

The Cisco Live! logo features the word "CISCO" in a bold, black, sans-serif font, followed by "Live!" in a black, cursive script font. The background is a vibrant, multi-colored abstract pattern of overlapping, wavy bands in shades of red, orange, yellow, green, and blue, radiating from a bright white center on the right side.

CISCO *Live!*

Let's go

#CiscoLive



The bridge to possible

Introduction to NDFC:

Simplifying Management of Your Data Center

Richard Licon, Principal Technical Marketing Engineer

BRKDCN-1619

CISCO *Live!*

#CiscoLive

Cisco Webex App

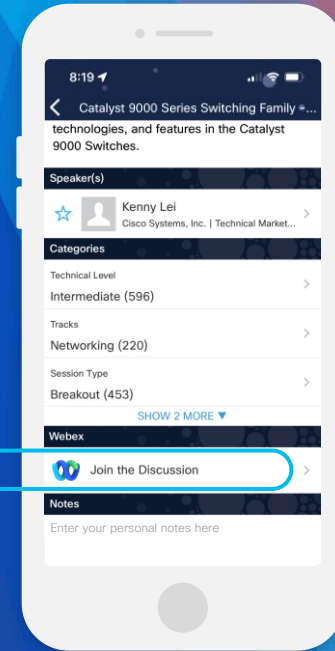
Questions?

Use Cisco Webex App to chat with the speaker after the session

How

- 1 Find this session in the Cisco Live Mobile App
- 2 Click “Join the Discussion”
- 3 Install the Webex App or go directly to the Webex space
- 4 Enter messages/questions in the Webex space

Webex spaces will be moderated by the speaker until June 9, 2023.



<https://cislive.ciscoevents.com/cislivebot/#BRKDCN-1619>

Agenda

- Introduction to NDFC
- Automation
- Automation Demo
- Management
- Visibility
- Summary

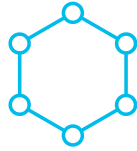
The new normal is a hyper-distributed, extremely diverse IT landscape



And your world is constantly changing...



How do you adapt to change now and stay in control for the future?



Connectivity



Operations

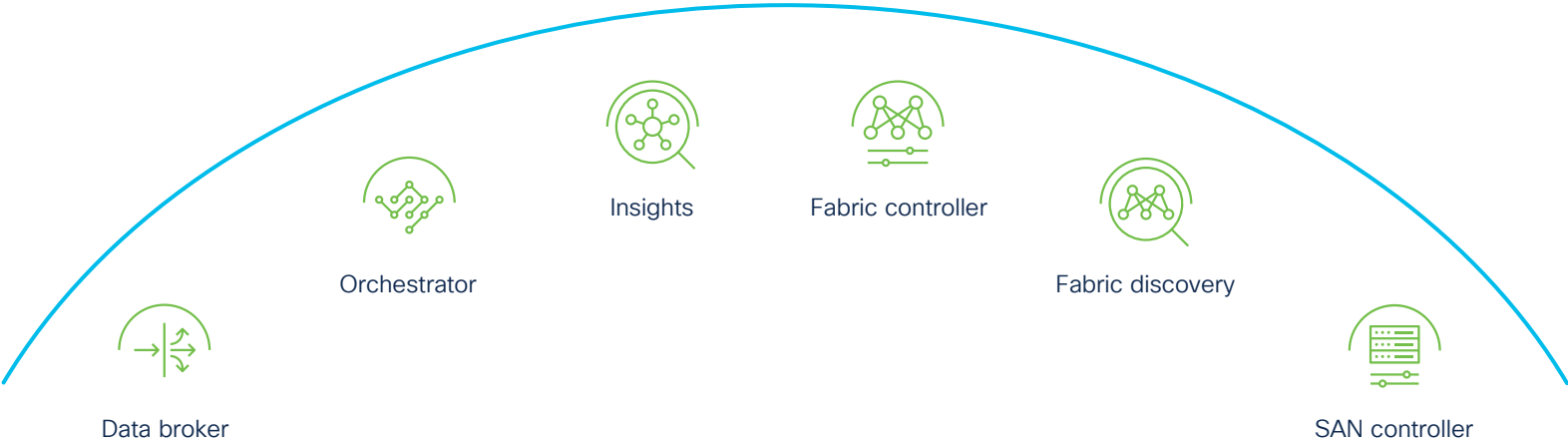


App experience



Cisco Nexus Dashboard

Simple to automate, simple to consume



Private cloud

Third-party apps

Public cloud



Cisco Nexus Dashboard Fabric Controller



Fabric discovery for
LAN Deployments

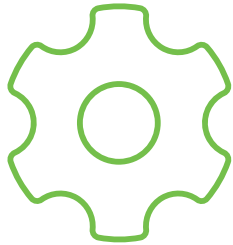


Fabric controller for LAN
and IPFM Deployments



SAN controller for MDS Fibre
Channel deployments

Cisco Nexus Dashboard Fabric Controller



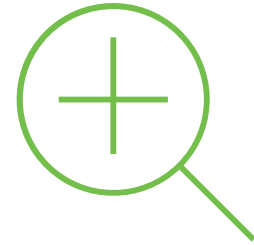
Automation

Accelerate provisioning
and simplify deployments



Management

In depth Management
and control for all
network deployments



Visibility

Get Centralized Visibility
and Monitoring views

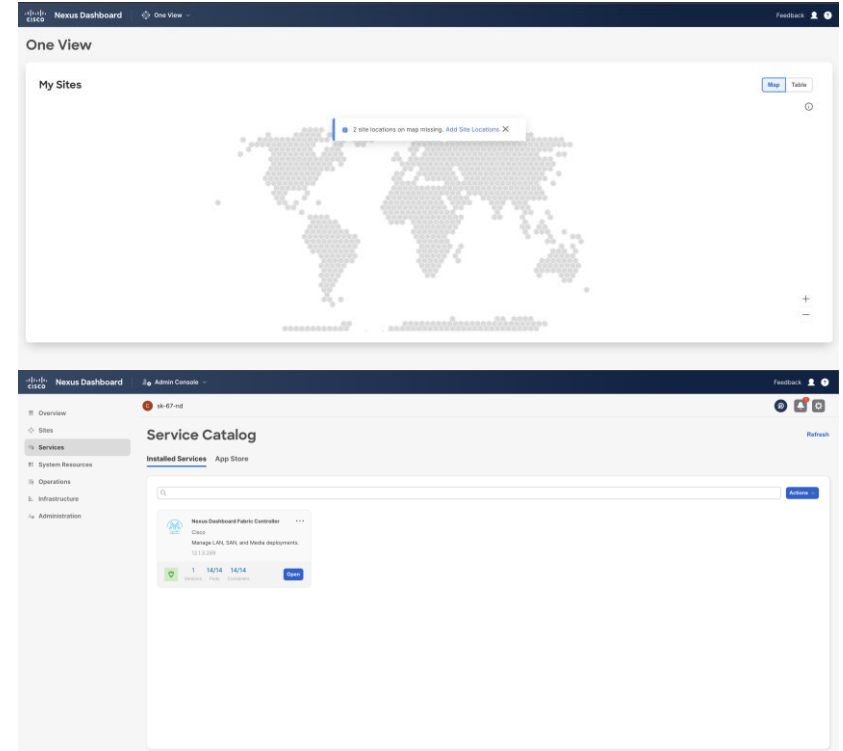
Cisco Nexus Dashboard Fabric Controller On Nexus Dashboard

Exclusively a service on ND

Supported on both Virtual and Physical ND

Complete micro-services architecture

3-node active-active cluster with L2 or L3 HA



Increased flexibility and scalability

Highly customizable

Single pane of glass view

Cisco Nexus Dashboard One View

Nexus Dashboard One View Feedback

One View

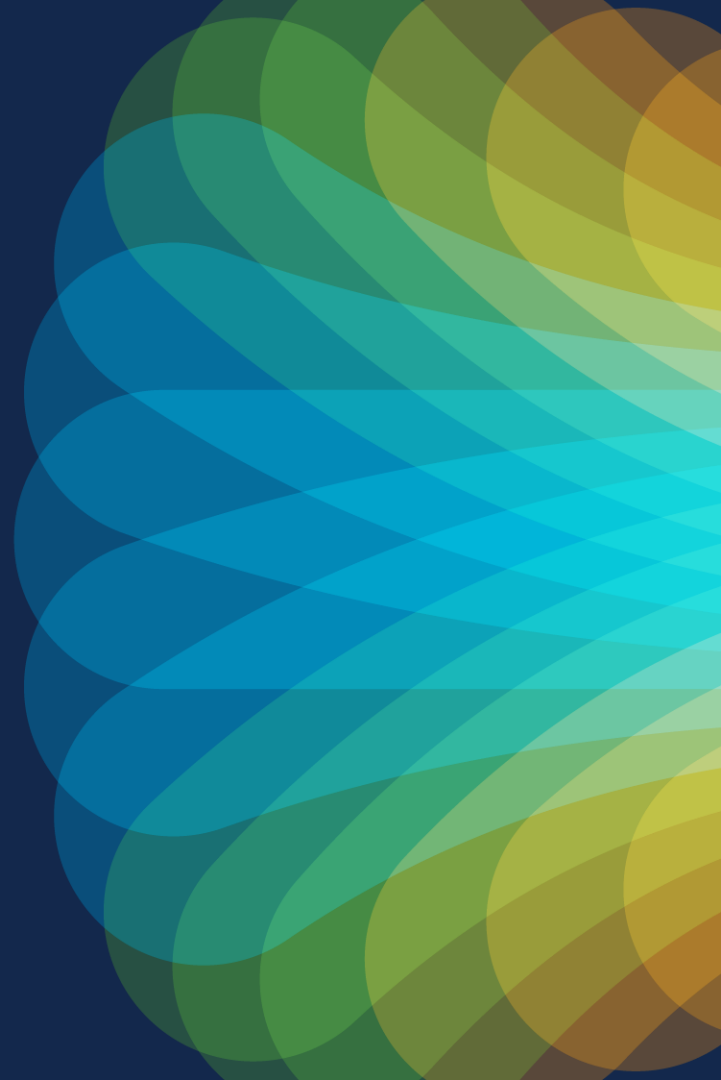
My Sites Map Table

Filter by attributes

Health Score	Name	Type	Connectivity Status	Anomaly Score	Advisories	Firmware Version	Services	
Critical	GF-Fab karishma-nd	NDFC	↑ Up	⊘ N/A	🔊 (N/A)	12.1.3.206	1	...
Healthy	VXLAN-EVPN-Fabric karishma-nd	NDFC	↑ Up	⊘ N/A	🔊 (N/A)	12.1.3.206	1	...
Healthy	Core-Fabric karishma-nd	NDFC	↑ Up	⊘ N/A	🔊 (N/A)	12.1.3.206	1	...
Healthy	Bf-Fab karishma-nd	NDFC	↑ Up	⊘ N/A	🔊 (N/A)	12.1.3.206	1	...

10 Rows Page 1 of 1 << 1-4 of 4 >>

Nexus Dashboard Fabric Controller: Feature Manager



NDFC Feature Manager

The screenshot displays the Cisco Nexus Dashboard Fabric Controller interface. The left sidebar contains navigation options: Dashboard, Topology, LAN, Settings, and Operations. The Settings menu is expanded, showing a sub-menu with 'Feature Management' highlighted. The main dashboard area is titled 'Dashboard' and includes a 'Refresh' button. The 'Overview' section contains three charts: 'Fabric Health' (5 Fabrics), 'Event Analytics' (354 Alarms), and 'Switches Configuration' (19 Switches). The 'Switches' section contains four charts: 'Switch Health' (19 Switches), 'Switch Roles' (19 Switches), 'Switch Hardware Version' (19 Switches), and 'Switch Software Version' (19 Switches).

Settings Menu:

- Settings
 - Server Settings
 - Feature Management**
 - LAN Credentials Management

Fabric Health (5 Fabrics):

- Minor (2)
- Healthy (1)
- Major (1)
- Critical (1)

Event Analytics (354 Alarms):

- Critical (3)
- Major (16)
- Minor (334)
- Warning (1)

Switches Configuration (19 Switches):

- NA (6)
- In-Sync (6)
- Out-of-Sync (5)
- Pending (2)

Switch Health (19 Switches):

- Minor (9)
- Healthy (5)
- Major (4)
- NA (1)

Switch Roles (19 Switches):

- edge router (7)
- border gateway (4)
- access (2)
- aggregation (2)
- leaf (2)
- Other

Switch Hardware Version (19 Switches):

- N9K-C9300v (4)
- N9K-C93240Y... (4)
- N9K-C9348GC... (2)
- ASR1001-X (1)
- NCS-5501 (1)
- Other

Switch Software Version (19 Switches):

- 10.2(3) (4)
- 9.3(6) (4)
- 9.3(7) (2)
- 9.2(3) (1)
- NA (1)
- Other

Nexus Dashboard Fabric Controller

The screenshot shows the Nexus Dashboard Fabric Controller interface. At the top, there is a dark blue header with the Cisco logo, 'Nexus Dashboard', and 'Fabric Controller' with a dropdown arrow. On the right side of the header are 'Feedback', a user icon, and a help icon. Below the header, a sidebar on the left contains a hamburger menu, 'Fabric Controller', 'Settings' (highlighted with a gear icon), and 'Operations' (with a person icon). The main content area is titled 'Feature Management' and includes a breadcrumb 'Settings > Feature Management'. Three feature cards are displayed: 'Fabric Discovery' (Discovery, Inventory and Topology for LAN deployments), 'Fabric Controller' (Full LAN functionality in addition to Fabric Discovery), and 'SAN Controller' (SAN Management for MDS and Nexus switches). Each card has a radio button on its right side. In the top right corner of the feature management area, there are 'Restore' and 'Refresh' buttons. At the bottom right, there is an 'Apply' button.

Nexus Dashboard Fabric Controller

The screenshot displays the Nexus Dashboard Fabric Controller interface. The top navigation bar includes the Cisco logo, 'Nexus Dashboard', and 'Fabric Controller'. The main content area is titled 'Feature Management' and contains three feature cards: 'Fabric Discovery', 'Fabric Controller', and 'SAN Controller'. The 'Fabric Controller' card is highlighted with a red box and a red arrow pointing to its settings icon. Below the cards is a table of features with checkboxes for enabling or disabling them. The 'Fabric Builder' feature is checked and highlighted with a red arrow. The interface also includes 'Settings' and 'Operations' menus on the left, and 'Restore' and 'Refresh' buttons on the right.

Settings > Feature Management

Feature Management

Fabric Discovery
Discovery, Inventory and Topology for LAN deployments

Fabric Controller
Full LAN functionality in addition to Fabric Discovery

SAN Controller
SAN Management for MDS and Nexus switches

Feature Name	Description	Status
<input type="checkbox"/> Change Control	Tracking and Approval of all configuration changes	
<input type="checkbox"/> Kubernetes Visualizer	Network Visualization of K8s Clusters	
<input type="checkbox"/> Endpoint Locator	Tracking Endpoint IP-MAC Location with Historical Information	
<input type="checkbox"/> IPAM Integration	Integration with IP Address Management (IPAM) Systems	
<input type="checkbox"/> Nexus Cloud Connector	Nexus Cloud Connector	
<input type="checkbox"/> Openstack Visualizer <small>BETA</small>	Network Visualization of Openstack Clusters	
<input type="checkbox"/> Performance Monitoring	Monitor Environment and Interface Statistics	
<input type="checkbox"/> IP Fabric for Media	Media Controller for IP Fabrics	
<input type="checkbox"/> PTP Monitoring	Monitor Precision Timing Protocol (PTP) Statistics	
<input type="checkbox"/> VMM Visualizer	Network visualization of Virtual Machines	
<input checked="" type="checkbox"/> Fabric Builder	Easy Fabric Functionality for NX-OS and Other devices	

Nexus Dashboard Fabric Controller

Feature Management

Settings > Feature Management

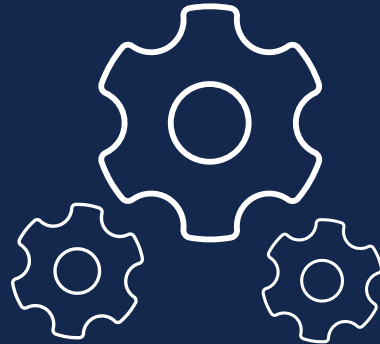
Fabric Discovery
Discovery, Inventory and Topology for LAN deployments

Fabric Controller
Full LAN functionality in addition to Fabric Discovery
Started

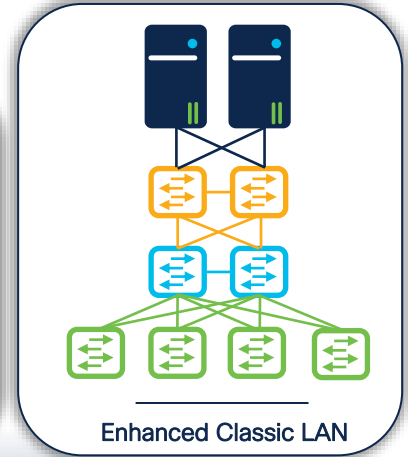
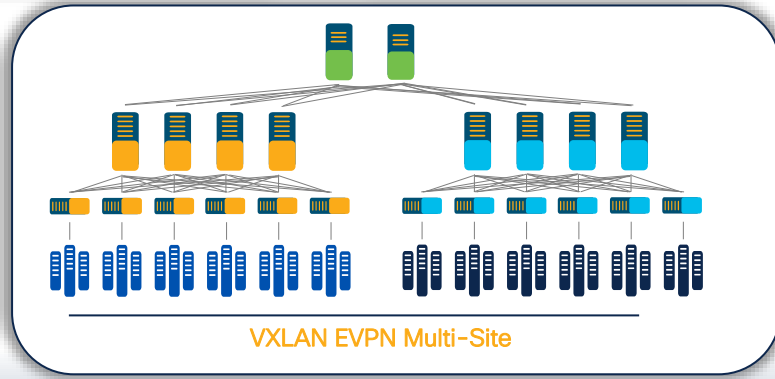
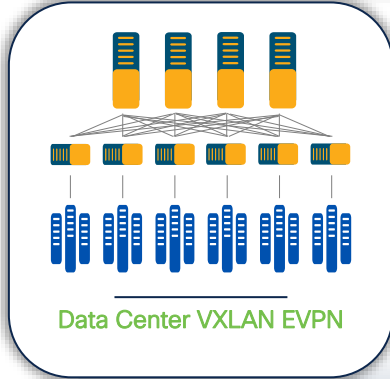
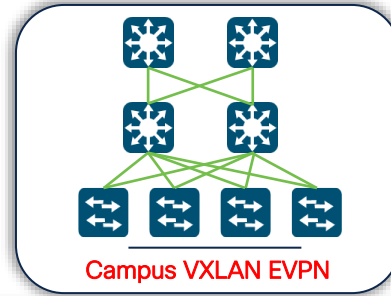
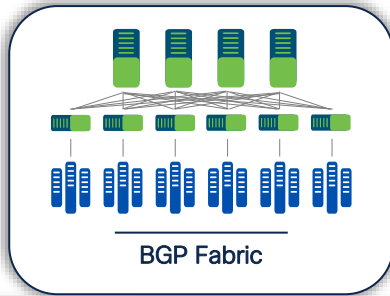
SAN Controller
SAN Management for MDS and Nexus switches

Feature Name	Description	Status
<input type="checkbox"/> Change Control	Tracking and Approval of all configuration changes	
<input checked="" type="checkbox"/> Kubernetes Visualizer	Network Visualization of K8s Clusters	Starting...
<input checked="" type="checkbox"/> Endpoint Locator	Tracking Endpoint IP-MAC Location with Historical Information	Starting...
<input type="checkbox"/> IPAM Integration	Integration with IP Address Management (IPAM) Systems	
<input type="checkbox"/> Nexus Cloud Connector	Nexus Cloud Connector	
<input type="checkbox"/> Openstack Visualizer <small>BETA</small>	Network Visualization of Openstack Clusters	
<input type="checkbox"/> Performance Monitoring	Monitor Environment and Interface Statistics	
<input type="checkbox"/> IP Fabric for Media	Media Controller for IP Fabrics	
<input type="checkbox"/> PTP Monitoring	Monitor Precision Timing Protocol (PTP) Statistics	
<input checked="" type="checkbox"/> VMM Visualizer	Network visualization of Virtual Machines	Starting...
<input checked="" type="checkbox"/> Fabric Builder	Easy Fabric Functionality for NX-OS and Other devices	Started

NDFC Automation



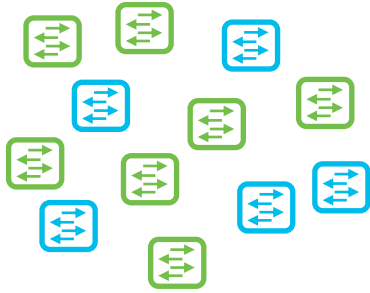
Fabric Builder



Automate VXLAN EVPN deployments

Provision a new fabric in minutes

Un-provisioned switches



Support for both brownfield and greenfield deployments



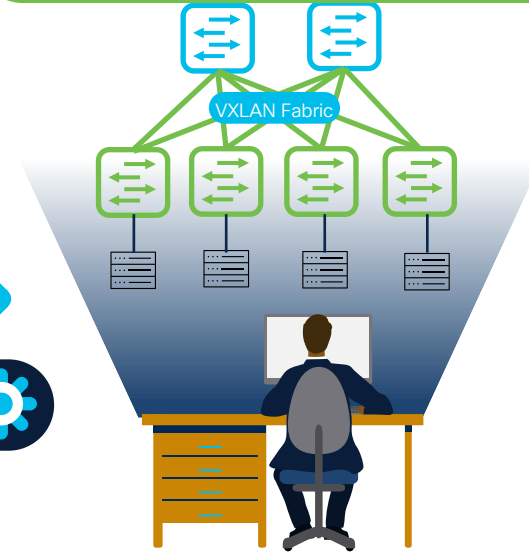
Within NDFC
select fabric builder



Fast, automated process



Cisco's best practice implemented



Accelerate fabric deployments

Automated consistency

Minimize risk

Support for both Greenfield and Brownfield deployment

Fabric Templates Summary

Type of Fabric	Description
Data Center VXLAN EVPN	Fabric for a VXLAN EVPN deployment with Nexus 9000 & 3000 switches.
Enhanced Classic LAN	Fabric for a fully automated 3-tier Classic LAN deployment with Nexus 9000 & 7000 switches.
Campus VXLAN EVPN	Fabric for a VXLAN EVPN Campus deployment with Catalyst 9000 switches & Nexus 9000 switches.
BGP Fabric	Fabric for an eBGP-based deployment with Nexus 9000 & 3000 switches. Optionally VXLAN EVPN can be enabled on top of the eBGP underlay.
Flexible Network	Fabric for flexible deployments with a mix of Nexus and Non-Nexus devices.
Fabric Group	Domain that can contain Enhanced Classic LAN, Classic LAN, & External Connectivity Network fabrics.
Classic LAN	Fabric to manage a legacy Classic LAN deployment with Nexus switches.
LAN Monitor	Fabric for monitoring Nexus switches for basic discovery & inventory management.
VXLAN EVPN Multi-Site	Domain that can contain multiple VXLAN EVPN Fabrics with Layer-2/Layer-3 Overlay Extensions & other Fabric Types.
Multi-Site Interconnect Network	Fabric to interconnect VXLAN EVPN fabrics for Multi-Site deployments with a mix of Nexus & Non-Nexus devices.
External Connectivity Network	Fabric for Core and Edge router deployments with a mix of Nexus and Non-Nexus devices.

Zero Touch Deployment

POAP – Power On Auto Provisioning



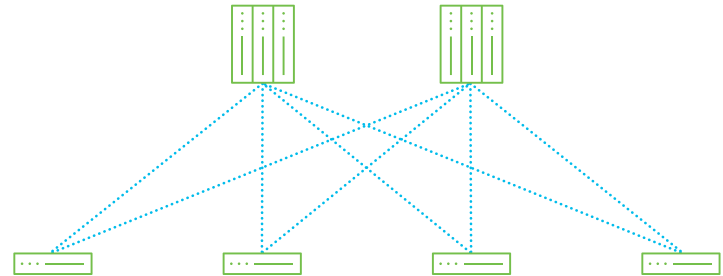
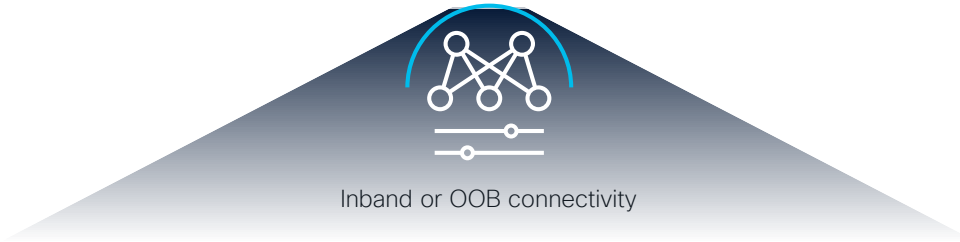
Flexible bootstrap and management
via in-band (front-panel port)
or out of band port



Supports VXLAN EVPN,
Classic LAN fabrics



Convenient connectivity
options for all device roles:
leaf, spine, border leaf, border spine



Zero touch fabric onboarding and management

Data Center EVPN VXLAN Automation Demo

NDFC Management

Management



- Single point for management for data center operations
- Optimized for both large deployments and traditional deployment models
- Granular RBAC
- Image management
- RMA
- Scale within and across data centers with Nexus Dashboard Orchestrator
- Management for non-Nexus platforms

Reliability

Compliance

Secure

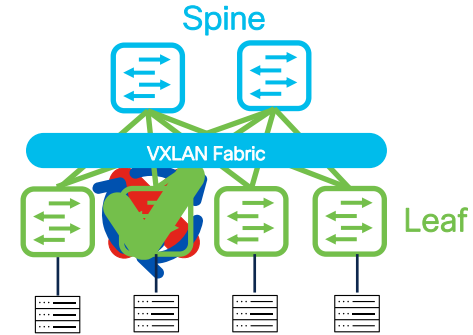
Configuration Compliance



Ensure fabric consistency

Continuously monitors if configuration is compliant with user intent

Error detection, flag drifts for remediation



Fabric reliability and visibility

Operations confidence

Streamlined Image and Patch Management for NXOS

Simplify, Speed up, and Mitigate Risks of Errors



Why

Upgrading manually might take a long time and prone to error



How

Image Management Automates the whole Upgrade process.



What

Automate Software Upgrade for One or a Group of Cisco Nexus switches



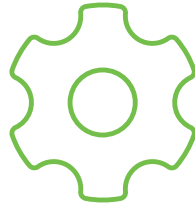
When

Scheduled & On-demand

Streamlined Image and Patch Management

Maintenance mode

- Guided workflows
- Image upgrades, EPLD upgrades and downgrades, SMU



Pre-Upgrade Steps

1. **Upload** an image [Images Tab](#)
2. **Create** a Policy [Image Policies Tab](#) for image compliance
3. **Modify Groups** (Optional) [Devices Tab](#) to conveniently track upgrades for a set of switches
4. **Modify Policy** to Attach a Policy to the switches
5. **Stage Image** to copy images to the switches
6. **Validate** will indicate if the upgrade is disruptive or non-disruptive
7. **Run Pre-Report** (Optional) baseline state report, prior to upgrade run Pre ISSU

Disruptive Upgrade of a Device Group during a Maintenance Window

1. **Change Mode** to Maintenance
2. **Upgrade** up to 4 times NX-OS, EPLD and/or RPM. EPLD Golden is always separate
3. **Change Mode** to Normal
4. **Run Reports** (Optional) after switches are back to normal state run the Post ISSU

Non-Disruptive Upgrade of a Device Group during a Maintenance Window

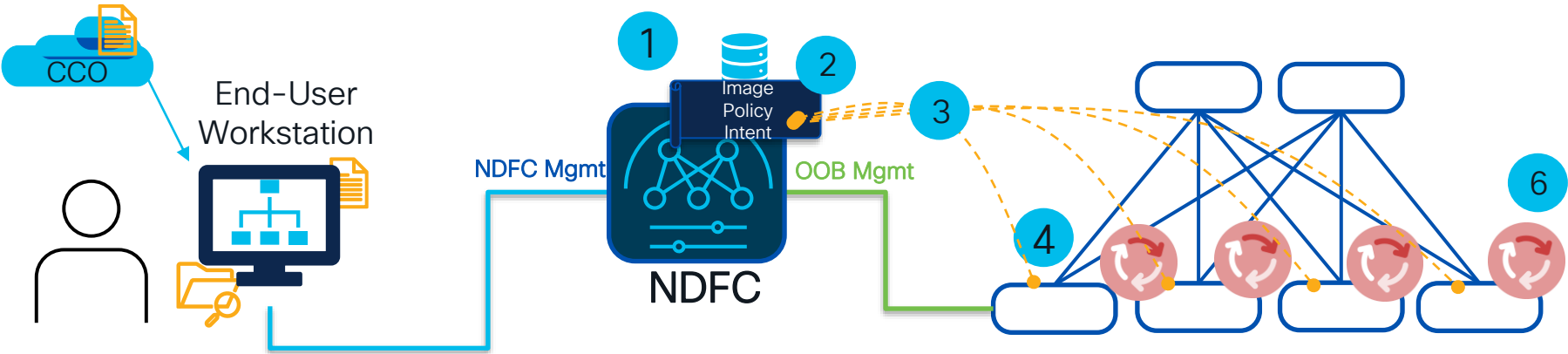
1. **Upgrade** up to 2 times for NX-OS or RPM
2. **Run Reports** (Optional) after switches are back to normal state run the Post ISSU

Simplified

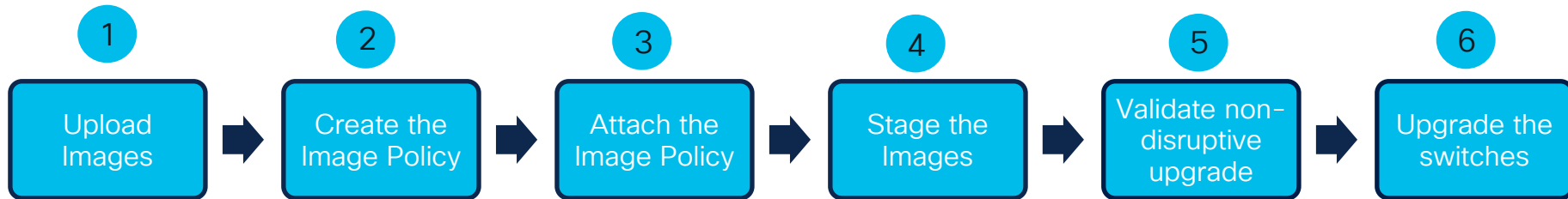
Intuitive

Customizable

Image Management Workflow Example

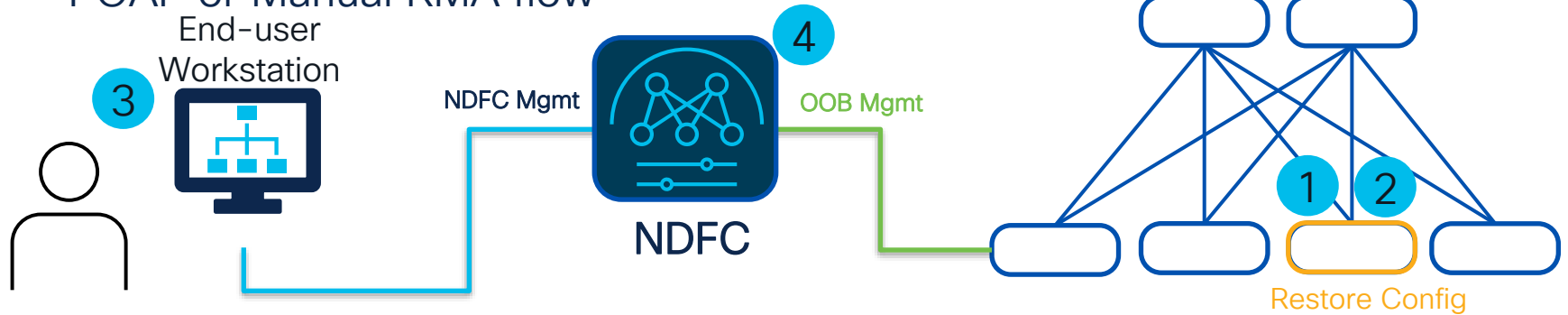


Discover the switches into Nexus Dashboard Fabric Controller.



Return Material Authorization (RMA)

POAP or Manual RMA flow



1

From the Fabric Overview, select the concerned switch and Change its Mode to Maintenance

2

Replace the switch with new one

3

Provision RMA and Set the Admin Password (for POAP)

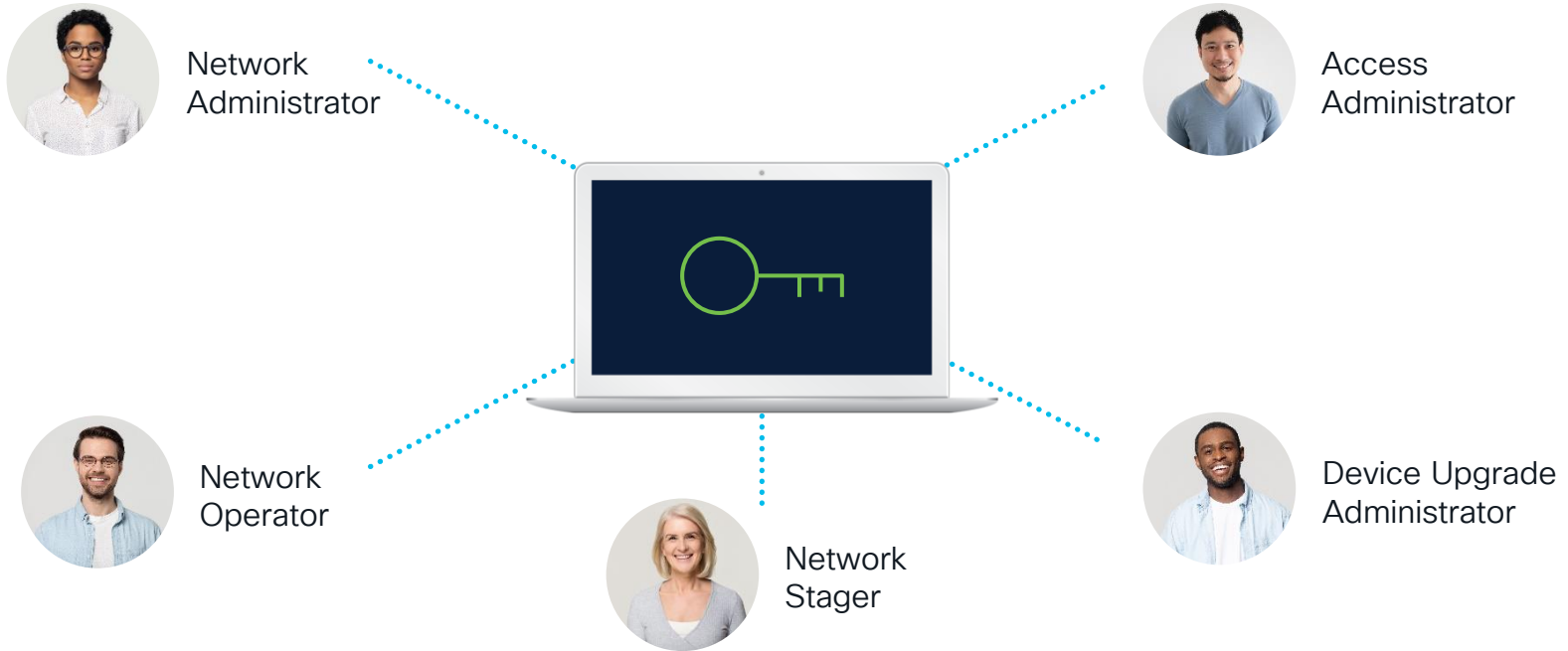
4

Select the device to replace and click Provision RMA

5

Move the device back to Normal Mode (~5 mins for full configuration)

Role-based access control (RBAC)



Increase efficiency and productivity with granular roles orchestrated from Cisco Nexus Dashboard

Increase developer agility with NDFC DevOps

Integrations with
Ansible and Terraform

Utilize GUI or automation
through APIs



REST : API

Accelerate deployments

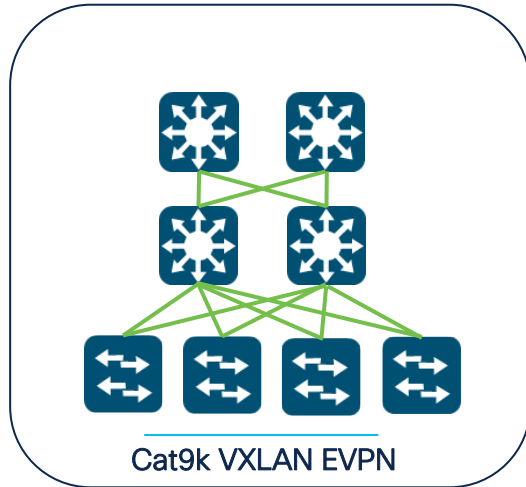
Increase consistency

Minimize risk

Non-Nexus platform support

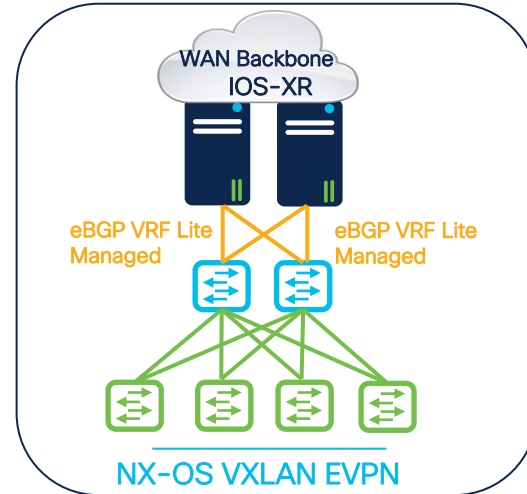
IOS-XE Cat9k VXLAN EVPN Automation

NDFC 12 supports Fabric Builder template for Cisco IOS-XE: Catalyst 9k VXLAN EVPN automation.



IOS-XR ASR 9000/NCS5500 managed mode

NDFC 12 supports config management for IOS-XR devices in External fabrics. Configuration compliance will also be enabled.

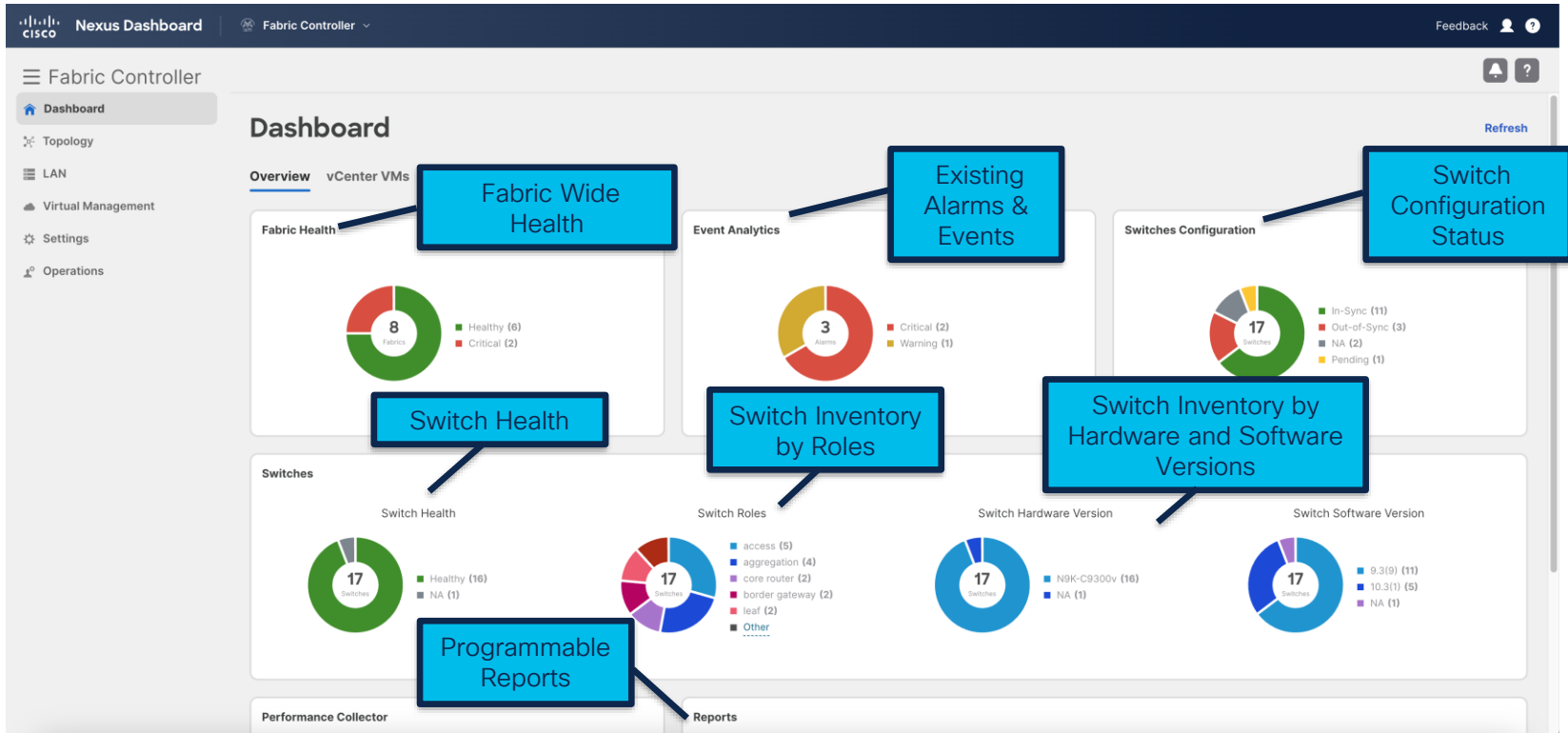


Increased functionality and support in NDFC for customers deploying non-Nexus switches

NDFC Visibility



NDFC Dashboard



Compute Visibility



Nexus Dashboard

Fabric Controller

Dashboard | Topology | LAN | Virtual Management | Settings | Operations

Data Center / 172.25.74.45 / Compute (5) / 172.25.74.41

View | Filter by Attributes | Connection State == connected

Display connected Physical Hosts

Display DVS/vSwitch

Display VMs

Virtual Machine: ubuntu-network1-01

General Information	
Connection State	Power State
connected	poweredOn
Memory Size(MB)	Number of vCPUs
2048	2
Product Name	Product Vendor
Product Version	

Guest Information	
Guest Full Name	Guest ID
Ubuntu Linux (64-bit)	ubuntu64Guest
Compute Name	ubuntu-network1-01

Single point of management providing in depth visibility and information

VMM, Kubernetes, and OpenStack VM level visibility

VMM Visibility



vCenter Instance

Visualise the virtual infrastructure at different layer

Hosts

172.25.74.41
172.25.74.42
172.25.74.82
172.25.74.40
172.25.74.67

DVS

vSwitch0
DSwitch

VM

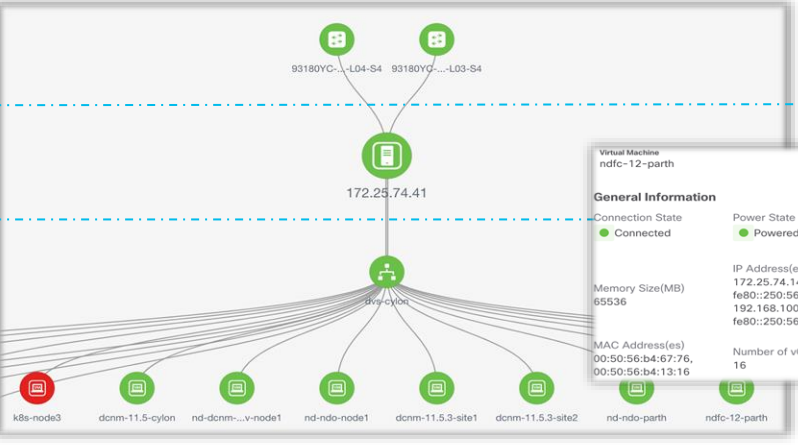
nd-ndo-parth
ndfc-12-parth
dcm-terraform-dev
nkt-master-02
nkt-worker-02
ubuntu_focal_test

Hosts

DVS

VM

Display connectivity details



Virtual Machine
ndfc-12-parth

General Information

Connection State: Connected
Power State: Powered On

Memory Size(MB): 65536

IP Address(es):
172.25.74.144, fe80::250:56ff:feb4:6776, 192.168.100.5, fe80::250:56ff:feb4:1316

MAC Address(es):
00:50:56:b4:67:76, 00:50:56:b4:13:16

Number of vCPUs: 16

Ethernet1/33
93180YC-FX-L04-S4

vmnic11
172.25.74.40

dvs-cylon
Network: parth_nd_data
Port Group Name: parth_nd_data
DVS Port Group: 85286
VLAN: 192

Guest Information

Guest Full Name: CentOS 7 (64-bit)
Guest ID: centos7_64Guest

Compute Name: ndfc-12-parth.ndfc-12-parth.case.local

93180YC...L04-S4
93180YC...L03-S4
172.25.74.40
172.25.74.40
vmnic10
VLAN: 0-4094
dvs-cylon
ndfc-12-parth

Leaf nodes

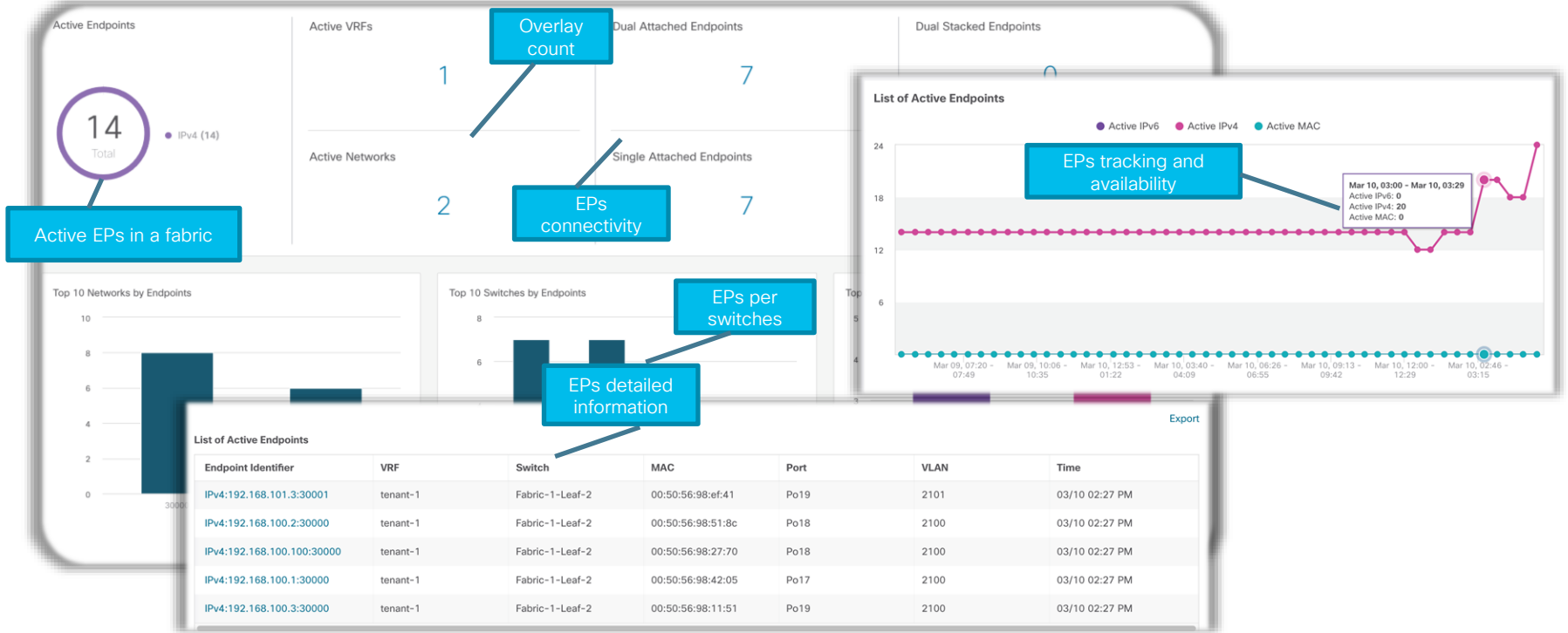
Physical Host

DVS

Virtual Machines



Endpoint Locator and Visualizer



Almost real-time data on active endpoints

Single pane of glass for all EP visualization

Endpoint life and history

Active VRFs and Networks

Visualize multiple fabrics with topology views

The screenshot displays the Cisco DNA Center interface for a Data Center fabric. The main view shows a network topology with nodes labeled as leaf4-fab1, leaf3-fab1, leaf1-fab1, leaf2-fab1, spine1-fab1, spine2-fab1, border1-fab1, and border2-fab1. The topology is connected to a central VRF and Network (NET) block. Callouts highlight key features: 'Underlay and Overlay links', 'VLAN Overlays', 'Switch specific information', 'Oper vs Config view', and 'Color coded Compliance status'. The sidebar on the right provides 'General Info' for a specific switch (leaf2-fab1) and 'Inventory' metrics (2 Modules, 0 FEX). Performance metrics for CPU Utilization (18%) and Memory (56%) are also shown.

View

DC Data Center / DC-Fabric-1

Search by Attributes

View controls: +, -, ↗, ↻, 📄

Show Logical Links:

Operation | Configuration

Custom Saved

- In-Sync
- Pending
- In Progress
- Out-of-Sync
- NA

Select multiple nodes: 0 selected

General Info

Switch Name	IP Address	Serial Number
leaf2-fab1	192.168.100.81	9YIO01E30UM
Role	Group	
Leaf	DC-Fabric-1	
Model	Version	vPC Domain Id
N9K-9000v	9.3(1)	1
Maintenance Mode	Connectivity Status	
Normal	● OK	
Uptime	1 day, 17 hours, 38 minutes	

Inventory

2 Modules (OK) | 0 FEX (N/A)

Performance Metrics

CPU Utilization: 18% | Memory: 56%

Switch Performance Metrics

Real Time Switch Health & Performance Monitoring

New Programmable Report to simplify Performance visualization

LAN & SAN Fabric Monitoring for CPU, Memory, Traffic and Interface Utilization

Enabled per Fabric for Easy Fabric, External and LAN Classic Template (NX-OS)

Email based out-of-band notification can be used to export reports externally



Report Name*
Performance-Report

Select Template*
Performance_Report >

Top records to Chart*
3

Max Number of Rows to show per Table*
20

Include CPU*
true

Include Memory*
true

Include Links*
true

Include Other Ports*
true

LAN-Perf-Report-2 - Monday, March 21st 2022, 3:22:12 pm



Visibility and monitoring



Get comprehensive monitoring

Enhanced topology views

Compute and endpoint visibility

VXLAN OAM support with NDFC

Obtain detailed inventory, health, resource consumption information on devices

End-to-end visibility, monitoring and troubleshooting

Integrate with NDI for Day 2 operations

Intuitive

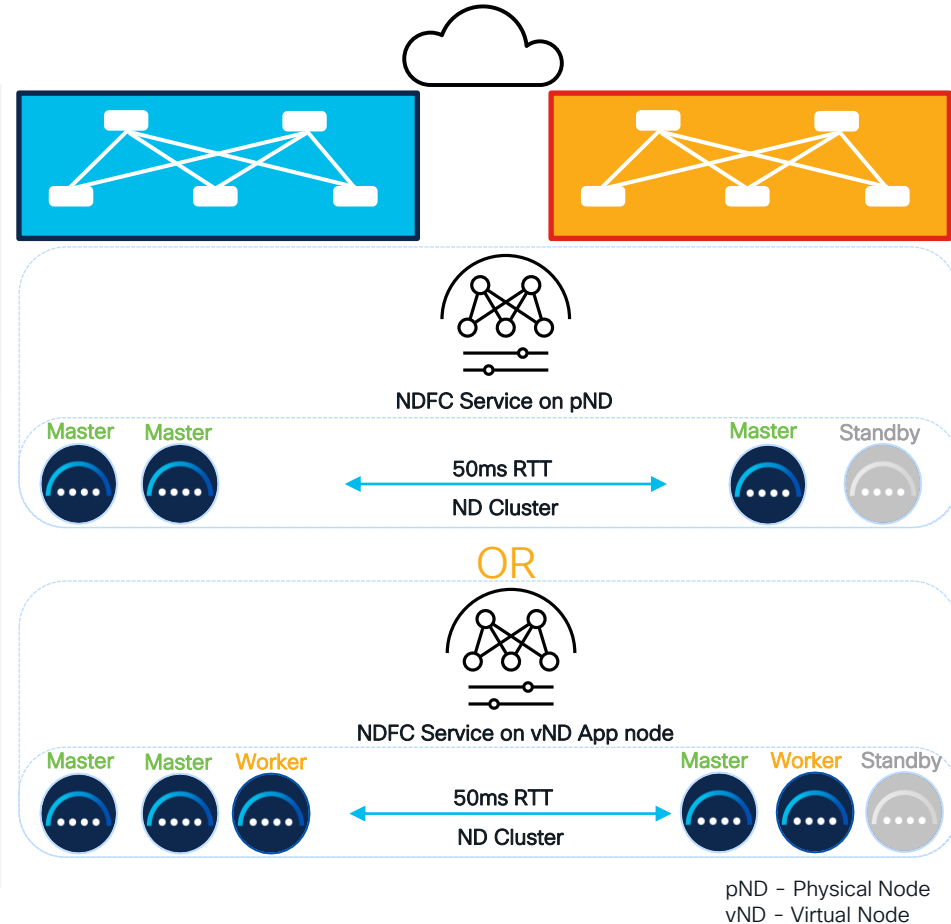
Deep visibility

Enhanced monitoring

Nexus Dashboard Fabric Controller

Distributed Cluster Deployment

- **Master node:** Control plane of a cluster. Performs scheduling tasks when PODs are instantiated based on resources/load and maintains state of the cluster.
- **Worker node:** Horizontal scale-out and host the application microservices.
- **Standby node:** Increasing HA in case of Master node failure. Only a Standby node can be promoted to Master.
- NDFC tolerates failure of up to 1 Master node. The ND/NDFC cluster goes into read-only when 2 Master nodes are down.



NDFC Summary & Benefits

NDFC solution benefits



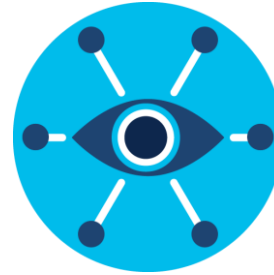
Streamlined
lifecycle
management



Automate and
configure your
networks with ease



Maintain
compliance and
detect errors



Extensive visibility,
monitoring and
modernized
topology views



Expand your
network with
integrations with
NDO and NDI

Fill out your session surveys!



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Attendees will also earn 100 points in the **Cisco Live Challenge** for every survey completed.



These points help you get on the leaderboard and increase your chances of winning daily and grand prizes

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- Book your one-on-one Meet the Engineer meeting
- Attend the interactive education with DevNet, Capture the Flag, and Walk-in Labs
- Visit the On-Demand Library for more sessions at www.CiscoLive.com/on-demand



The bridge to possible

Thank you

CISCO *Live!*

#CiscoLive

The Cisco Live! logo features the word "CISCO" in a bold, black, sans-serif font, followed by "Live!" in a black, cursive script font. The background is a vibrant, multi-colored abstract pattern of overlapping, wavy bands in shades of red, orange, yellow, green, and blue, radiating from a bright white center on the right side.

CISCO *Live!*

Let's go

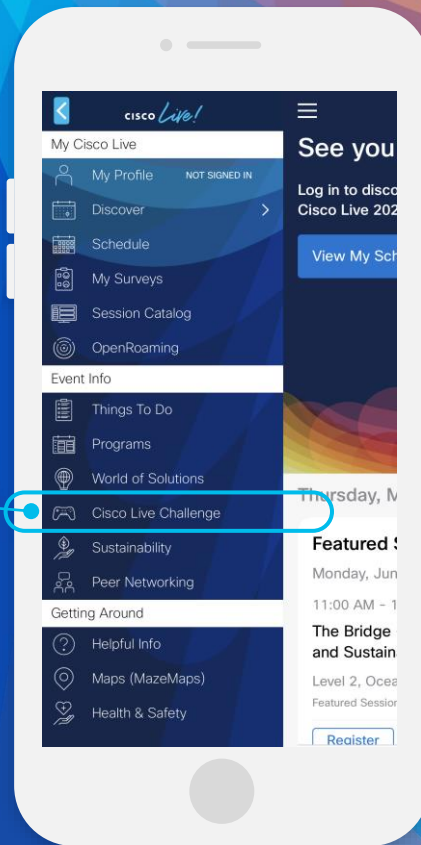
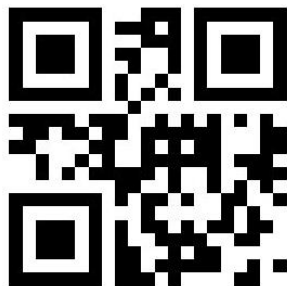
#CiscoLive

Cisco Live Challenge

Gamify your Cisco Live experience!
Get points for attending this session!

How:

- 1 Open the Cisco Events App.
- 2 Click on 'Cisco Live Challenge' in the side menu.
- 3 Click on View Your Badges at the top.
- 4 Click the + at the bottom of the screen and scan the QR code:



Backup Slides

Data Center EVPN VXLAN Automation Steps covered in Demo

Create Fabric

The screenshot displays the Cisco Nexus Dashboard Fabric Controller interface. The top navigation bar includes the Cisco logo, 'Nexus Dashboard', and 'Fabric Controller'. A sidebar on the left lists navigation options: Dashboard, Topology, LAN, Virtual Management, Settings, and Operations. A dropdown menu is open under 'LAN', with 'Fabrics' highlighted and a red arrow pointing to it. The main content area is divided into several sections:

- Overview vCenter VMs**: Contains three donut charts:
 - Health**: 6 Fabrics (4 Healthy, 2 Critical)
 - Event Analytics**: 3 Alarms (2 Critical, 1 Warning)
 - Switches Configuration**: 16 Switches (10 In-Sync, 6 Out-of-Sync)
- Switches**: Contains four donut charts:
 - Switch Health**: 16 Switches (Healthy)
 - Switch Roles**: 16 Switches (access: 5, aggregation: 4, border gateway: 2, leaf: 2, core router: 2, spine: 1)
 - Switch Hardware Version**: 16 Switches (N9K-C9300v: 16)
 - Switch Software Version**: 16 Switches (9.3(9): 11, 10.3(1): 5)
- Performance Collector**: Shows 'Worker-1'.
- Reports**: Displays 'No Reports available'.

Create Fabric

The screenshot shows the Cisco Nexus Dashboard Fabric Controller interface. The main content area displays a table titled "LAN Fabrics". The table has columns for Fabric Name, Fabric Technology, Fabric Type, ASN, and Fabric Health. The table contains six rows of fabric information. A red arrow points to the "Actions" button located in the top right corner of the table's header area.

	Fabric Name	Fabric Technology	Fabric Type	ASN	Fabric Health
<input type="radio"/>	FG Hide child Fabrics ▾	Switch Group	Multi-Fabric Domain	NA	Healthy
<input type="radio"/>	Core-Fabric	External	External	65534	Healthy
<input type="radio"/>	Gf-Fab	VLAN Fabric	Switch Fabric	65536	Critical
<input type="radio"/>	Bf-Fab	VLAN Fabric	Switch Fabric	65535	Healthy
<input type="radio"/>	Multisite-Fabric Hide child Fabrics ▾	VXLAN Fabric	Multi-Fabric Domain	NA	Critical
<input type="radio"/>	VXLAN-EVPN-Fabric	VXLAN Fabric	Switch Fabric	65530	Healthy

Page 1 of 1 << 1-6 of 6 >>

Create Fabric

Nexus Dashboard Fabric Controller

Fabric Controller

Dashboard Topology LAN Virtual Management Settings Operations

LAN Fabrics

Filter by attributes


	Fabric Name	Fabric Technology	Fabric Type	ASN	Fabric Health	
<input type="radio"/>	FG Hide child Fabrics	Switch Group	Multi-Fabric Domain	NA	Healthy	Actions Create Fabric Edit Fabric Delete Fabric
<input type="radio"/>	Core-Fabric	External	External	65534	Healthy	
<input type="radio"/>	Gf-Fab	VLAN Fabric	Switch Fabric	65536	Critical	
<input type="radio"/>	Bf-Fab	VLAN Fabric	Switch Fabric	65535	Healthy	
<input type="radio"/>	Multisite-Fabric Hide child Fabrics	VXLAN Fabric	Multi-Fabric Domain	NA	Critical	
<input type="radio"/>	VXLAN-EVPN-Fabric	VXLAN Fabric	Switch Fabric	65530	Healthy	

10 Rows Page 1 of 1 << 1-6 of 6 >>

Create Fabric

Create Fabric ? — ×

Fabric Name

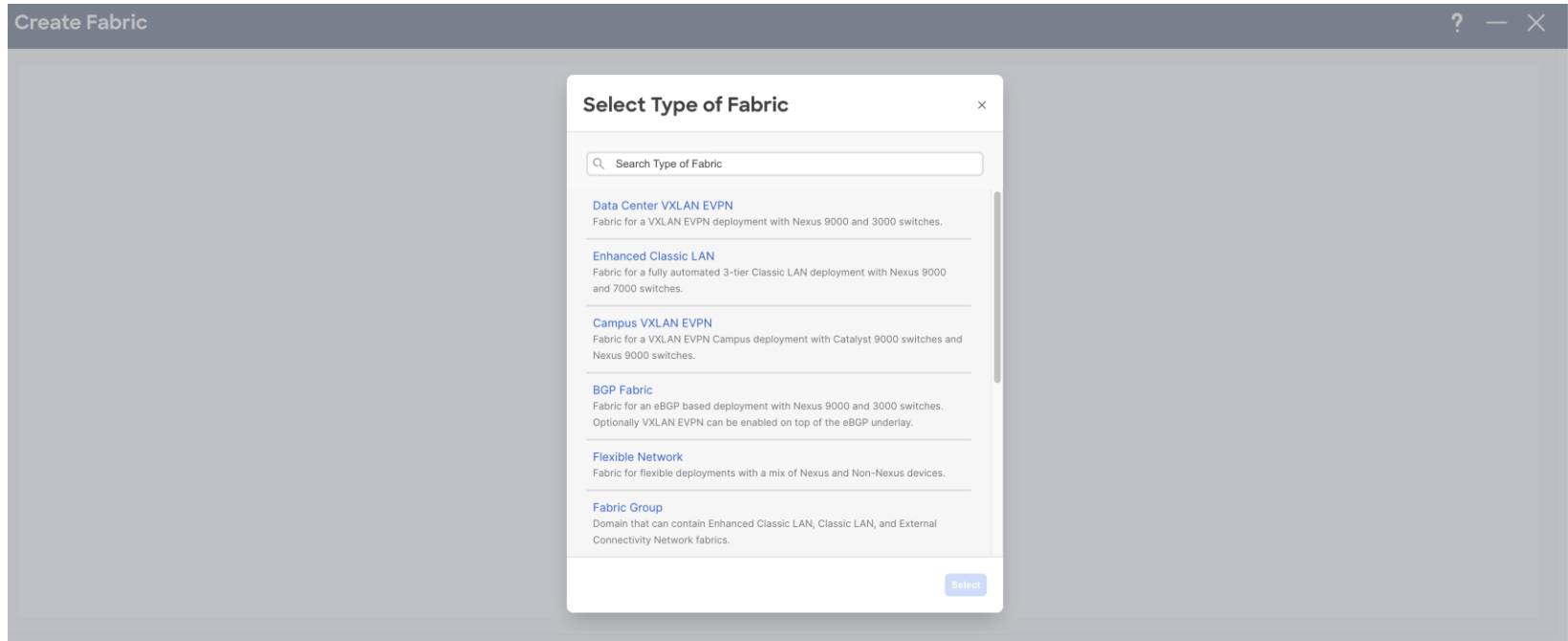


Pick a Fabric

[Choose Fabric](#)

[Close](#)

Select the Fabric Template



The screenshot shows a web interface titled "Create Fabric" with a dark header bar containing a question mark, a minus sign, and a close button. A central dialog box titled "Select Type of Fabric" is open, featuring a search bar and a list of fabric templates. Each template includes a title and a brief description.

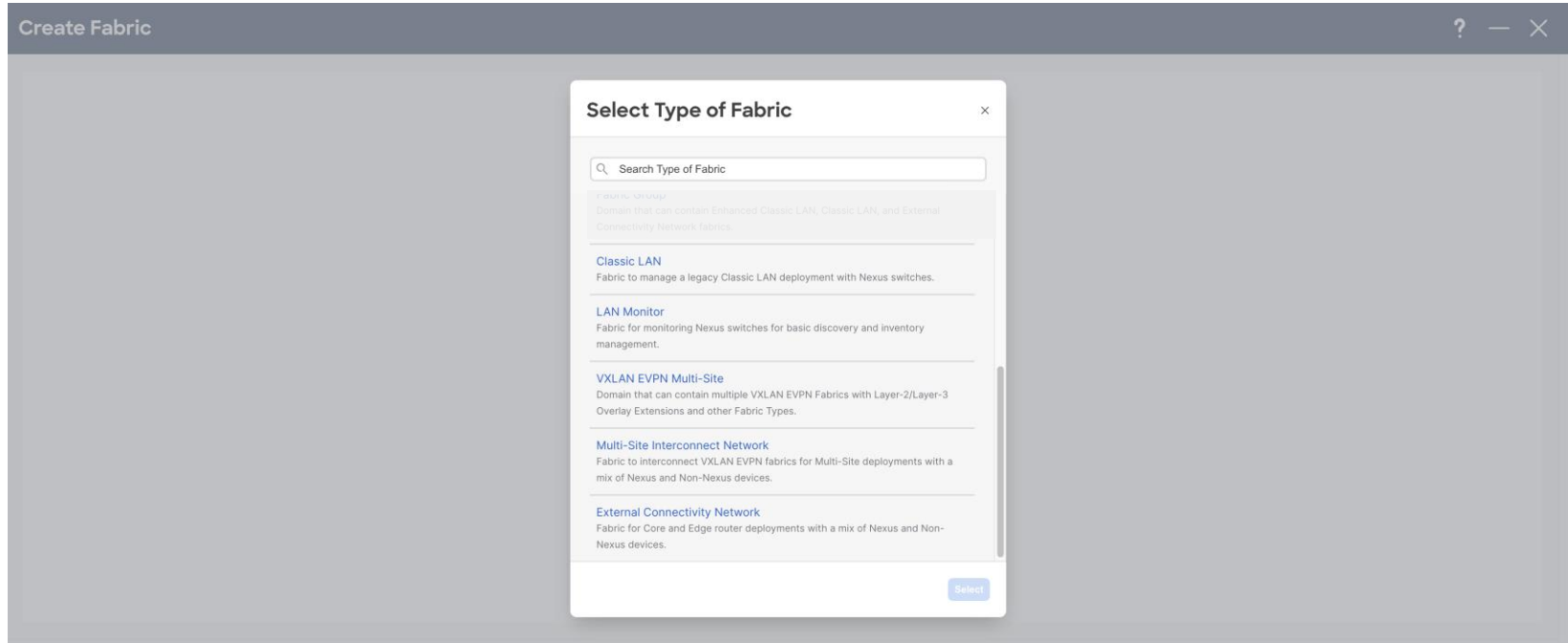
Select Type of Fabric

Search Type of Fabric

- Data Center VXLAN EVPN**
Fabric for a VXLAN EVPN deployment with Nexus 9000 and 3000 switches.
- Enhanced Classic LAN**
Fabric for a fully automated 3-tier Classic LAN deployment with Nexus 9000 and 7000 switches.
- Campus VXLAN EVPN**
Fabric for a VXLAN EVPN Campus deployment with Catalyst 9000 switches and Nexus 9000 switches.
- BGP Fabric**
Fabric for an eBGP based deployment with Nexus 9000 and 3000 switches. Optionally VXLAN EVPN can be enabled on top of the eBGP underlay.
- Flexible Network**
Fabric for flexible deployments with a mix of Nexus and Non-Nexus devices.
- Fabric Group**
Domain that can contain Enhanced Classic LAN, Classic LAN, and External Connectivity Network fabrics.

Select

Select the Fabric Template (Continued)



The screenshot shows a web interface titled "Create Fabric" with a dark header bar containing a question mark, a minus sign, and a close button. A central dialog box titled "Select Type of Fabric" is open, featuring a search bar labeled "Search Type of Fabric". Below the search bar, there is a section for "Fabric Groups" with a description: "Domain that can contain Enhanced Classic LAN, Classic LAN, and External Connectivity Network fabrics." The dialog lists five fabric types, each with a brief description:

- Classic LAN**: Fabric to manage a legacy Classic LAN deployment with Nexus switches.
- LAN Monitor**: Fabric for monitoring Nexus switches for basic discovery and inventory management.
- VXLAN EVPN Multi-Site**: Domain that can contain multiple VXLAN EVPN Fabrics with Layer-2/Layer-3 Overlay Extensions and other Fabric Types.
- Multi-Site Interconnect Network**: Fabric to interconnect VXLAN EVPN fabrics for Multi-Site deployments with a mix of Nexus and Non-Nexus devices.
- External Connectivity Network**: Fabric for Core and Edge router deployments with a mix of Nexus and Non-Nexus devices.

A blue "Select" button is located at the bottom right of the dialog box.

Select the Fabric Template (Continued)

The screenshot shows a 'Create Fabric' window with a modal dialog titled 'Select Type of Fabric'. The dialog contains a search bar and a list of fabric types. The 'Data Center VXLAN EVPN' option is highlighted in blue. A red arrow points to this option. Another red arrow points to the 'Select' button at the bottom right of the dialog. The background window has a 'Close' button in the bottom right corner.

Create Fabric

Select Type of Fabric

Search Type of Fabric

- Data Center VXLAN EVPN**
Fabric for a VXLAN EVPN deployment with Nexus 9000 and 3000 switches.
- Enhanced Classic LAN**
Fabric for a fully automated 3-tier Classic LAN deployment with Nexus 9000 and 7000 switches.
- Campus VXLAN EVPN**
Fabric for a VXLAN EVPN Campus deployment with Catalyst 9000 switches and Nexus 9000 switches.
- BGP Fabric**
Fabric for an eBGP based deployment with Nexus 9000 and 3000 switches. Optionally VXLAN EVPN can be enabled on top of the eBGP underlay.
- Flexible Network**
Fabric for flexible deployments with a mix of Nexus and Non-Nexus devices.
- Fabric Group**
Domain that can contain Enhanced Classic LAN, Classic LAN, and External Connectivity Network fabrics.

Select

Close

Create “Data Center VXLAN EVPN” Fabric General Parameters

The screenshot shows the 'Data Center VXLAN EVPN' configuration page with the 'General Parameters' tab selected. The page contains several configuration fields with red annotations and arrows pointing to them:

- BGP ASN:** (Only required Field) - Points to the 'BGP ASN*' field.
- VXLANv4 or VXLANv6:** - Points to the 'Enable IPv6 Underlay' checkbox.
- Underlay Subnet Mask: /30 or /31:** - Points to the 'Underlay Subnet IP Mask*' dropdown menu.
- IGP: OSPF or ISIS:** - Points to the 'Underlay Routing Protocol*' dropdown menu.
- Route Reflectors: 2 or 4:** - Points to the 'Route-Reflectors*' dropdown menu.
- Distributed Anycast Gateway:** - Points to the 'Anycast Gateway MAC*' field.

The configuration page includes the following fields and options:

- General Parameters** (selected), Replication, VPC, Protocols, Advanced, Resources, Manageability, Bootstrap, Configuration Backup, Flow Monitor
- BGP ASN***: 1-4294967295 | 1-65535[0-65535] It is a good practice to have a unique ASN for each Fabric.
- Enable IPv6 Underlay**: If not enabled, IPv4 underlay is used.
- Enable IPv6 Link-Local Address**: If not enabled, Spine-Leaf interfaces will use global IPv6 addresses.
- Fabric Interface Numbering***: p2p (Numbered(Point-to-Point) or Unnumbered)
- Underlay Subnet IP Mask***: 30 (Mask for Underlay Subnet IP Range)
- Underlay Subnet IPv6 Mask**: Select an Option (Mask for Underlay Subnet IPv6 Range)
- Underlay Routing Protocol***: ospf (Used for Spine-Leaf Connectivity)
- Route-Reflectors***: 2 (Number of spines acting as Route-Reflectors)
- Anycast Gateway MAC***: 2020.0000.00aa (Shared MAC address for all leaves (xxxx.xxxx.xxxx))
- Enable Performance Monitoring**:

Create “Data Center VXLAN EVPN” Fabric Replication Parameters

Multicast or
Ingress Replication

L2VNI Multicast
Group

Rendezvous Points:
2 or 4

Data Center VXLAN EVPN >

General Parameters **Replication** VPC Protocols Advanced Resources Manageability Bootstrap Configuration Backup Flow Monitor

Replication Mode*
Multicast Replication Mode for BUM Traffic

Multicast Group Subnet*
239.1.1.0/25 Multicast pool prefix between 8 to 30. A multicast group IP from this pool is used for BUM traffic for each overlay network.

Enable Tenant Routed Multicast (TRM)
 For Overlay Multicast Support In VXLAN Fabrics

Default MDT Address for TRM VRFs
Default Underlay Multicast group IP assigned for every overlay VRF.

Rendezvous-Points*
2 Number of spines acting as Rendezvous-Point (RP)

RP Mode*
asm Multicast RP Mode

Underlay RP Loopback Id*
254 (Min:0, Max:1023)

Underlay Primary RP Loopback Id
Used for Bidir-PIM Phantom RP (Min:0, Max:1023)

Underlay Backup RP Loopback Id
Used for Fallback Bidir-PIM Phantom RP (Min:0, Max:1023)

Underlay Second Backup RP Loopback Id
Used for second Fallback Bidir-PIM Phantom RP (Min:0,

Create “Data Center VXLAN EVPN” Fabric Protocol Parameters

Data Center VXLAN EVPN >

General Parameters Replication VPC **Protocols** Advanced Resources Manageability Bootstrap Configuration Backup Flow Monitor

Underlay Routing Loopback Id*
0 (Min:0, Max:1023)

Underlay VTEP Loopback Id*
1 (Min:0, Max:1023)

Underlay Anycast Loopback Id
Used for vPC Peering in VXLANv6 Fabrics (Min:0, Max:1023)

Underlay Routing Protocol Tag*
UNDERLAY Underlay Routing Process Tag

OSPF Area Id*
0.0.0.0 OSPF Area Id in IP address format

Enable OSPF Authentication

OSPF Authentication Key ID
(Min:0, Max:255)

OSPF Authentication Key
3DES Encrypted

IS-IS Level
Select an Option Supported IS types: level-1, level-2

Protocols to view the VTEP and underlay routing protocol configuration options

Create “Data Center VXLAN EVPN” Fabric Advanced Parameters

Cisco’s Best Practice
Configuration Templates

The screenshot shows the configuration page for "Data Center VXLAN EVPN". The "Advanced" tab is selected and highlighted with a red dashed box. The configuration parameters are as follows:

Parameter	Value	Description
VRF Template*	Default_VRF_Universal	Default Overlay VRF Template For Leafs
Network Template*	Default_Network_Universal	Default Overlay Network Template For Leafs
VRF Extension Template*	Default_VRF_Extension_Universal	Default Overlay VRF Template For Borders
Network Extension Template*	Default_Network_Extension_Universal	Default Overlay Network Template For Borders
Overlay Mode	config-profile	VRF/Network configuration using config-profile or CLI, default is config-profile
Enable Private VLAN (PVLAN)	<input type="checkbox"/>	Enable PVLAN on switches except spines and super spines
PVLAN Secondary Network Template	Select an Option	Default PVLAN Secondary Network Template
Site Id		For EVPN Multi-Site Support (Min:1, Max: 281474976710655). Defaults to Fabric ASN
Intra Fabric Interface MTU*	9216	(Min:576, Max:9216). Must be an even number
Layer 2 Host Interface MTU*	9216	(Min:576, Max:9216). Must be an even number

VXLAN Overlay Mode:
CLI or Config-Profile

Create “Data Center VXLAN EVPN” Fabric Advanced Parameters (cont.)

When this option is enabled, NDFC will clean up the configuration on the switch with a best effort process without reloading the switch.

Anycast Border Gateway advertise-pip To advertise Anycast Border Gateway PIP as VTEP. Effective on MSD fabric 'Recalculate Config'

Greenfield Cleanup Option* **Enable** Switch Cleanup Without Reload When PreserveConfig=no

Enable Precision Time Protocol (PTP)

PTP Source Loopback Id (Min:0, Max:1023)

PTP Domain Id Multiple Independent PTP Clocking Subdomains on a Single Network (Min:0, Max:127)

Enable MPLS Handoff

Underlay MPLS Loopback Id Used for VXLAN to MPLS SR/LDP Handoff (Min:0, Max:1023)

Enable TCAM Allocation TCAM commands are automatically generated for VxLAN and vPC Fabric Peering when Enabled

Enable Default Queuing Policies

N9K Cloud Scale Platform Queuing Policy Select an Option Queuing Policy for all 92xx, -EX, -FX, -FX2, -FX3, -GX series switches in the fabric

N9K R-Series Platform Queuing Policy

Create “Data Center VXLAN EVPN” Fabric Resource Parameters

The screenshot displays the configuration page for "Data Center VXLAN EVPN" with the "Resources" tab selected. The "Resources" tab is highlighted with a red dashed box. The configuration includes several fields for IP address ranges, with four red arrows pointing to specific fields and their corresponding labels:

- Router ID** points to the "Underlay Routing Loopback IP Range*" field, which contains the value "10.2.0.0/22".
- VTEP IP** points to the "Underlay VTEP Loopback IP Range*" field, which contains the value "10.3.0.0/22".
- Underlay RP IP** points to the "Underlay RP Loopback IP Range*" field, which contains the value "10.254.254.0/24".
- P2P Underlay IP** points to the "Underlay Subnet IP Range*" field, which contains the value "10.4.0.0/16".

Other fields visible in the configuration include:

- Manual Underlay IP Address Allocation (checkbox)
- Underlay MPLS Loopback IP Range
- Underlay Routing Loopback IPv6 Range
- Underlay VTEP Loopback IPv6 Range
- Underlay Subnet IPv6 Range
- BGP Router ID Range for IPv6 Underlay

Create “Data Center VXLAN EVPN” Fabric Resource Parameters (Cont.)

L2 VNI Label	Layer 2 VXLAN VNI Range*	30000-49000	Overlay Network Identifier Range (Min:1, Max:16777214)
L3 VNI Label	Layer 3 VXLAN VNI Range*	50000-59000	Overlay VRF Identifier Range (Min:1, Max:16777214)
	Network VLAN Range*	2300-2999	Per Switch Overlay Network VLAN Range (Min:2, Max:4094)
	VRF VLAN Range*	2000-2299	Per Switch Overlay VRF VLAN Range (Min:2, Max:4094)
	Subinterface Dot1q Range*	2-511	Per Border Dot1q Range For VRF Lite Connectivity (Min:2, Max:4093)
VRF Lite Handoff	VRF Lite Deployment*	Back2Back&ToExternal	VRF Lite Inter-Fabric Connection Deployment Options. If 'Back2Back&ToExternal' is selected, VRF Lite IFCs are auto created between border devices of two Easy Fabrics, and between border devices in Easy Fabric and edge routers in External Fabric. The IP address is taken from the 'VRF Lite Subnet IP Range' pool.
	Auto Deploy for Peer	<input checked="" type="checkbox"/>	Whether to auto generate VRF LITE sub-interface and BGP peering configuration on managed neighbor devices. If set, auto created VRF Lite IFC links will have 'Auto Deploy for Peer' enabled.

Create “Data Center VXLAN EVPN” Fabric Resource Parameters

VRF Lite IP Range



VRF Lite Subnet IP Range*

10.33.0.0/16

Address range to assign P2P Interfabric Connections

VRF Lite Subnet Mask*

30

(Min:8, Max:31)

Auto Allocation of Unique IP on VRF Extension over VRF Lite IFC

When enabled, IP prefix allocated to the VRF LITE IFC is not reused on VRF extension over VRF LITE IFC. Instead, unique IP Subnet is allocated for each vrf extension over VRF LITE IFC.

Per VRF Per VTEP Loopback Auto-Provisioning

Auto provision a loopback on a VTEP on VRF attachment

Per VRF Per VTEP IP Pool for Loopbacks

Prefix pool to assign IP addresses to loopbacks on VTEPs on a per VRF basis

Service Level Agreement (SLA) ID Range

10000-19999

Per switch SLA ID Range (Min:1, Max: 2147483647)

Tracked Object ID Range

100-299

Per switch tracked object ID Range (Min:1, Max: 512)

L4-7 Service Network



Service Network VLAN Range*

3000-3199

Per Switch Overlay Service Network VLAN Range (Min:2, Max:4094)

Route Map Sequence Number Range*

1-65534

(Min:1, Max:65534)

Create “Data Center VXLAN EVPN” Fabric Manageability Parameters

Create Fabric ? — ×

Fabric Name

Pick Fabric
Data Center VXLAN EVPN >

General Parameters Replication VPC Protocols Advanced Resources Manageability Bootstrap Configuration Backup Flow Monitor

Inband Management
 Manage switches with only Inband connectivity

DNS Server IPs
 Comma separated list of IP Addresses(v4/v6)

DNS Server VRFs*
 One VRF for all DNS servers or a comma separated list of VRFs, one per DNS server

NTP Server IPs
 Comma separated list of IP Addresses(v4/v6)

NTP Server VRFs*
 One VRF for all NTP servers or a comma separated list of VRFs, one per NTP server

Syslog Server IPs
 Comma separated list of IP Addresses(v4/v6)

Syslog Server Severity
 Comma separated list of Syslog severity values, one per Syslog server (Min:0, Max:7)

Create “Data Center VXLAN EVPN” Fabric Bootstrap Parameters

NDFC Built-in
Bootstrap POAP
Services
Supports OOB and
In-Band POAP

Fabric Name
CiscoLive-Fabric

Pick Fabric
Data Center VXLAN EVPN >

General Parameters Replication VPC Protocols Advanced Resources Manageability **Bootstrap** Configuration Backup Flow Monitor

Enable Bootstrap Automatic IP Assignment For POAP

Enable Local DHCP Server Automatic IP Assignment For POAP From Local DHCP Server

DHCP Version
DHCPv4

DHCP Scope Start Address*
192.168.101.75 Start Address For Switch POAP

DHCP Scope End Address*
192.168.101.95 End Address For Switch POAP

Switch Mgmt Default Gateway*
192.168.101.1 Default Gateway For Management VRF On The Switch

Switch Mgmt IP Subnet Prefix*
24 (Min:8, Max:30)

DHCPv4 Multi Subnet Scope ▲
#Scope_Start_IP, Scope_End_IP, Scope_Default_Gateway, Scope_Subnet_Prefix

Verify “Data Center VXLAN EVPN” Fabric Created

The screenshot displays the Cisco Nexus Dashboard Fabric Controller interface. The top navigation bar includes the Cisco logo, 'Nexus Dashboard', and 'Fabric Controller'. The left sidebar shows navigation options: Dashboard, Topology, LAN (highlighted), Virtual Management, Settings, and Operations. The main content area is titled 'LAN Fabrics' and features a table with columns for Fabric Name, Fabric Technology, Fabric Type, ASN, and Fabric Health. A search filter and an 'Actions' dropdown are located at the top of the table. The table lists seven fabric entries, with 'SJC-CL-FABRIC' highlighted by a red arrow. The bottom of the interface shows pagination controls for 10 rows and page 1 of 7.

	Fabric Name	Fabric Technology	Fabric Type	ASN	Fabric Health
<input type="radio"/>	FG Hide child Fabrics	Switch Group	Multi-Fabric Domain	NA	Healthy
<input type="radio"/>	Core-Fabric	External	External	65534	Healthy
<input type="radio"/>	Gf-Fab	VLAN Fabric	Switch Fabric	65536	Critical
<input type="radio"/>	Bf-Fab	VLAN Fabric	Switch Fabric	65535	Healthy
<input type="radio"/>	Multisite-Fabric Hide child Fabrics	VXLAN Fabric	Multi-Fabric Domain	NA	Critical
<input type="radio"/>	VXLAN-EVPN-Fabric	VXLAN Fabric	Switch Fabric	65530	Healthy
<input type="radio"/>	SJC-CL-FABRIC	VXLAN Fabric	Switch Fabric	65001	Healthy

Verify Data Center VXLAN EVPN Fabric

The screenshot displays the Cisco Nexus Dashboard Fabric Controller interface. The main content area is titled "LAN Fabrics" and contains a table with the following data:

	Fabric Name	Fabric Technology	Fabric Type	ASN
○	FG <small>Hide child Fabrics</small>	Switch Group	Multi-Fabric Domain	NA
○	Core-Fabric	External	External	65534
○	Gf-Fab	VLAN Fabric	Switch Fabric	65536
○	Bf-Fab	VLAN Fabric	Switch Fabric	65535
○	Multisite-Fabric <small>Hide child Fabrics</small>	VXLAN Fabric	Multi-Fabric Domain	NA
○	VXLAN-EVPN-Fabric	VXLAN Fabric	Switch Fabric	65530
○	SJC-CL-FABRIC	VXLAN Fabric	Switch Fabric	65001

Below the table, there is a "Filter by attributes" input field and a "10 Rows" pagination control.

On the right side of the dashboard, a sidebar for the selected fabric "SJC-CL-FABRIC" shows a "Healthy" status with a green shield icon. Below this, the "Alarms(0)" section displays four status indicators: critical (0), major (0), minor (0), and warning (0). The "Fabric Info" section lists: ASN 65001, Fabric Technology VXLAN Fabric, Fabric Type Switch Fabric, and Deployment Status Enabled. The "Inventory" section shows "Switch Configuration" and "Switch Health", both with a count of 0 switches.

Fabric Overview

Fabric Overview - SJC-CL-FABRIC

Actions ↕ ↻ ? — ✕

Overview Switches Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Fabric Info

Name	SJC-CL-FABRIC	Fabric Type	Switch Fabric
Fabric Technology	VXLAN Fabric	ASN	65001

Fabric Health: HEALTHY Mode: Managed Deployment Status: Enabled

Event Analytics

0 Alarms

Switches Configuration

0 Switches

Switches

Switch Health: 0 Switches

Switch Roles: 0 Switches

Switch Hardware Version: 0 Switches

Switch Software Version: 0 Switches

VXLAN

Routing Loopback

VTEP Loopback

Networks/VRFs Definition

Extended Networks/VRFs

Fabric Overview -> Add Switches

Fabric Overview - SJC-CL-FABRIC Actions Refresh Help Close

Overview **Switches** Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes Actions

<input type="checkbox"/>	Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software Version	Up Time
No rows found													

50 Rows Page 1 of 1 << 0-0 of 0 >>

Add Switches to Fabric

The screenshot displays the 'Fabric Overview - SJC-CL-FABRIC' interface. At the top, there is a navigation bar with 'Overview', 'Switches', 'Links', 'Interfaces', 'Interface Groups', 'Policies', 'Networks', 'VRFs', 'Services', 'Event Analytics', 'History', 'Resources', 'Virtual Infrastructure', and 'Metrics'. Below this is a table with columns: Switch, IP Address, Role, Serial Number, Mode, Config Status, Oper Status, Discovery Status, Model, VPC Role, VPC Peer, and Software. The table is currently empty, showing 'No rows found'. An 'Actions' button is located in the top right corner of the table area. A red arrow points to the 'Add Switches' option in the dropdown menu that appears when the 'Actions' button is clicked. Other options in the menu include Preview, Deploy, Discovery, Set Role, vPC Pairing, ToR/Access Pairing, vPC Overview, and More.

Fabric Overview - SJC-CL-FABRIC

Overview **Switches** Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes

Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software
No rows found											

50 Rows

Page 1 of 1 << 0-0 of 0 >>

Add Switches to Fabric

Add Switches - Fabric: SJC-CL-FABRIC



Switch Addition Mechanism*

Discover

Seed Switch Details

Seed IP*

Ex: "2.2.2.20" or "10.10.10.40-60" or "2.2.2.20, 2.2.2.21"

Authentication Protocol*

MD5

Username*

Password*

Max Hops*

2

Preserve Config



Unchecking this will clean up the configuration on switch(es)

Close Discover Switches

Populate Seed Switch Details

Add Switches - Fabric: SJC-CL-FABRIC



Switch Addition Mechanism*

Discover

Seed Switch Details

Seed IP* ←

Ex: "2.2.2.20" or "10.10.10.40-60" or "2.2.2.20, 2.2.2.21"

Authentication Protocol*

Username* ←

Password* ←

Max Hops*

Preserve Config

Unchecking this will clean up the configuration on switch(es)

Close Discover Switches ←

Confirm

Add Switches - Fabric: SJC-CL-FABRIC

Switch Addition Mechanism*
 Discover

Seed Switch Details



Seed IP*
192.18.0.26
Ex: "2.2.2.20" or "10.10.10.40-60" or "2.2.2.20, 2.2.2.21"

Authentication Protocol*
MD5

Username*
admin

Max Hops*
2

Preserve Config
 Unchecking this will


Warning
All switch configuration other than management, will be removed immediately after import. Do you want to proceed?
Cancel **Confirm** 

Close Discover Switches

Add Switches to Fabric

Add Switches - Fabric: SJC-CL-FABRIC



Switch Addition Mechanism*

Discover

Seed Switch Details

Fabric
SJC-CL-FABRIC

Switch
192.18.0.26

Authentication Protocol
MD5

Username
admin

Password

Set

Max Hops
2

Preserve config

Disabled

[← Back](#)

Discovery Results

Filter by attributes

<input type="checkbox"/>	Switch Name	Serial Number	IP Address	Model	Version	Status	Progress
<input type="checkbox"/>	Leaf1	9ILZ2B28WH9	192.18.0.26	N9K-C9300v	10.3(1)	Manageable	
<input type="checkbox"/>	Leaf2	97KDGBBYF20	192.18.0.27	N9K-C9300v	10.3(1)	Manageable	
<input type="checkbox"/>	BGW2	919GQVT640E	192.18.0.30	N9K-C9300v	10.3(1)	Manageable	
<input type="checkbox"/>	Spine1	9GJIO2TMTYT	192.18.0.28	N9K-C9300v	10.3(1)	Manageable	
<input type="checkbox"/>	BGW1	9B8HT2177EG	192.18.0.29	N9K-C9300v	10.3(1)	Manageable	

[Close](#) [Add Switches](#)

Add Switches to Fabric

Add Switches - Fabric: SJC-CL-FABRIC ? X

Switch Addition Mechanism*
 Discover

Seed Switch Details

Fabric SJC-CL-FABRIC	Switch 192.18.0.26	Authentication Protocol MD5	Username admin
Password <input checked="" type="radio"/> Set	Max Hops 2	Preserve config <input type="radio"/> Disabled	

[← Back](#)

Discovery Results

Filter by attributes

<input checked="" type="checkbox"/>	Switch Name	Serial Number	IP Address	Model	Version	Status	Progress
<input checked="" type="checkbox"/>	Leaf1	9ILZ2B28WH9	192.18.0.26	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> Manageable	
<input checked="" type="checkbox"/>	Leaf2	97KDGBBYF20	192.18.0.27	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> Manageable	
<input checked="" type="checkbox"/>	BGW2	919GQVT640E	192.18.0.30	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> Manageable	
<input checked="" type="checkbox"/>	Spine1	9GJIO2TMTYT	192.18.0.28	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> Manageable	
<input checked="" type="checkbox"/>	BGW1	9B8HT2177EG	192.18.0.29	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> Manageable	

Add Switches - In-Progress

Add Switches - Fabric: SJC-CL-FABRIC

Switch Addition Mechanism*
 Discover

Seed Switch Details

Fabric	Switch	Authentication Protocol	Username
SJC-CL-FABRIC	192.18.0.26	MD5	admin
Password	Max Hops	Preserve config	
<input checked="" type="radio"/> Set	2	<input type="radio"/> Disabled	

[← Back](#)

Discovery Results

Filter by attributes

<input type="checkbox"/>	Switch Name	Serial Number	IP Address	Model	Version	Status	Progress
<input type="checkbox"/>	Leaf1	9ILZ2B28WH9	192.18.0.26	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> In Progress	<div><div style="width: 50%;"></div></div>
<input type="checkbox"/>	Leaf2	97KDGBBYF20	192.18.0.27	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> In Progress	<div><div style="width: 20%;"></div></div>
<input type="checkbox"/>	BGW2	919GQVT640E	192.18.0.30	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> In Progress	<div><div style="width: 20%;"></div></div>
<input type="checkbox"/>	Spine1	9GJIO2TMTYT	192.18.0.28	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> In Progress	<div><div style="width: 20%;"></div></div>
<input type="checkbox"/>	BGW1	9B8HT2177EG	192.18.0.29	N9K-C9300v	10.3(1)	<input checked="" type="radio"/> In Progress	<div><div style="width: 20%;"></div></div>

[Close](#) [Add Switches](#)

Review Added Switches

Fabric Overview - SJC-CL-FABRIC Actions ? — ×

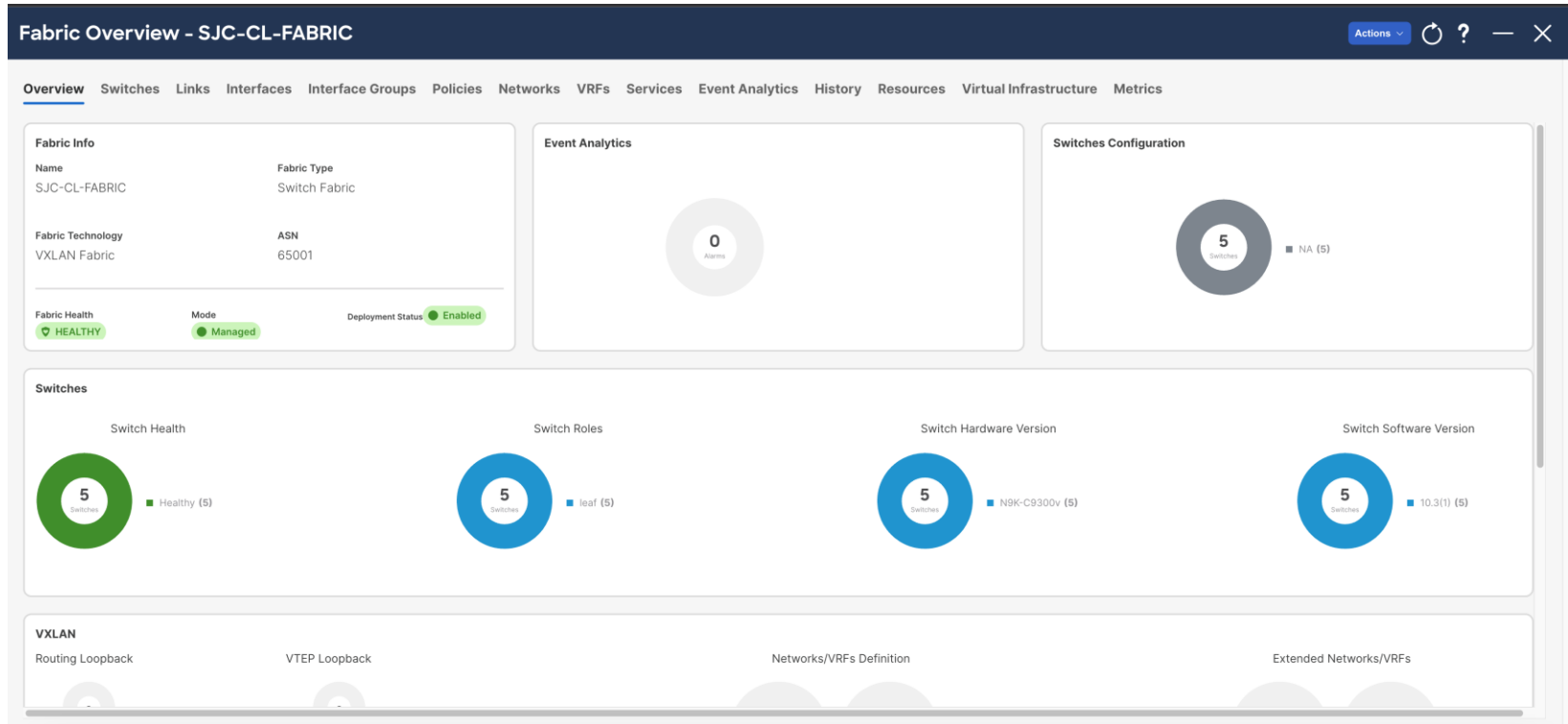
Overview Switches Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes Actions

<input type="checkbox"/>	Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software Version	Up Time
<input type="checkbox"/>	BGW1	192.18.0.29	Leaf	9B8HT2177EG	Normal	● NA	✔ Healthy	● Ok	N9K-C9300v			10.3(1)	2 days, 13:23:5
<input type="checkbox"/>	BGW2	192.18.0.30	Leaf	919GQVT640E	Normal	● NA	✔ Healthy	● Ok	N9K-C9300v			10.3(1)	2 days, 13:23:3
<input type="checkbox"/>	Leaf1	192.18.0.26	Leaf	9ILZ2B28WH9	Normal	● NA	✔ Healthy	● Ok	N9K-C9300v	Secondary	Leaf2	10.3(1)	2 days, 13:24:5
<input type="checkbox"/>	Leaf2	192.18.0.27	Leaf	97KDG8BYF20	Normal	● NA	✔ Healthy	● Ok	N9K-C9300v	Primary	Leaf1	10.3(1)	2 days, 13:24:2
<input type="checkbox"/>	Spine1	192.18.0.28	Leaf	9GJIO2TMTYT	Normal	● NA	✔ Healthy	● Ok	N9K-C9300v			10.3(1)	2 days, 13:24:1

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Review Overview Dashboard



Set Switch Roles

Fabric Overview - SJC-CL-FABRIC

Overview **Switches** Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes

Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software
<input checked="" type="checkbox"/> BGW1	192.18.0.29	Leaf	9B8HT2177EG	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)
<input checked="" type="checkbox"/> BGW2	192.18.0.30	Leaf	919GQVT640E	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)
<input type="checkbox"/> Leaf1	192.18.0.26	Leaf	9ILZ2B28WH9	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)
<input type="checkbox"/> Leaf2	192.18.0.27	Leaf	97KDGBBYF20	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)
<input type="checkbox"/> Spine1	192.18.0.28	Leaf	9GJIO2TMYT	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)

50 Rows

Page 1 of 1 << < 1-5 of 5 > >>

2 days, 13:30:3

Set Switch Roles

Fabric Overview - SJC-CL-FABRIC

Overview **Switches** Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes

Switch	IP Address	Role	Serial Number	Mode	VPC Role	VPC Peer	Software Version	Up Time
<input checked="" type="checkbox"/> BGW1	192.18.0.29	Leaf	9B8HT2177EG	Normal			10.3(1)	2 days, 13:30:2
<input checked="" type="checkbox"/> BGW2	192.18.0.30	Leaf	919GQVT640E	Normal			10.3(1)	2 days, 13:29:5
<input type="checkbox"/> Leaf1	192.18.0.26	Leaf	9ILZ2B28WH9	Normal			10.3(1)	2 days, 13:31:1f
<input type="checkbox"/> Leaf2	192.18.0.27	Leaf	97KDGBBYF20	Normal			10.3(1)	2 days, 13:30:4
<input type="checkbox"/> Spine1	192.18.0.28	Leaf	9GJIO2TMTYT	Normal			10.3(1)	2 days, 13:30:3

Select Role

- Spine
- Leaf (current)
- Border
- Border Spine
- Border Gateway**
- Border Gateway Spine
- Super Spine
- Border Super Spine
- Border Gateway Super Spine
- ToR

Select

50 Rows

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Review Switch Roles

Fabric Overview - SJC-CL-FABRIC Actions Refresh Help Close

Overview **Switches** Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes Actions

<input type="checkbox"/>	Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software Version	Up Time
<input type="checkbox"/>	BGW1	192.18.0.29	Border Gateway	9B8HT2177EG	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:32:3
<input type="checkbox"/>	BGW2	192.18.0.30	Border Gateway	919GQVT640E	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:32:1
<input type="checkbox"/>	Leaf1	192.18.0.26	Leaf	9ILZ2B28WH9	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:33:3
<input type="checkbox"/>	Leaf2	192.18.0.27	Leaf	97KDGGBBYF20	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:33:0
<input type="checkbox"/>	Spine1	192.18.0.28	Spine	9GJIO2TMTYT	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:32:4

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Create vPC Pairing

The screenshot shows the Cisco Fabric Overview interface for the fabric 'SJC-CL-FABRIC'. The 'Switches' tab is active, displaying a table of switches. The 'Leaf1' switch is selected, and the 'Actions' menu is open, highlighting the 'vPC Pairing' option. Red arrows point to the 'Actions' button and the 'vPC Pairing' option.

Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software
<input type="checkbox"/> BGW1	192.18.0.29	Border Gateway	9B8HT2177EG	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)
<input type="checkbox"/> BGW2	192.18.0.30	Border Gateway	919GQVT640E	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)
<input checked="" type="checkbox"/> Leaf1	192.18.0.26	Leaf	9ILZ2B28WH9	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)
<input type="checkbox"/> Leaf2	192.18.0.27	Leaf	97KDGBBYF20	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)
<input type="checkbox"/> Spine1	192.18.0.28	Spine	9GJIO2TMTYT	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)

2 days, 13:32:4

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To create vPC pairs, select one of the devices that will be part of the same domain

Create vPC Pairing

vPC Pairing

Select vPC Peer for Leaf1

Virtual Peerlink

Filter by attributes

Device	Recommended	Reason	Serial Number	IP Address
<input checked="" type="radio"/> Leaf2	True	Switches are connected and have same role	97KDGBBYF20	192.18.0.27
<input type="radio"/> BGW1	False	Switches have different roles	9B8HT2177EG	192.18.0.29
<input type="radio"/> Spine1	False	Switches have different roles	9GJIO2TMTYT	192.18.0.28
<input type="radio"/> BGW2	False	Switches have different roles	919GQVT640E	192.18.0.30

10 Rows

Page 1 of 1 << 1-4 of 4 >>

Cancel Save

vPC Pairing

Filter by attributes

Actions

<input type="checkbox"/>	Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software Version	Up Time
<input type="checkbox"/>	BGW1	192.18.0.29	Border Gateway	9B8HT2177EG	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:37:0
<input type="checkbox"/>	BGW2	192.18.0.30	Border Gateway	919GQVT640E	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:36:4
<input type="checkbox"/>	Leaf1	192.18.0.26	Leaf	9ILZ2B28WH9	Normal	Pending	Healthy	Ok	N9K-C9300v		Leaf2	10.3(1)	2 days, 13:38:0
<input type="checkbox"/>	Leaf2	192.18.0.27	Leaf	97KDGBBYF20	Normal	Pending	Healthy	Ok	N9K-C9300v		Leaf1	10.3(1)	2 days, 13:37:2
<input type="checkbox"/>	Spine1	192.18.0.28	Spine	9GJIO2TMTYT	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:37:1f

50 Rows

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Initial Deployment

Fabric Overview - SJC-CL-FABRIC

Overview **Switches** Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes

Actions ^

- Edit Fabric
- Add Switches
- Recalculate and Deploy
- More >

Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software Version	Up Time
<input type="checkbox"/> BGW1	192.18.0.29	Border Gateway	9B8HT2177EG	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:37:0
<input type="checkbox"/> BGW2	192.18.0.30	Border Gateway	919GGVT640E	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:36:4
<input type="checkbox"/> Leaf1	192.18.0.26	Leaf	9ILZ2B28WH9	Normal	Pending	Healthy	Ok	N9K-C9300v	Leaf2		10.3(1)	2 days, 13:38:0
<input type="checkbox"/> Leaf2	192.18.0.27	Leaf	97KDGBBYF20	Normal	Pending	Healthy	Ok	N9K-C9300v	Leaf1		10.3(1)	2 days, 13:37:2
<input type="checkbox"/> Spine1	192.18.0.28	Spine	9GJIO2TMTYT	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:37:1

50 Rows

Page 1 of 1 << 1-5 of 5 >>

Recalculate and Deploy

Fabric Overview - SJC-CL-FABRIC

Overview **Switches** Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes Actions

Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software Version	Up Time
<input type="checkbox"/> BGW1	192.18.0.29	Border Gateway	9B8HT2177EG	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:37:0
<input type="checkbox"/> BGW2	192.18.0.30	Border Gateway	919GQVT640E	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:36:4
<input type="checkbox"/> Leaf1	192.18.0.26	Leaf	9ILZ2B28WH9	Normal	Pending	Healthy	Ok	N9K-C9300v	Leaf2		10.3(1)	2 days, 13:38:0
<input type="checkbox"/> Leaf2	192.18.0.27	Leaf	97KDGBBYF20	Normal	Pending	Healthy	Ok	N9K-C9300v	Leaf1		10.3(1)	2 days, 13:37:2
<input type="checkbox"/> Spine1	192.18.0.28	Spine	9GJIO2TMTYT	Normal	NA	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:37:1f

Recalculating Config on Switches

0% - Starting

50 Rows Page 1 of 1 << 1-5 of 5 >>

Recalculate and Deploy

Deploy Configuration - SJC-CL-FABRIC

1 Config Preview 2 Deploy Progress

Filter by attributes Resync All

Switch Name	IP Address	Role	Serial Number	Fabric Status	Pending Config	Status Description	Progress	Resync Switch
BGW1	192.18.0.29	border gateway	9B8HT2177EG	Out-Of-Sync	320 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync
BGW2	192.18.0.30	border gateway	919GQVT640E	Out-Of-Sync	320 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync
Leaf1	192.18.0.26	leaf	9ILZ2B28WH9	Out-Of-Sync	535 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync
Leaf2	192.18.0.27	leaf	97KDGGBYF20	Out-Of-Sync	535 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync
Spine1	192.18.0.28	spine	9GJIO2TMTYT	Out-Of-Sync	343 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync

Close Deploy All

View Pending Configuration

The screenshot displays a web interface for managing network configurations. The main window is titled "Deploy Configuration - SJC-CL-FABRIC" and contains a sub-window titled "Pending Config - SJC-CL-FABRIC - Leaf1". Inside this sub-window, there are two tabs: "Pending Config" (which is active) and "Side-by-Side Comparison". The "Pending Config" tab shows a list of configuration commands for a Leaf1 switch. The commands are as follows:

```
cfs eth distribute
feature dhcp
feature lacp
feature ngoam
feature nxapi
feature ospf
feature pim
feature vpc
nv overlay evpn
feature interface-vlan
feature vn-segment-vlan-based
feature lldp
feature nv overlay
feature bgp
evpn
fabric forwarding anycast-gateway-mac 2020.0000.00aa
ip pim rp-address 10.251.251.1 group-list 239.1.1.0/25
ip pim ssm range 232.0.0.0/8
ngoam install acl
ntp server 10.81.254.131 use-vrf management
nxapi http port 80
nxapi https port 443
service dhcp
snmp-server host 192.18.0.10 traps version 2c public udp-port 2162
ip dhcp relay
route-map fabric-rmap-redist-subnet permit 10
```

At the bottom right of the sub-window, there is a "Close" button. At the bottom right of the main window, there are "Close" and "Deploy All" buttons.

View Pending Configuration

Deploy Configuration - SJC-CL-FABRIC

Pending Config - SJC-CL-FABRIC - Leaf1

Pending Config Side-by-Side Comparison ←

Running Config [Copy](#) Expected Config [Copy](#)

```
1 !Command: show running-config
3 !Running configuration last done at: Thu May 4 05:16:56 2023
4 !Time: Thu May 4 05:32:10 2023
5 boot nxos bootflash:/nxos64-cs.10.3.1.F.bin
6 copp profile strict
21 hostname Leaf1
```

```
1
2 cfs eth distribute
6 copp profile strict
7 evpn
8 fabric forwarding anycast-gateway-mac 2020.0000.00aa
9 feature bgp
10 feature dhcp
11 feature interface-vlan
12 feature lacp
13 feature lldp
14 feature ngoam
15 feature nv overlay
16 feature nxapi
17 feature ospf
18 feature pim
19 feature vn-segment-vlan-based
20 feature vpc
21 hostname Leaf1
```

Close Deploy All

Deploy Configuration

Deploy Configuration - SJC-CL-FABRIC

1 Config Preview 2 Deploy Progress

Filter by attributes Resync All

Switch Name	IP Address	Role	Serial Number	Fabric Status	Pending Config	Status Description	Progress	Resync Switch
BGW1	192.18.0.29	border gateway	9B8HT2177EG	Out-Of-Sync	320 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync
BGW2	192.18.0.30	border gateway	919GQVT640E	Out-Of-Sync	320 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync
Leaf1	192.18.0.26	leaf	9ILZ2B28WH9	Out-Of-Sync	535 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync
Leaf2	192.18.0.27	leaf	97KDGBBYF20	Out-Of-Sync	535 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync
Spine1	192.18.0.28	spine	9GJIO2TMTYT	Out-Of-Sync	343 Lines	Out-of-Sync	<div style="width: 100%; height: 10px; background-color: green;"></div>	Resync

Close Deploy All

Deploy Configuration

Deploy Configuration - SJC-CL-FABRIC

Progress: 1. Config Preview (Completed) | 2. Deploy Progress (Active)

Filter by attributes

Switch Name	IP Address	Status	Status Description	Progress
BGW1	192.18.0.29	STARTED		Progress bar
BGW2	192.18.0.30	STARTED		Progress bar
Leaf1	192.18.0.26	STARTED		Progress bar
Leaf2	192.18.0.27	STARTED		Progress bar
Spine1	192.18.0.28	STARTED		Progress bar

Close

Deploy Configuration

Deploy Configuration - SJC-CL-FABRIC

Config Preview 2 Deploy Progress

Filter by attributes

Switch Name	IP Address	Status	Status Description	Progress
BGW1	192.18.0.29	STARTED		
BGW2	192.18.0.30	STARTED		
Leaf1	192.18.0.26	STARTED	Deployment in progress.	Executed 483 / 535
Leaf2	192.18.0.27	STARTED	Deployment in progress.	Executed 498 / 535
Spine1	192.18.0.28	STARTED		

Close

Switch Overview

Fabric Overview - SJC-CL-FABRIC Actions Refresh Help Close

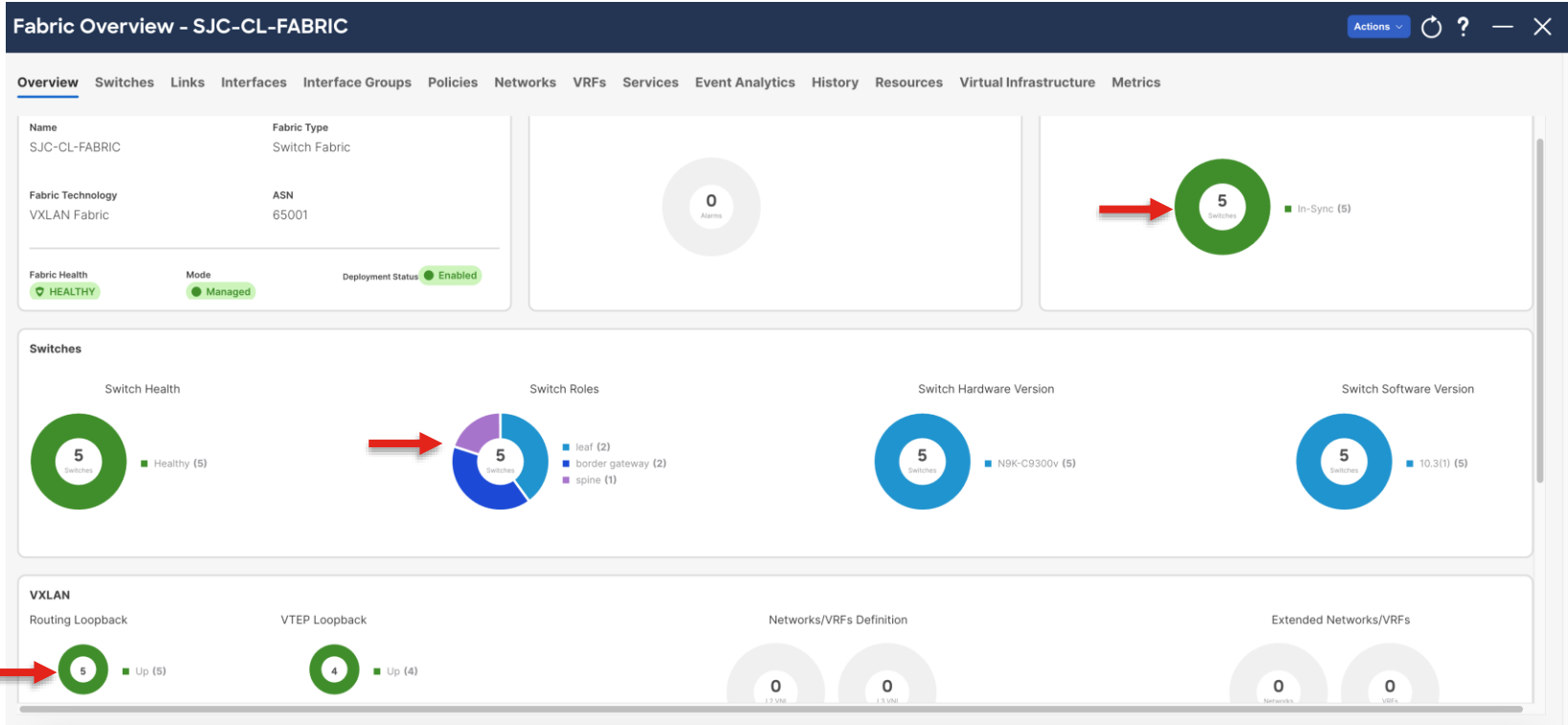
Overview **Switches** Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes Actions

<input type="checkbox"/>	Switch	IP Address	Role	Serial Number	Mode	Config Status	Oper Status	Discovery Status	Model	VPC Role	VPC Peer	Software Version	Up Time
<input type="checkbox"/>	BGW1	192.18.0.29	Border Gateway	9B8HT2177EG	Normal	In-Sync	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:51:4
<input type="checkbox"/>	BGW2	192.18.0.30	Border Gateway	919GQVT640E	Normal	In-Sync	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:51:2
<input type="checkbox"/>	Leaf1	192.18.0.26	Leaf	9ILZ2B28WH9	Normal	In-Sync	Healthy	Ok	N9K-C9300v	Secondary	Leaf2	10.3(1)	2 days, 13:52:4
<input type="checkbox"/>	Leaf2	192.18.0.27	Leaf	97KDGBBYF20	Normal	In-Sync	Healthy	Ok	N9K-C9300v	Primary	Leaf1	10.3(1)	2 days, 13:52:1
<input type="checkbox"/>	Spine1	192.18.0.28	Spine	9GJIO2TMTYT	Normal	In-Sync	Healthy	Ok	N9K-C9300v			10.3(1)	2 days, 13:52:0

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Fabric Overview



Edit Interface

Fabric Overview - SJC-CL-FABRIC Actions Refresh Help Close

Overview Switches Links **Interfaces** Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes Actions

<input type="checkbox"/>	Device Name	Interface	Admin Status	Oper. Status	Reason	Policies	Overlay Network	Sync Status	Interface Group	Port Channel ID	vPC Id	Speed	MTU
<input type="checkbox"/>	BGW1	mgmt0	↑ Up	↑ Up	ok	int_mgmt	NA	● In-Sync				1Gb	1500
<input type="checkbox"/>	BGW1	Vlan1	↓ Down	↓ Down	Administratively down	NA	NA	● NA				1Gb	1500
<input type="checkbox"/>	BGW1	Loopback0	↑ Up	↑ Up	ok	int_fabric_loopback_11_1	NA	● In-Sync				8Gb	1500
<input type="checkbox"/>	BGW1	Loopback1	↑ Up	↑ Up	ok	int_fabric_loopback_11_1	NA	● In-Sync				8Gb	1500
<input type="checkbox"/>	BGW1	Ethernet1/1	↑ Up	↑ Up	ok	int_routed_host	NA	● In-Sync				1Gb	9216
<input type="checkbox"/>	BGW1	Ethernet1/2	↑ Up	↑ Up	ok	int_routed_host	NA	● In-Sync				1Gb	9216
<input type="checkbox"/>	BGW1	Ethernet1/3	↑ Up	↑ Up	ok	int_routed_host	NA	● In-Sync				1Gb	9216
<input type="checkbox"/>	BGW1	Ethernet1/4	↑ Up	↑ Up	ok	int_fabric_num_11_1	NA	● In-Sync				1Gb	9216
<input type="checkbox"/>	BGW1	Ethernet1/5	↑ Up	↓ Down	Link not connected	int_routed_host	NA	● In-Sync				10Gb	9216
<input type="checkbox"/>	BGW1	Ethernet1/6	↑ Up	↓ Down	Link not connected	int_routed_host	NA	● In-Sync				10Gb	9216

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NDFC Day-1: VXLAN EVPN Underlay

Create VRF

Fabric Overview - SJC-CL-FABRIC

Overview Switches Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes

<input type="checkbox"/>	VRF Name	VRF Status	VRF ID
No rows found			

50 Rows

Page 1 of 1 << 0-0 of 0 >>

Actions ^

- Create
- Edit
- Deploy
- Import
- Export
- Delete

Populate VRF Wizard

Create VRF

VRF Name*

VRF ID*

VLAN ID [Propose VLAN](#)

VRF Template*
[Default_VRF_Universal >](#)

VRF Extension Template*
[Default_VRF_Extension_Universal >](#)

General Parameters | [Advanced](#) | [Route Target](#)

VRF VLAN Name if > 32 chars enables system vlan long-name

VRF Interface Description

VRF Description

[Close](#) [Create](#)

Populate VRF Wizard

Create VRF

?

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×

VRF Name*
BlueVRF

VRF ID*
50000

VLAN ID
2000 Propose VLAN

VRF Template*
[Default_VRF_Universal >](#)

VRF Extension Template*
[Default_VRF_Extension_Universal >](#)

General Parameters Advanced Route Target

VRF VLAN Name
BlueVRF if > 32 chars enable-system vlan long-name

VRF Interface Description
BlueVRF

VRF Description
BlueVRF

Close Create

Confirm VRF Creation

Fabric Overview - SJC-CL-FABRIC

Overview Switches Links Interfaces Interface Groups Policies Networks **VRFs** Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes Actions

<input type="checkbox"/> VRF Name	VRF Status	VRF ID
<input type="checkbox"/> BlueVRF	NA	5000

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View VRF Attachments

VRF Overview - BlueVRF Actions Refresh — ×

Overview VRF Attachments Networks

Filter by attributes Actions

<input type="checkbox"/>	VRF Name	VRF ID	VLAN ID	Switch	Status	Attachment	Switch Role	Fabric Name	Loopback ID	Loopback IPv4 Address	Loopback IPv6 Address
<input type="checkbox"/>	BlueVRF	50000		BGW2	● NA	Detached	border gateway	SJC-CL-FABRIC			
<input type="checkbox"/>	BlueVRF	50000		BGW1	● NA	Detached	border gateway	SJC-CL-FABRIC			
<input type="checkbox"/>	BlueVRF	50000		Leaf2	● NA	Detached	leaf	SJC-CL-FABRIC			
<input type="checkbox"/>	BlueVRF	50000		Leaf1	● NA	Detached	leaf	SJC-CL-FABRIC			

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Create Network Wizard

Create Network

Network Name*
MyNetwork_30000

Layer 2 Only

VRF Name*
BlueVRF ✕ ▼ Create VRF

Network ID*
30000

VLAN ID Propose VLAN

Network Template*
[Default_Network_Universal](#) >

Network Extension Template*
[Default_Network_Extension_Universal](#) >

Generate Multicast IP Please click only to generate a New Multicast Group address and override the default value!

General Parameters **Advanced**

IPv4 Gateway/NetMask example 192.0.2.1/24

IPv6 Gateway/Prefix List example 2001:db8::1/64,2001:db9::1/64

Close Create

Filter by attributes

Actions

<input type="checkbox"/>	Network Name	Network ID	VRF Name	IPv4 Gateway/Suffix	IPv6 Gateway/Prefix	Network Status	VLAN ID	Interface Group
<input type="checkbox"/>	BlueNet1	30000	BlueVRF	192.168.11.1/24		NA	2300	

50 Rows

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Network Attachments

Fabric Overview - SJC-CL-FABRIC

Actions

Overview Switches Links Interfaces Interface Groups Policies **Networks** VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes

<input checked="" type="checkbox"/>	Network Name	Network ID	VRF Name	IPv4 Gateway/Suffix	IPv6 Gateway/Prefix	Network Status	VLAN ID
<input checked="" type="checkbox"/>	BlueNet1	30000	BlueVRF	192.168.11.1/24		NA	2300
<input checked="" type="checkbox"/>	BlueNet2	30001	BlueVRF	192.168.12.1/24		NA	2301

Actions

- Create
- Edit
- Multi-Attach
- Multi-Detach
- Deploy
- Import
- Export
- Delete
- Add to Interface Group
- Remove from Interface Group

50 Rows

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Network Attachments

Fabric Overview - SJC-CL-FABRIC Actions Refresh Help Close

Overview Switches Links Interfaces Interface Groups Policies Networks VRFs Services Event Analytics History Resources Virtual Infrastructure Metrics

Filter by attributes Actions

<input type="checkbox"/>	Network Name	Network ID	VRF Name	IPv4 Gateway/Suffix	IPv6 Gateway/Prefix	Network Status	VLAN ID	Interface Group
<input type="checkbox"/>	BlueNet1	30000	BlueVRF	192.168.11.1/24		DEPLOYED	2300	
<input type="checkbox"/>	BlueNet2	30001	BlueVRF	192.168.12.1/24		DEPLOYED	2301	

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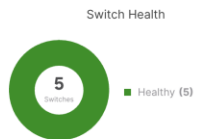
Fabric Overview - SJC-CL-FABRIC

Actions

Overview | Switches | Links | Interfaces | Interface Groups | Policies | Networks | VRFs | Services | Event Analytics | History | Resources | Virtual Infrastructure | Metrics

Fabric Health Mode Deployment Status

Switches



VXLAN

Routing Loopback



VTEP Loopback



NVE Int Status



Networks/VRFs Definition



Extended Networks/VRFs



In-Sync Out-Of-Sync Pending In-Progress

NDFC Topology View

The screenshot displays the Cisco Nexus Dashboard interface for the Fabric Controller SJC-CL-FABRIC. The main view is the NDFC Topology View, showing a hierarchical network structure. The topology consists of a central Spine1 switch connected to two Leaf switches (Leaf1 and Leaf2) at the bottom. Above Spine1 are two Border Gateway Routers (BGW1 and BGW2). At the top level, there are two Network (NET) nodes and one Virtual Routing and Forwarding (VRF) node. The interface includes a search bar labeled "Search by Attributes" and an "Actions" dropdown menu. A "View" panel on the left provides options for zooming, showing logical links, and switching between Operation and Configuration views. The "View" panel also shows a "Hierarchical" view selected and a legend for health status: Healthy (green), Warning (blue), Minor (yellow), Major (orange), Critical (red), and NA (grey). The "Multi-select" option is currently disabled.