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# Network Segmentation

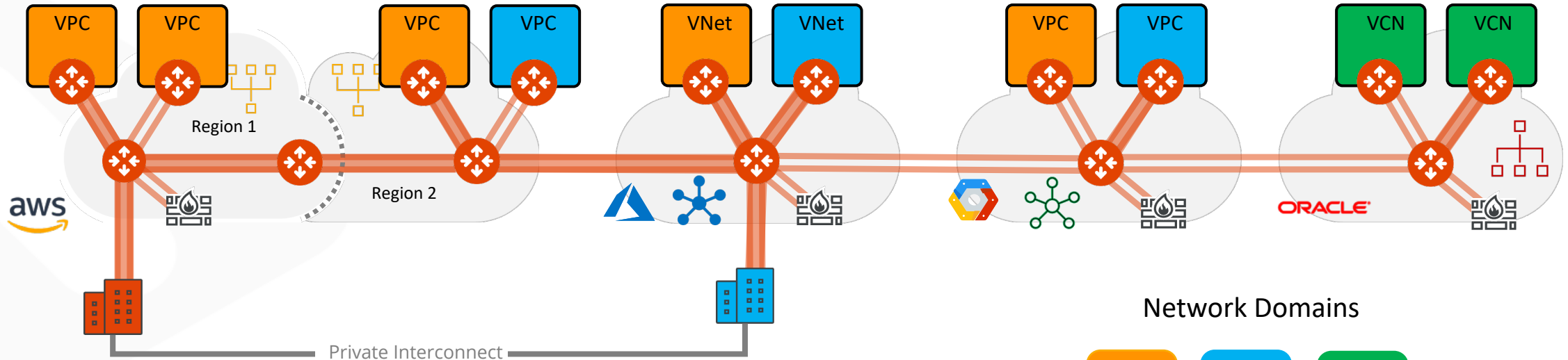
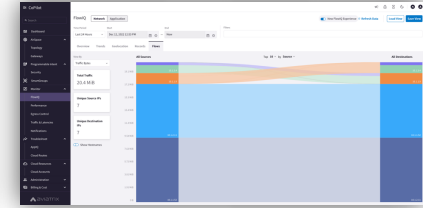
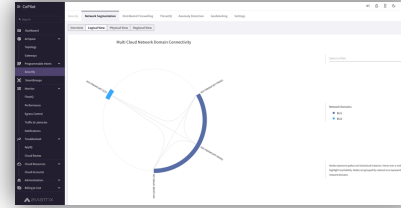
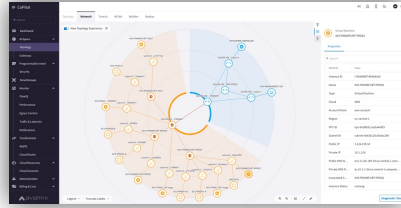
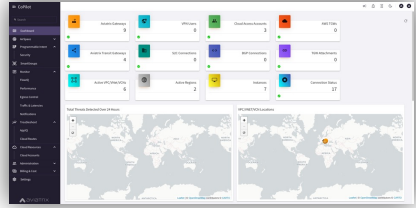
# Segmentation

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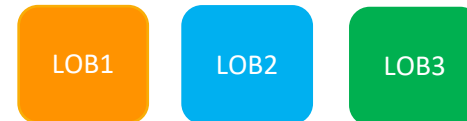
- Enables ZTNA across multi-region and multicloud, including on-premises environment
- Group VNets/VPCs/VCNs/Apps with similar security policies
- Define your own domains
- Use Cases
  - Compliance
  - Governance
  - Audits

# Multicloud Network Segmentation

Aviatrix  
CoPilot



Network Domains



# Multicloud Network Segmentation

## Policy Based Network Segmentation

- Global
- Consistent / Repeatable
- Across accounts, subscriptions & projects

## Cloud and Connection Agnostic

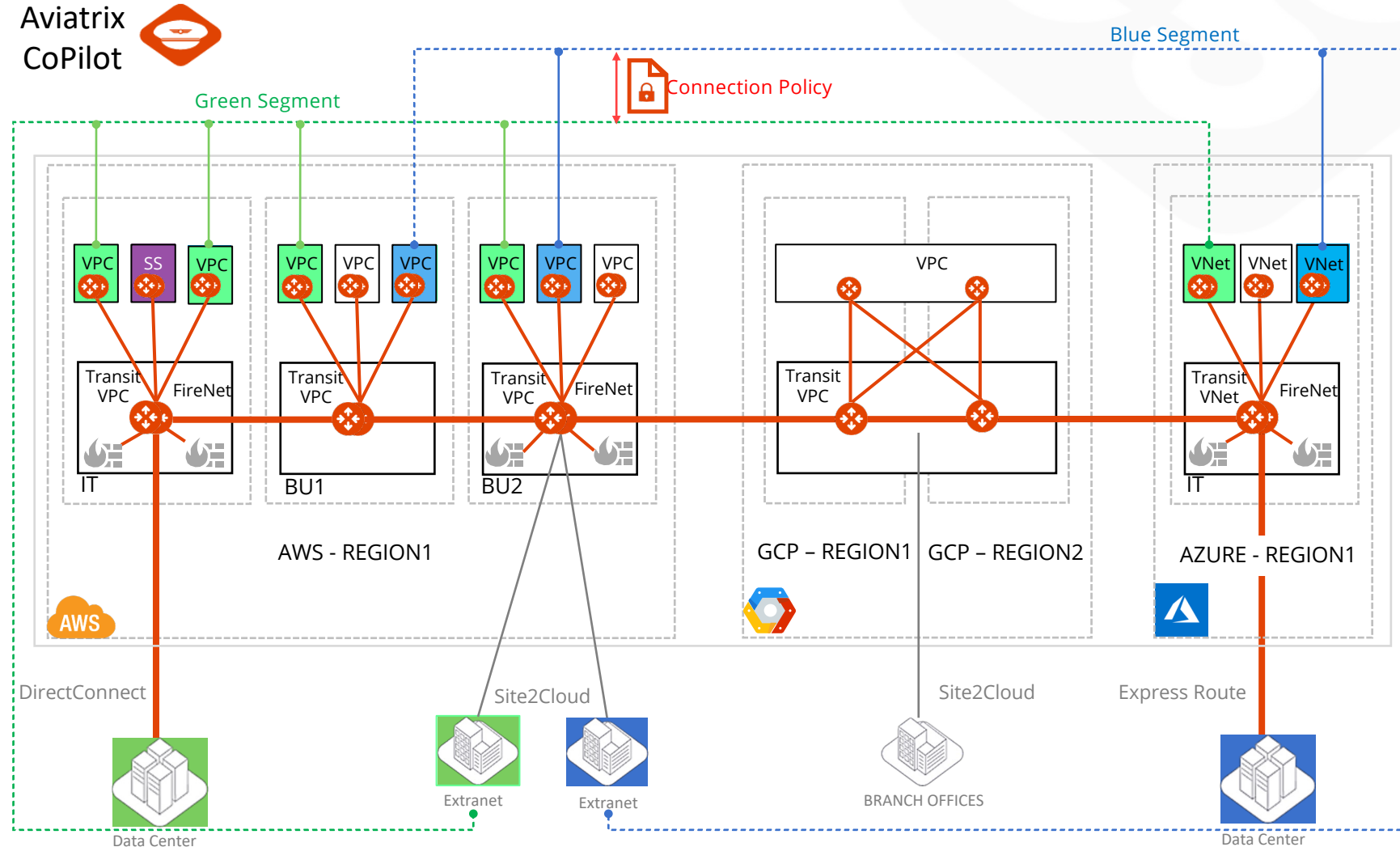
- Single cloud
- Intra-region or inter-region
- Multiple clouds

## Edge/Access Segmentation

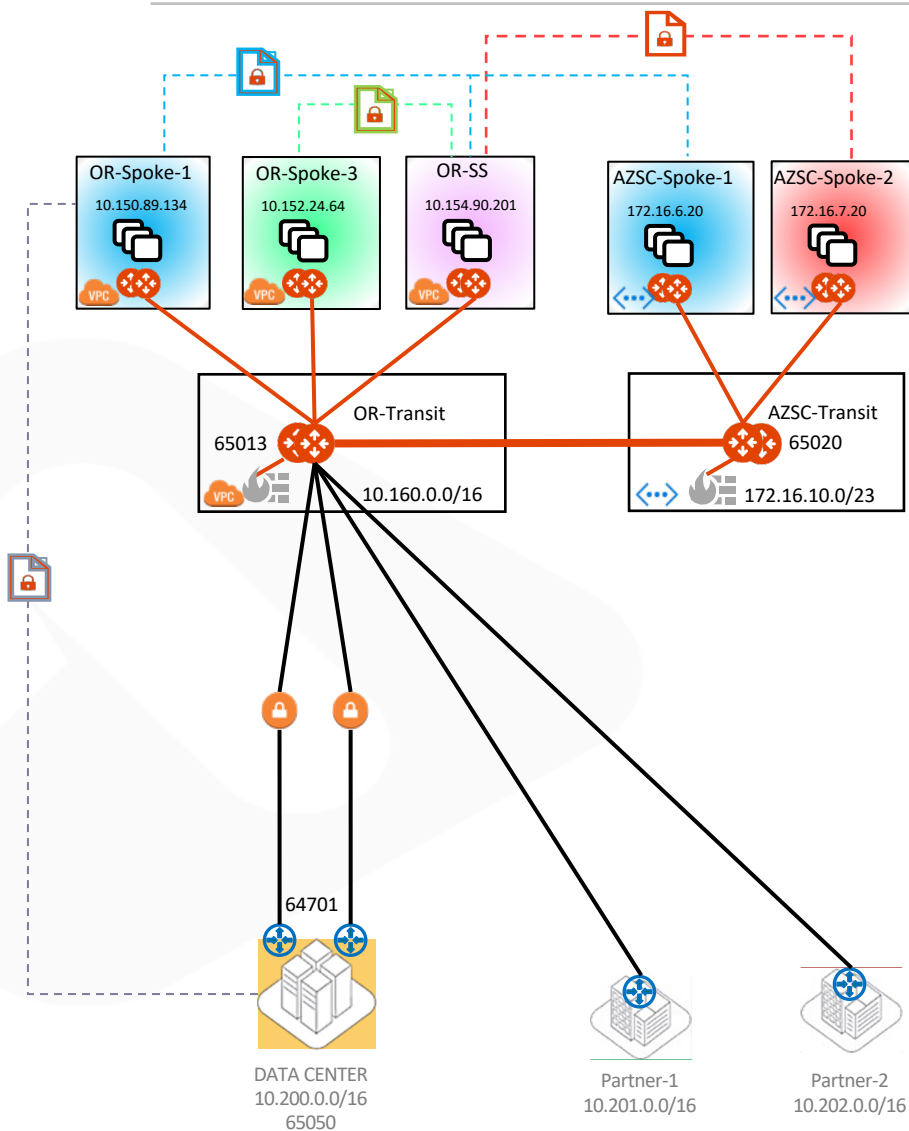
- On-Prem DCs
- Branches
- Extranets
- Cloud Peering

## 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

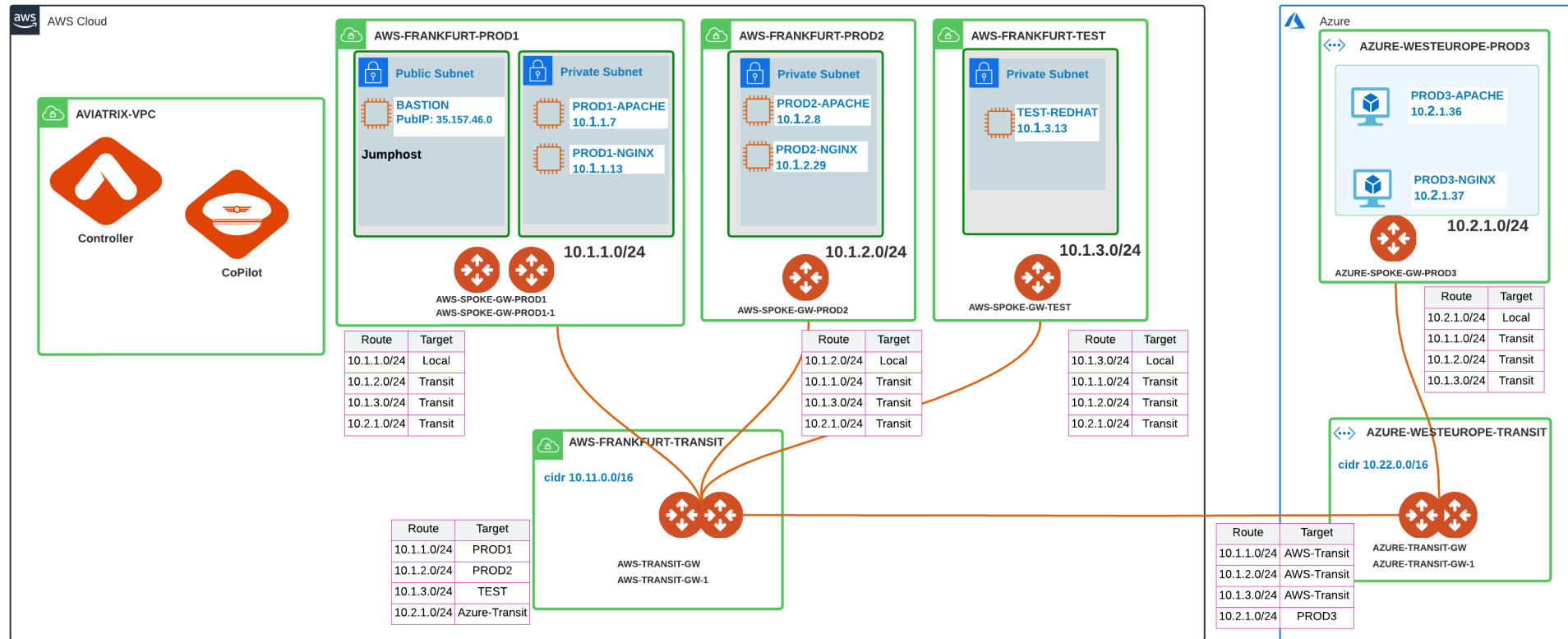
Purple

Remote-Blue

Yellow

Local-Blue

# 1. Enabling Transit Gateways for Network Segmentation



## Enable the Network Segmentation:

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

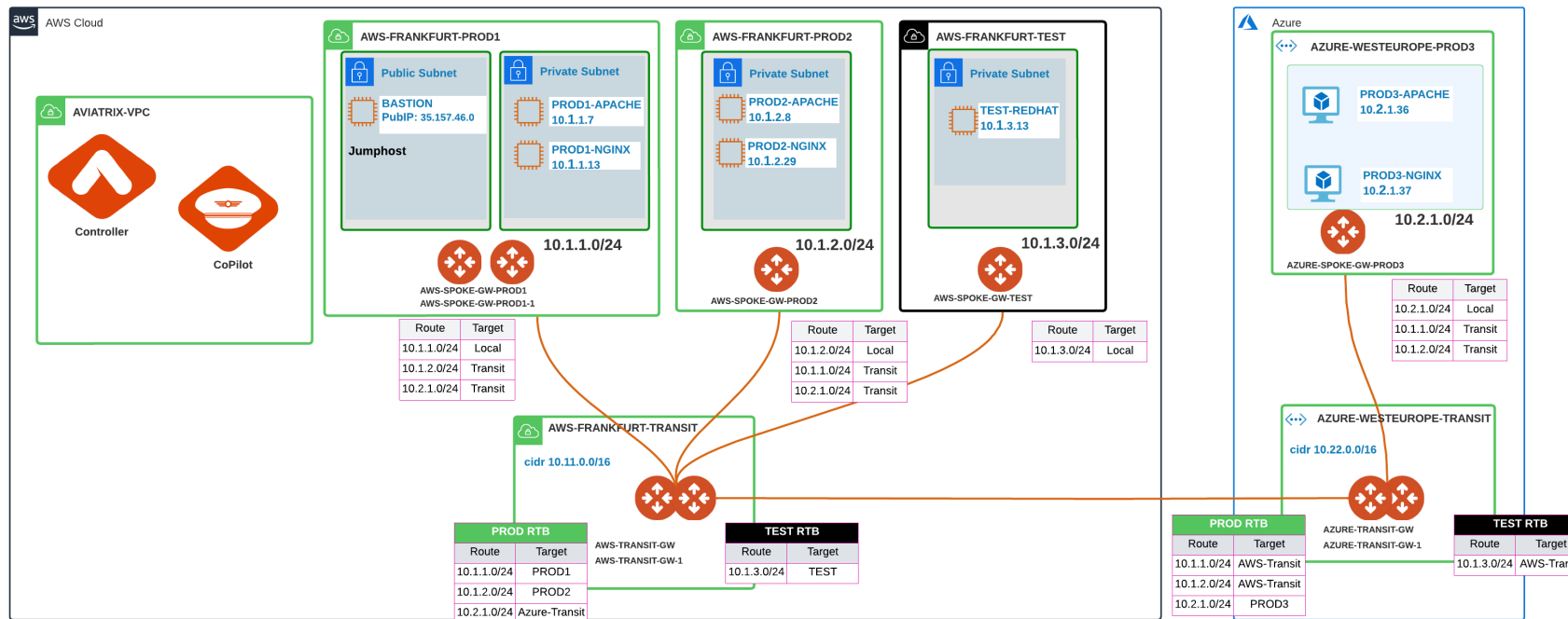
## Configure Transit Gateways for Network Segmentation

Aviatrix transit gateways have to be enabled to support network segmentation on them.



Name	Cloud	Region	IP Address Space	
AWS-TRANSIT-GW	aws	eu-central-1	10.11.0.0/16	<input checked="" type="checkbox"/> Enabled
AZURE-TRANSIT-GW	arm	West Europe	10.22.0.0/16	<input checked="" type="checkbox"/> Enabled

## 2. Creating, Connecting, and Associating 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).

## 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: A network-domain name can only have letters, digits, a hyphen (-), and an underscore (\_). The name must start with a letter and must have 2-27 characters. For example, **Dev Domain**.

### Create Network Domain

Name \*

PROD

Associations

AWS-FRANKFURT-PROD1 x AWS-FRANKFURT-PROD2 x x v

AZURE-WESTEUROPE-PROD3 x

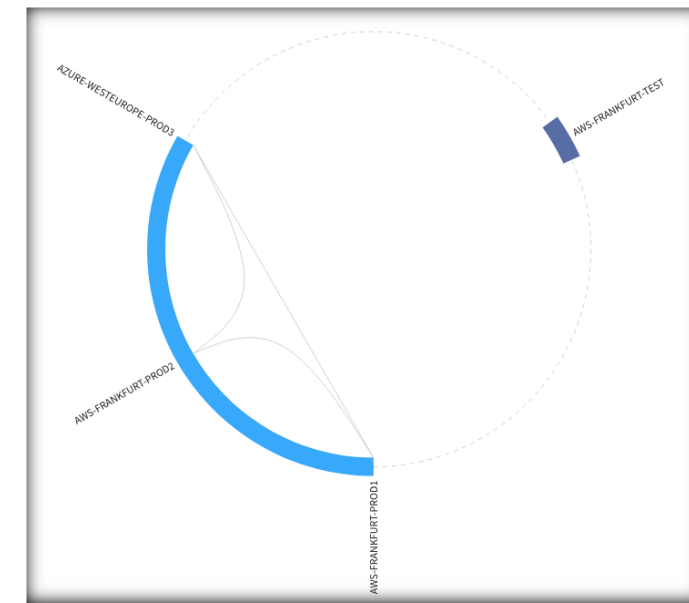
### Create Network Domain

Name \*

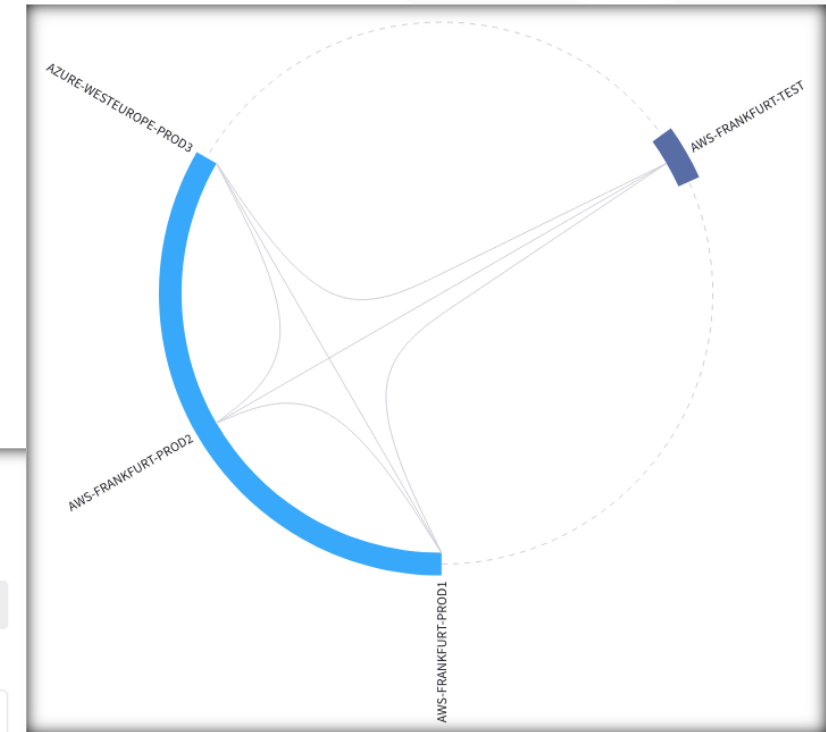
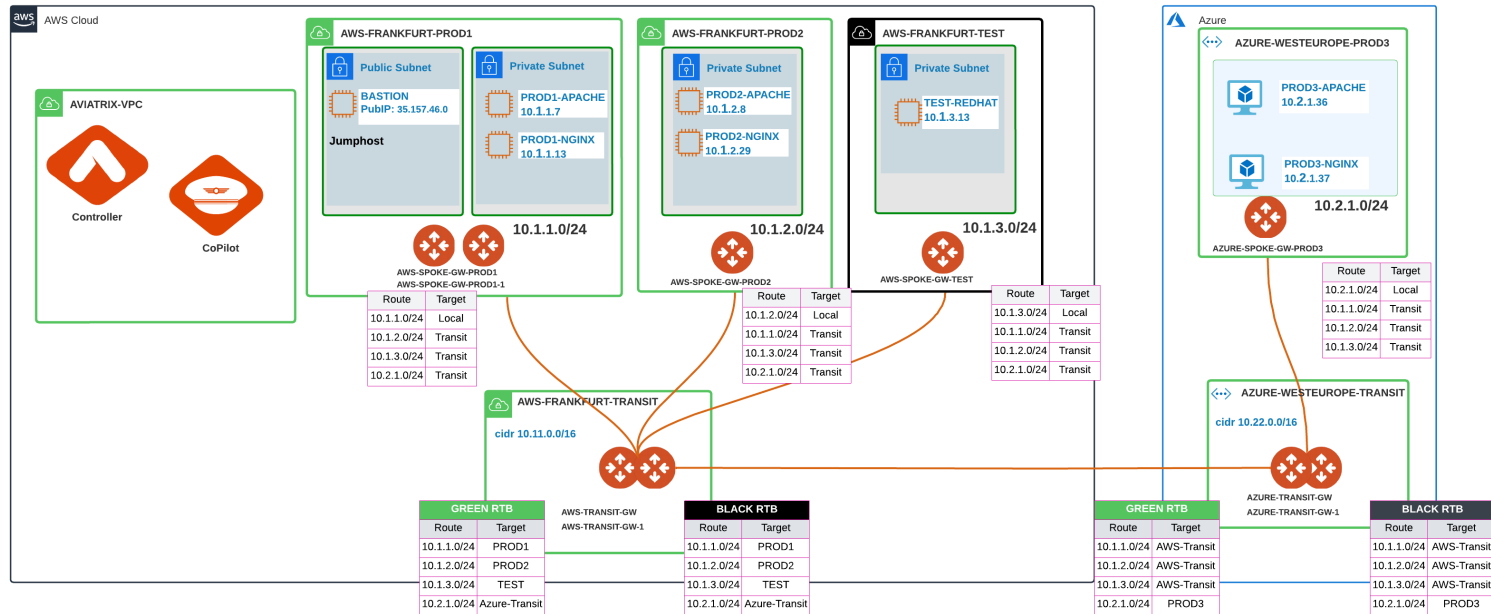
TEST

Associations

AWS-FRANKFURT-TEST x



### 3. Apply the Connection Policy (optional)



Optionally, enable the Connection Policy:

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

Edit Network Domain: PROD

Name \*

PROD

Associations

AWS-FRANKFURT-PROD1 x AWS-FRANKFURT-PROD2 x

AZURE-WESTEUROPE-PROD3 x

Connect to Network Domain

TEST x

☒ TEST

Select All

Cancel Save





Next: Lab 3 - Network Segmentation