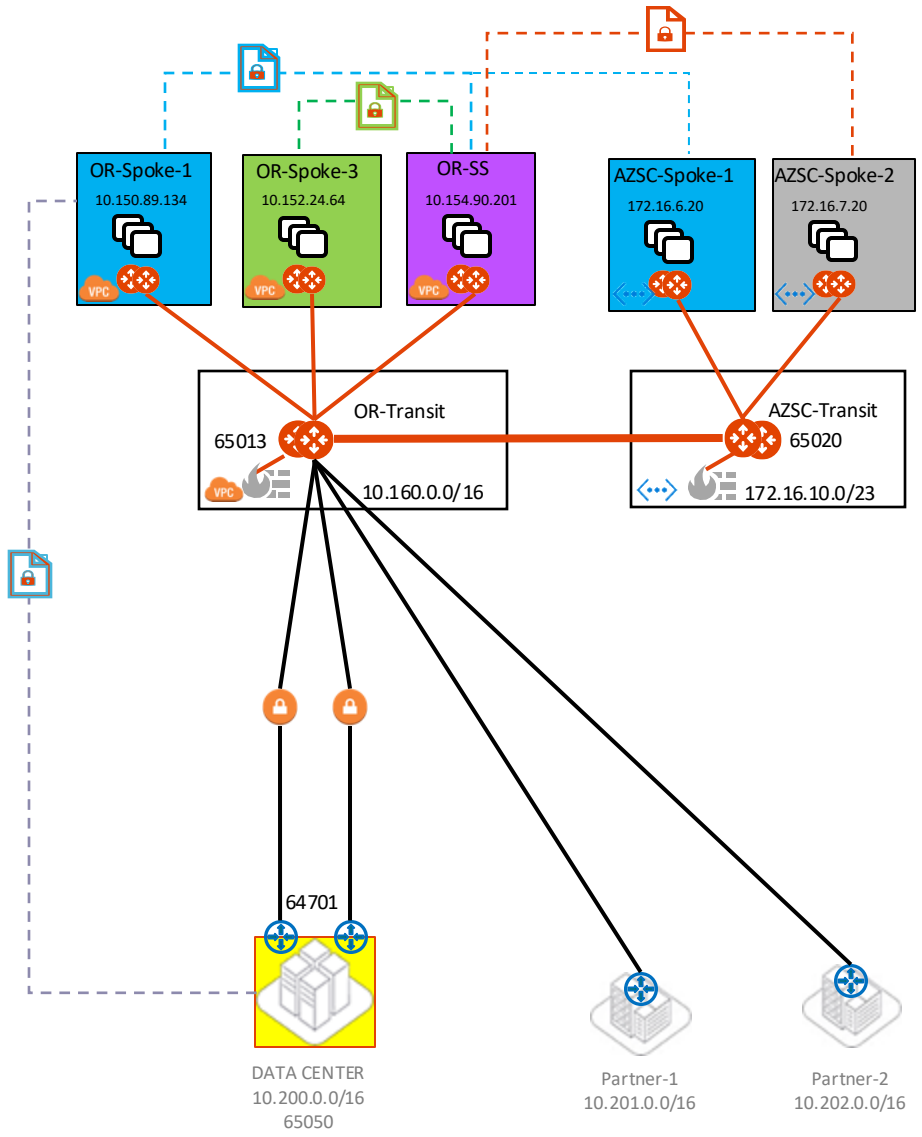
Cloud and Connection Agnostic
- Single cloud
- Intra-region or inter-region
- Multiple clouds

Edge/Access Segmentation
- On-Prem DCs
- Branches
- Extranets
- Cloud Peering

On-Demand Compliance/Governance
- Security Posture within minutes
- Aviatrix control plane realizes the intent
- Zero-Trust
- Flexible
- Automated



Multicloud Network Segmentation



Name: AZSC-Spoke1-AGW

DESTINATION	VIA	DEV	NEXTHOP IP	NEXTHOP GATEWAY
default	172.16.6.65	eth0		
10.154.0.0/16		tun-AC100A44-0	172.16.10.68	AZSC-Transit-AGW
10.150.0.0/16		tun-AC100A44-0	172.16.10.68	AZSC-Transit-AGW
10.200.0.0/16		tun-AC100A44-0	172.16.10.68	AZSC-Transit-AGW
172.16.6.0/24	172.16.6.65	eth0		
172.16.6.64/26		eth0		
172.16.6.132		tun-3499E255-0	52.153.226.85	AZSC-Spoke1-AGW-hagw

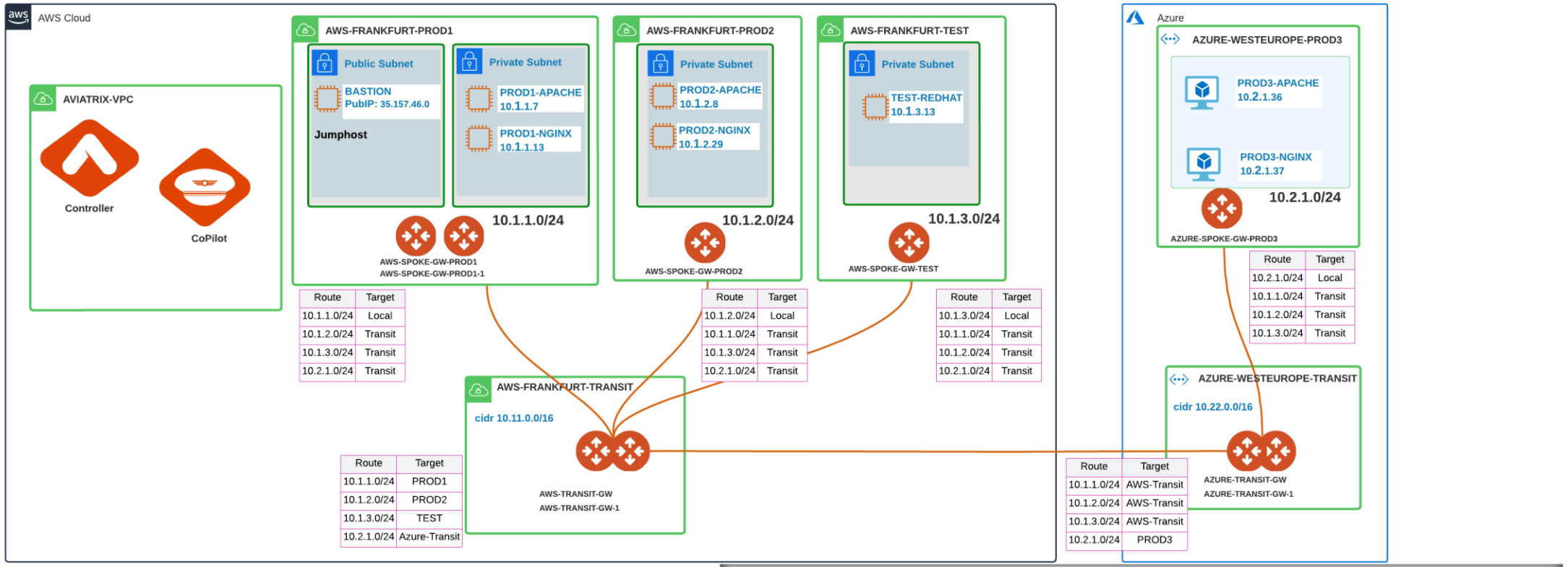
Purple

Remote-Blue

Yellow

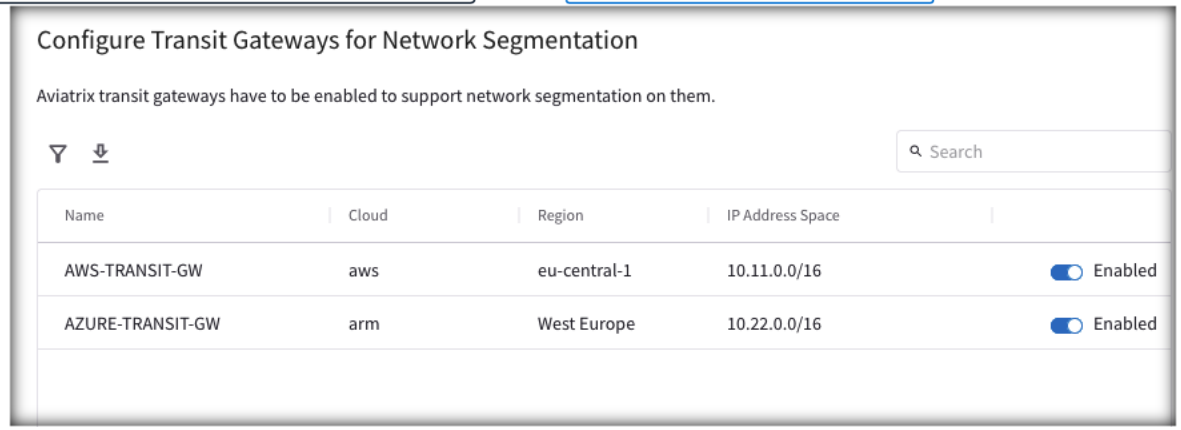
Local-Blue

1. Enable Transit Gateways for Network Segmentation

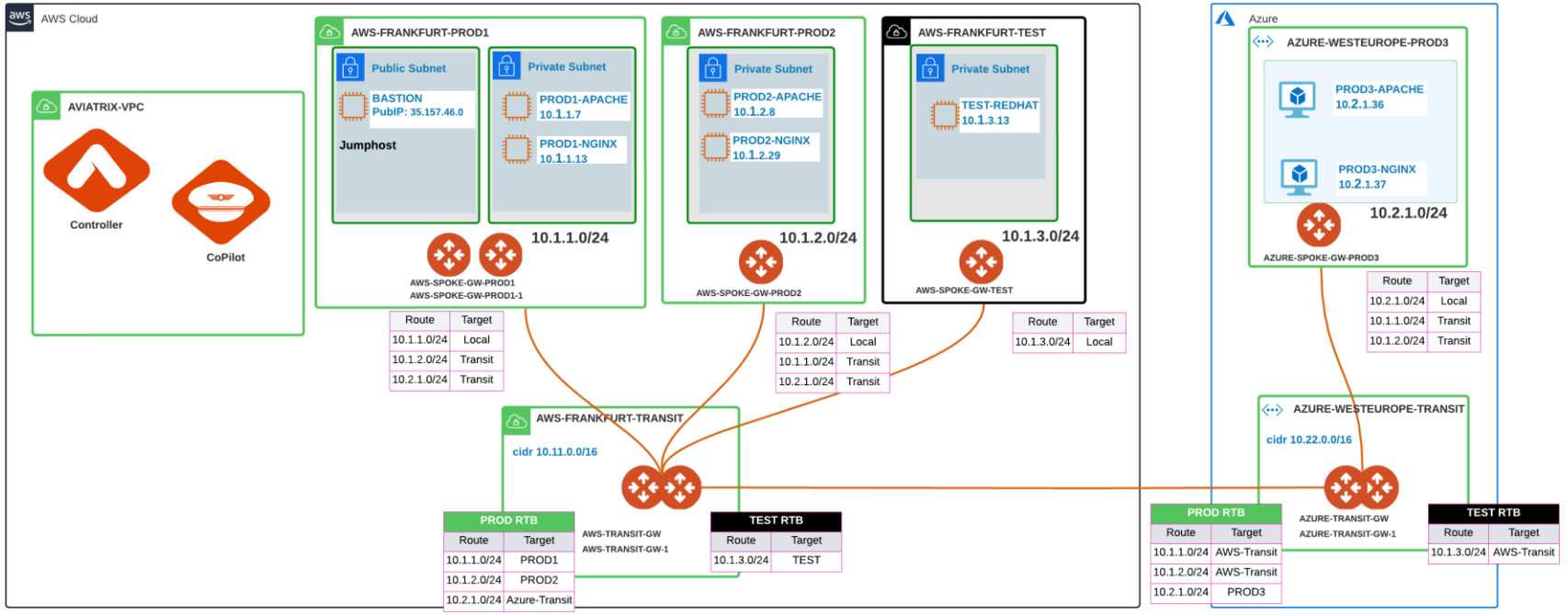


Enable the Network Segmentation:

- Choose the Transit Gateway(s) that will route traffic for its members.



2. Create and Associate a Network Domain



Transit Gateway

- Multiple RTBs (per each Network Domain)
- Main RTB:
  - The main RTB will host the Transit Routes (i.e. the routes of the *backbone layer*) and the routes that belong to *Unmanaged Network Domains* (i.e. VPCs/Vnets not assigned to any Network Domains yet).

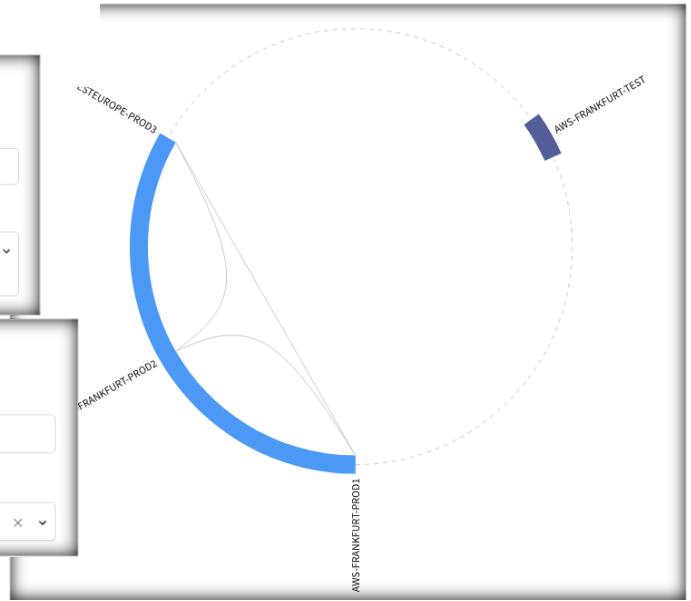
Spoke Gateway

- Single RTB (Main)

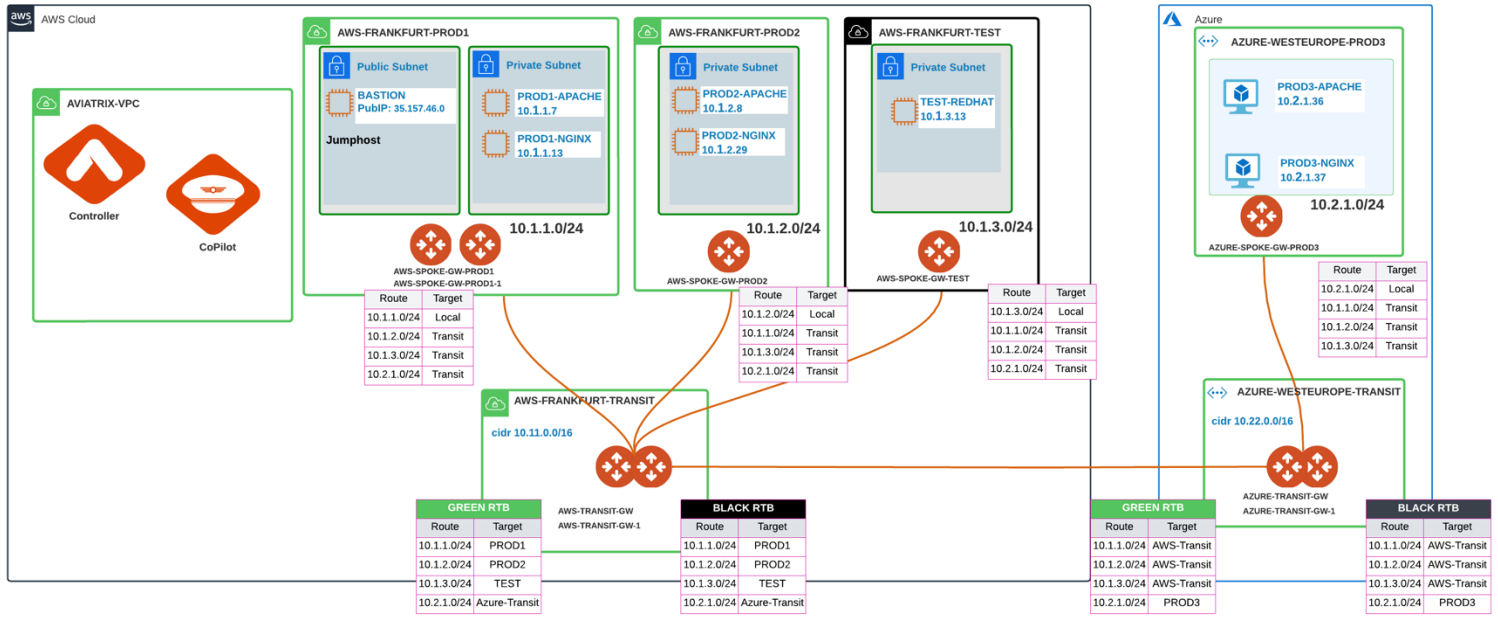
Create the Network Domains:

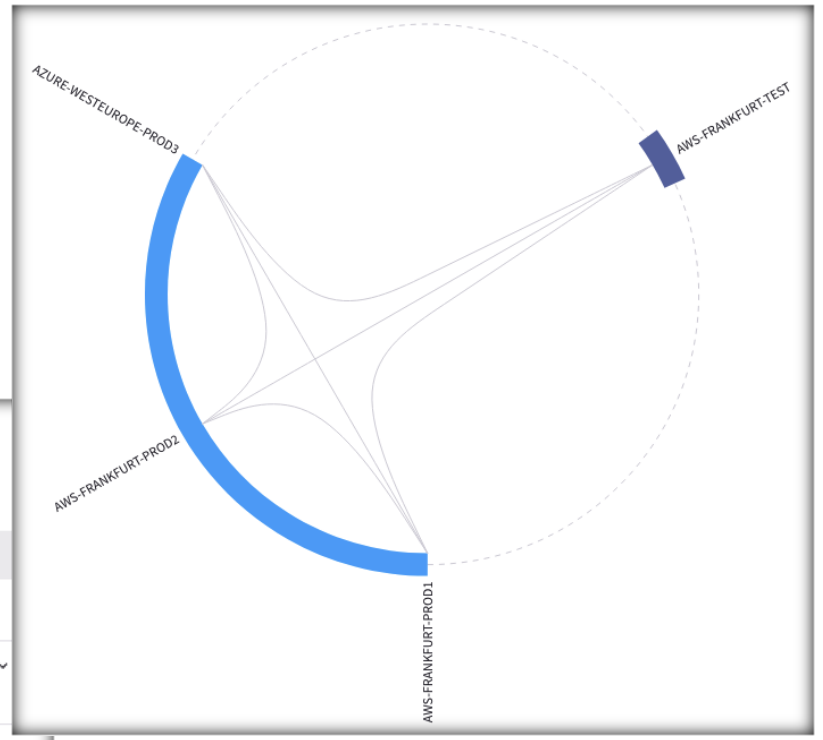
- Assign a Name to each Network Domain
- Associate the Spoke VPCs/Vnets and/or Site2Cloud Connections to the Network Domain

CAVEAT: You can create maximum **200** Network Domains per each Transit Gateway



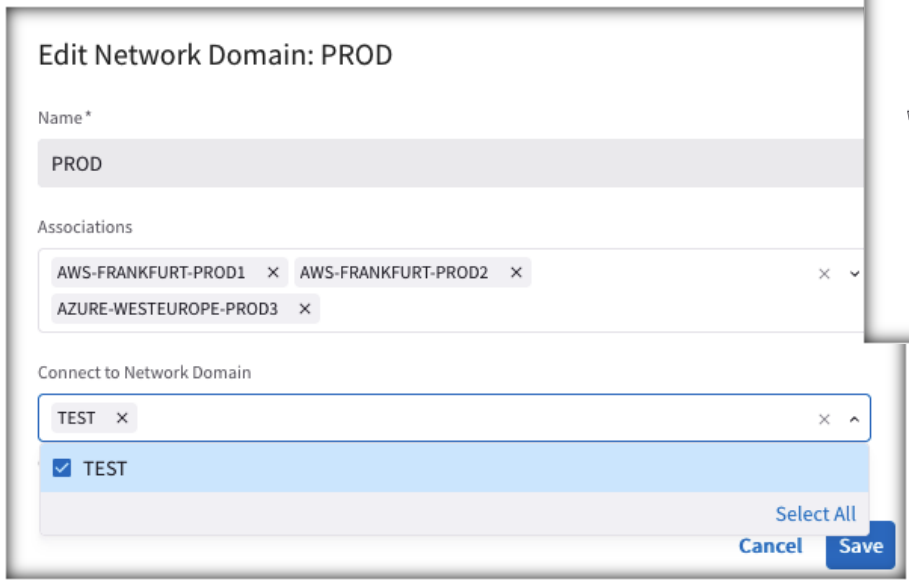
3. Apply the Connection Policy (optional)





Optionally, enable the Connection Policy:

- Network Domains' routing tables are merged (i.e. *vrf leaking*).



Next: Lab 3 - Network Segmentation