

atmosphere'23

BELGIUM

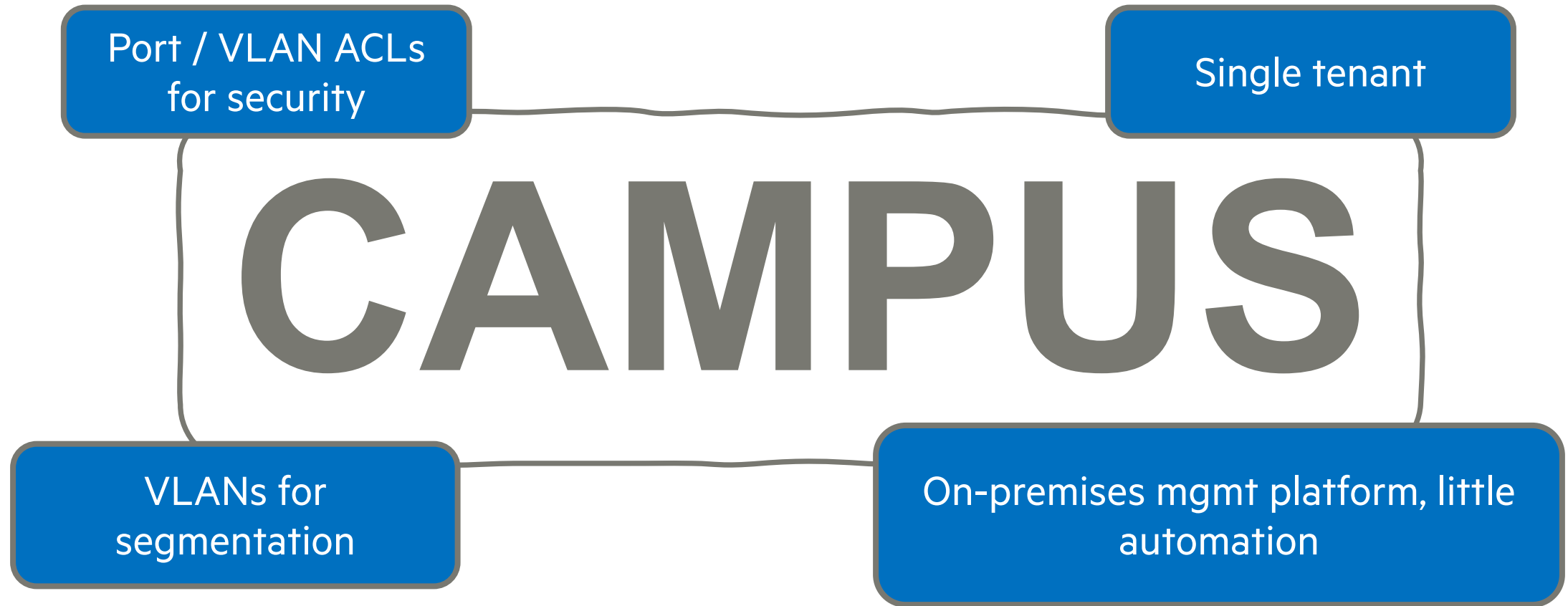
Aruba Central NetConductor: An Overview

Dik van Oeveren, Consulting Systems Engineer EMEA

All credits for this presentation go to Joe Neville

October 19, 2023

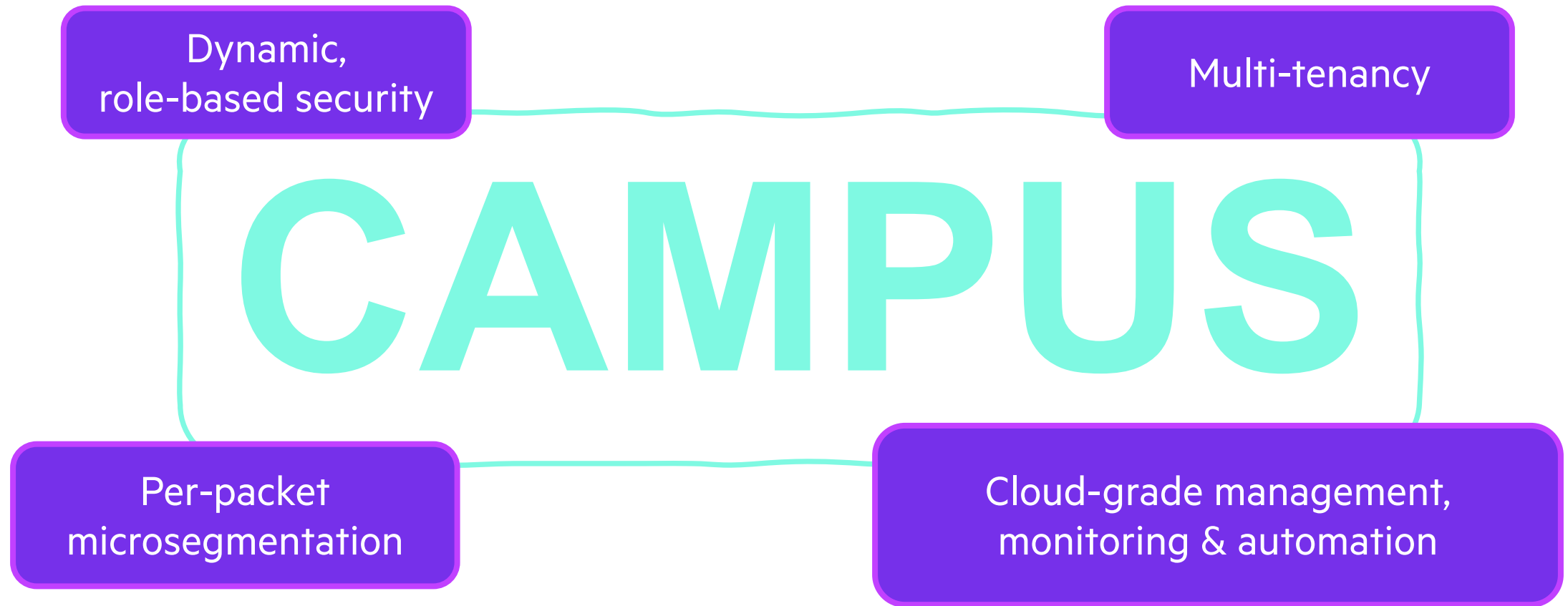
Traditional Enterprise Networks



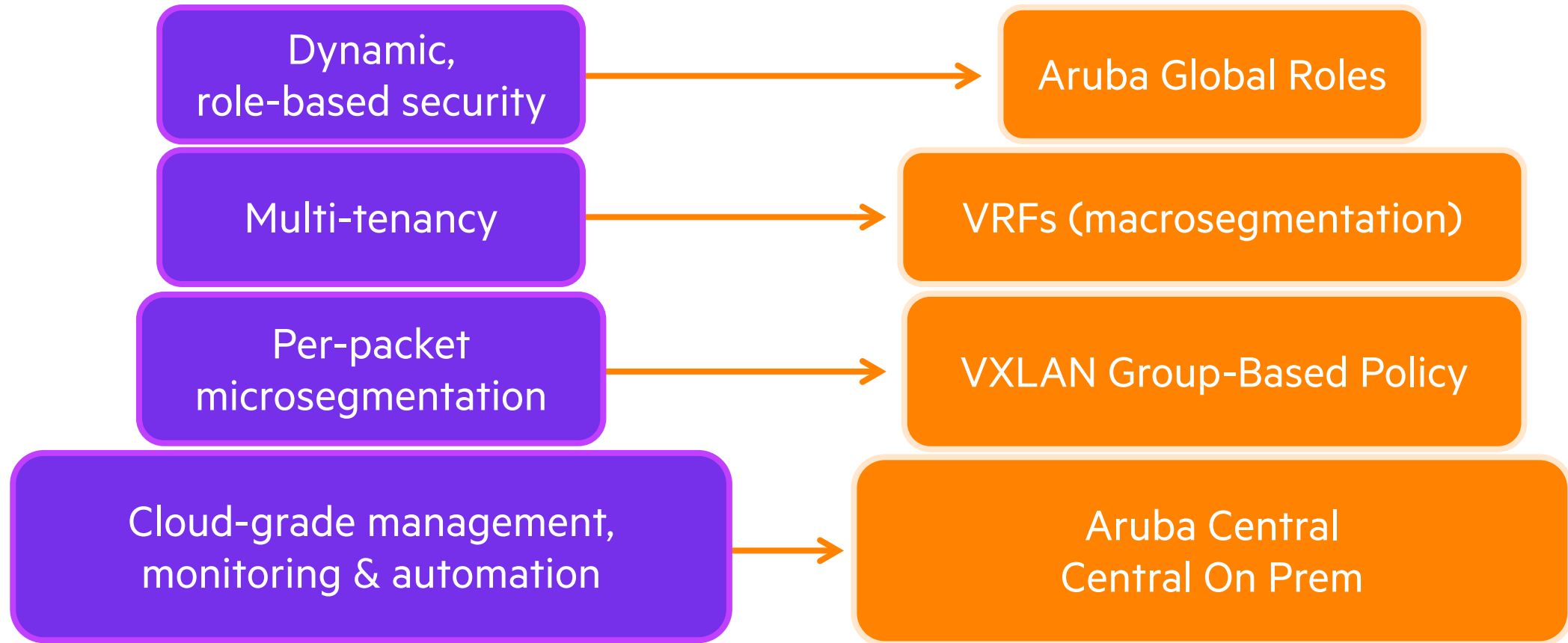
Customer Asks



Customer Asks



Customer Asks



Aruba Central NetConductor (ACN)



But what is it?

Connectivity

Security

Management



Connectivity

Security

Management

Aruba Central

Aruba Central NetConductor

Global Role-to-Role Enforcement

Unified Fabric

AOS 10

AOS-CX

EdgeConnect



Aruba Central NetConductor

Enforcement Models

Centralized

Small site

Distributed

Large Site

SD-WAN

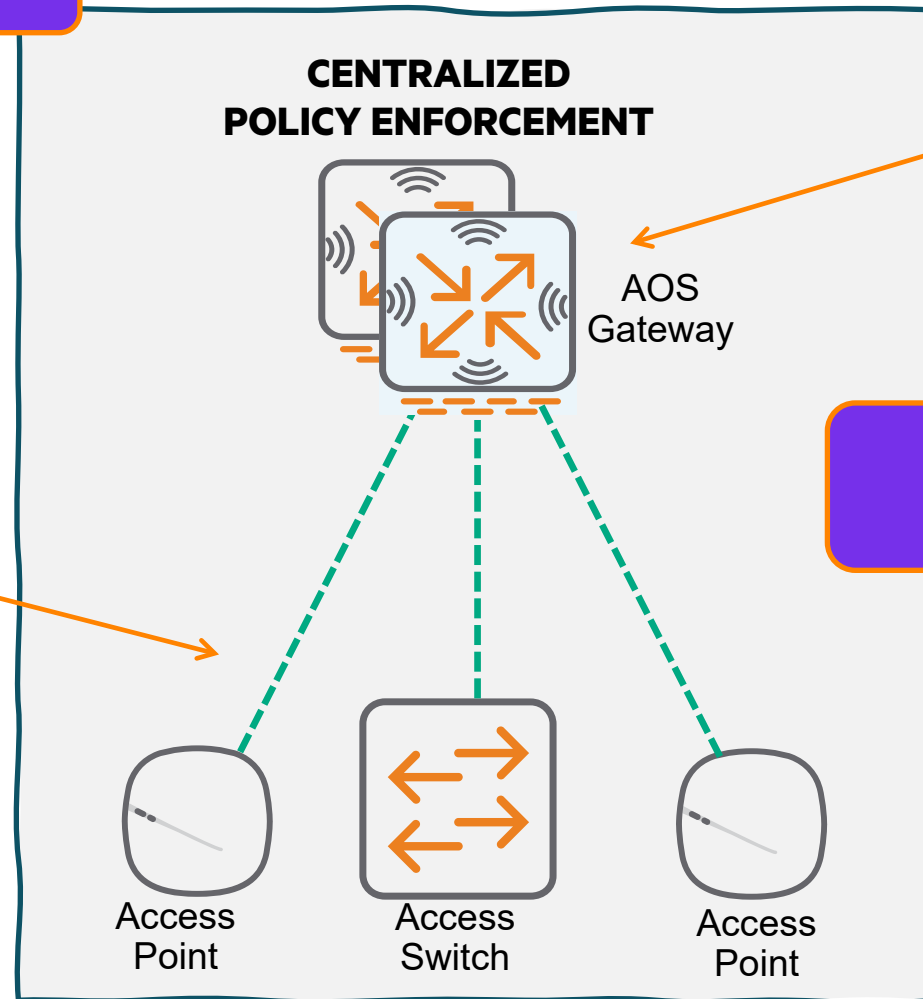
Multi-Site



Centralized

Smaller site deployment model

- Traffic GRE tunneled back to AOS Gateway
- Uniform wired/wireless approach



Enforcement performed at AOS Gateway

Great if traffic North/South
But inefficient for East-West

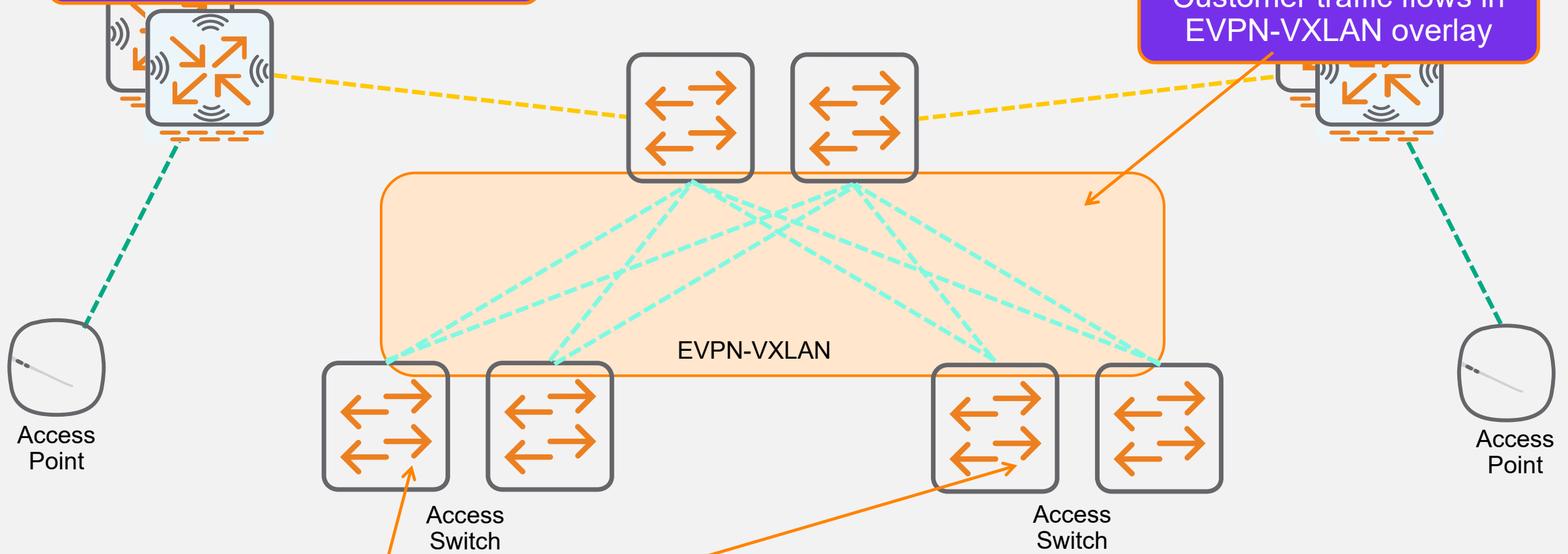


Distributed

Scalable deployment model

DISTRIBUTED POLICY ENFORCEMENT

Customer traffic flows in EVPN-VXLAN overlay



Enforcement performed at Edge

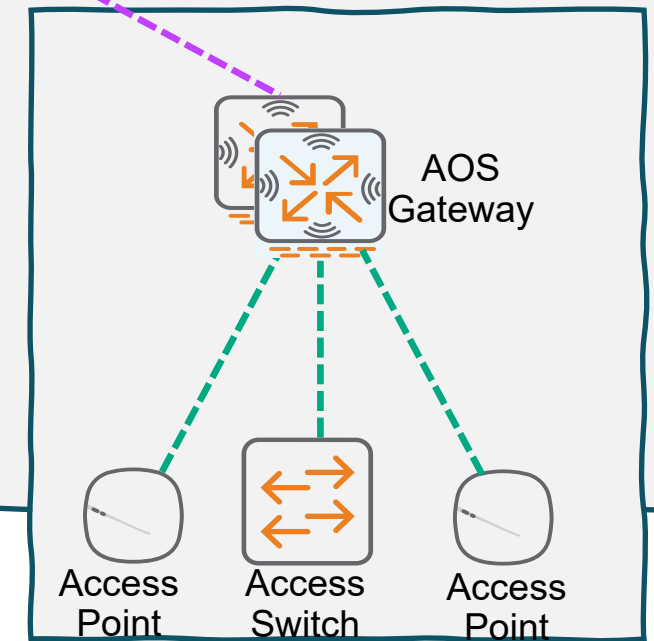
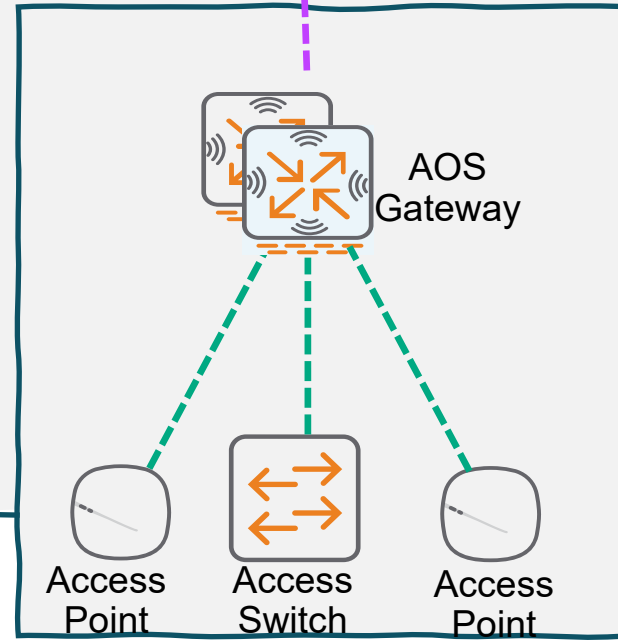
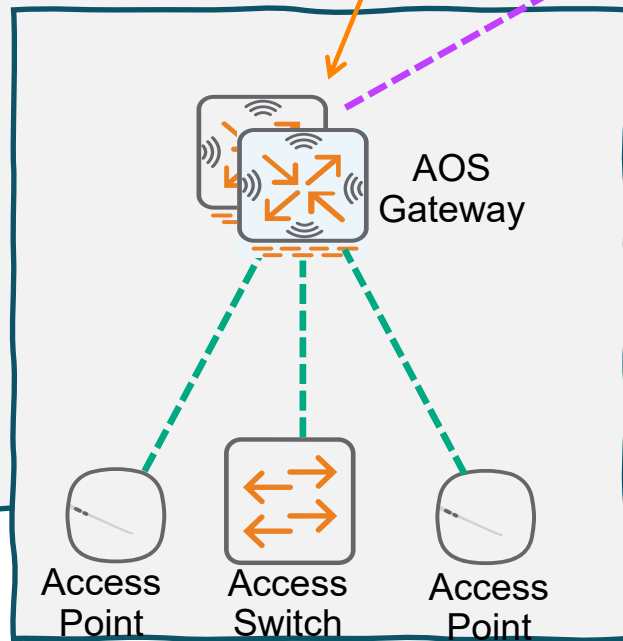


SD-WAN

AOS Gateways for point-to-point tunnels

WAN

VXLAN-GBP (role ID) transported between sites in IPSEC/GRE



Aruba Central NetConductor

Enforcement Models

Centralized

Small site

Distributed

Large Site

SD-WAN

Multi-Site

Not mutually exclusive!
Interoperation by design
ACN is not all or nothing but evolution of existing Aruba design



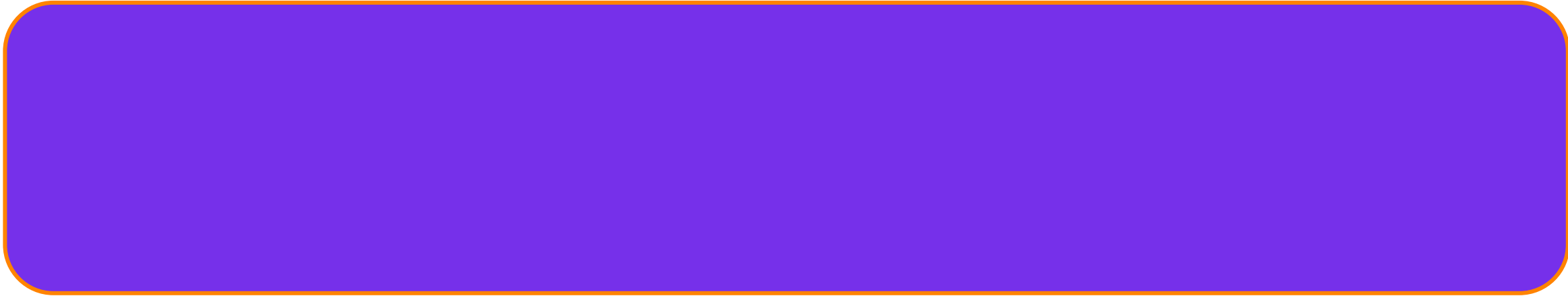
ACN Distributed Fabrics with EVPN-VXLAN



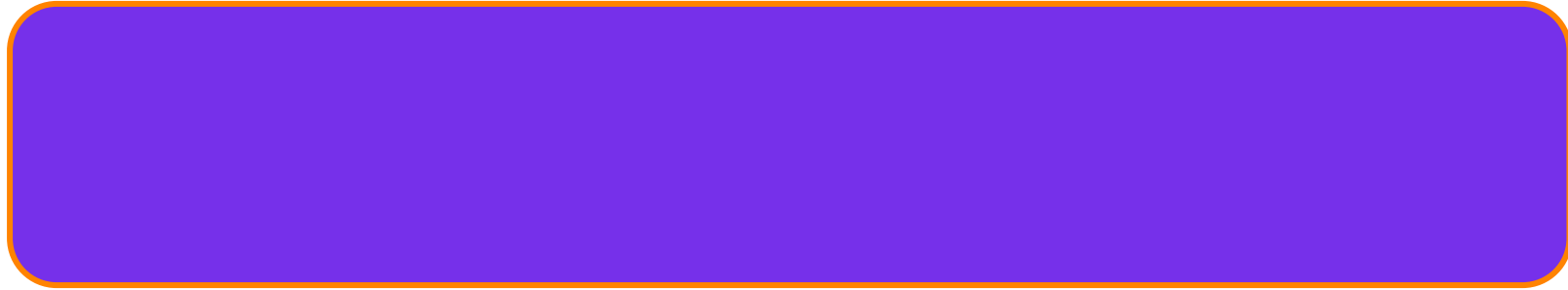
EVPN-VXLAN Primer



EVPN-VXLAN Primer



EVPN-VXLAN Primer



EVPN-VXLAN Primer



EVPN-VXLAN Primer



EVPN-VXLAN Primer

 Routing Protocol for fabric

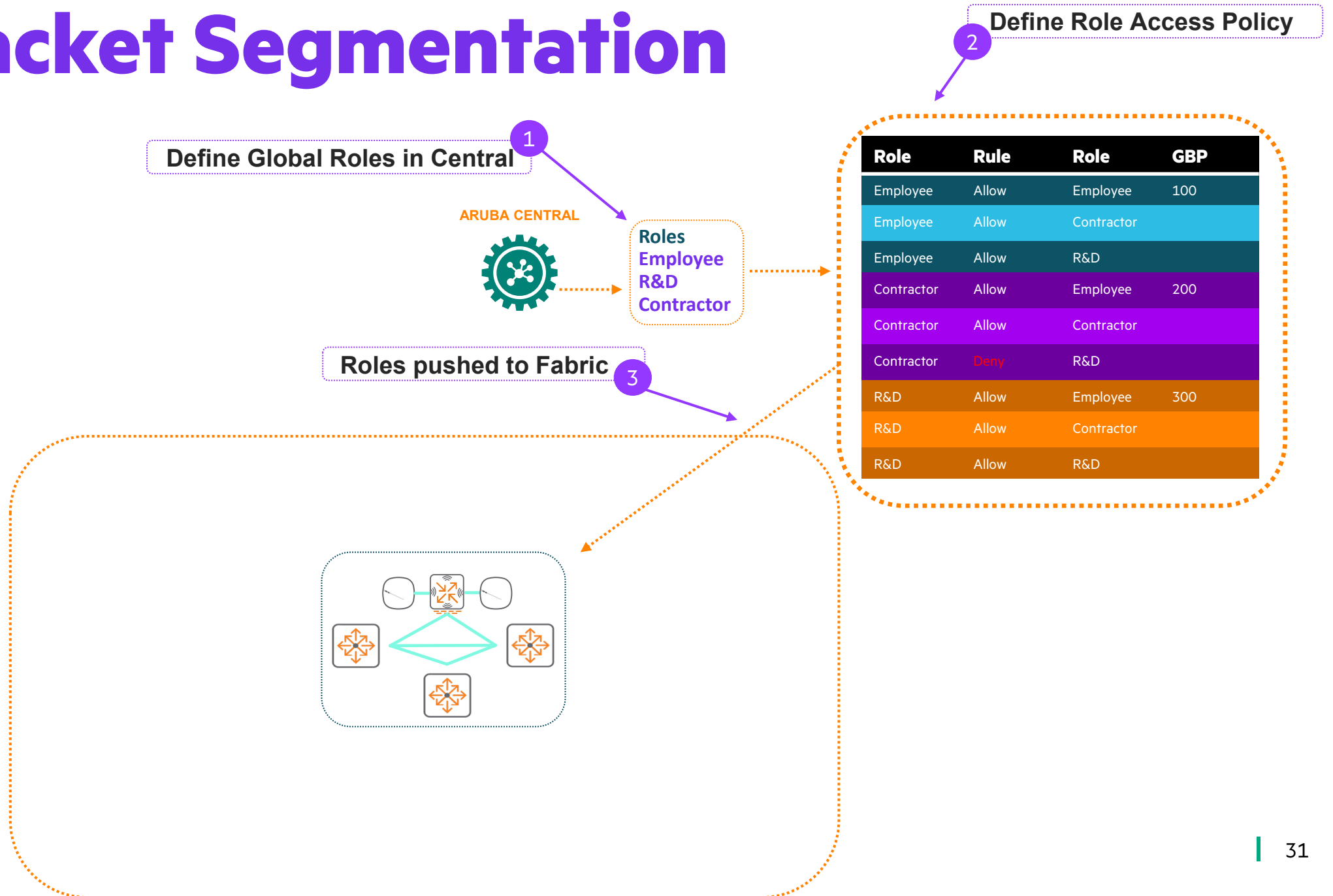


Dynamic Role-based Security

Per-packet Segmentation



Per-packet Segmentation



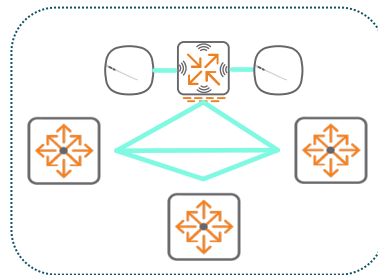
Per-packet Segmentation

ARUBA CENTRAL



Roles
Employee
R&D
Contractor

Role	Rule	Role	GBP
Employee	Allow	Employee	100
Employee	Allow	Contractor	
Employee	Allow	R&D	
Contractor	Allow	Employee	200
Contractor	Allow	Contractor	
Contractor	Deny	R&D	
R&D	Allow	Employee	300
R&D	Allow	Contractor	
R&D	Allow	R&D	



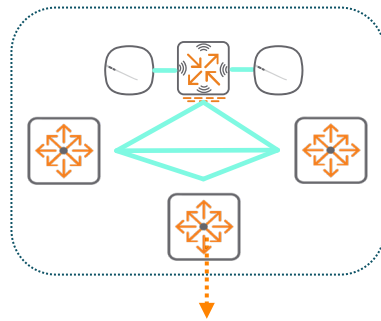
Per-packet Segmentation

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R&D	Allow	Contractor	
R&D	Allow	R&D	



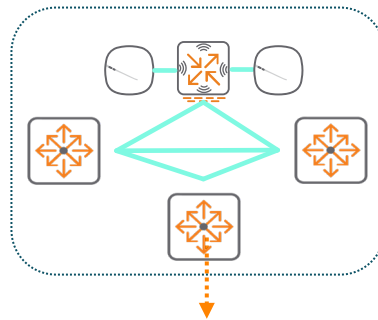
Per-packet Segmentation

ARUBA CENTRAL



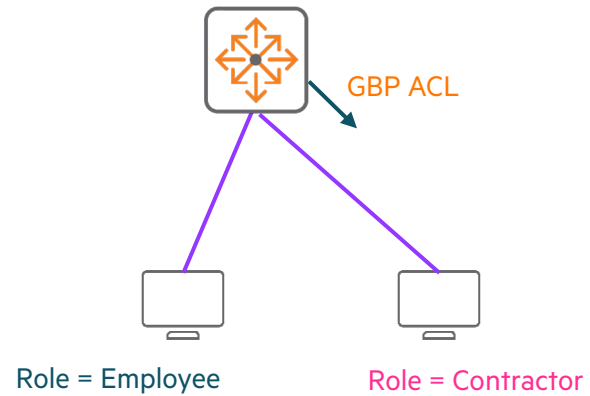
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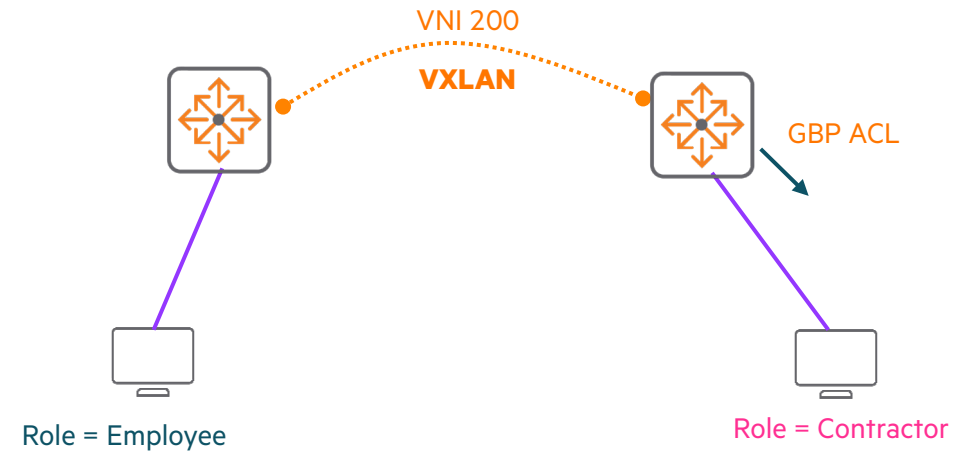


Per-packet Segmentation

Single device Enforcement



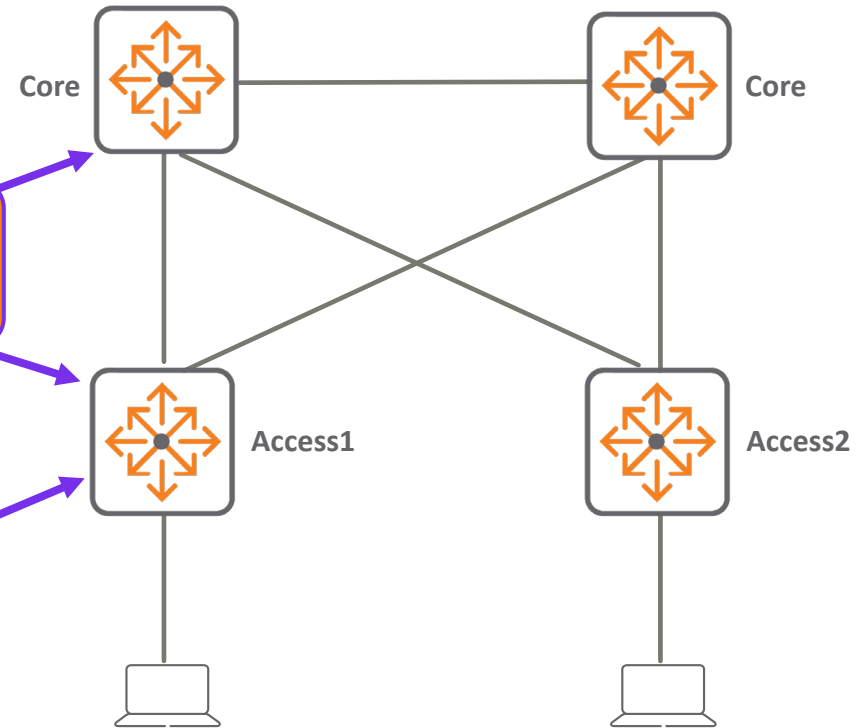
Policy enforcement on egress VTEP



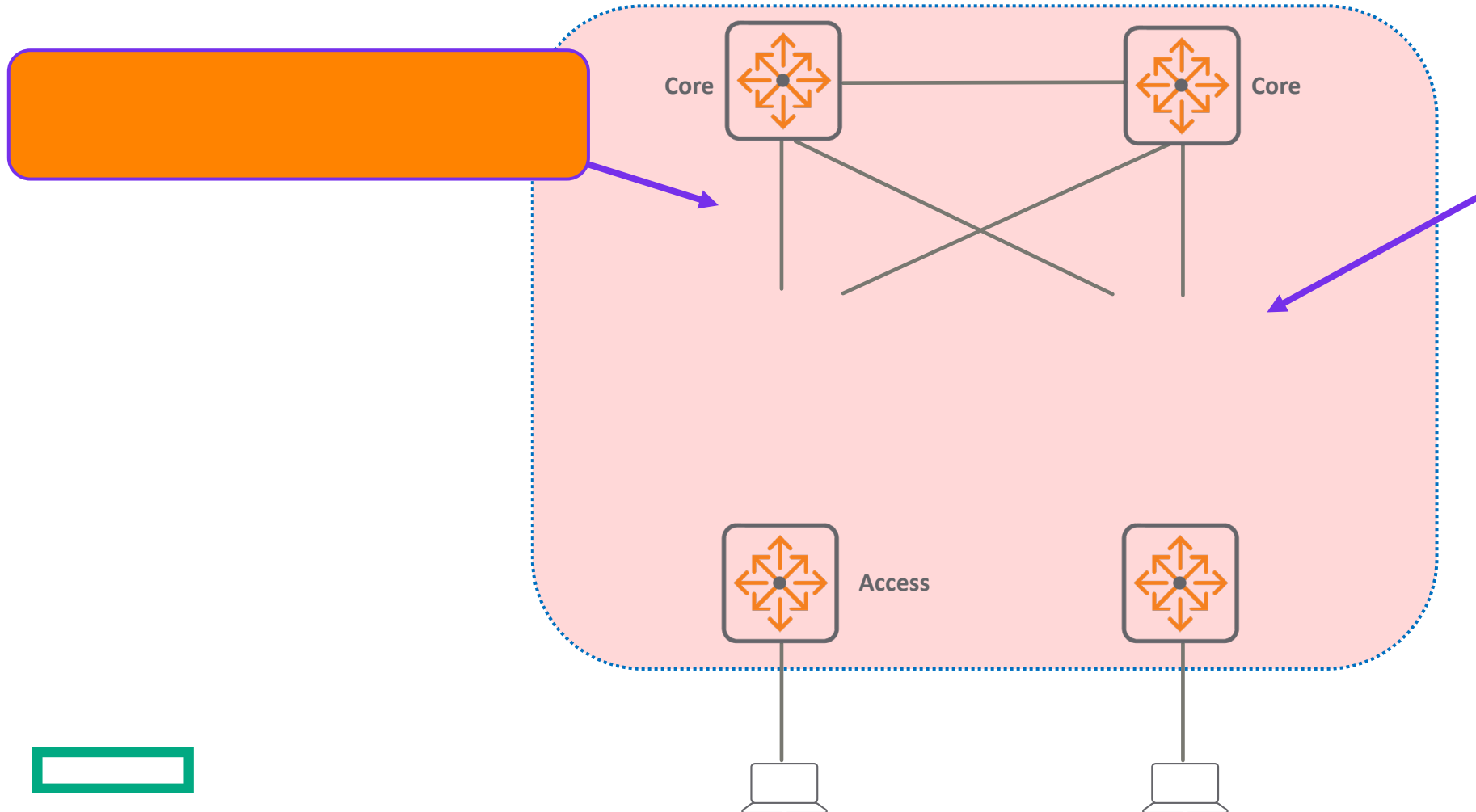
ACN Design Notes



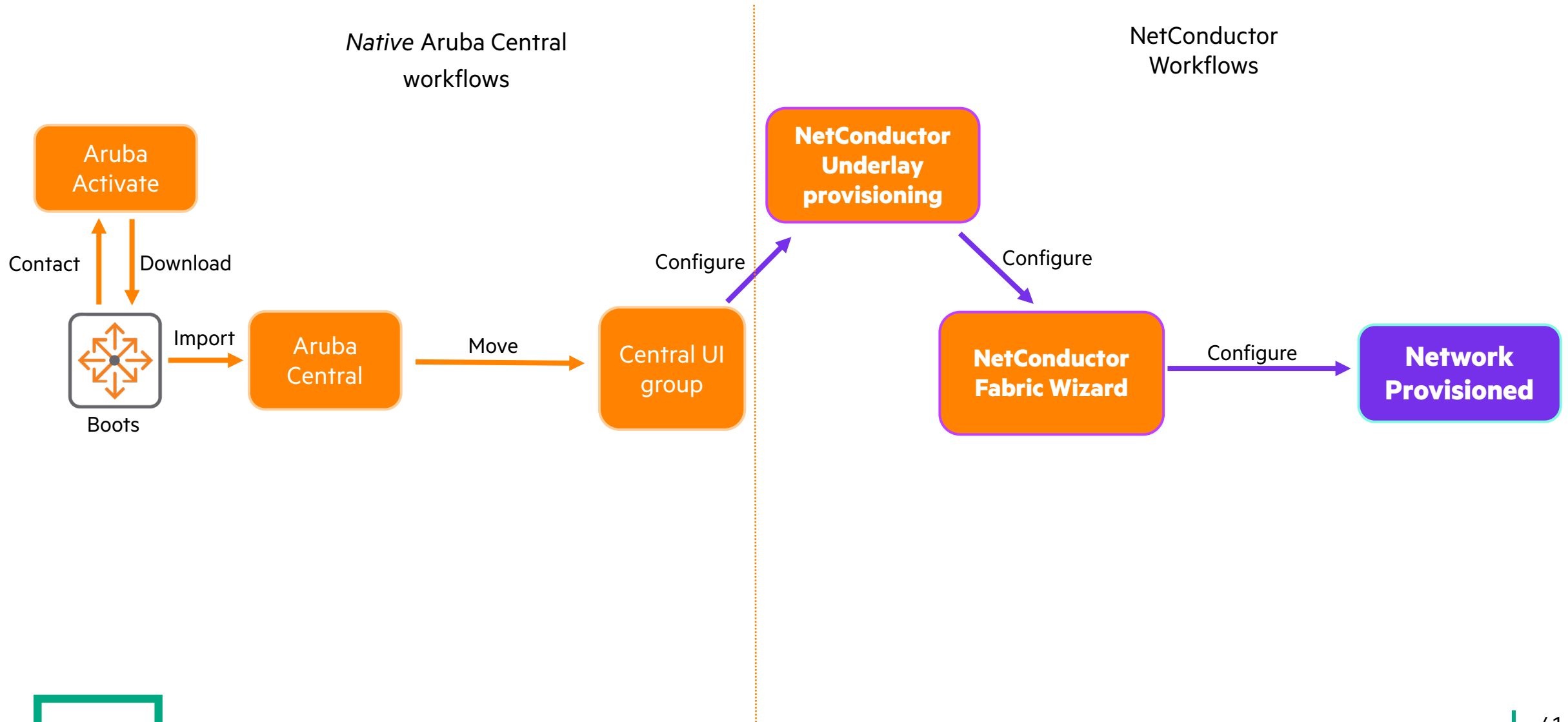
ACN Fabric Build



ACN Fabric Build



ACN Provisioning Workflow



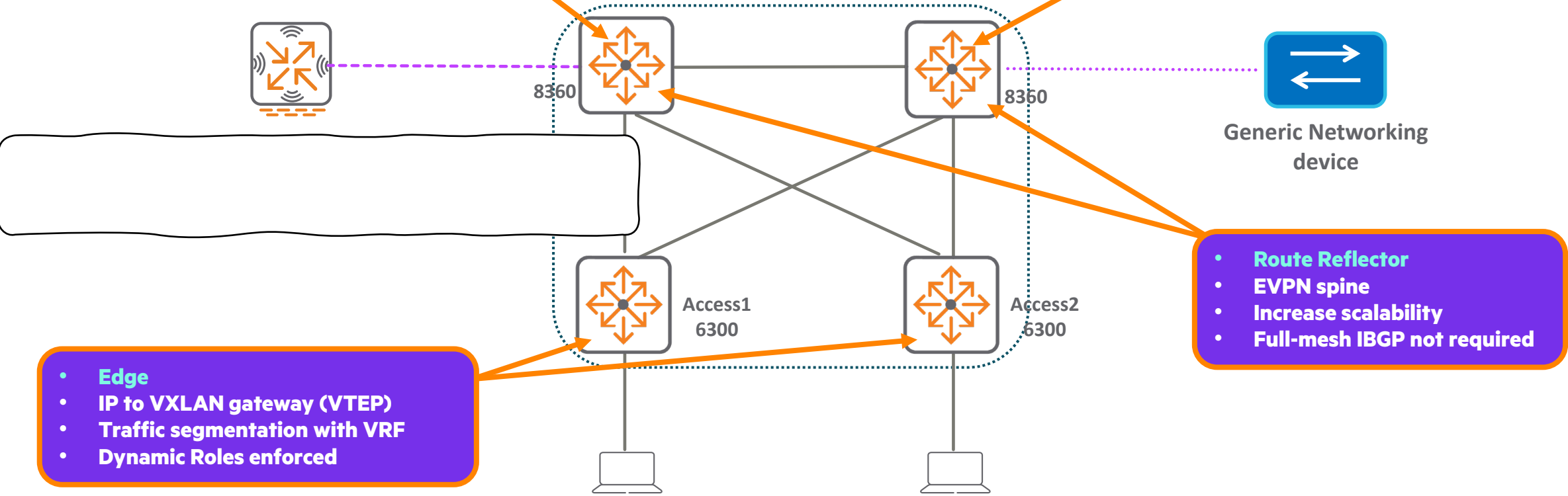
ACN Fabric Buildout with Personas

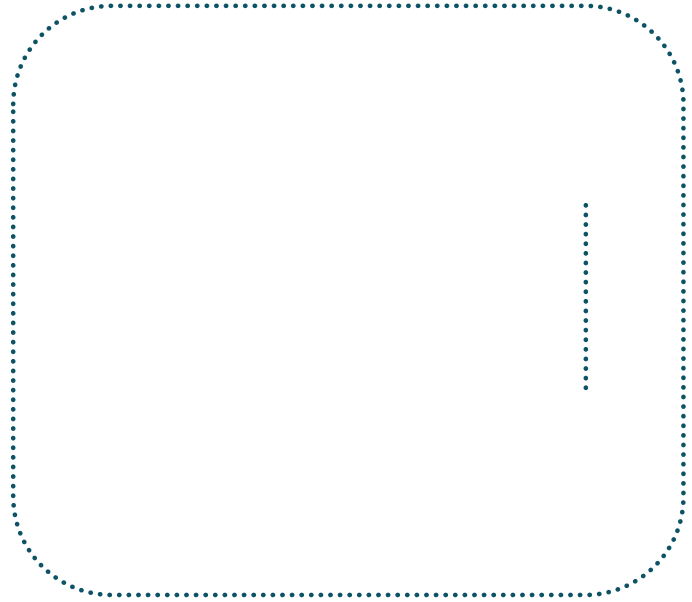


ACN Fabric Buildout with Personas

- **Stub**
- **EVPN-VXLAN to static VXLAN**

- **Border**
- **VXLAN to IP gateway**





Demo



ACN Specifics & Future



ACN Specifics



ACN Future



Q&A

