

The background is a vibrant, abstract graphic. It features a central bright white light source from which numerous colorful rays emanate, creating a sunburst or starburst effect. The rays transition through a spectrum of colors including yellow, orange, red, and various shades of blue and green. Overlaid on this are several large, semi-transparent, wavy shapes in similar color tones, giving the overall image a sense of motion and energy.

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The bridge to possible

Demystifying Cisco SD-WAN APIs to Automate Cloud OnRamp for Multi-Cloud

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DEVNET-2096



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- 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.



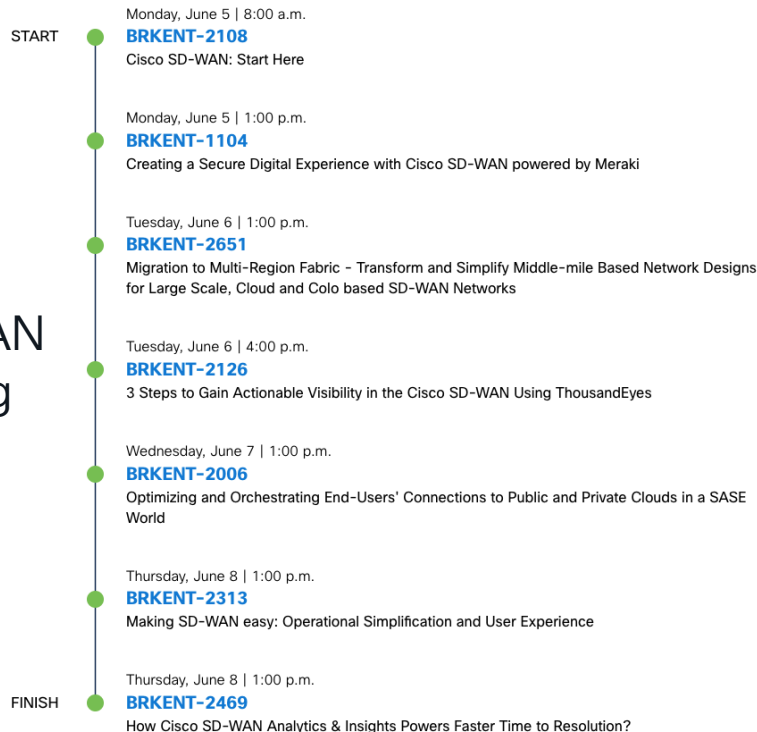
<https://ciscolive.ciscoevents.com/ciscolivebot/#DEVNET-2096>

Agenda

- WW(What & Why) of SD-WAN Manager APIs
- SD-WAN Manager API Categories
- Cloud OnRamp for Multi-Cloud APIs
- Demo

SD-WAN Learning Map for Cisco Live

- Just a proposal!
- 98 hits for SD-WAN in Session Catalog



<https://www.ciscolive.com/global/learn/technical-education/learning-maps/networking/sd-wan.html>

New Naming: Cisco Catalyst SD-WAN

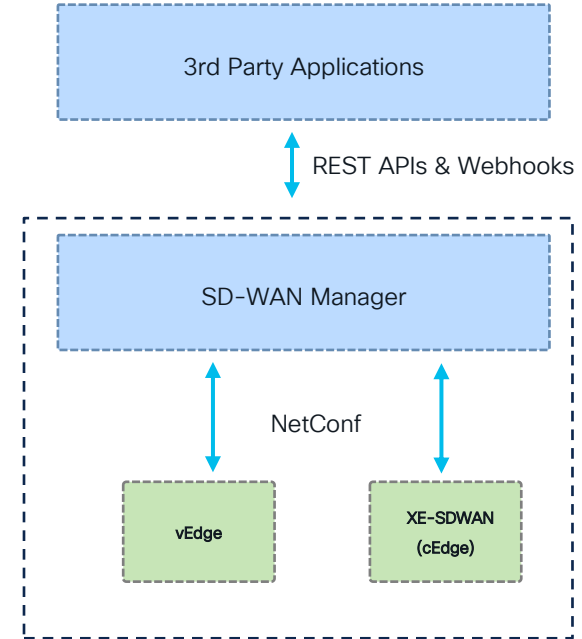
FYI

Old Name	New Name (rebranding)	Documentation	Displayed on Screens	API/CLI – Documentation
Cisco SD-WAN	Cisco Catalyst SD-WAN	Cisco Catalyst SD-WAN	Cisco Catalyst SD-WAN	Cisco Catalyst SD-WAN
vManage	Cisco Catalyst SD-WAN Manager	SD-WAN Manager	Manager	vManage
vAnalytics	Cisco Catalyst SD-WAN Analytics	SD-WAN Analytics	Analytics	vAnalytics
vBond	Cisco Catalyst SD-WAN Validator	SD-WAN Validator	Validator	vBond
vSmart	Cisco Catalyst SD-WAN Controller	SD-WAN Controller	Controller	vSmart
Self Service Portal	Cisco Catalyst SD-WAN Portal	Cisco Catalyst SD-WAN Portal	Cisco Catalyst SD-WAN Portal	SD-WAN Portal
Cloud-Delivered Cisco SD-WAN	Cloud-Delivered Cisco Catalyst SD-WAN	Cloud-Delivered Cisco Catalyst SD-WAN	Cloud-Delivered Cisco Catalyst SD-WAN	NA

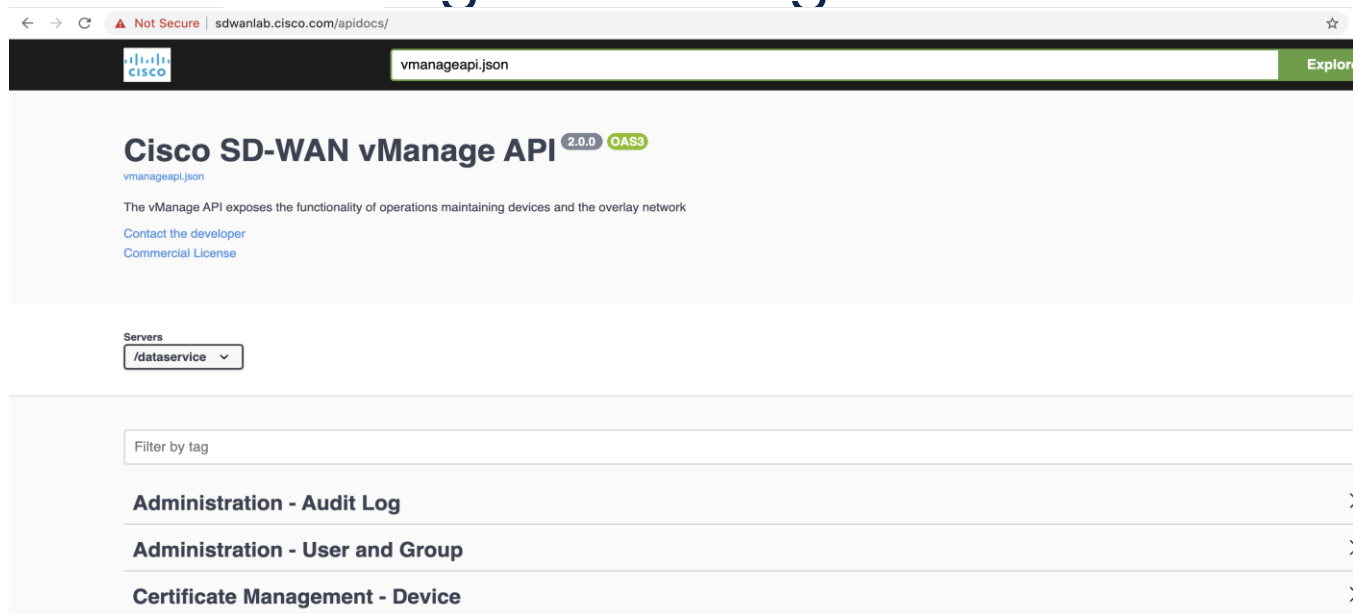
WW(What & Why) of SD-WAN Manager APIs

SD-WAN Manager REST APIs

- SD-WAN Manager uses REST architecture which is stateless, client-server, cacheable communications protocol.
- SD-WAN Manager exposes REST APIs and webhooks to integrate with 3rd party systems
- SD-WAN Manager uses NetConf for configuring and managing edge devices



SD-WAN Manager – Using REST APIs



The screenshot shows a web browser window with the URL `sdwanlab.cisco.com/apidocs/`. The page title is "Cisco SD-WAN vManage API" with version "2.0.0" and "OAS3" tags. Below the title, it says "vmanageapi.json" and "The vManage API exposes the functionality of operations maintaining devices and the overlay network". There are links for "Contact the developer" and "Commercial License". A "Servers" dropdown menu is set to "/dataservice". Below this, there is a "Filter by tag" input field and a list of API endpoints: "Administration - Audit Log", "Administration - User and Group", and "Certificate Management - Device".

- API Documentation built-in – `https://<vmanage-ip:port>/apidocs`
- Test API calls can be tried out from swagger UI
- API Documentation: <https://developer.cisco.com/docs/sdwan/>

URI Structure

`https://vmanage-ip:port/dataservice/device/bfd/state/device?deviceId=1.1.1.7`

Server or Host

Resource

Parameters

`https://`

- Protocol over which data is sent between client and server

Server or Host

- Resolves to the IP and port to which to connect

Resource

- The location of the data or object of interest

Parameters

- Details to scope, filter, or clarify a request. Often optional.

Options for Working with REST APIs

curl

- Linux command line application

Postman

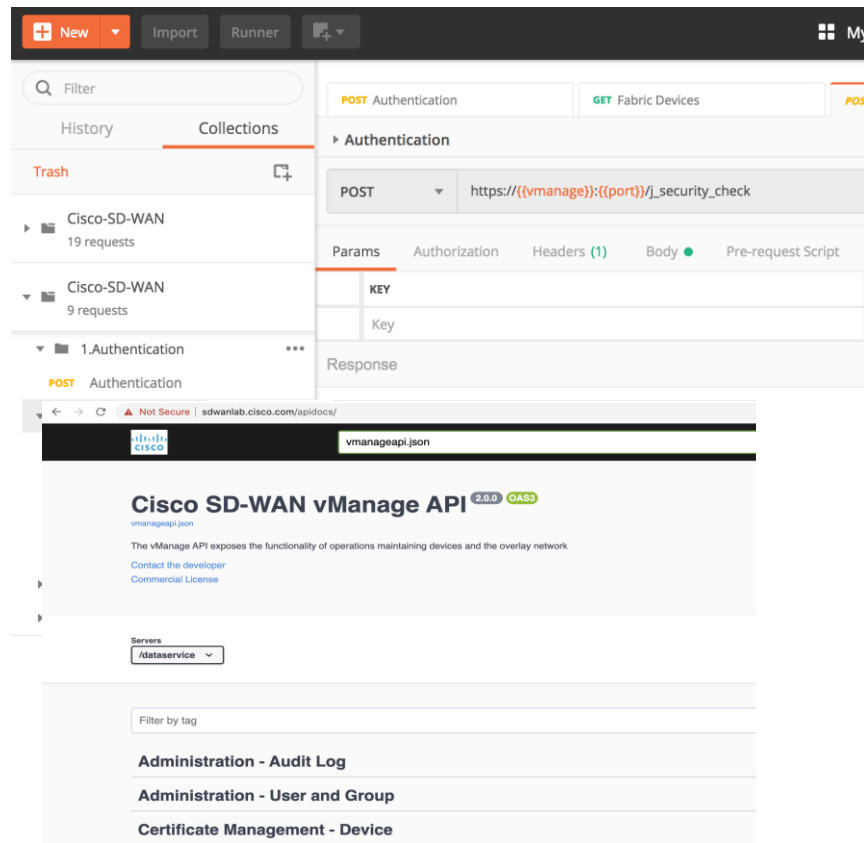
- API testing application and framework

Requests

- Python library for scripting

Python Viptela SDK

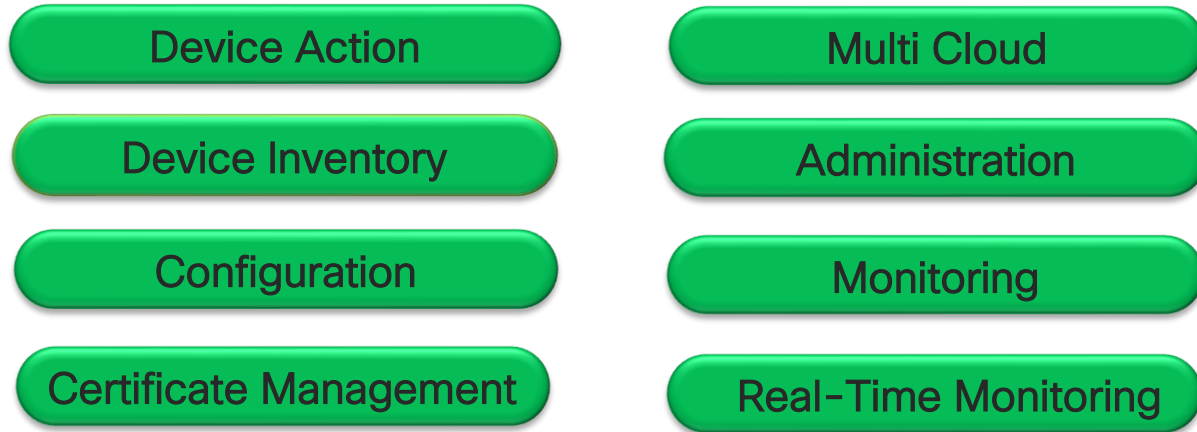
OpenAPI/Swagger



SD-WAN Manager API Categories

SD-WAN Manager API categories

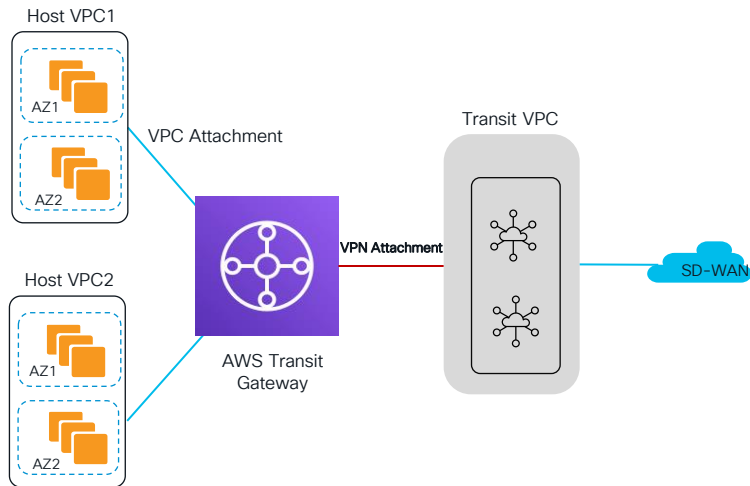
- SD-WAN Manager APIs are grouped into different resource collections
- APIs under each resource collection are documented at “<https://<vmanage-ip:port>/apidocs>”



Cloud OnRamp for Multi-Cloud APIs

Cloud OnRamp for Multi-Cloud APIs

SD-WAN via VPN Attachment



Multi Cloud

Configuration - Multi Cloud

GET /multicloud/accounts

POST /multicloud/accounts

GET /multicloud/accounts/{accountId}

PUT /multicloud/accounts/{accountId}

DELETE /multicloud/accounts/{accountId}

PUT /multicloud/accounts/{accountId}/credentials

GET /multicloud/accounts/edge

POST /multicloud/accounts/edge

GET /multicloud/accounts/edge/{accountId}

Breakout Session: **BRKENT-2283** - 4 steps to unify Multi-Cloud Connectivity and Design with Cisco SD-WAN principles



Demo

Additional Resources – GitHub Repos and DevNet Learning Labs

- <https://github.com/suchandanreddy/devnet2096>
- <https://github.com/CiscoDevNet/python-viptela>
- <https://github.com/suchandanreddy/sdwan-apis>
- <https://github.com/suchandanreddy/sdwan-umbrella-policy/>
- <https://github.com/suchandanreddy/sdwan-webhooks>
- <https://developer.cisco.com/sdwan/>
- <https://developer.cisco.com/learning/modules/sd-wan>

DevNet Tools & Resources

- [SD-WAN DevNet Learning Labs](#)
- [SD-WAN DevNet Sandboxes](#)

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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

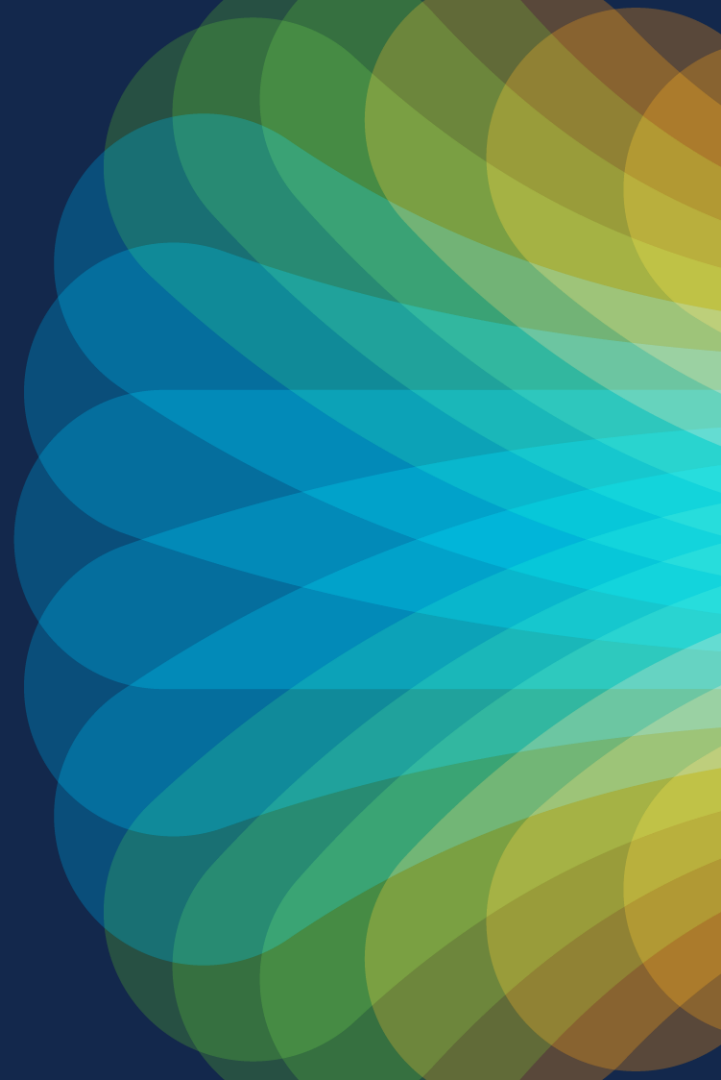


The bridge to possible

Thank you

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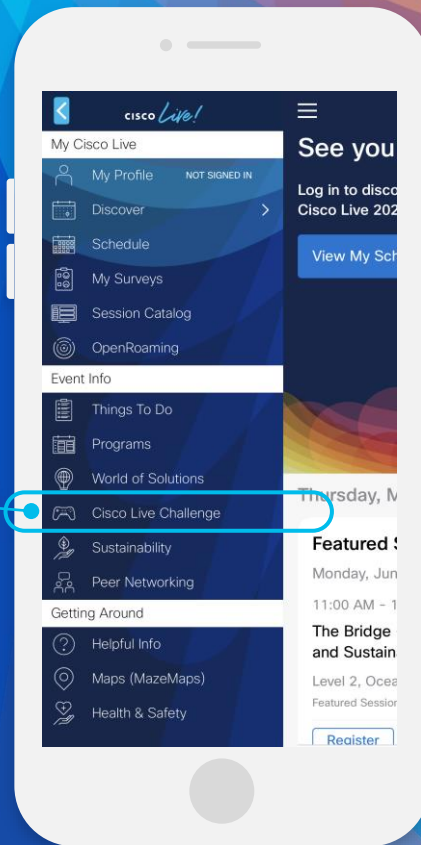


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- 1 Open the Cisco Events App.
- 2 Click on 'Cisco Live Challenge' in the side menu.
- 3 Click on View Your Badges at the top.
- 4 Click the + at the bottom of the screen and scan the QR code:



The background of the slide is a vibrant, abstract graphic. It features a series of overlapping, wavy bands of color in shades of red, orange, yellow, green, and blue, creating a sense of movement and energy. On the right side, there is a bright, multi-colored sunburst or starburst effect that radiates outwards, adding to the dynamic feel of the design.

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