



The bridge to possible

Cisco SD-WAN UX2.0

A simplified but rich user experience

Filipe Moreira, CCIE# 46606
Leader, System Engineering

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 until February 24, 2023.





Agenda

- UI Vs UX
- Why UX2.0
- What & How UX2.0
- Going Forward

UI Vs UX



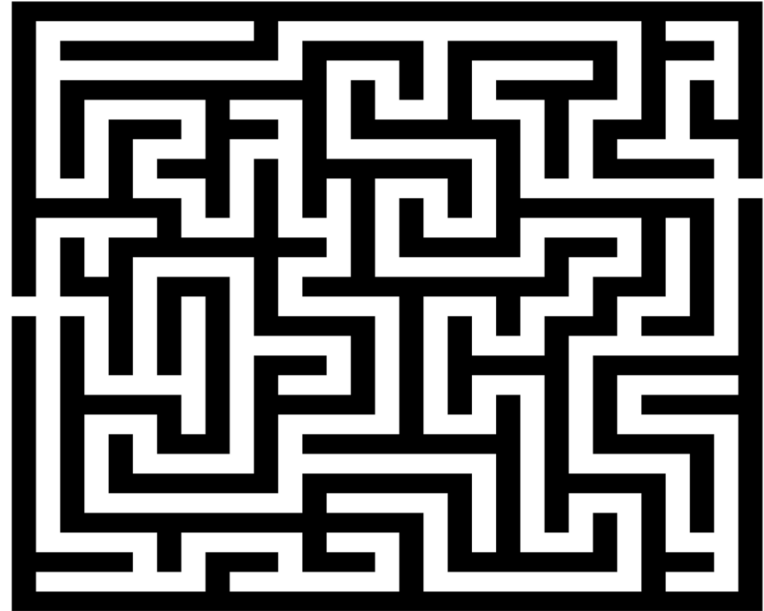
User Interface (UI) Vs User Experience (UX)

- Visual elements that allows users to interact with solution
- Typography, colors, images, buttons, etc
- Aesthetic
- Pathway to solve a problem
- User friendly and journey
- Effectiveness

Why UX2.0 ?

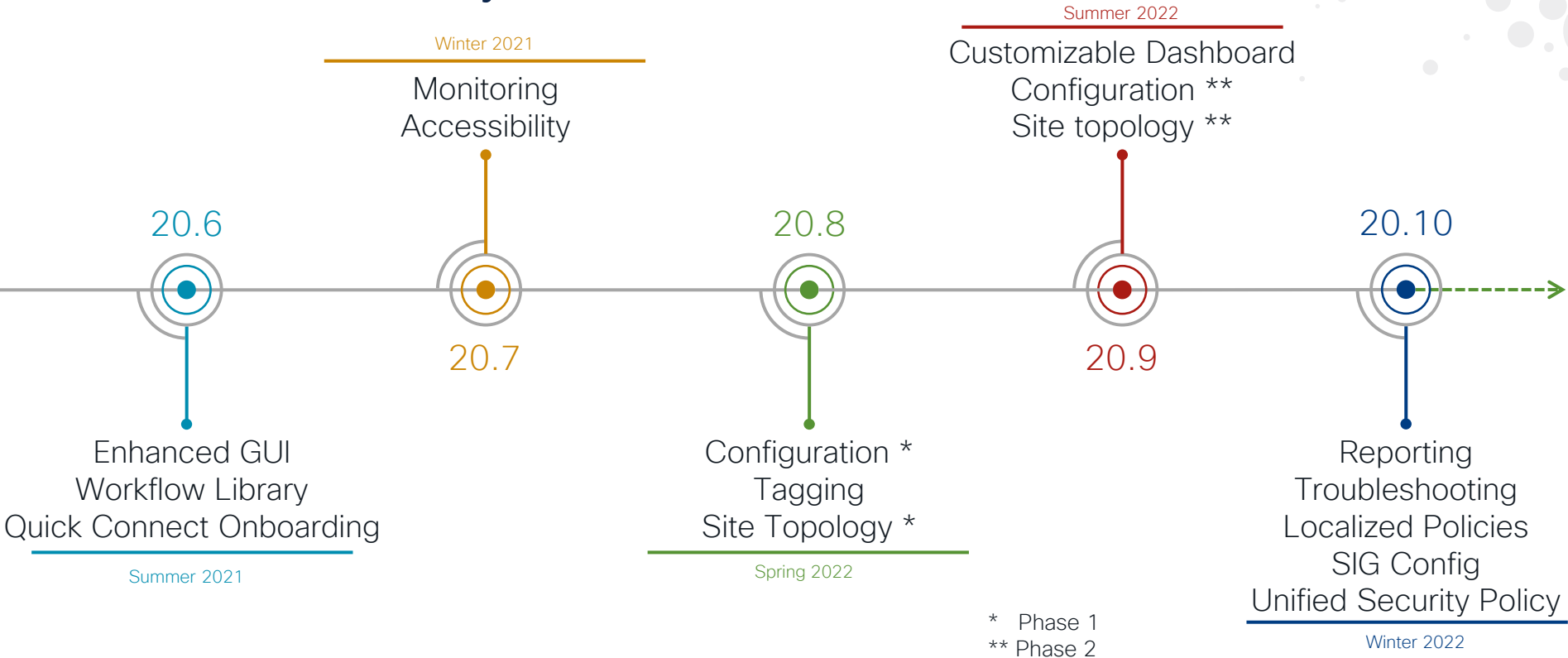
Listening to Our Customers

- Non-Intuitive User Interface
- Configuration Complexity
- Lack of Troubleshooting
- Poor Visibility and Application Performance



What & How UX2.0

UX2.0 Journey



Operational Simplicity



Templates - Background



Not Intuitive and
Not sequential

Slow and Manual

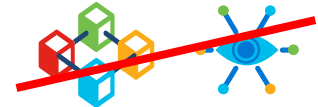


No Smart Default
Values

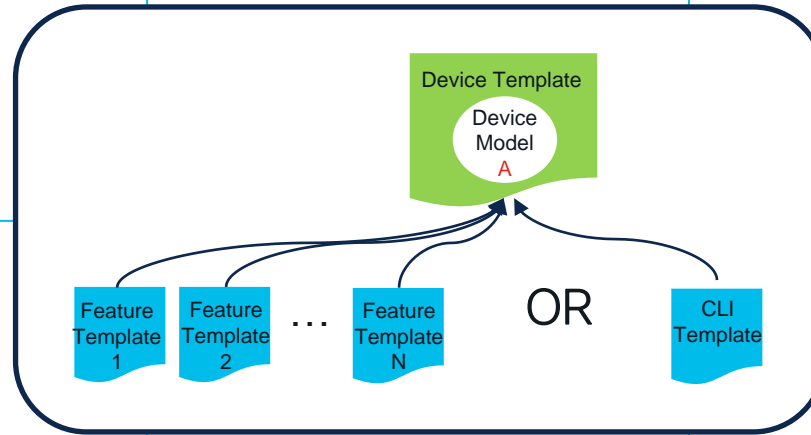


Template sprawl
can be very high

No Structure and
Lack of Visibility



Not Device Agnostic
Minimal Re-use



Starting Principles



Simplicity

- Workflow-based configuration that guides the user with step-by-step instruction.
- Clearly identifies what is necessary/optional and recommended Cisco networking best practice.



Structure

- Group devices based on role or function.
- This structure can be used by other features of vManage such as Monitoring and Troubleshooting.



Re-usability

- Configuration components can be re-used across an entire device family (cEdge) instead of being specific to one device model.

Configuration



Configuration – New approach

Config Group

- Logical grouping of devices that share a common purpose within the WAN.
- The user defines and can customize this grouping based on [business needs](#).



Example:

- West/East
- EMEA/AMER
- Retail Store/Distribution Center

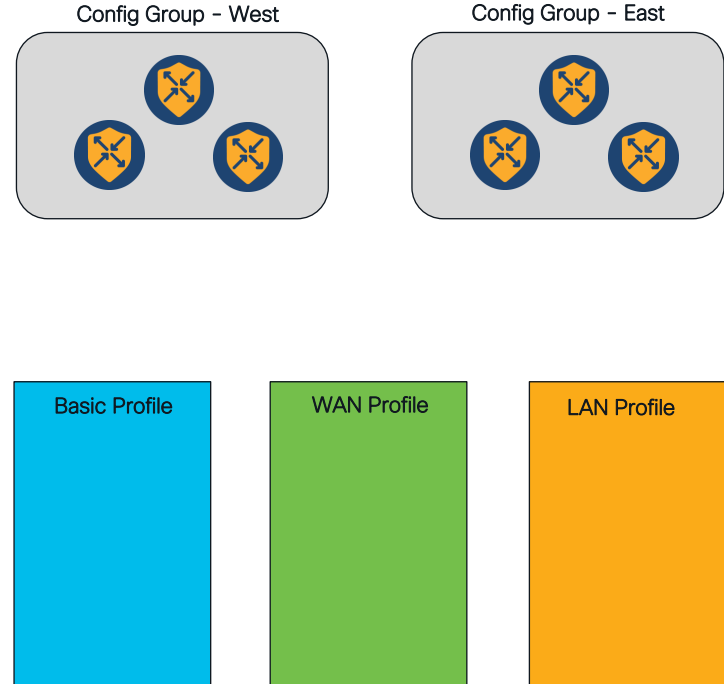
Configuration – New approach

Feature Profiles

- Configuration “buckets” that are required
- Combine profiles together like building blocks
- Build, save, and reuse

Example:

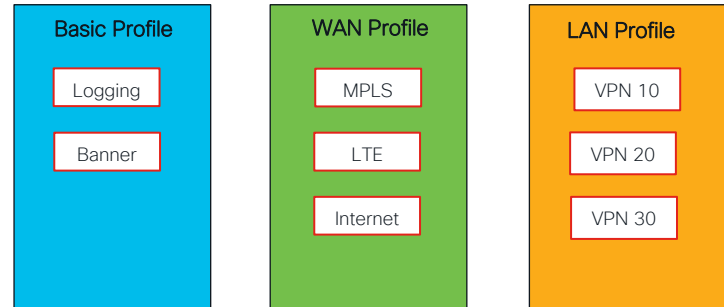
- Basic Profile
- WAN Profile
- LAN Profile



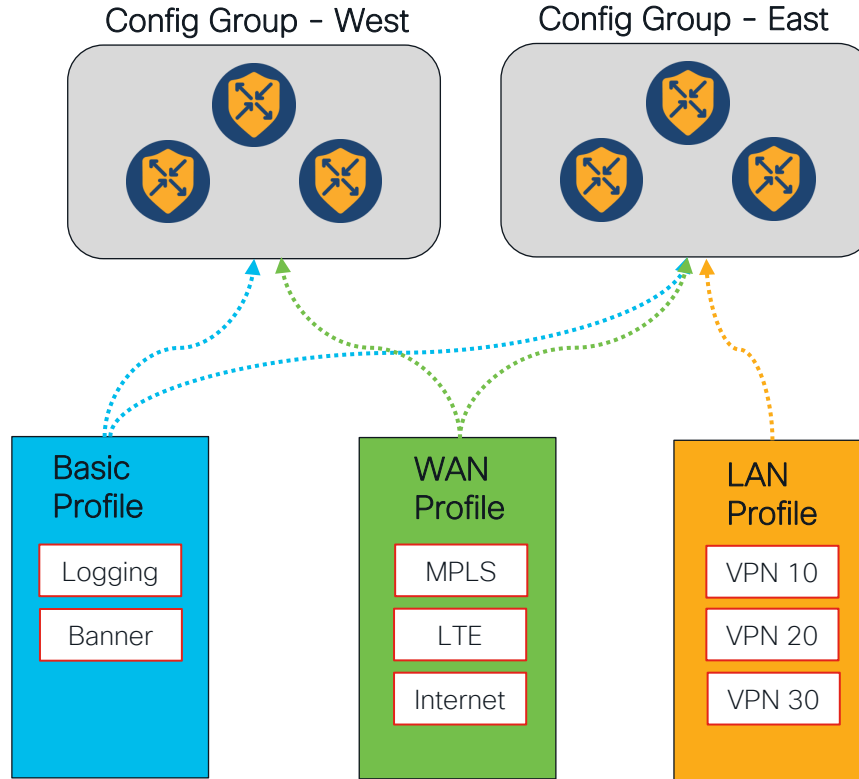
Configuration – New approach

Feature Parcels

- Individual capabilities you wish to share across Configuration Groups.

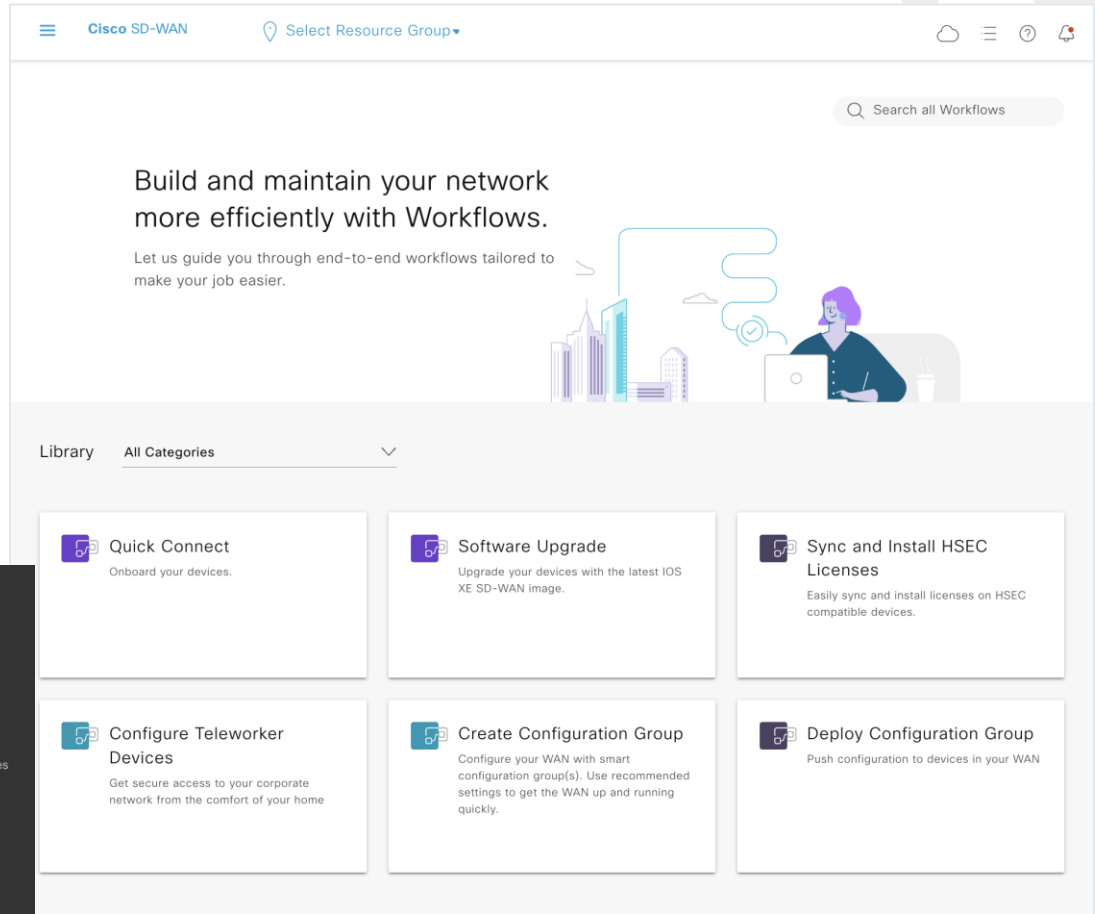
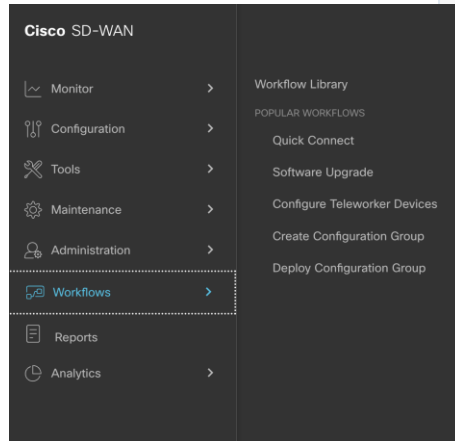


Configuration



Guided Workflows

- Complete use-cases with streamlined, end-to-end guidance
- One-stop shop to onboard and deploy Cisco SDWAN



Smart Defaults

- Common settings are pre-populated with Cisco-recommended best practices
- Decide what to keep and what to modify further
- Build a [complete configuration in <5 minutes](#) with Cisco Smart Defaults!

Site Configurations

Configuration Groups begin with smart default settings pre-populated for the user. You can modify or add to these settings as you wish.

[Collapse All](#)

> Site Type

> Site Settings ⓘ

✓ WAN Interfaces ⓘ

☒ DHCP ☐ Static

Transport Name

MPLS

Interface Color*



mpls



☐ Show Advanced



☒ DHCP ☐ Static

Transport Name

Internet

Interface Color*



public-internet



☐ Show Advanced



☒ DHCP ☐ Static

Transport Name

LTE

Interface Color*



lte






☐ Show Advanced



Configuration – Workflow

1. Name and Description

   Select Resource Group▼ Create Configuration Group

Create Configuration Group

We'll guide you through the required settings to quickly configure your WAN. We'll also recommend smart defaults along the way.

Name*



RetailStoresBranches

ex: EastCoastBranches

Description (Optional)

CF for Retail Branches

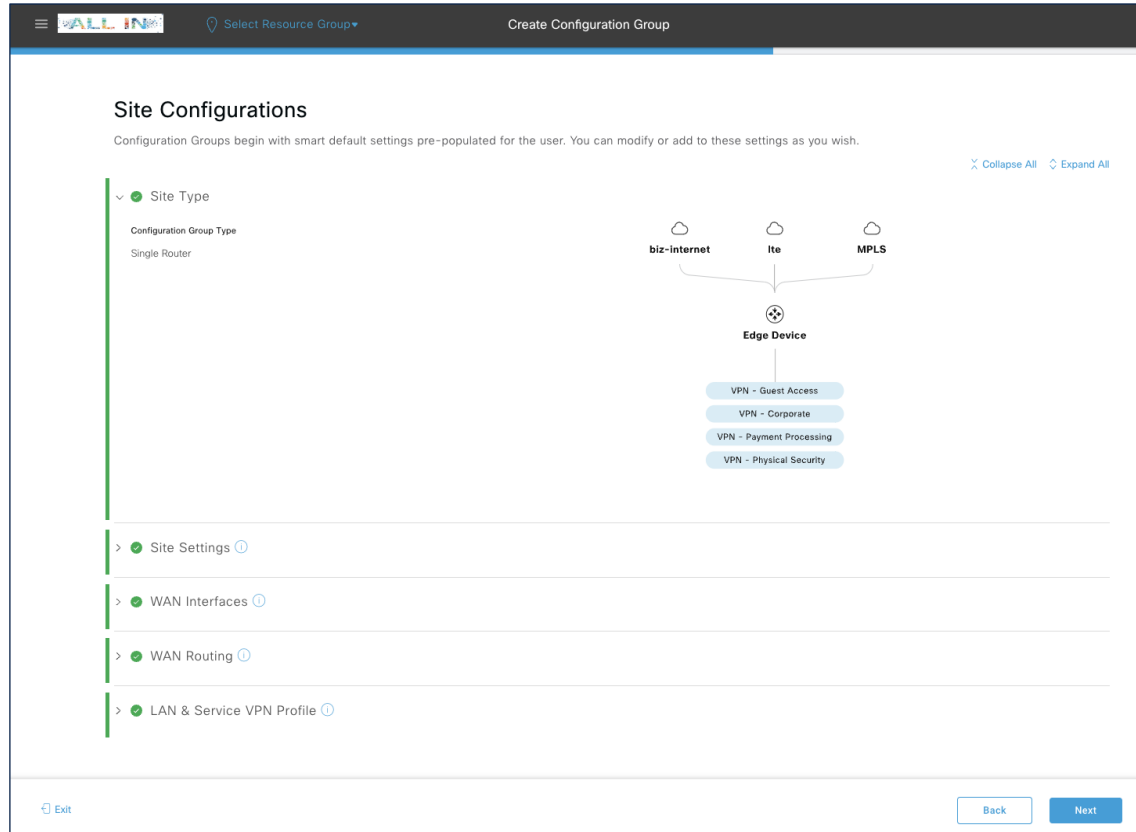
ex: Intended for East Coast location

 Exit 

Configuration – Workflow

1. Name and Description

2. Check/Edit Configuration



Configuration – Workflow

1. Name and Description

2. Check/Edit Configuration

3. Review Summary

The screenshot displays the 'Create Configuration Group' interface. At the top, there is a navigation bar with a menu icon, a logo, and a 'Select Resource Group' dropdown. The main title is 'Create Configuration Group'. Below this, the 'Summary' section is expanded, showing 'Configuration Group Basic Details' and 'Site Configuration'. The 'Configuration Group Basic Details' section includes fields for 'Configuration Group Name' (RetailStoresBranches) and 'Description' (CF for Retail Branches). The 'Site Configuration' section includes 'Site Type' (Single Router), 'Site Settings' (BANNER, MOTD Message, Login Message, LOCAL DEVICE ACCESS, Default Password), and 'WAN Interfaces' (TRANSPORT 1, Name, Type, IP Address, Shaping Rate (Kbps)). At the bottom, there are 'Exit', 'Back', and 'Create Configuration Group' buttons.

Summary

[Collapse All](#) [Export to PDF](#)

Configuration Group Basic Details

Configuration Group [Edit](#)

Configuration Group Name	RetailStoresBranches
Description	CF for Retail Branches

Site Configuration

Site Type [Edit](#)

Configuration Group Type	Single Router
--------------------------	---------------

Site Settings [Edit](#)

BANNER

MOTD Message	System Default
Login Message	System Default

LOCAL DEVICE ACCESS

Default Password
------------------	-------

WAN Interfaces [Edit](#)

TRANSPORT 1

Name	MPLS
Type	mpls
IP Address	Dynamic
Shaping Rate (Kbps)	System Default

[Exit](#) [Back](#) [Create Configuration Group](#)

Configuration – Workflow

1. Name and Description

2. Check/Edit Configuration

3. Review Summary

4. Create Configuration Group

Create Configuration Group



Configuration Group Created!
Do you want to add devices to
RetailStoresBranches?

No, I Will Do It Later

Associate Devices

Configuration – Workflow

1. Name and Description

2. Check/Edit Configuration

3. Review Summary

4. Create Configuration Group

5. Workflow Completed

Done!

Configuration Group was created successfully. You can check the details on the configuration group page.

What's Next?

[Go to Configuration Groups](#)

[Associate Devices to Configuration Group](#)

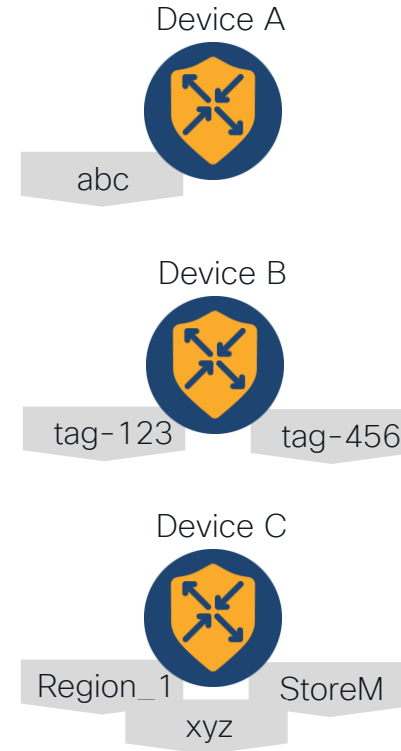
[View Configuration Group aaa's Details](#)

[🏠 Go Back to Workflows Home](#)

Configuration – New approach

Tagging

- Tags bring abstraction to fabric overlay
- Devices can be associated with user defined Tags.
- Tags enables grouping of devices which can then be used for describing, finding or manage devices.



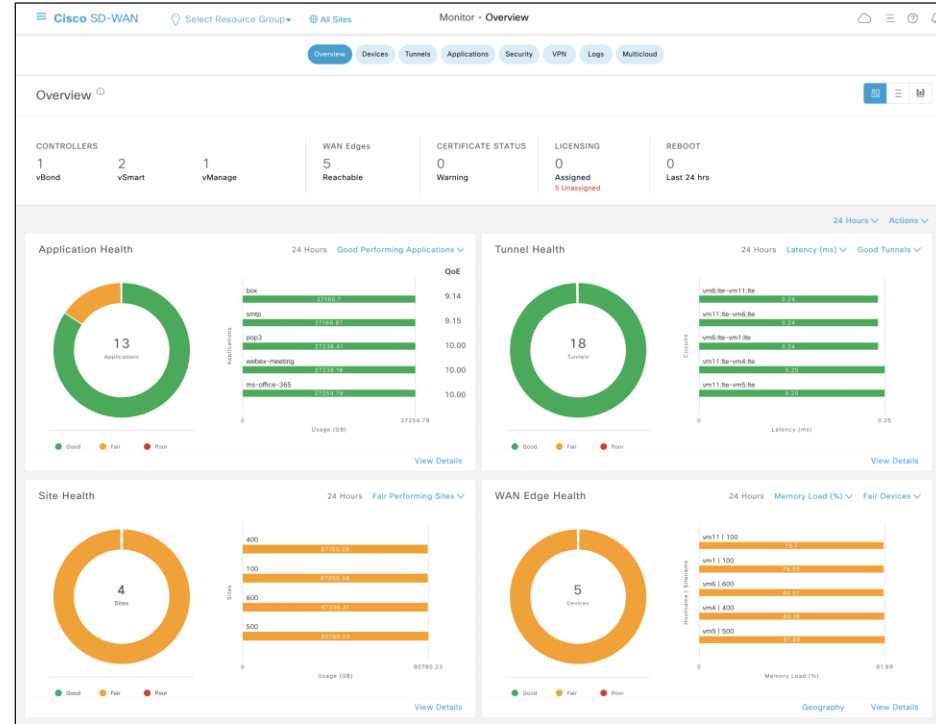
Monitor



Monitor

Rebuilt monitoring experience:

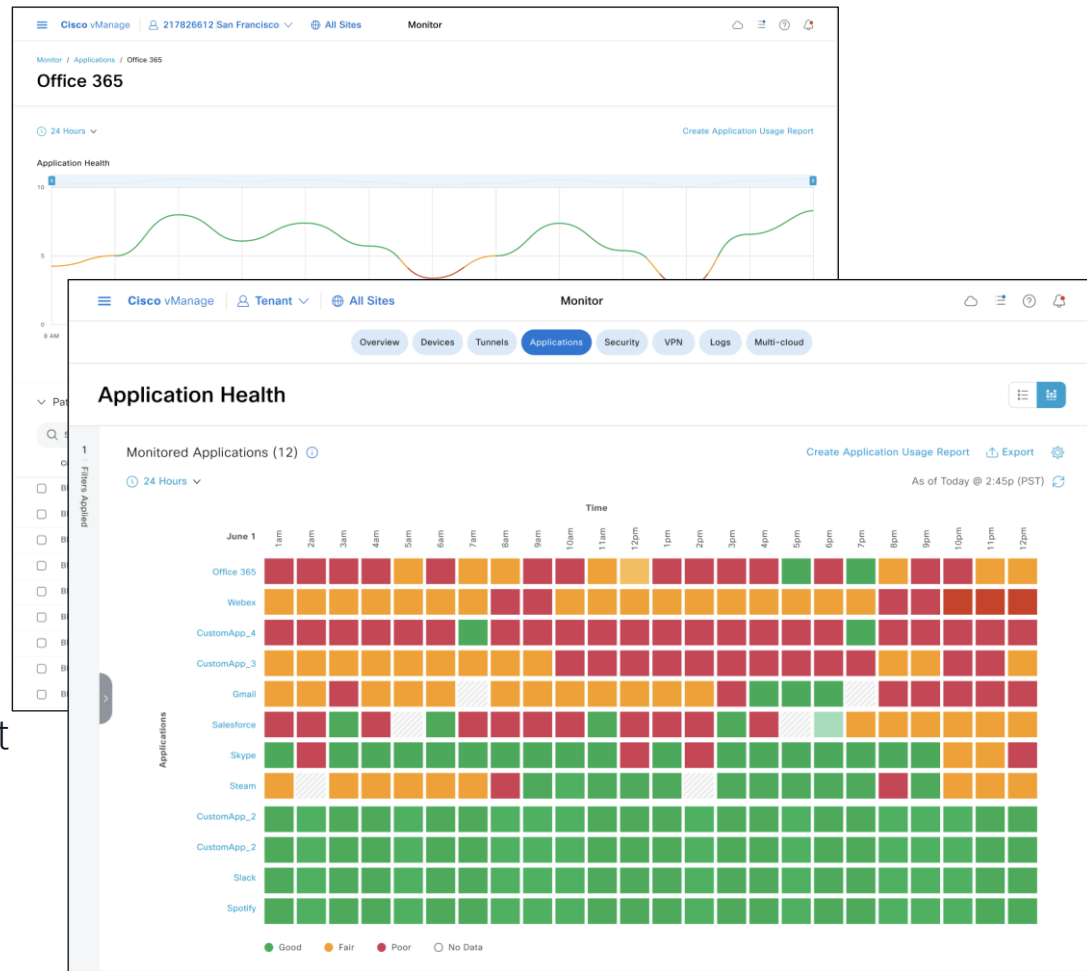
- All-new application and site data across the entire WAN
- Streamlined user navigation with site-specific dashboards
- Historical information of device, tunnel, application, and site health up to 24 hours



Monitor

Rebuilt monitoring experience:

- Robust application data on applications that matter most
- View application health from a historical context with Cisco HeatMaps
- Troubleshoot problematic applications across the WAN or at individual locations



Monitor Dashboard

Overview Devices Tunnels Applications Security VPN Logs More · 1

Devices

Devices Colocation Cluster Certificates Licensing

Device Group All ▾

Devices (20) [Export](#)

Search Table

As of: Jan 06, 2023 05:31 PM

Hostname	Device Model	Site ID	System IP	Health	Reachability	BFD	CPU Load	Memory Utilization
vManage-1	vManage	1	1.1.1.1	⚠	↑	0 / -	27.48%	97%
vBond-1	vBond (vEdge Cloud)	1	1.1.1.2	✓	↑	0 / -	2.25%	34%
vSmart-1	vSmart	1	1.1.1.3	✓	↑	0 / -	6.14%	27%
vSmart-2	vSmart	1	1.1.1.4	✓	↑	0 / -	6.75%	27%
vSmart-3	vSmart	1	1.1.1.5	✓	↑	0 / -	6.78%	27.1%
vSmart-4	vSmart	1	1.1.1.6	✓	↑	0 / -	1.36%	27%
London-10-01	CSR1000v	10	1.1.10.5	✓	↑	16 / 16	8.87%	43%
London-10-02	CSR1000v	10	1.1.10.6	✓	↑	16 / 16	8.56%	43%



Cisco vManage

MONITOR | NETWORK

WAN - Edge Colocation Clusters

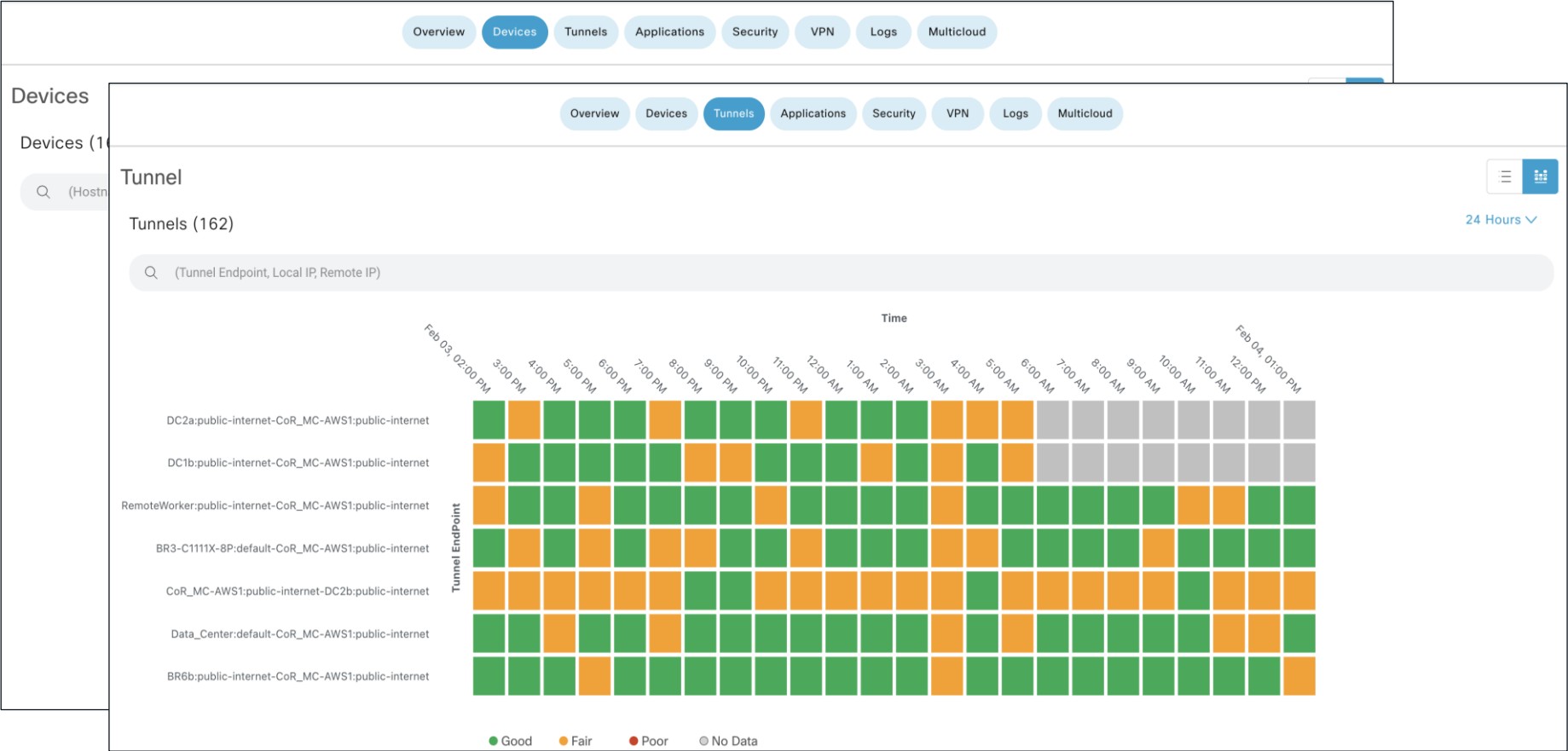
VPN GROUP: No VPN Group Available | VPN SEGMENT: All segments

Device Group: All Search Options

Hostname	System IP	Device Model	Chassis Number/ID	State	Reachability	Site ID	BFD	Control ...	Version	Up Since
vManage-1	1.1.1.3	vManage	dbce868d-cb57-4c24-a455-8bead...	✓	reachable	1	--	2	20.5.1	02 Dec 2021 5:32:00 PM IST
vSmart-1	1.1.1.2	vSmart	2d6a1847-d9c1-4d8f-a4df-848cbb...	✓	reachable	1	--	2	20.5.1	02 Dec 2021 5:32:00 PM IST
vBond-1	1.1.1.1	vEdge Cloud (vBo...	e129c90a-2674-4aa3-8277-b5edb...	✓	reachable	1	--	--	20.5.1	02 Dec 2021 5:32:00 PM IST
vEdge-1	1.1.1.4	vEdge Cloud	60411df6-5dca-41d0-b4b3-73891...	✓	reachable	100	--	2	20.5.1	02 Dec 2021 5:32:00 PM IST

Total Rows: 4

Devices Dashboard - Heatmap

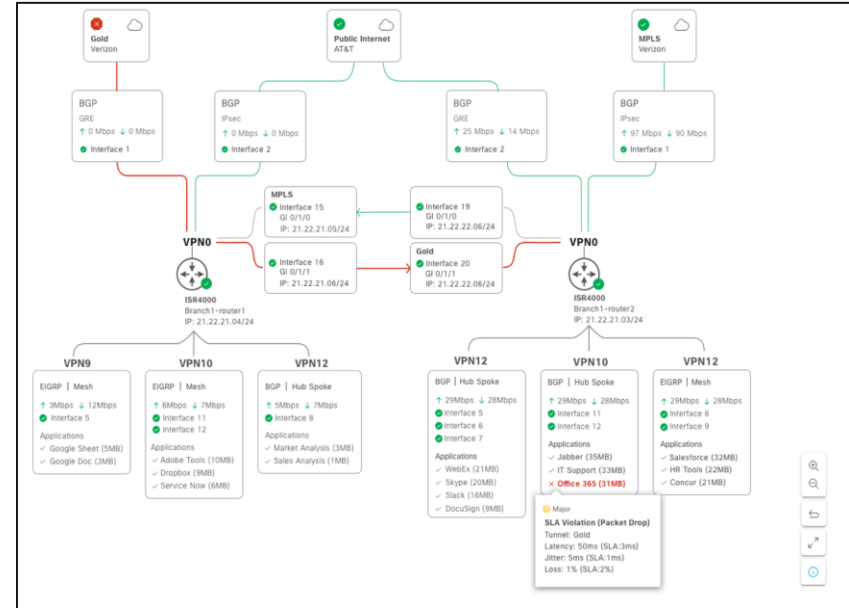


Topology View

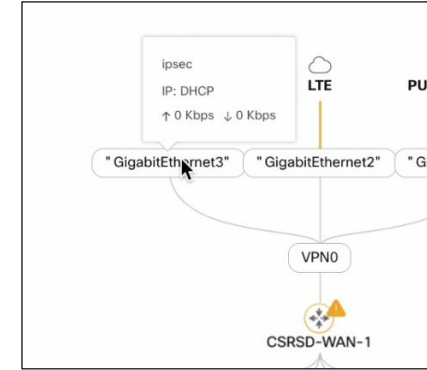
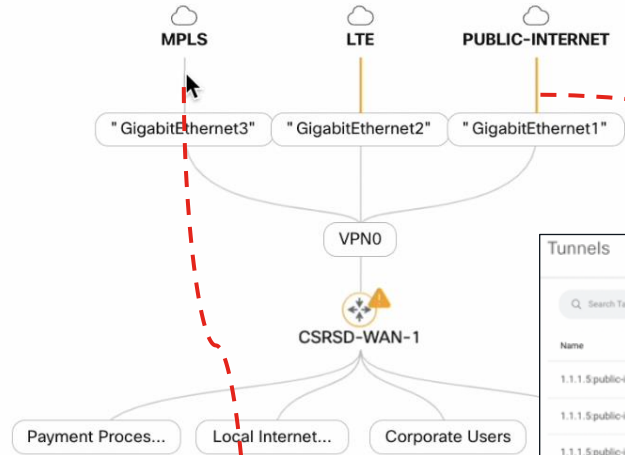


Enhanced Topology - Vision

- Refreshed topology w/ WAN health information
- Details shown for circuits make it easy to diagnose problems
- Explains current site and device configurations and issues
- Instant documentation



Site Topology - Transport



Tunnels

Search Table

Name	Health	State	QoE	Avg. Latency (ms)	Avg. Loss (%)	Avg. Jitter (ms)	Local IP	Remote IP
1.1.1.5:public-internet-1.1.1.10:public-internet	✓	↑	9.667	2.444	0.017	1	1.1.1.5	1.1.1.10
1.1.1.5:public-internet-1.1.1.8:public-internet	✓	↑	9.667	2.333	0.017	1	1.1.1.5	1.1.1.8
1.1.1.5:public-internet-1.1.1.8:lte	✗	↓	5	0	100	0	1.1.1.5	1.1.1.8
1.1.1.5:public-internet-1.1.1.8:mpls	✗	↓	5	0	100	0	1.1.1.5	1.1.1.8

4 Records

Items per page: 25 1 - 4 of 4

Tunnels

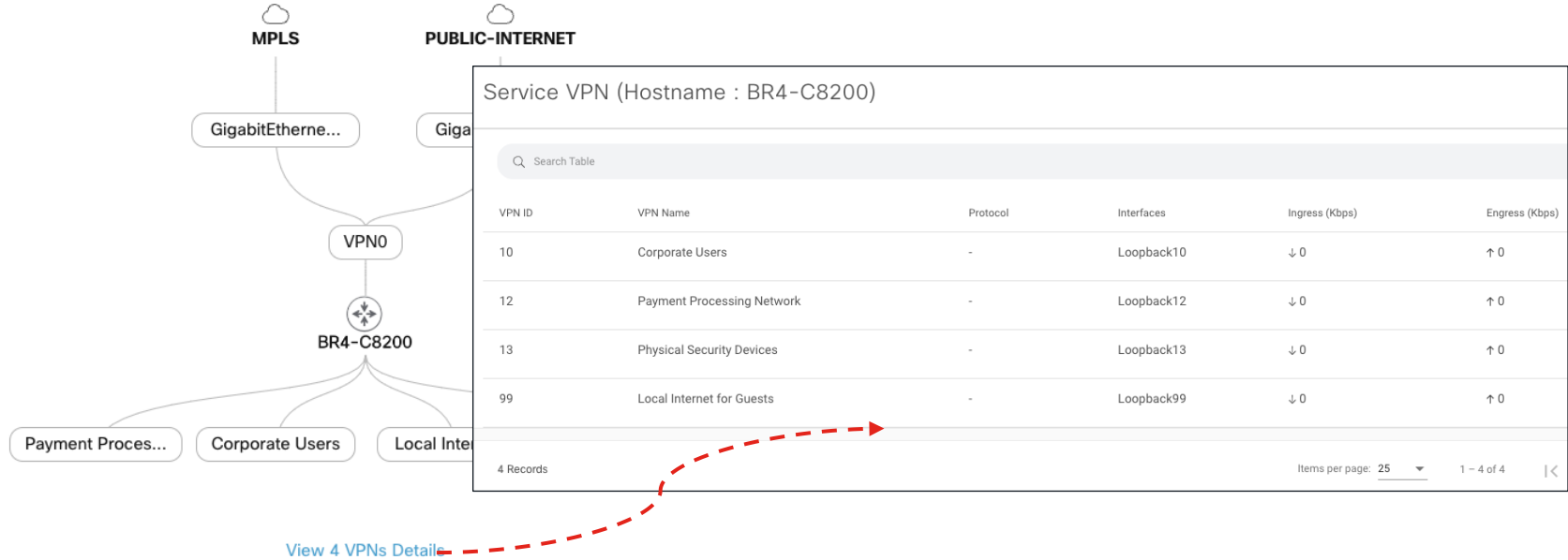
Search Table

Name	Health	State	QoE	Avg. Latency (ms)	Avg. Loss (%)	Avg. Jitter (ms)	Local IP	Remote IP
1.1.1.5:mpls-1.1.1.8:mpls	✓	↑	9	2.4	3.675	1	1.1.1.5	1.1.1.8

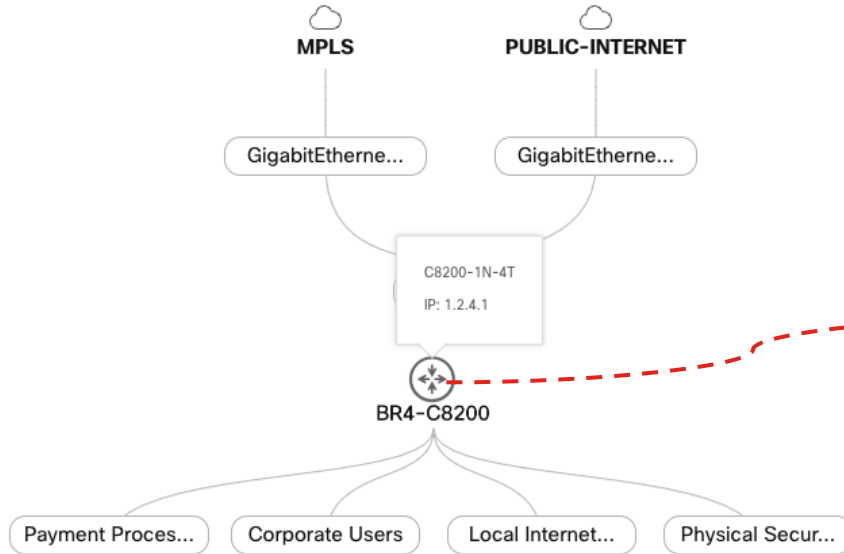
1 Record

Items per page: 25 1 - 1 of 1

Site Topology - Service



Site Topology - Device



[View 4 VPNs Details](#)

BR4-C8200 ✕

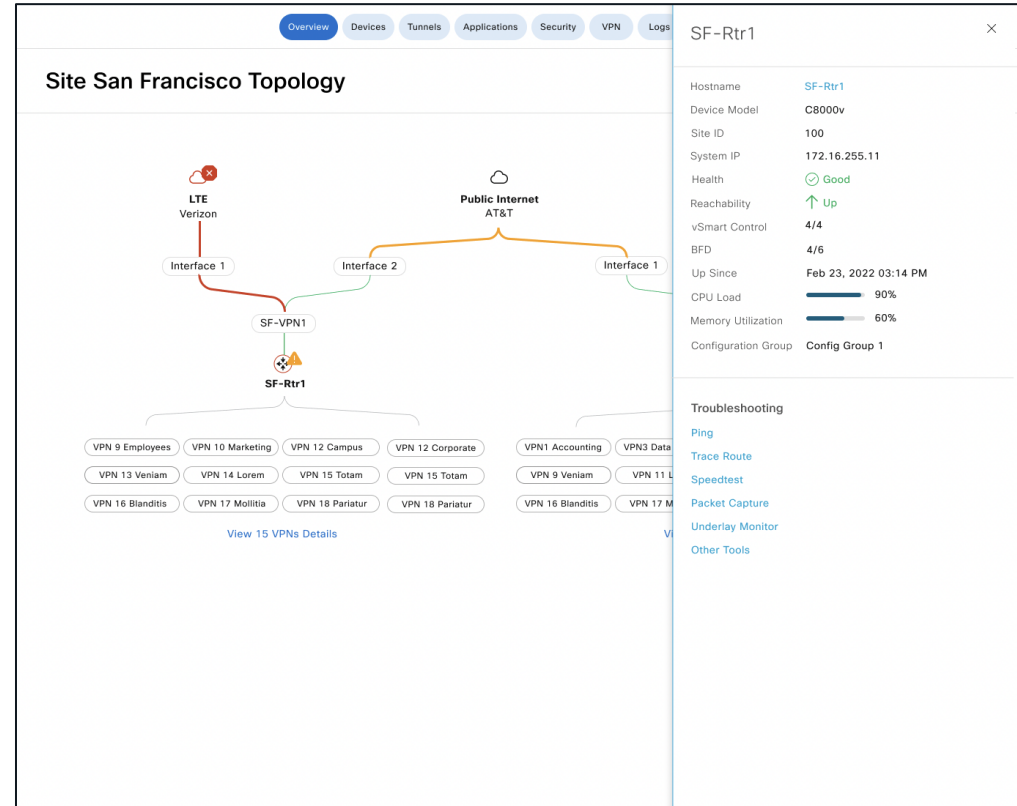
Hostname	BR4-C8200
Device Model	C8200-1N-4T
Site ID	10104
System IP	1.2.4.1
Health	🟢 Good
Reachability	↑ Up
vSmart Control	2/4
BFD	6/6
Up Since	Dec 17, 2022 04:09 AM
CPU Load	<div><div></div></div> 15.17%
Memory Utilization	<div><div></div></div> 38%
Configuration Group	DEMO_preconfigured

Troubleshooting



Troubleshooting

- Access suite of troubleshooting tools made easy
- Output delivered with minimal user interaction
- Focus on debugging issues in your WAN, not tool parameters



Troubleshooting

Where and when you need it

Site 10104 Topolog

Cisco SD-WAN

Select Resource Group All Sites

Tunnels

Overview Devices **Tunnels** Applications Security VPN Logs Multicloud

Tunnel

SD-WAN Tunnels SIG Tunnels

SD-WAN Tunnels (78)

Search Table

As of: Feb 04, 2023 02:24 PM

Tunnel Endpoints	Health	State	QoE	Avg. Latency (ms)	Avg. Loss (%)	Avg. Jitter (ms)	Local IP	Remote IP	Action
CoR_MC-AWS1:public-internet-BR5:public-internet	⚠	↑	6.59	119.68	0.10	0.01	1.2.20.2	1.2.2.1	...
CoR_MC-AWS1:public-internet-BR5:public-internet	⚠	↑	6.66	119.25	0.08	0.00	1.2.20.1		
BR6b:public-internet-CoR_MC-AWS1:public-internet	⚠	↑	7.88	70.00	0.01	0.00	1.2.2.4		
BR3-C1111X-8P:default-CoR_MC-AWS1:public-internet	✅	↑	8.00	70.00	0.00	0.00	1.2.3.1		
BR4-C8200:public-internet-CoR_MC-AWS1:public-internet	⚠	↑	7.71	70.00	0.03	0.00	1.2.4.1	1.2.20.2	...
RemoteWorker:public-internet-CoR_MC-AWS1:public-internet	✅	↑	8.00	69.88	0.00	0.00	58.58.58.58	1.2.20.2	...

Troubleshooting

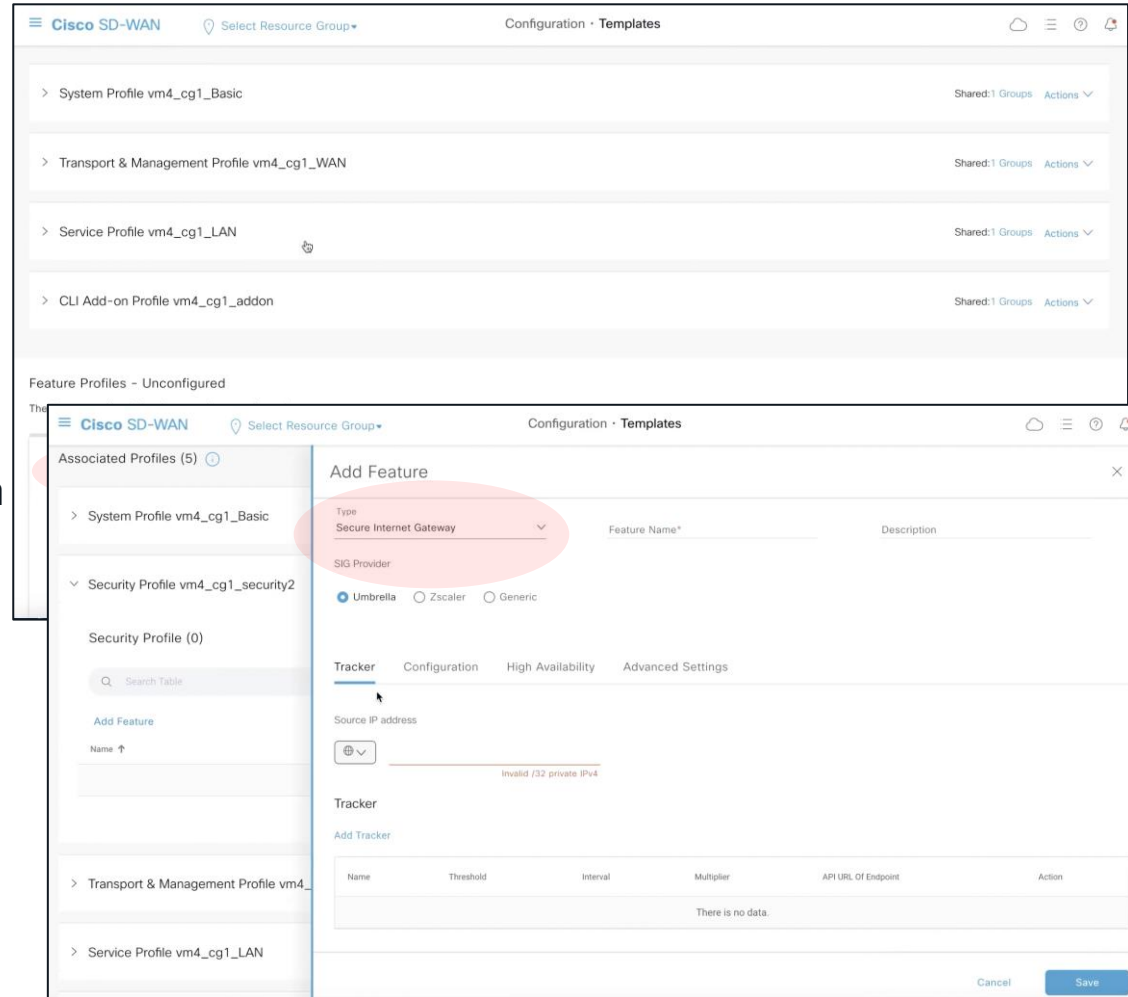
- Tunnel Health
- Underlay Discovery
- Other Tools

From Latest Release



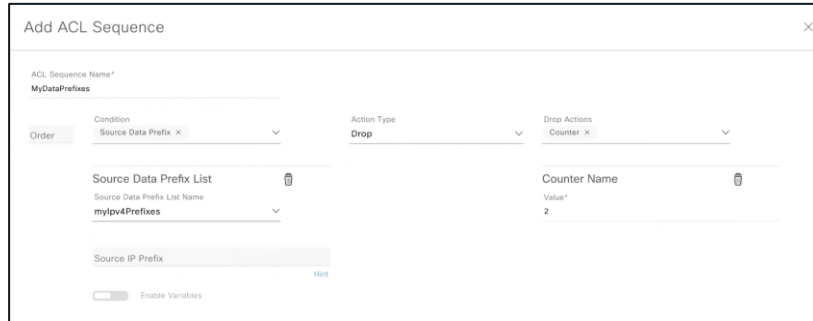
Security Profile

- Security profile added in 20.10 that consists of a Parcel which references existing Unified Security Policy
- SIG templates are migrated to a Feature parcel



Local Policies

- Policy Object Profile is introduced which will contain policy related objects
- QoS, ACL and Routing Localized Policies are supported



Add ACL Sequence

ACL Sequence Name*
MyDataPrefixes

Order

Condition
Source Data Prefix X

Action Type
Drop

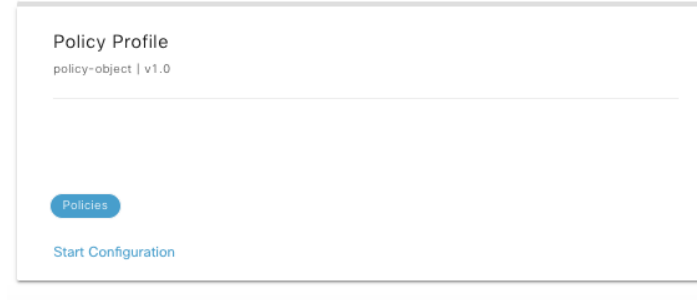
Drop Actions
Counter X

Source Data Prefix List
Source Data Prefix List Name
myIPv4Prefixes

Counter Name
Value*
2

Source IP Prefix
Hint

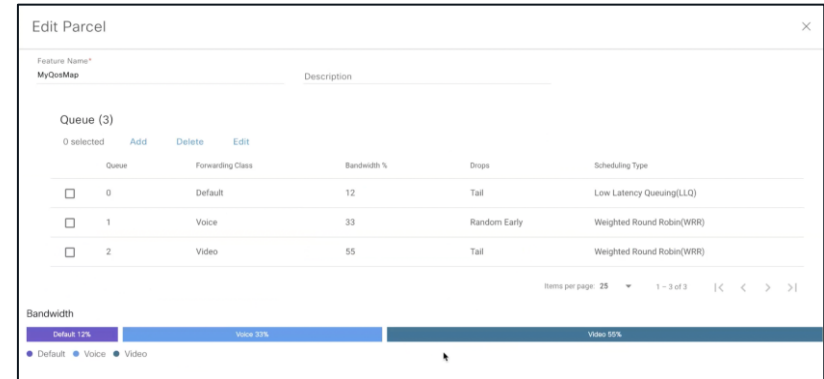
Enable Variables



Policy Profile
policy-object | v1.0

Policies

Start Configuration



Edit Parcel

Feature Name*
MyQoSMap

Description

Queue (3)
0 selected Add Delete Edit

Queue	Forwarding Class	Bandwidth %	Drops	Scheduling Type
<input type="checkbox"/> 0	Default	12	Tail	Low Latency Queuing(LLQ)
<input type="checkbox"/> 1	Voice	33	Random Early	Weighted Round Robin(WRR)
<input type="checkbox"/> 2	Video	55	Tail	Weighted Round Robin(WRR)

Items per page: 25 1 - 3 of 3

Bandwidth

Default 11% Voice 50% Video 50%

Legend: Default Voice Video

Reporting

Cisco SD-WAN

Select Resource Group

Reports - Template

My Reports Report Templates

Report Templates

Executive Summary Report

Enter Report Name*

Select Sites (5) [Edit](#)

Select Sites

Time Frame

☐ 7 Days ☒ 30 Days

Delivery (Optional)

☐ Email Report

Schedule *

☒ Run Now ☐ Run Later (One-Time) ☐ Run Recurring

Cancel

Create Report

Executive Summary Report Preview

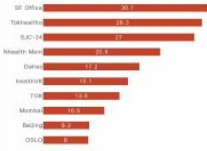
Cisco vManage

Executive Summary Report

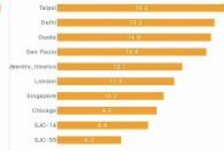
Site Summary



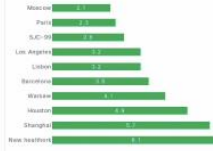
Poor Performing Sites



Fair Performing Sites



Good Performing Sites

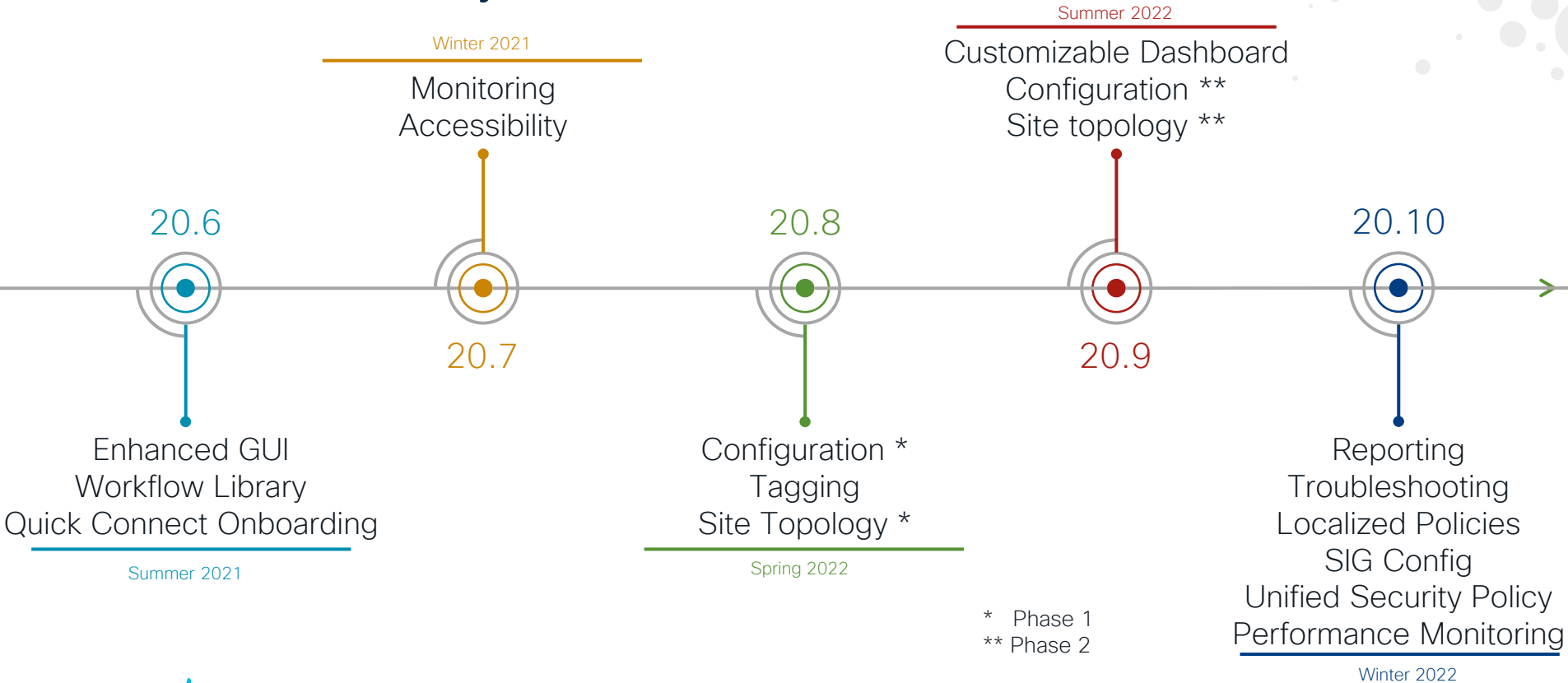


Site Health Metrics

App GdL	Device GdL	Tunnel GdL
Good >= 8.0 GdL	>= 8.0 GdL	>= 8.0 GdL
Fair >= 5.0 GdL	>= 5.0 GdL	>= 5.0 GdL
Poor < 5.0 GdL	< 5.0 GdL	< 5.0 GdL

Going Forward

UX2.0 Journey



UX2.0 Journey

20.11



Enhanced Alarms Filtering and Correlation Security Workflow

Spring 2023

CISCO *Live!*

Cisco vManage

Build and maintain your network more efficiently with Workflows.

Let us guide you through end-to-end workflows to make your job easier.

Library **All Categories**

Security Policy
Use this workflow to configure your security policy.

Cisco vManage | All Sites **Monitor**

Overview Devices Tunnels Security **Logs** Multi-cloud VPN

Alarms Events Audit Log ACL Log

24 Hours 10:00a As of Today @ 2:45p (PST)

Alarms (30) Advanced Filter Export

3 Filters

1 Object Type Object List Severity Type

2 Object Type Object List Severity Type 8

3 Object Type Object List Severity Type 9

Custom Filter Condition

+ Add New Add Email Notification

Clear Apply Filters

Alarm Notifications As of Today @ 2:45p (PST)

Impacted Entities	Severity	Object	Alarm Type	Message	Related Event/Log	Date & Time
Duis aute inure	Critical	Site	Control site down	Lorem ipsum	Event (3)	Jul 06, 2022 01:56 PM
host-name:vm12.system-ip:172.16.255.22...	Major	Device	CPU usage	System CPU usage is above 75%	Event (1)	Jul 06, 2022 01:56 PM
host-name:vm12.system-ip:172.16.255.22...	Critical	Device	Type A	Lorem ipsum	Event (2)	Jul 06, 2022 01:56 PM
Excepteur sint	Minor	Tunnel	Type A	Lorem ipsum	Audit Log (1)	Jul 06, 2022 01:56 PM
Ut enim ad minim	Minor	User define grouping	Type A	Lorem ipsum	-	Jul 06, 2022 01:56 PM
Excepteur sint	Minor	Site	Type A	Lorem ipsum	-	Jul 06, 2022 01:56 PM
Excepteur sint	Critical	Site	Type A	Lorem ipsum	-	Jul 06, 2022 01:56 PM
host-name:vm12.system-ip:172.16.255.22...	Minor	Device	Type A	Lorem ipsum	ACL Log (3)	Jul 06, 2022 01:56 PM

Software Upgrade
Upgrade your devices with the latest IOS XE SD-WAN image.

Sync and Install HSEC Licenses
Easily sync and install licenses on HSEC compatible devices.

Configu Devices
Get secure, corporate n comfort of v

Cisco SD-WAN User Experience 2.0



Enhanced UI

Standardizes and improves basic user interactions



Workflows Library

Complete onboarding/Day-N use-cases with streamlined, end-to-end guidance



Simplified Configuration

Workflow configuration with smart defaults and pre-defined settings



Simplified Troubleshooting

Topology view with instance access to troubleshooting tools



Broad Visibility

New, customizable overview dashboards, application performance monitoring.



Granular Management

Customizable dashboards and granular RBAC for different personas

Complete your Session Survey

- Please complete your session survey after each session. Your feedback is very important.
- Complete a minimum of 4 session surveys and the Overall Conference survey (open from Thursday) to receive your Cisco Live t-shirt.
- All surveys can be taken in the Cisco Events Mobile App or by logging in to the Session Catalog and clicking the "Attendee Dashboard" at <https://www.ciscolive.com/emea/learn/sessions/session-catalog.html>



Continue Your Education



Visit the Cisco Showcase for related demos.



Book your one-on-one Meet the Engineer meeting.



Attend any of the related sessions at the DevNet, Capture the Flag, and Walk-in Labs zones.



Visit the On-Demand Library for more sessions at ciscolive.com/on-demand.



The bridge to possible

Thank you

CISCO *Live!*

CISCO *Live!*

ALL IN

Configuration 2.0 – TAG Restrictions

- 25 Tags per device (maximum)
- 25 Tags per vManage (maximum)
- 25 Characters per Tag (maximum)
- Tags are case sensitive
- Accepted characters: alphanumeric, - , _ (no spaces, regex, other)

Configuration 2.0 – TAG Rules

Device1	Tag1, Tag2
Device2	Tag1, Tag2, Tag3
Device3	Tag1, Tag4, Tag5
Device4	Tag3, Tag5
Device5	Tag4, Tag5

Equal: (Match all tags)	Tag1, Tag2	Device1 Device2
Not Equal: (Not Match atleast 1 tag)	Tag1, Tag2	Device3 Device4 Device5
Contains: (Match atleast 1 tag)	Tag1, Tag2	Device1 Device2 Device3
Not Contains: (Not Match any tag)	Tag1, Tag2	Device4 Device5

CISCO *Live!*

ALL IN