CISCO

Neuigkeiten bei Cisco SD-Access

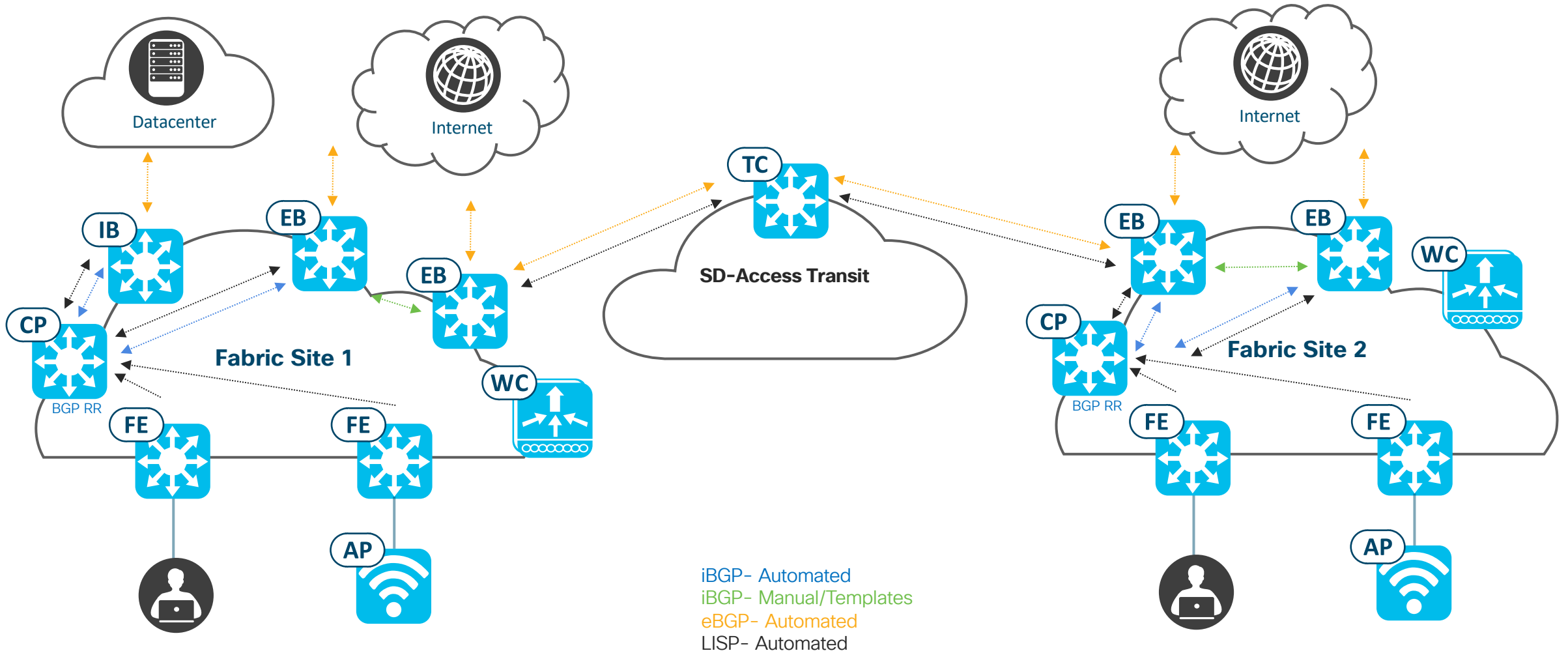## Virtual Espresso Webinar

Mittwoch, 24. November 2021, 15:00 Uhr

Neuigkeiten bei Cisco SD-Access

1 LISP Pub/Sub

2 SD-Access Fabric Zones

3 New Cisco SD-Access User Interface

4 Cisco SD-Access Assurance
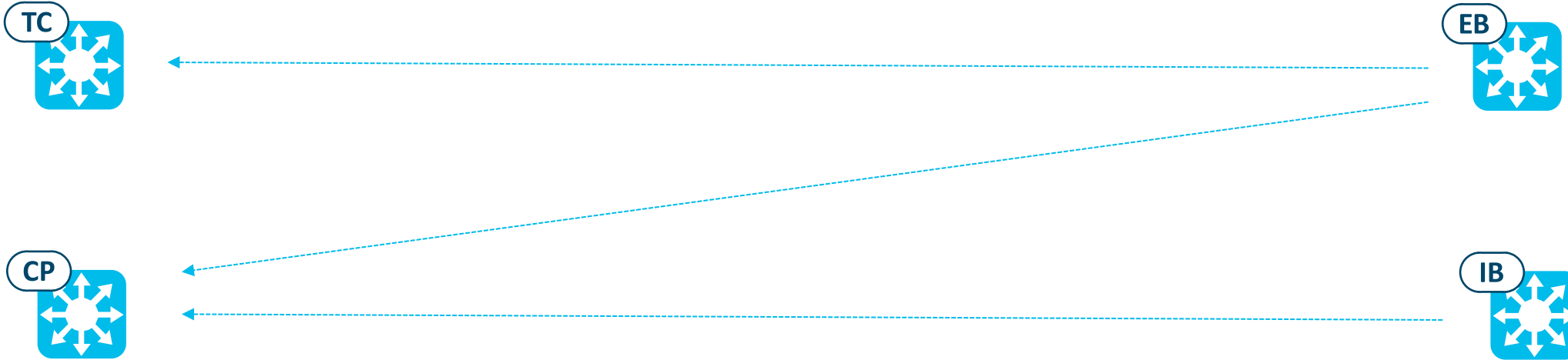
5 RMA Enhancements in Cisco SD-Access
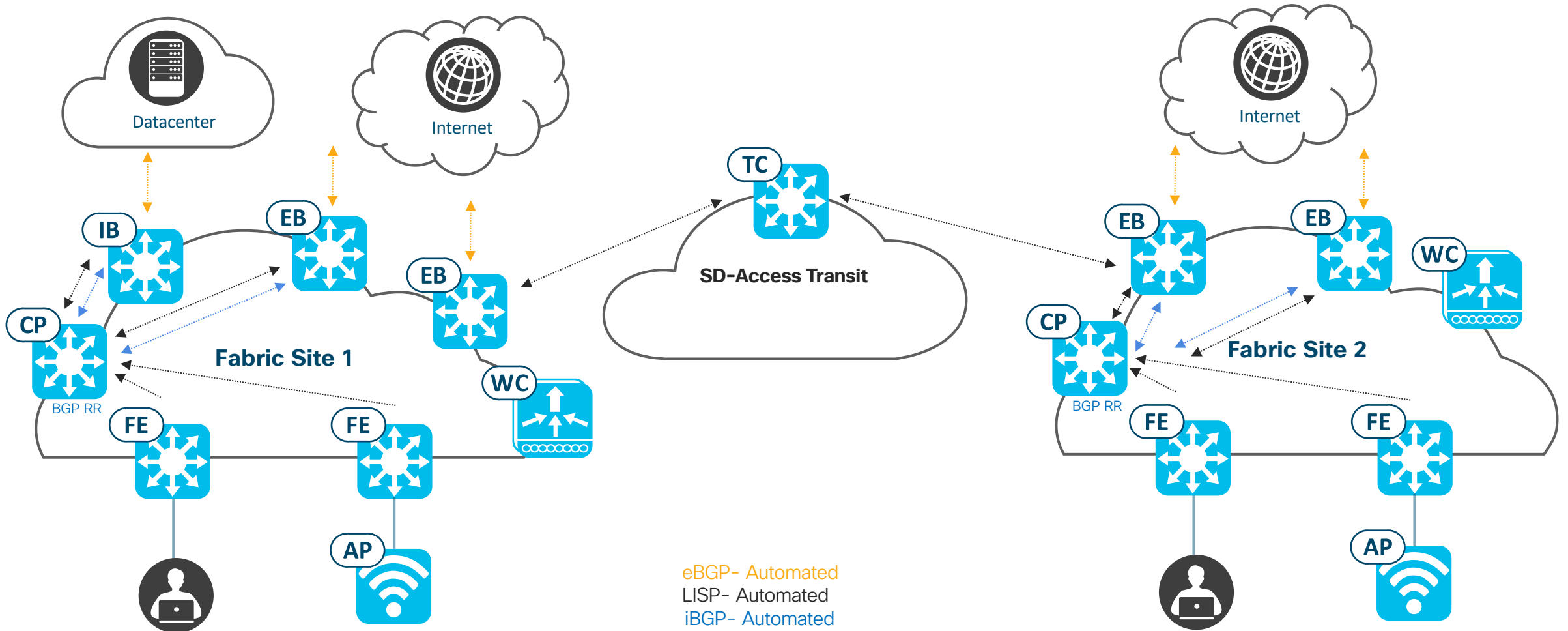
SD-Access Transit (LISP/BGP)

Datacenter

Internet

Internet

SD-Access Transit

Fabric Site 1

Fabric Site 2

TC

IB

EB

EB

EB

EB

CP
BGP RR

CP
BGP RR

WC

WC

FE

FE

FE

FE

AP

AP

iBGP– Automated
iBGP– Manual/Templates
eBGP– Automated
LISP– Automated

LISP Pub/Sub

Publishers

Subscribers

TC

EB

CP

IB

BN|CP

Publisher   **Subscriber**

SD-Access Transit (LISP Pub/Sub)

eBGP– Automated
LISP– Automated
iBGP– Automated

LISP Pub/Sub Loop Prevention

LISP Pub/Sub

- In release 2.2.3.x, LISP Pub/Sub is supported only for **newly created** fabric sites with devices running IOS XE software ≥17.6.x

- Existing SD-Access sites will not have the option to upgrade to LISP Pub/Sub and must continue to use the existing control plane architecture.

- When we upgrade DNAC release to DNAC 2.2.3.x fabric sites created prior to this will continue to operate with LISP BGP based fabric.

- Transit Control Plane Nodes can support LISP/BGP fabric sites or LISP Pub/Sub-based fabric sites, not both simultaneously.

- Native Multicast across SD-Access Transit is not supported.

LISP Pub/Sub

Considerations

- LISP Pub/Sub can be enabled when adding Control Plane node/s to fabric.

- We can have up to 4 Transit Control Plane Nodes with LISP Pub/Sub-based fabrics.

Configure Control Plane

Select route distribution protocol:

LISP PubSub ●

LISP PubSub (Publish/Subscribe) accelerates network convergence, simplifies network operations, and provides the foundation for new SD-Access use cases.

LISP/BGP ○

LISP/BGP uses concurrent LISP and BGP protocols to distribute reachability information. LISP/BGP is the traditional SD-Access control plane architecture and is retained for backwards compatibility. LISP PubSub is recommended for new network implementations.

Transit/Peer Network ✕

To enable interconnectivity between Fabric sites, select Transit Control Plane and connectivity type.

Transit/Peer Network Name

Transit/Peer Network Type
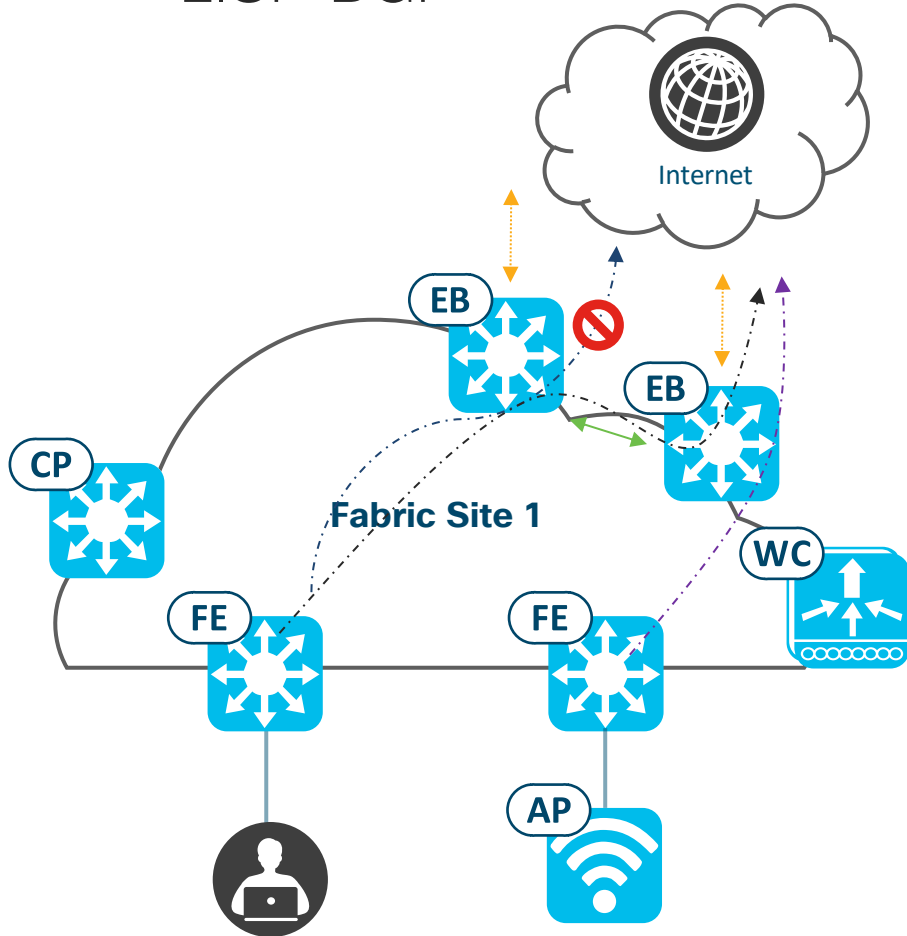
○ SD-Access ⓘ (LISP/BGP)   ● SD-Access ⓘ (LISP PubSub)   ○ IP-Based ⓘ

TRANSIT CONTROL PLANES (1/4)

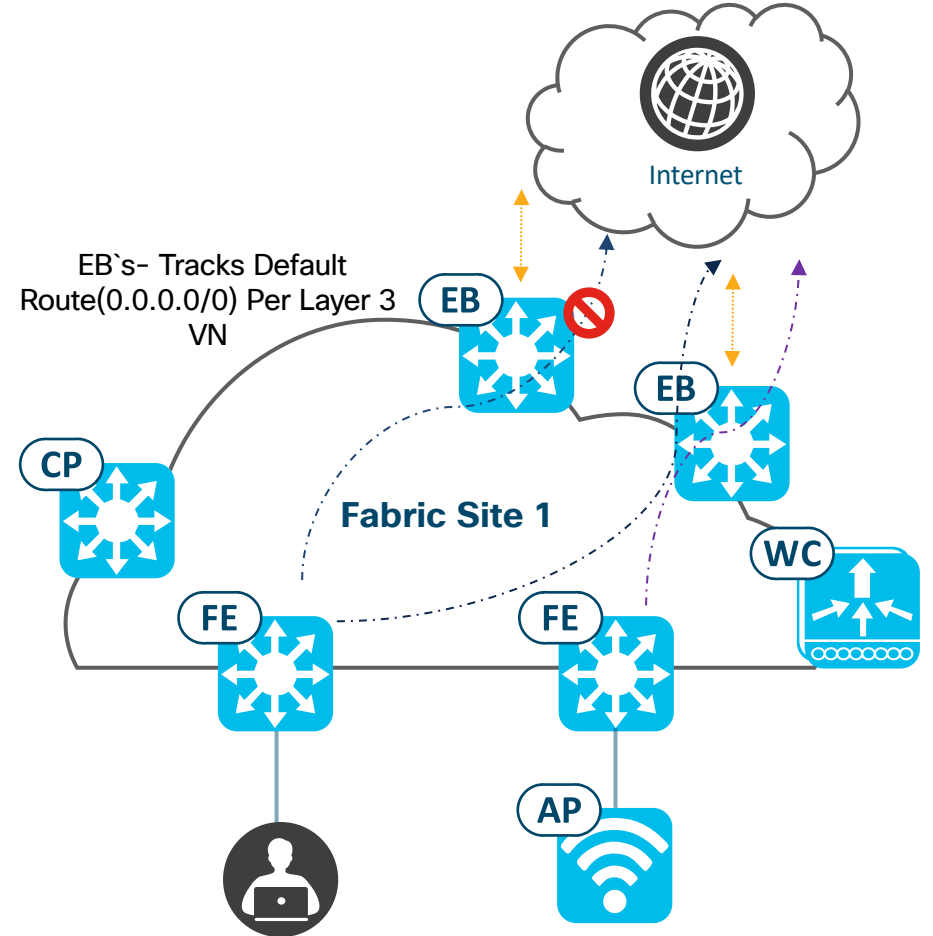Site for the Transit Control Plane ⌄   Transit Control Plane ⌄
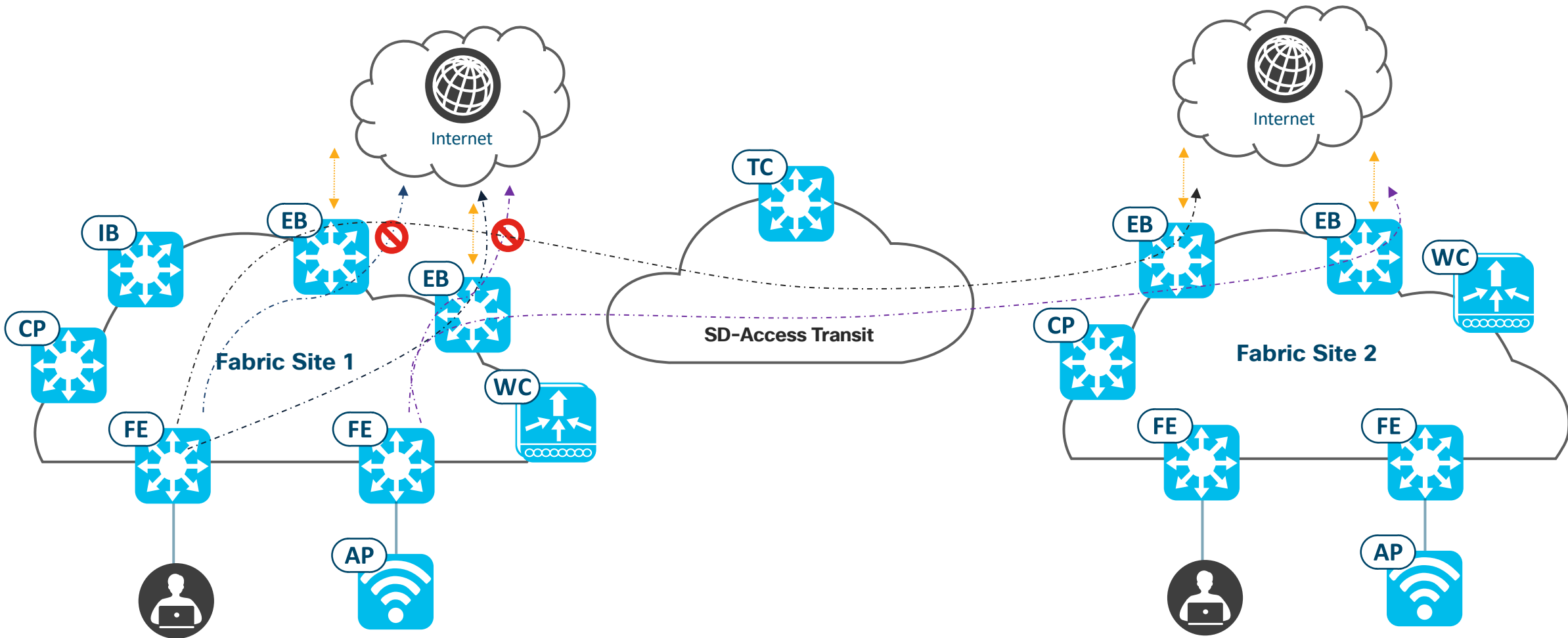
⊕

LISP Pub/Sub –
Dynamic Default Border

LISP BGP

LISP Pub/Sub

Internet

Internet

EB`s- Tracks Default Route(0.0.0.0/0) Per Layer 3 VN

EB

EB

CP

Fabric Site 1

EB

WC

FE

FE

AP

EB

EB

CP

Fabric Site 1

WC

FE

FE

AP

iBGP– Manual/Templates
eBGP– Automated

LISP Pub/Sub – Backup Internet
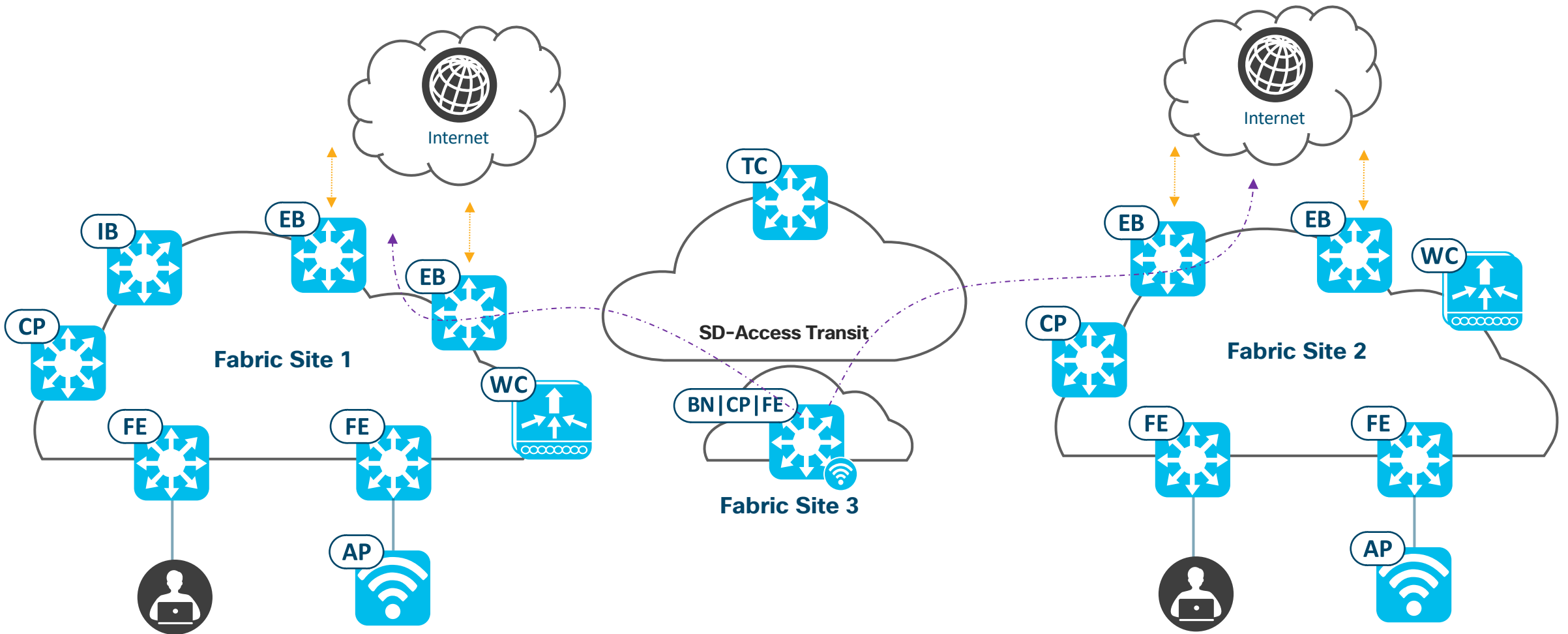
Internet

Internet

TC

EB

IB

EB

EB

WC

CP

Fabric Site 1

SD-Access Transit

EB

CP

Fabric Site 2

BN|CP|FE

FE

FE

FE

FE

Fabric Site 3

WC

AP

AP

Neuigkeiten bei Cisco SD-Access
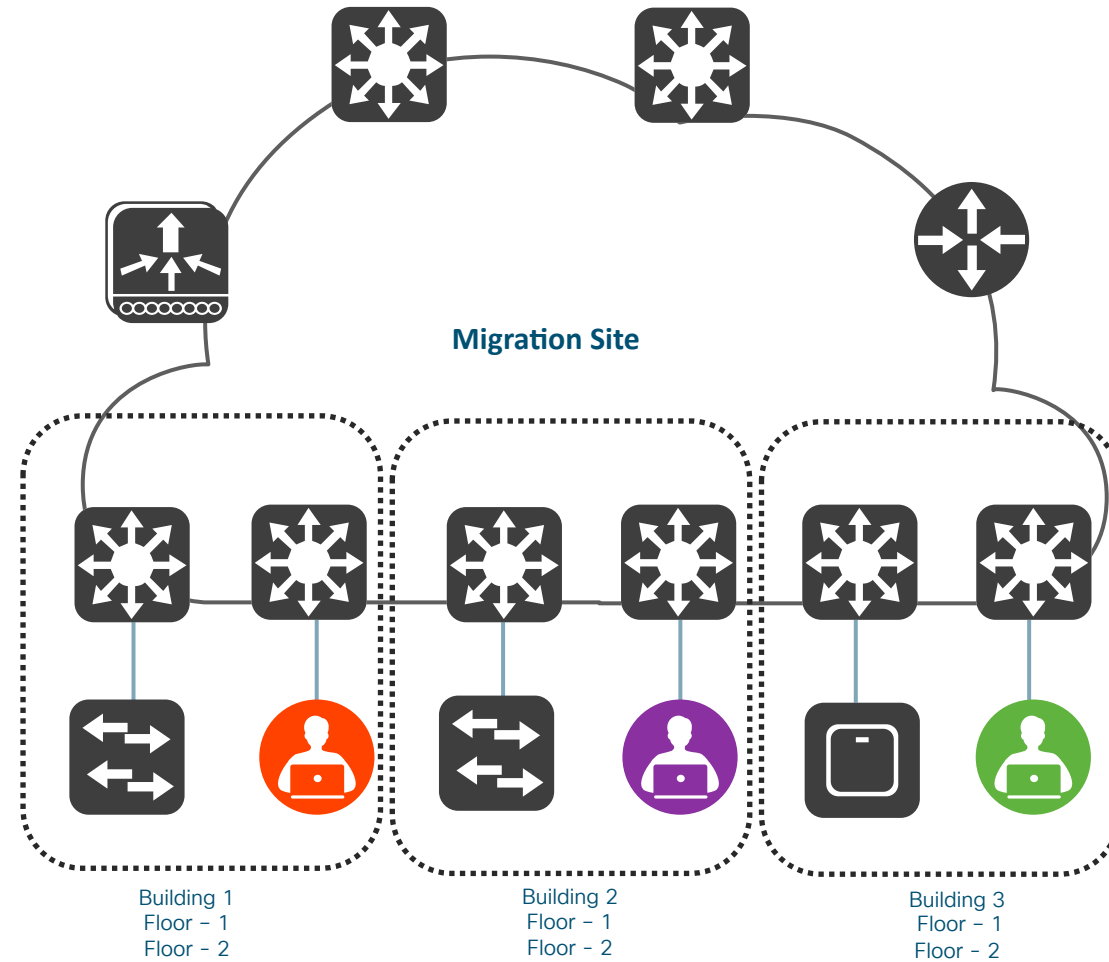
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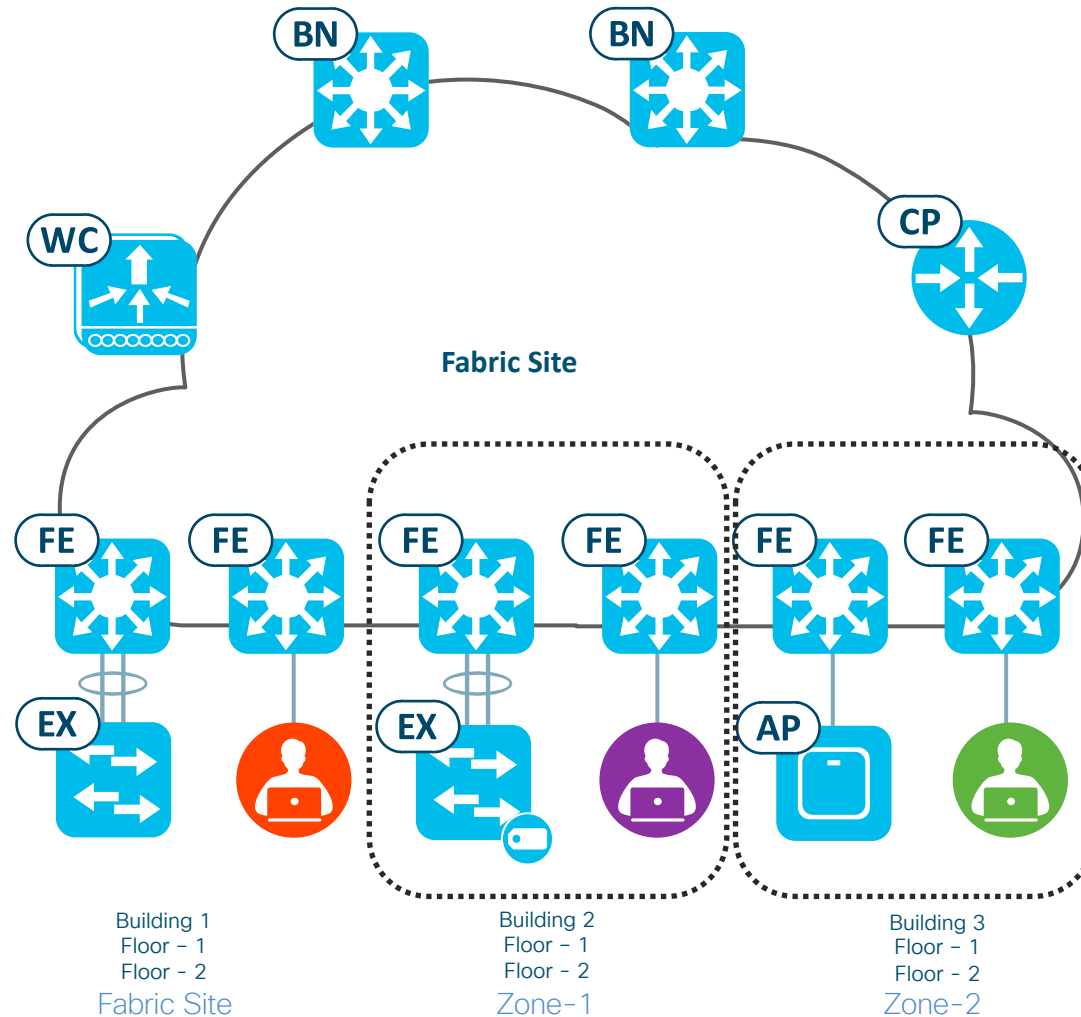
5 RMA Enhancements in Cisco SD-Access

SD-Access Fabric Zones

Migration Site

Building 1
Floor – 1
Floor – 2

Building 2
Floor – 1
Floor – 2

Building 3
Floor – 1
Floor – 2

SD-Access Fabric Zones

Migration Site

192.168.1.0/24
192.168.2.0/24
192.168.3.0/24

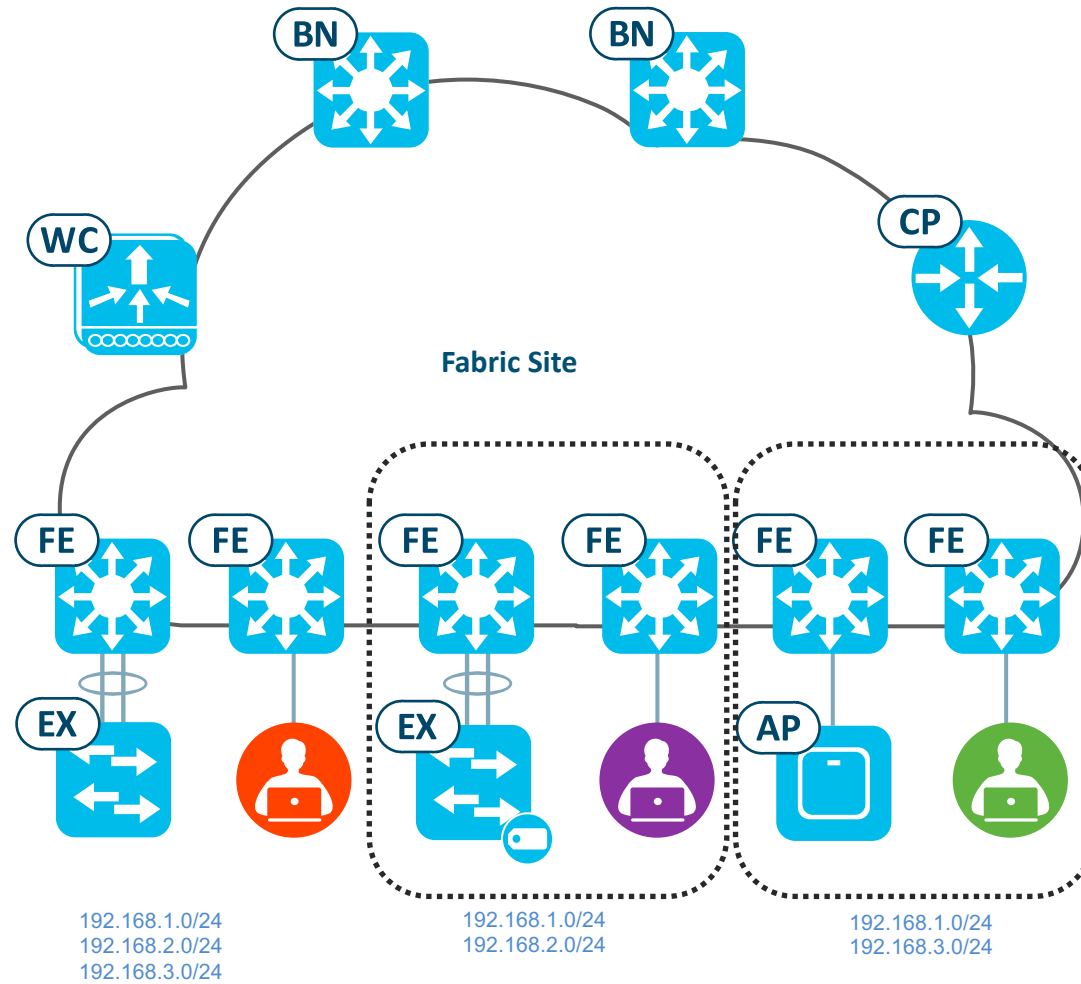192.168.1.0/24
192.168.2.0/24

192.168.1.0/24
192.168.3.0/24
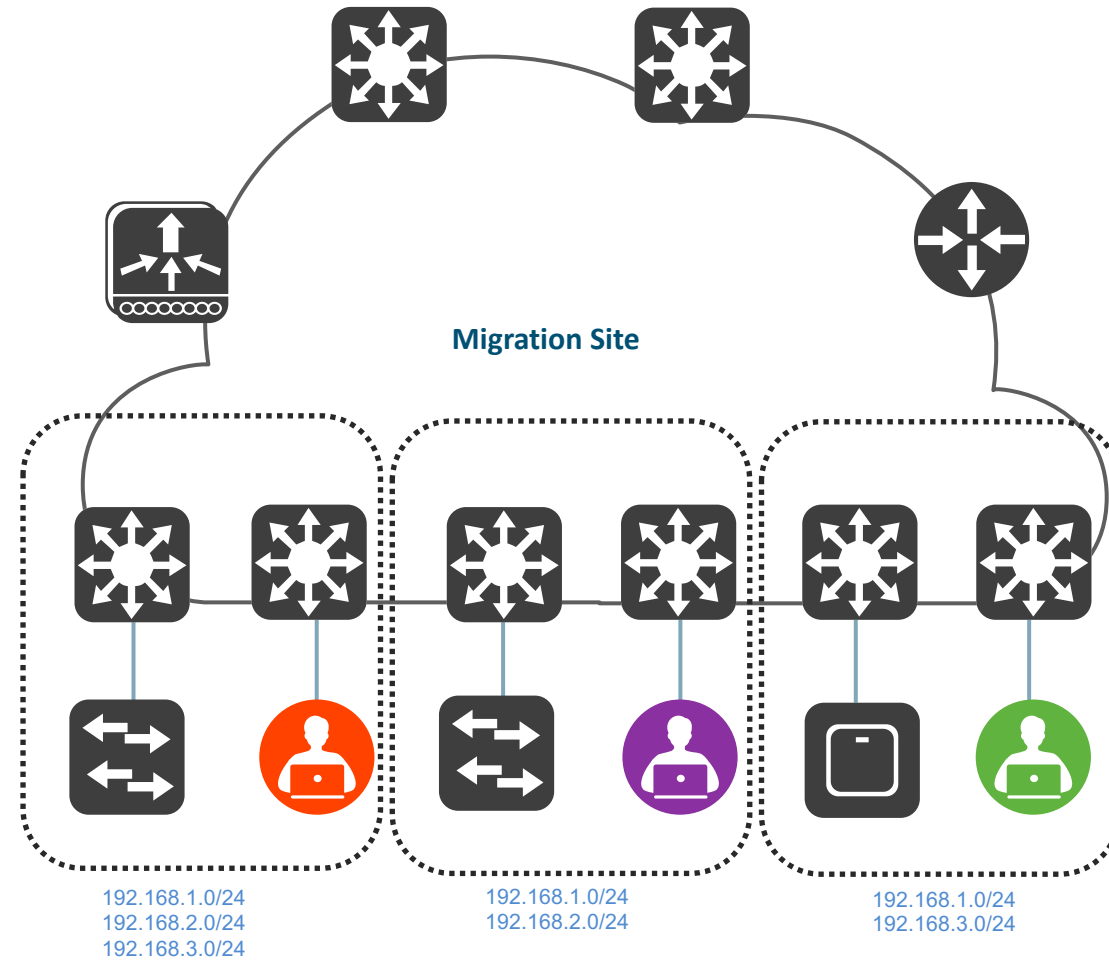
SD-Access Fabric Zones

Virtual Network – CAMPUS:
192.168.1.0/24
192.168.2.0/24
192.168.3.0/24

Fabric Site

Building 1
Floor – 1
Floor – 2
Fabric Site

Building 2
Floor – 1
Floor – 2
Zone-1

Building 3
Floor – 1
Floor – 2
Zone-2

SD-Access Fabric Zones

Fabric Site

BN · BN · WC · CP · FE · EX · AP

192.168.1.0/24
192.168.2.0/24
192.168.3.0/24

192.168.1.0/24
192.168.2.0/24

192.168.1.0/24
192.168.3.0/24

Site Hierarchy

US

Sanjose
BLD1
— Floor-1
— Floor-2

BLD2
— Floor-1
— Floor-2
Fabric zone-1

BLD3
— Floor-1
— Floor-2
Fabric zone-2

Fabric Site

Fabric Site

192.168.1.0/24
192.168.2.0/24
192.168.3.0/24

Fabric Site

192.168.1.0/24
192.168.2.0/24

Zone-1

192.168.1.0/24
192.168.3.0/24

Zone-2

Site Hierarchy

US

Sanjose

BLD1
- Floor-1
- Floor-2
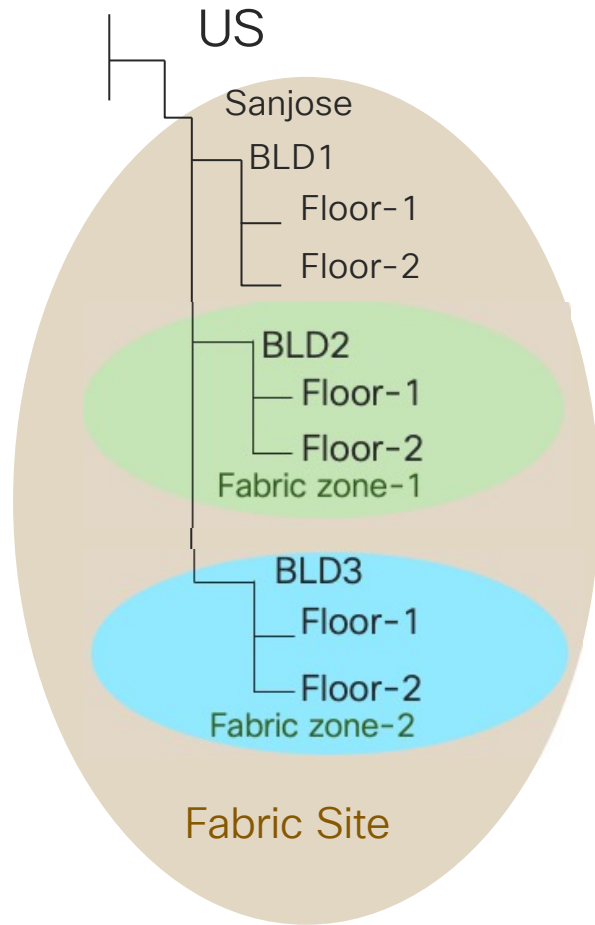
BLD2
- Floor-1
- Floor-2

Fabric zone-1

BLD3
- Floor-1
- Floor-2

Fabric zone-2

Fabric Site

VN-corp-1

192.168.1.0/24

192.168.2.0/24

192.168.3.0/24

SD-Access Fabric Zones

Feature Details

- Fabric zone can inherit all the pools within the VN or a selective pool within the VN by using the workflow on the Cisco DNAC.

- All the properties of the Pool such as layer2 flooding directed-broadcast would be inherited on the fabric zone.

Considerations

- The addition of CP/Border/WLC device is not allowed at the fabric zone. They need to be assigned at the parent fabric site only.

- When designing with a fabric zone , have the Border/CP and WLC at a site hierarchy layer where you don't intend to create a fabric zone.

- PEN/EN nodes within a fabric zone inherit the respective VLANs on the fabric zone.

- Any pool that is added to an existing VN in a fabric site, and if that pool needs to be used in a fabric zone will require explicit addition by using the workflow.
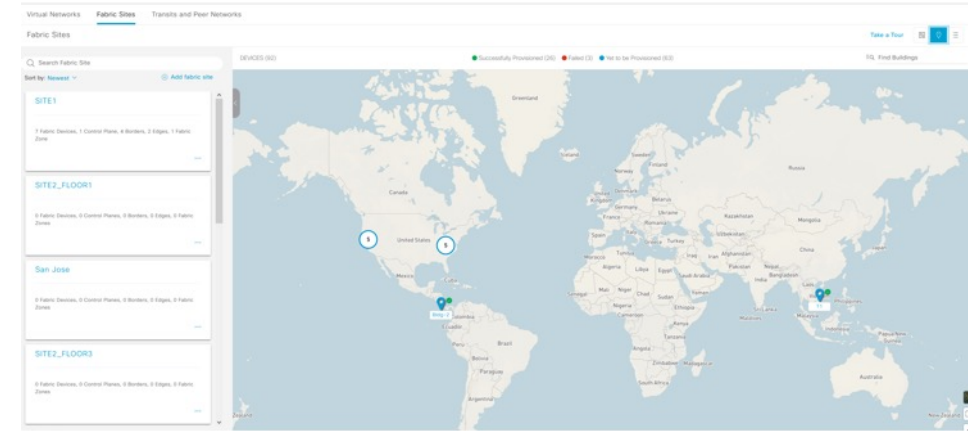
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New Cisco SD-Access User Interface
## Fabric Automation

Considerations

- All fabric configuration tasks can be completed in either traditional UI or new UI.

- Layer 3 Virtual Network creation and management has been relocated from Policy -> Virtual Network to Provision -> SD-Access -> Virtual Networks.

- If required, SGT to VN association is accomplished by editing a VN in Provision -> SD-Access -> Virtual Networks.

- Fabric Domains have been deprecated. Fabric sites no longer reside within fabric domains. For existing Cisco SD-Access implementations upgrading to 2.2.3.x, the Fabric Domains are removed with no impact to packet forwarding or configurability.

Fabric Site Visualization and Management

L3VN and Anycast Gateway Visualization and
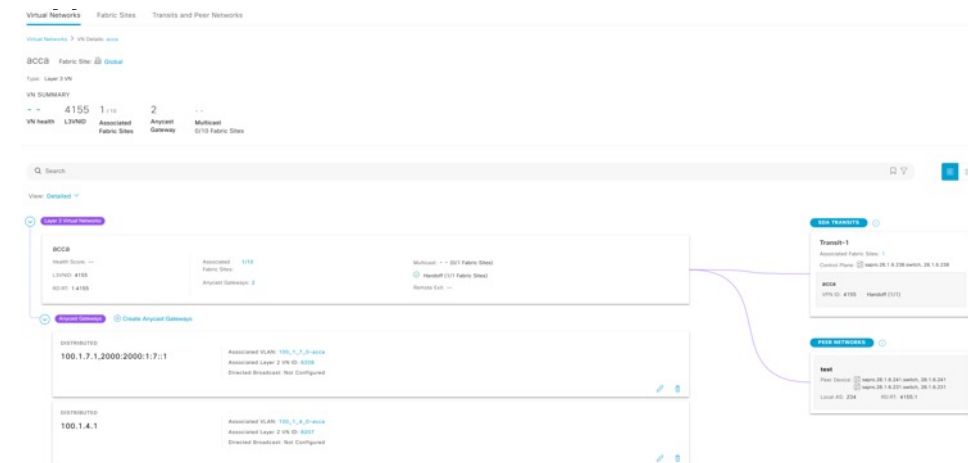
New Workflows

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Cisco SD-Access: Assurance
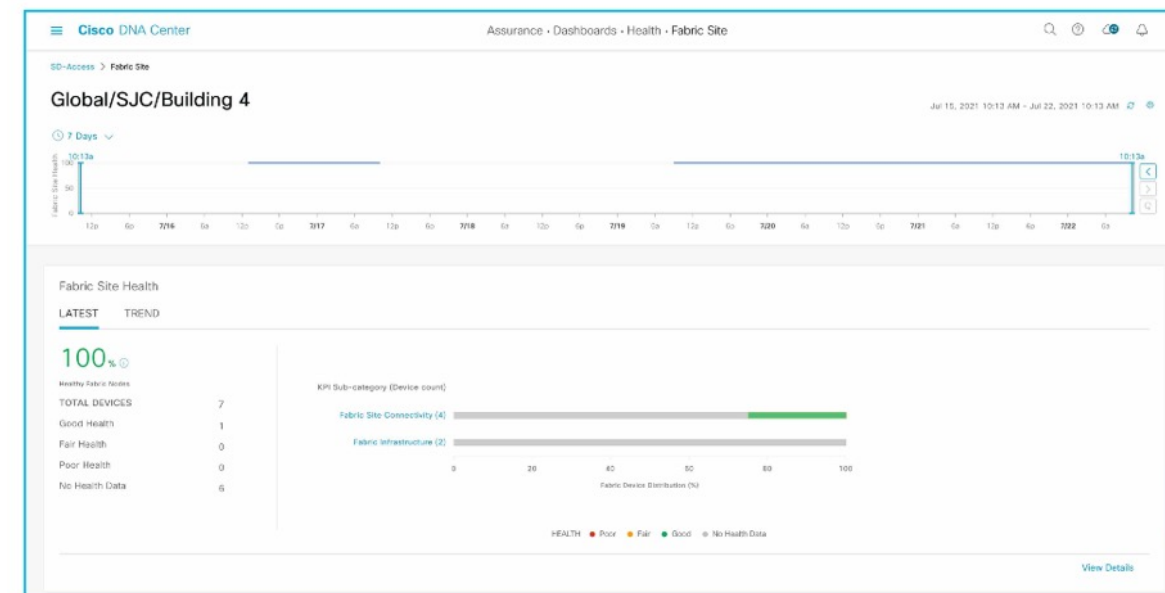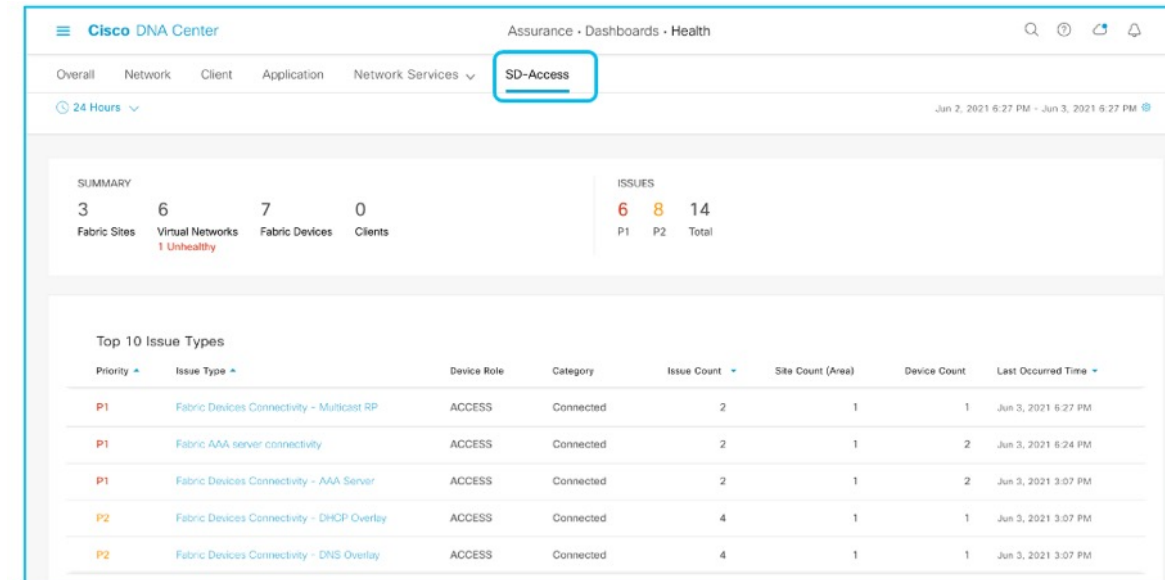## Fabric Assurance

Use Case

- Customers require detailed SD-Access health and fabric-specific operational visibility to detect and troubleshoot issues.

Details

- Cisco DNA Center Assurance has a new SD-Access landing page that contains overall fabric health information across all fabric sites.

- New fabric Assurance sub-categories have been added across various components to quickly triage VN services, infrastructure and connectivity issues.

- New fabric attributes have been added to existing Assurance:
  - Network device health.
  - Client 360 (VN information).

Considerations

- Cisco DNA Center must discover fabric devices using NETCONF.

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RMA Enhancements in Cisco SD-Access

Feature Overview

In Cisco DNA Center ≥2.2.3.x:

- One touch RMA workflow is Supported for:
  - Lan automated devices (LAN automation Primary and Peer devices including Seed Devices)
  - Fabric in a Box (Standalone)

- The following fabric devices are not supported in the RMA Workflow:
  - WLCs
  - Classic and Policy Extended Nodes
  - Devices with Embedded Wireless
  - Chassis-based switches including the Catalyst 9400, Catalyst 9600, Catalyst 4500e, Catalyst 6500, Catalyst 6800, and Nexus 7700 Series Switches
  - Switch Stacks (Hardware stacking)
  - StackWise Virtual Switches

Fragen?

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3rd Price
Coffee Cup

2nd Price
Thermo Bottle

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dankä villmal
grazie mille
merci beaucoup
grazia fitg
thank you