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The bridge to possible

Cisco SD-WAN Self Service Portal (SSP)

The love story of SD-WAN cloud

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BRKATO-2101

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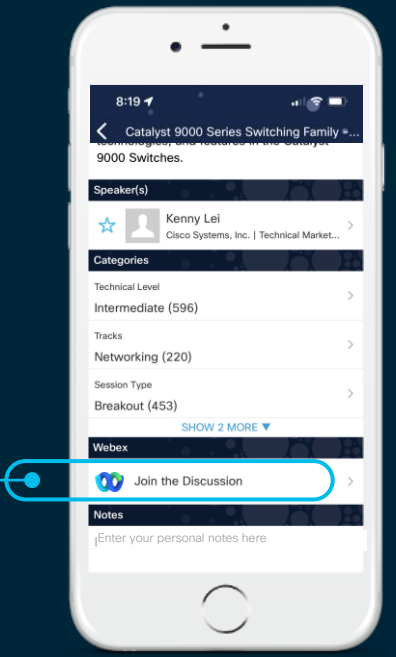

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Agenda

- Introduction to Cisco SSP
- Use Cases
- Best Practices
- Roadmap
- Demo
- Q/A & Conclusion

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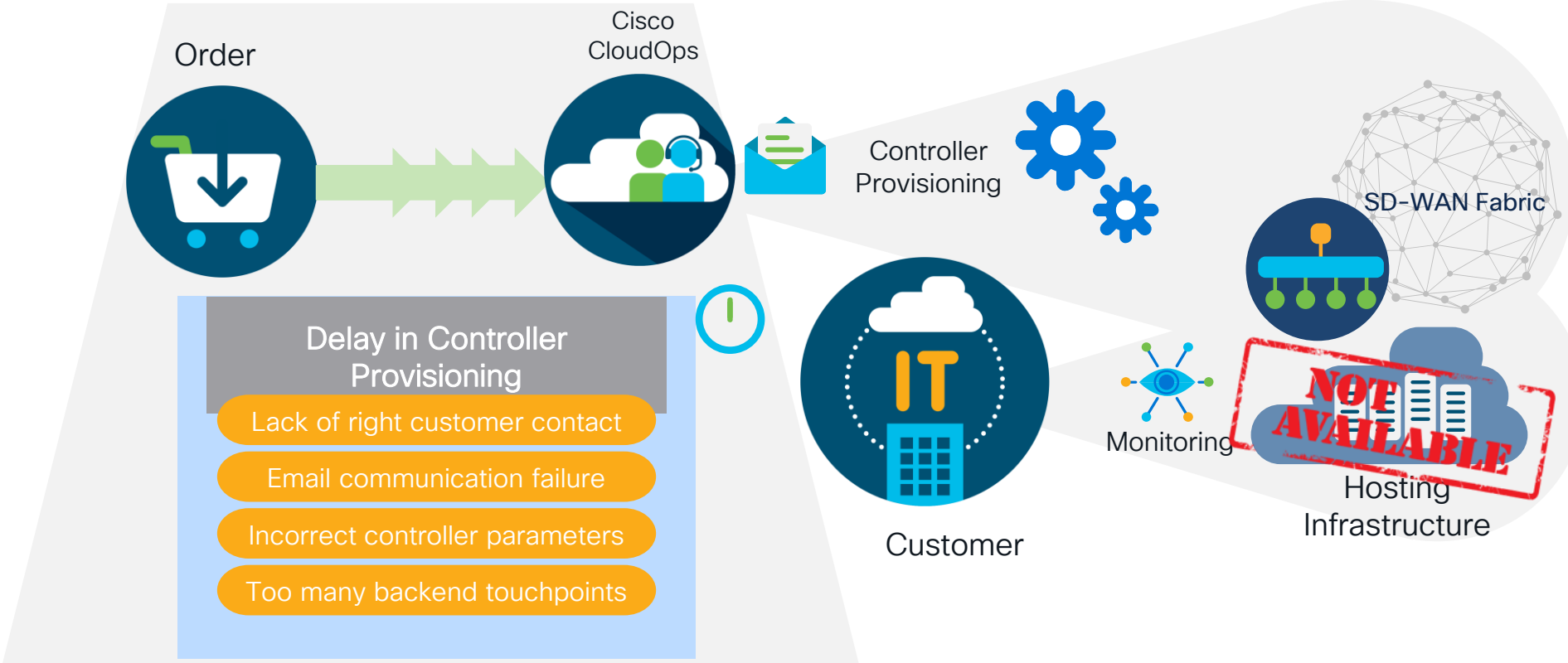
Introduction

SD-WAN Cloud Controller Deployment

Prior to SD-WAN Self Service Portal



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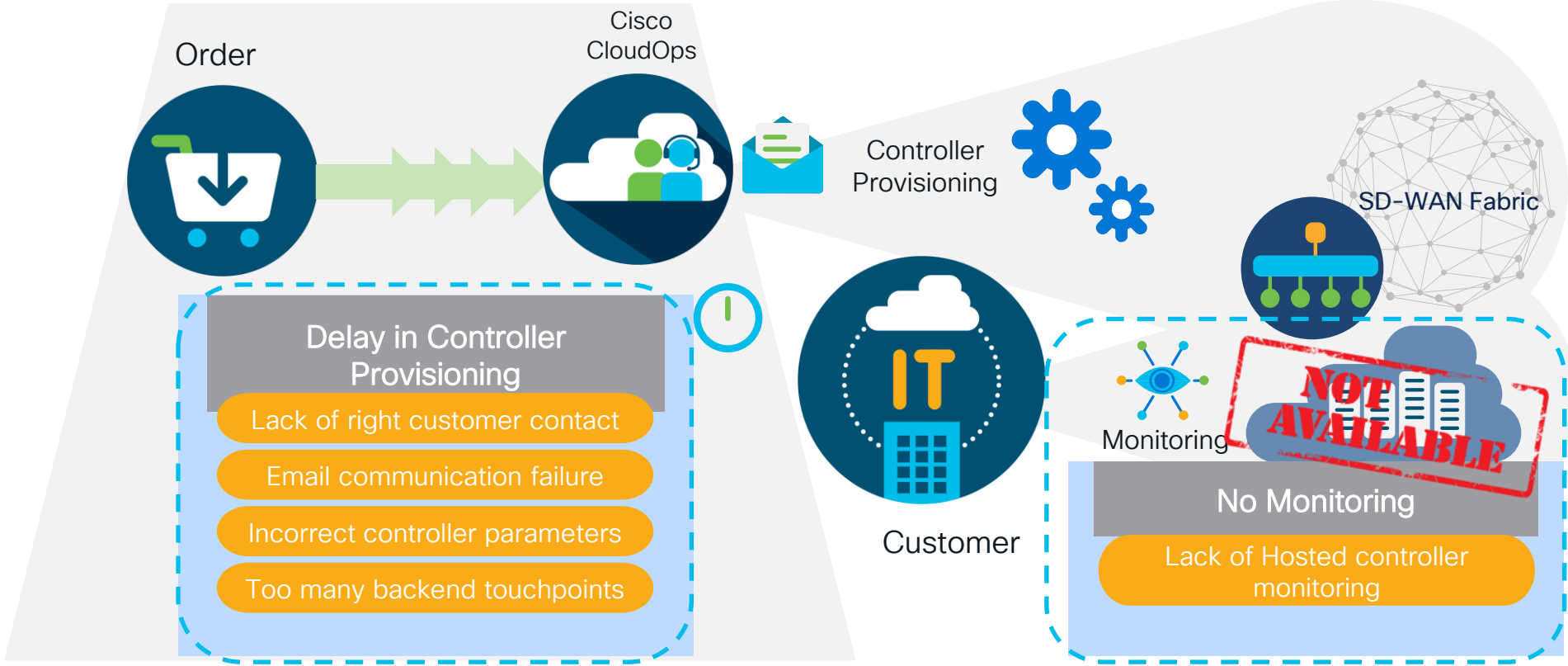
SD-WAN Cloud Controller Deployment

Prior to SD-WAN Self Service Portal



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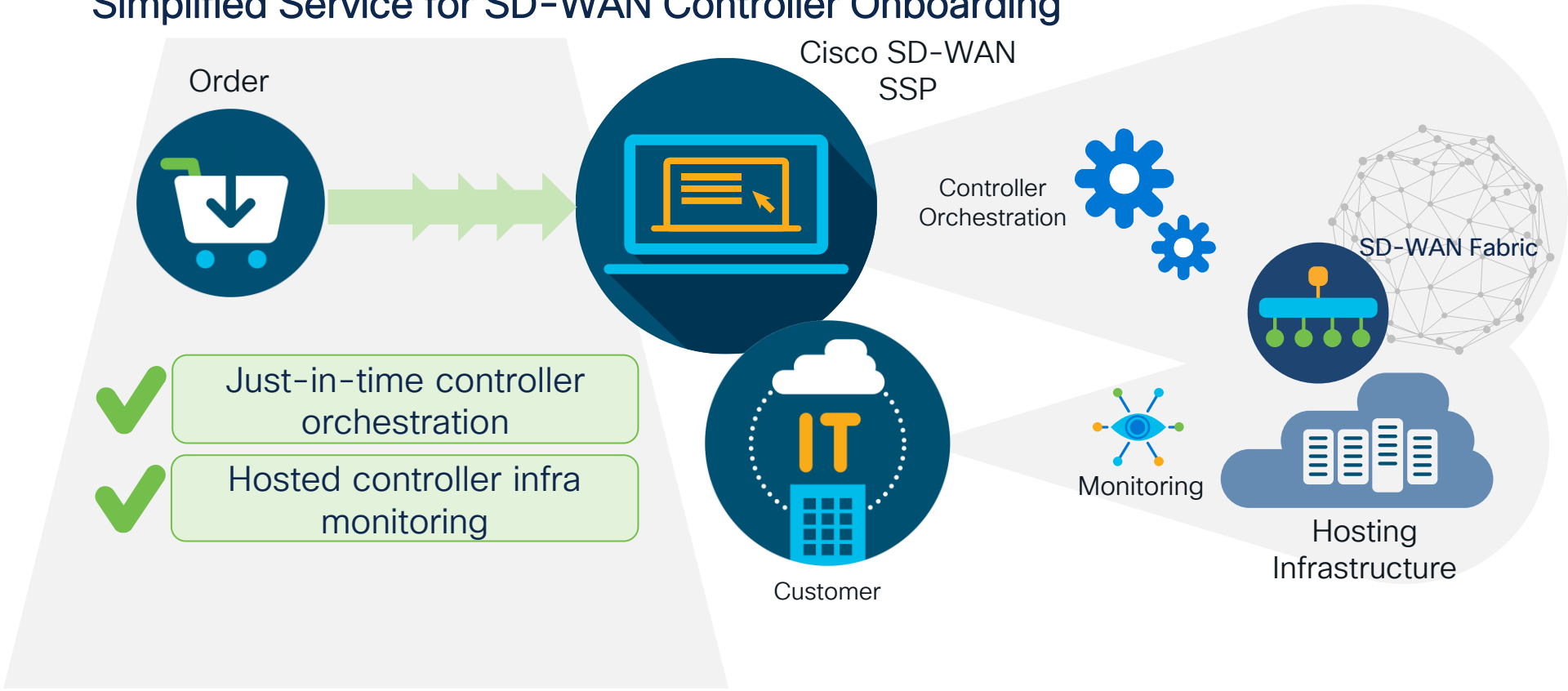
Cisco SD-WAN Self Service Portal (SSP)

Simplified Service for SD-WAN Controller Onboarding



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Cisco SSP is a cloud-infrastructure automation tool for Cisco SD-WAN

Provision, monitor and maintain Cisco SD-WAN controllers on public cloud

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Accessing the Cisco SD-WAN SSP is Easy!

Login using your Cisco CCO Credentials

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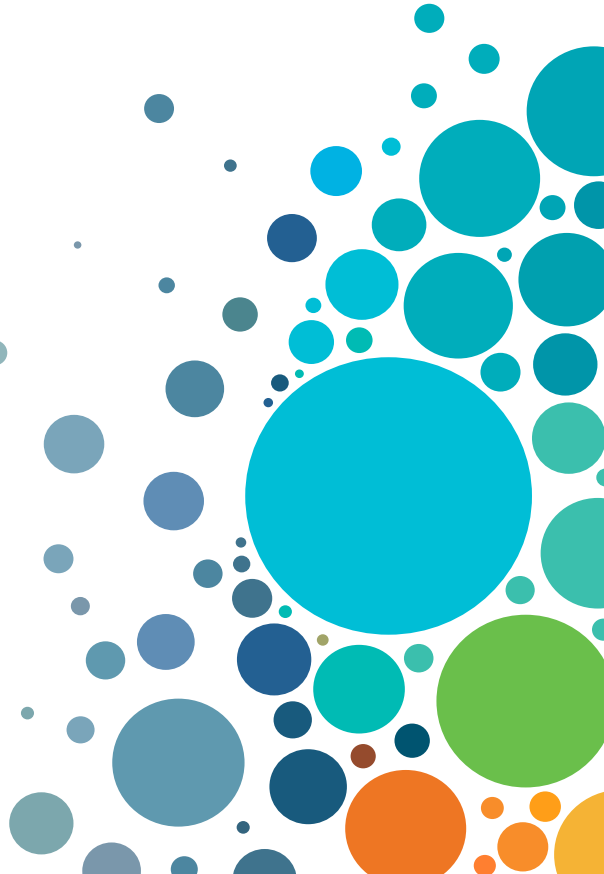
Use Cases, Benefits and Operations



Cisco SD-WAN Self Service Portal (SSP)

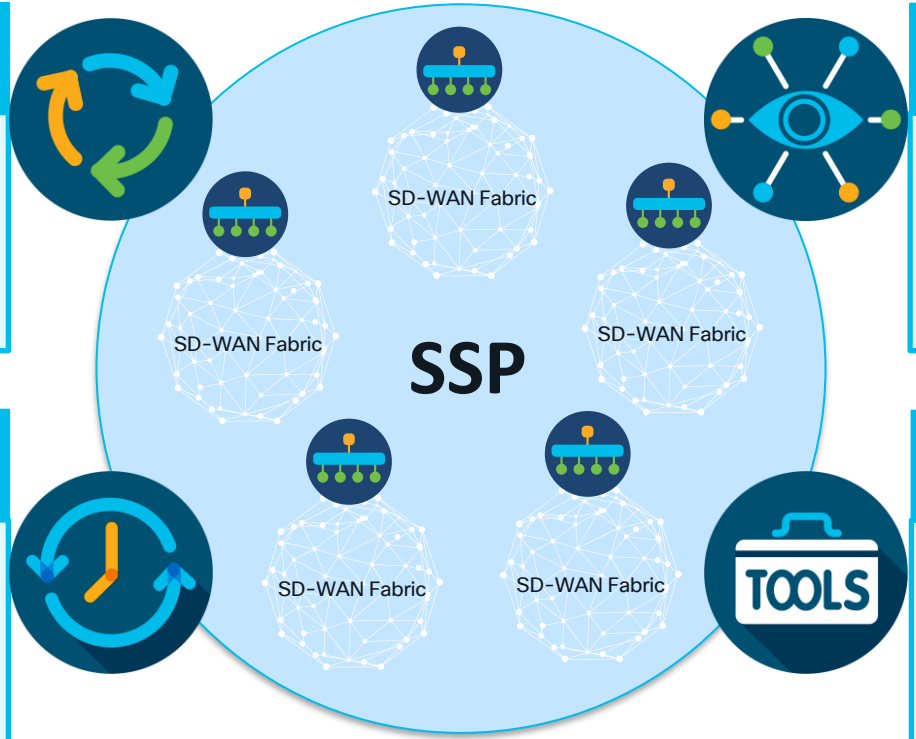
Controller Lifecycle Management

Controller Lifecycle Mgmt.

- Just-in-time provisioning
- Region selection
- Cloud Provider selection

Deployment Accelerator

- Simple day 0 cloud operation
- No delay in provisioning
- Reduced TAC interaction



Visibility

- Cloud infra monitoring & auditing
- Holistic Device status
- Geographic selection for data storing

Operation Services

- BYOIDP and RBAC
- Backup
- TACACS service

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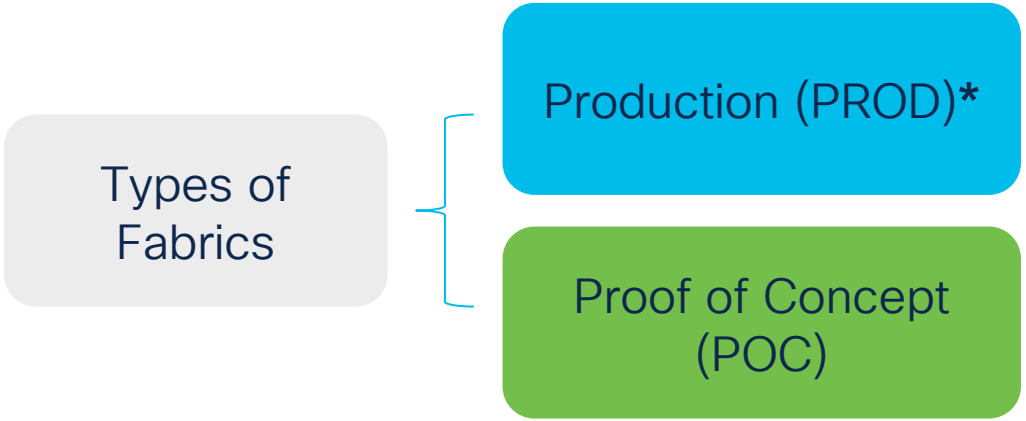
Cisco SD-WAN SSP Controller Lifecycle Mgmt.

SSP today manages PROD, and POC types of SD-WAN controllers



- Customers can spin up production controllers themselves
- TSAs can spin up POC controllers on behalf of the end customers

* PCI-DSS Support available

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Cisco SD-WAN SSP Controller Lifecycle Mgmt.

SSP by default helps provision 1 vManage, 2 vSmarts and 2 vBonds!

Use Case

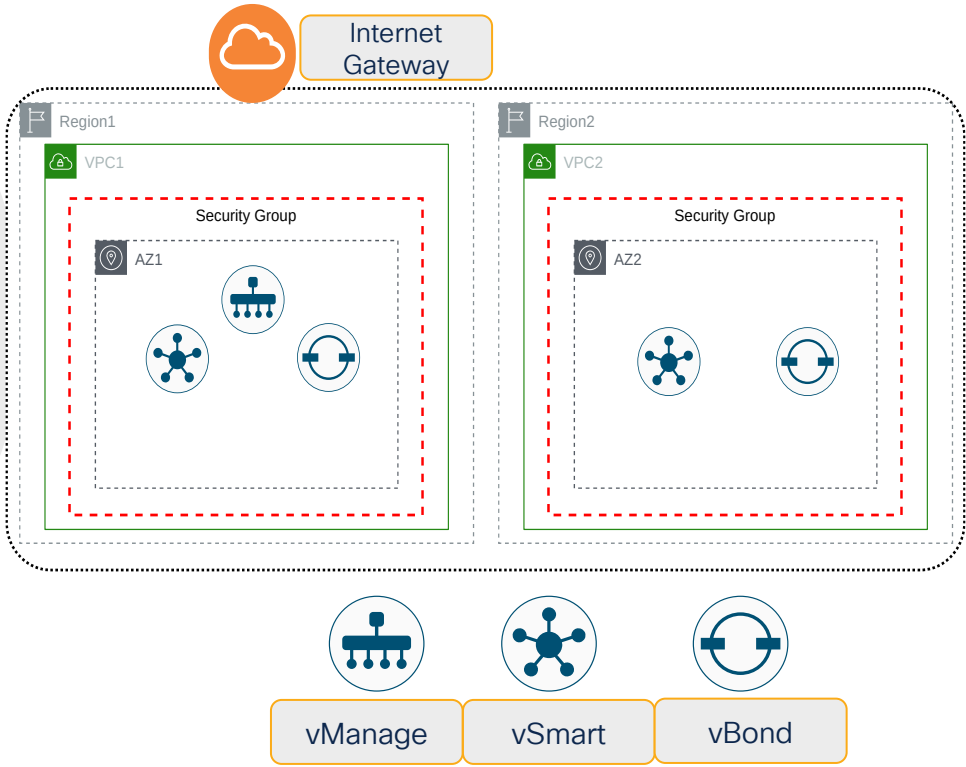
- Customers or Partners would need to quickly deploy single tenant dedicated Cisco-managed cloud hosted controllers without involving Cloudops and TAC

Problem

- Customers or Partners prior to SSP would spend weeks to deploy controllers

Solution

- Customers or Partners can leverage SSP to provision Single Tenant Cisco-managed cloud hosted controllers. By default, a single Cisco vManage, Cisco vBond Orchestrator, and Cisco vSmart Controller are deployed in the primary cloud region and an additional Cisco vBond Orchestrator and Cisco vSmart Controller are deployed in the secondary or backup region



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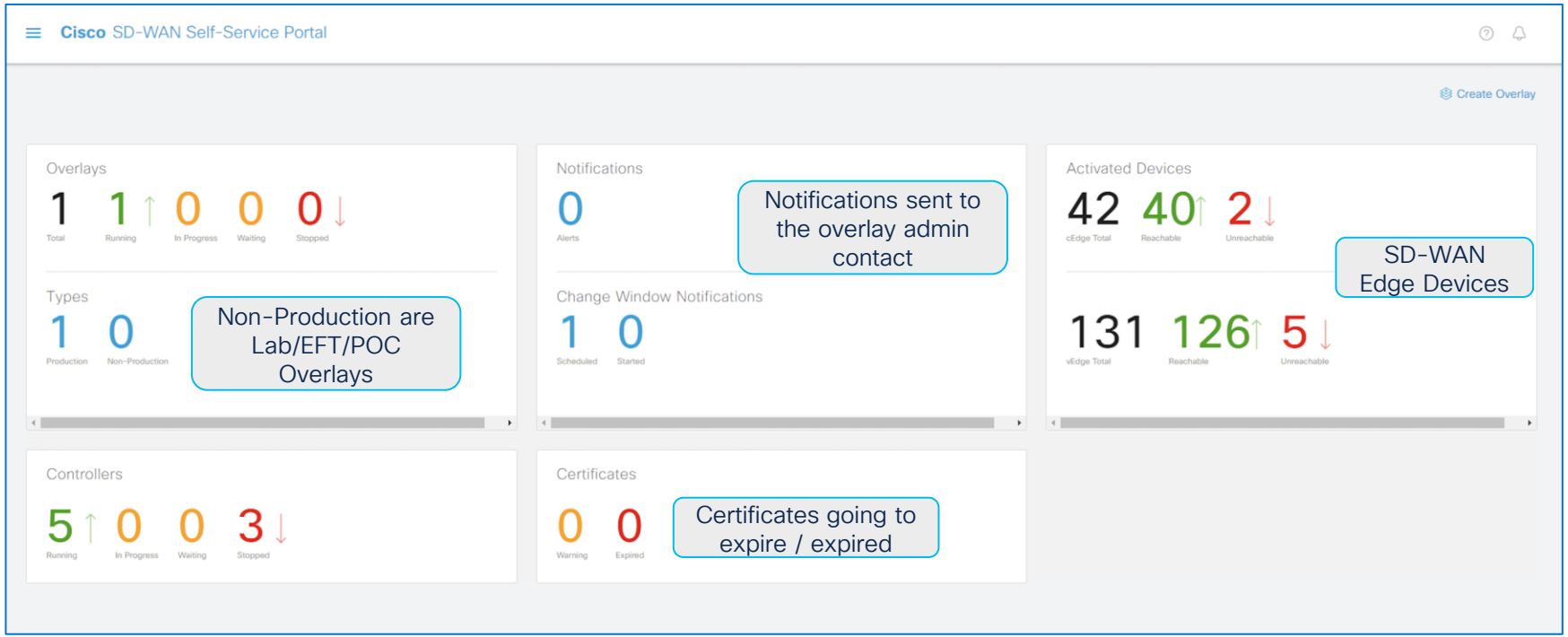
SD-WAN SSP manages SD-WAN controller fabrics

Provision and monitor several SD-WAN controller fabrics from one place!



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SD-WAN SSP Cloud Service Provider Selection

SSP allows to deploy SD-WAN controllers either in AWS or Azure today!

Use Case

- Customers or Partners have different requirements when it comes to choosing the **Cloud Service Provider (CSP)**

Problem

- Customers or Partners use multiple Public Clouds, and they require SSP to be able to spin up controllers in those regions

Solution

- Customers can now choose their CSP on the SSP which allows them to deploy controllers either in AWS or Azure today

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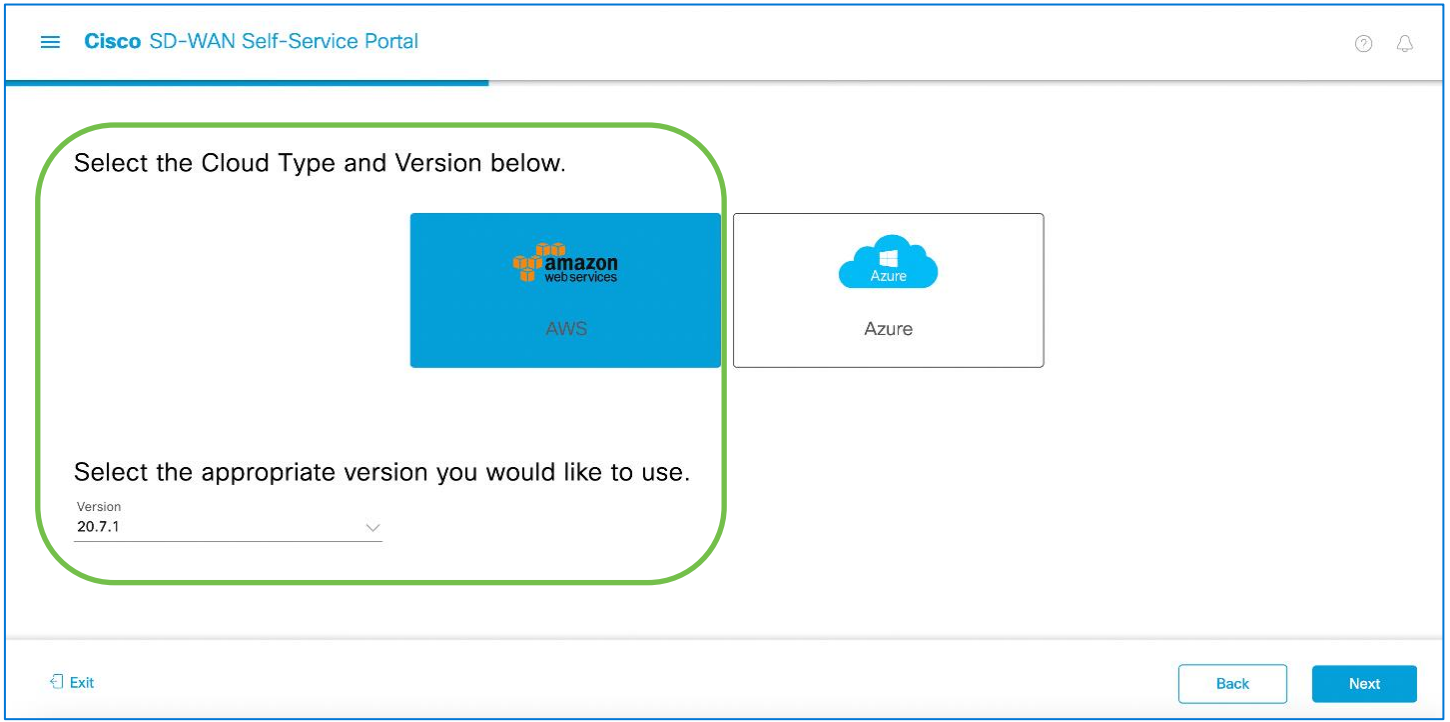
Choice of Cloud Type and Version

Flexibility to select CSP and SD-WAN controller software version



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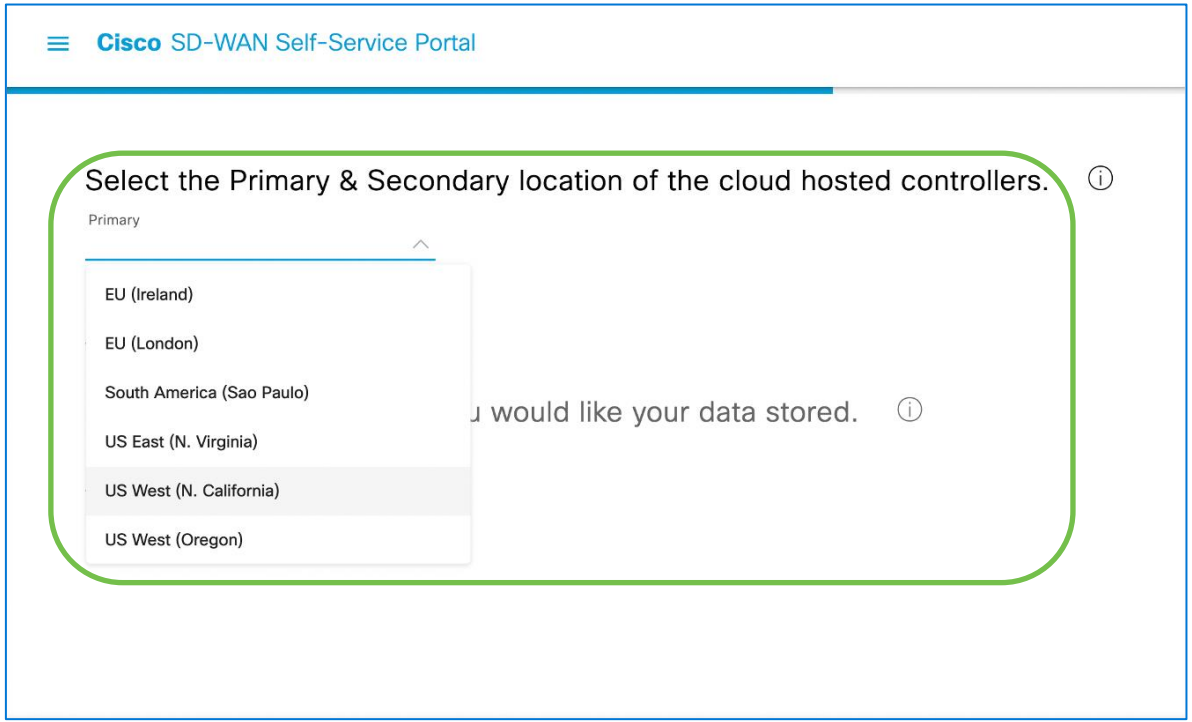
Choice of location and data storage

Flexibility to choose primary & secondary region of Cloud hosted controllers



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SD-WAN SSP and Data Storage Compliance

SSP helps to meet data storage regional compliance

Use Case

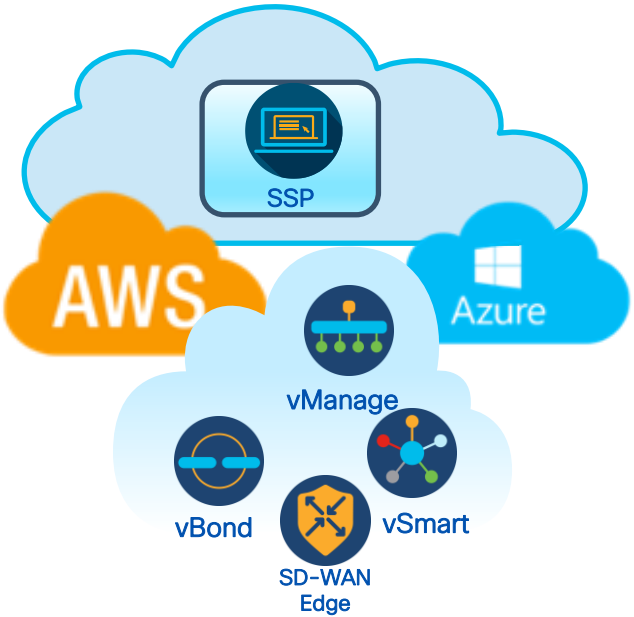
- Customers have regulatory requirements wherein they can store data only in their region

Problem

- Customers or Partners want to meet data storage compliance requirements that mandates hosting data to not leave the local region

Solution

- Customers can now configure SSP to select the data storage location. Now **four** different regions are available in SSP



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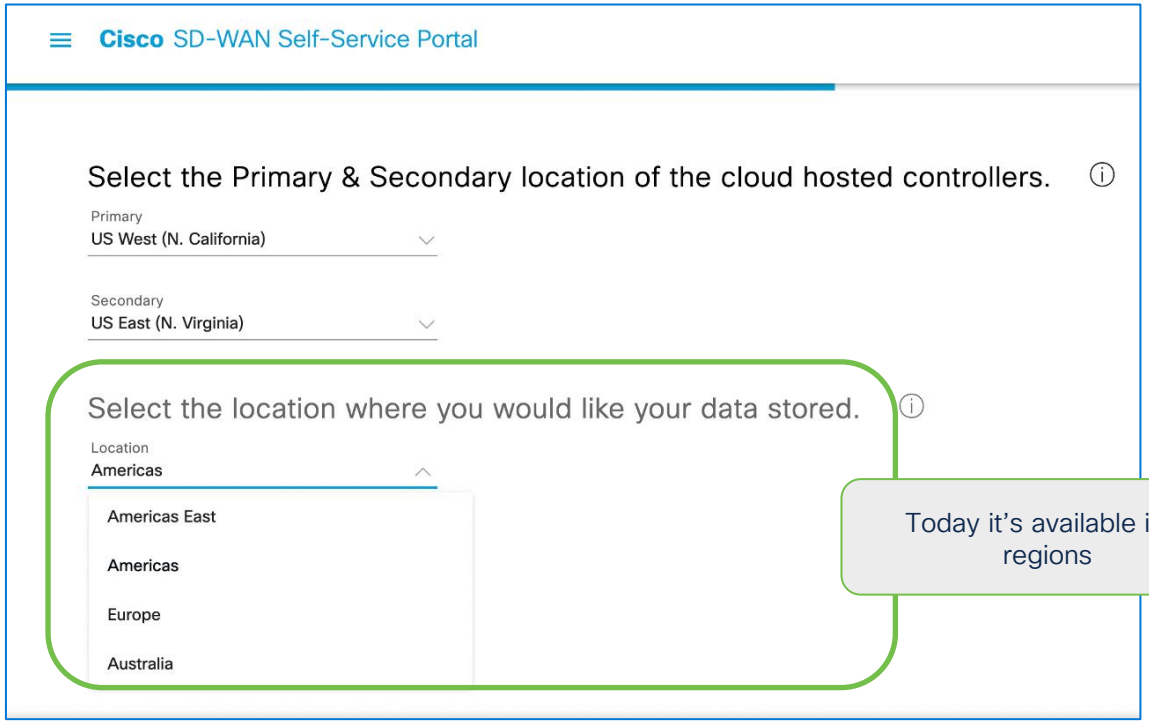
Choice of location and data storage

Helps to meet data compliance by storing data in the same region



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Cisco SD-WAN Self Service Portal (SSP)

Visibility

Controller Lifecycle Mgmt.

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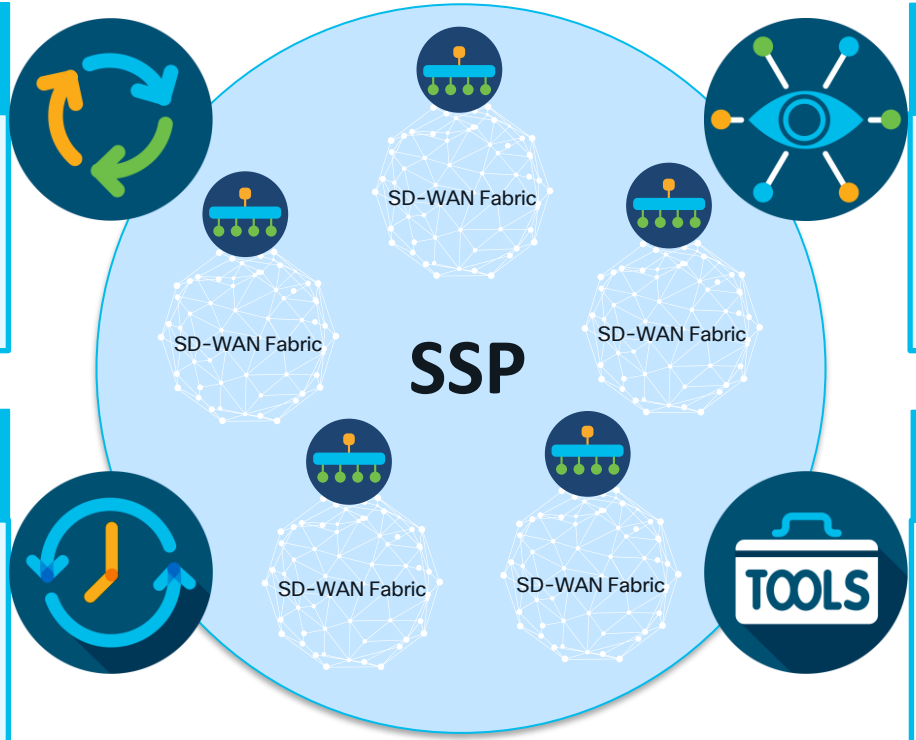
- Region selection
- Cloud Provider selection

Deployment Accelerator

- Simple day 0 cloud operation
- No delay in provisioning
- Reduced TAC interaction



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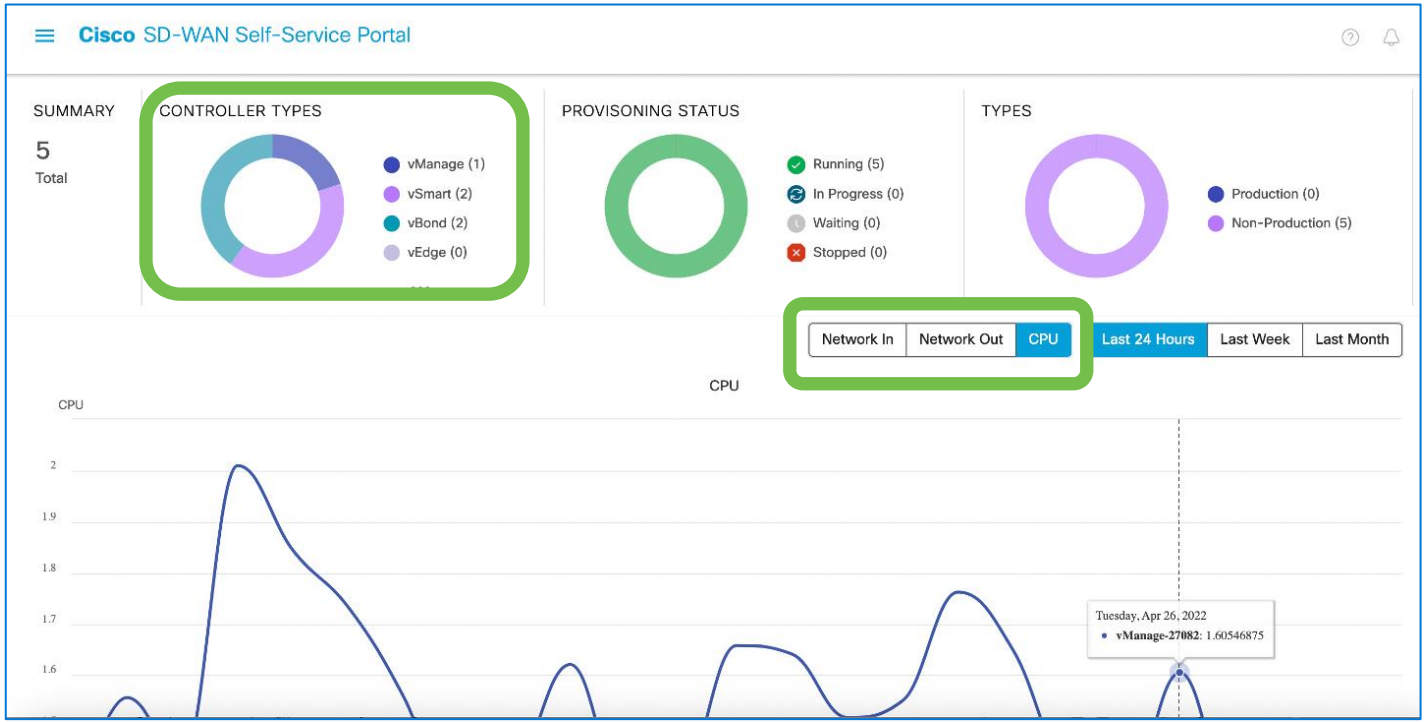
Visibility into SD-WAN Controllers Health

Network/CPU Monitoring of Cloud hosted controllers



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Cisco SD-WAN Self Service Portal (SSP)

Deployment Accelerator

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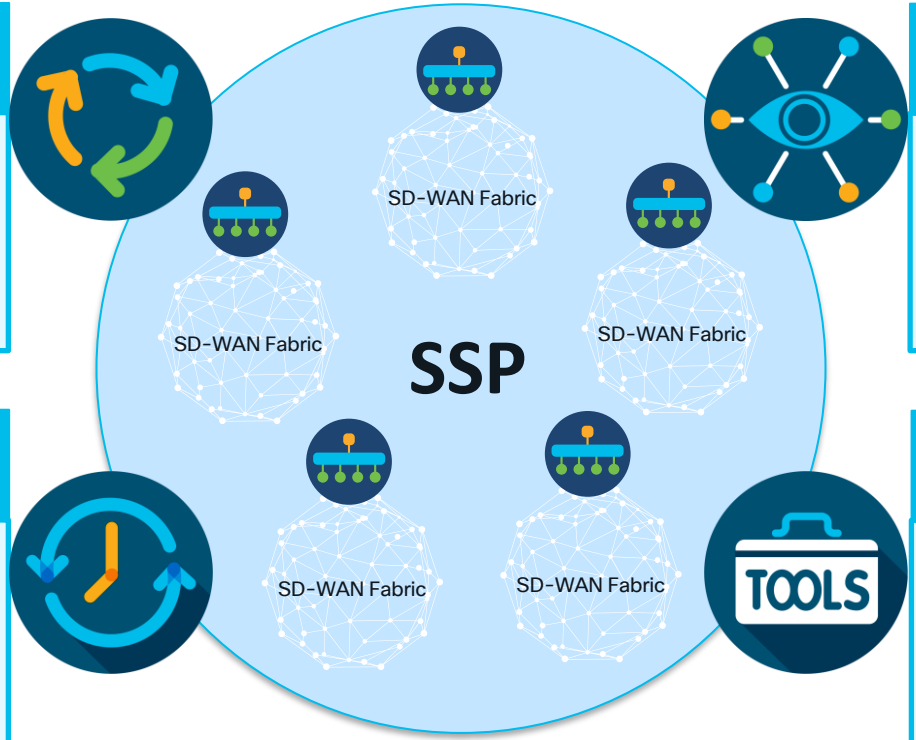

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SD-WAN SSP Secure Access Support

SSP provides granular access to SD-WAN controllers!

Use Case

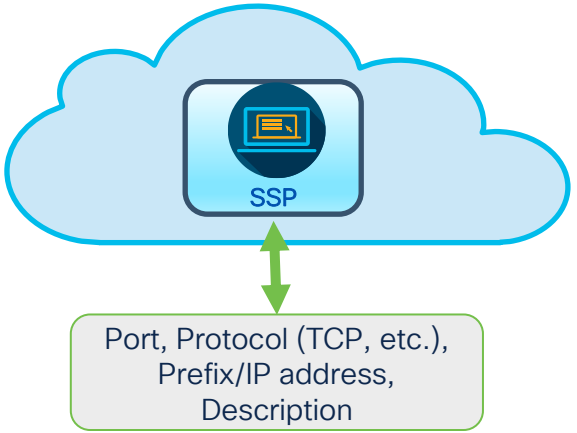
- Customers or Partners would like to provide controlled access to the Cisco SD-WAN controllers by configuring a trusted list of IP addresses

Problem

- Customers or Partners deploy controllers in multiple regions, and they require SSP to be able to programmatically setup rules across the regions

Solution

- Customers can now configure their trusted list of IP addresses/Ports on the SSP. Only those IP addresses will be accessing the SD-WAN controllers



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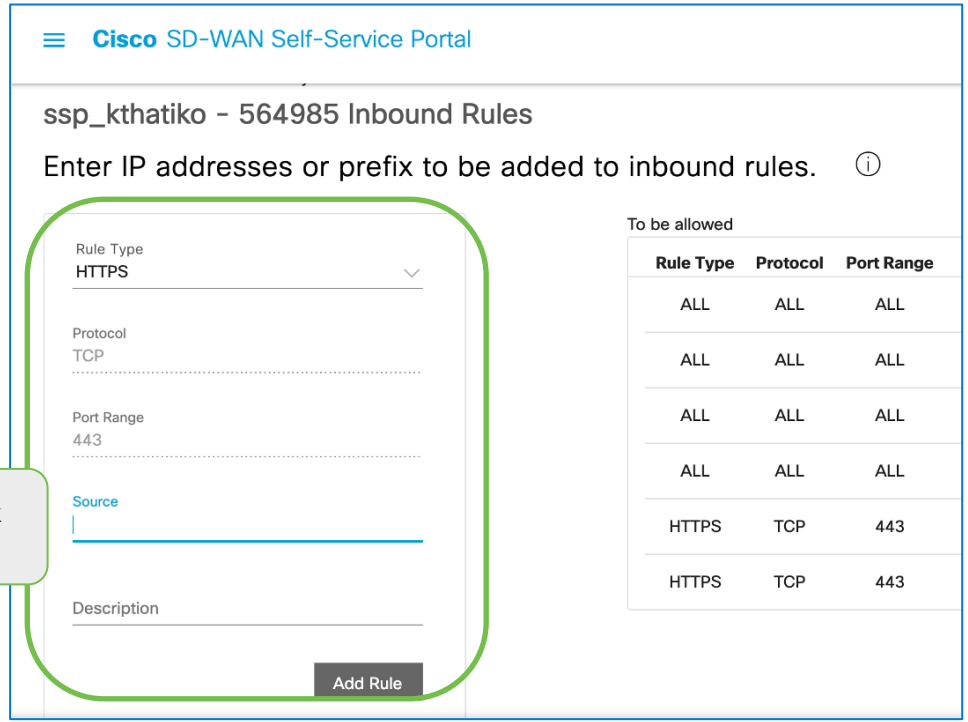
Secure Access to SD-WAN Controllers

Granular trusted list of IP addresses across multiple regions



Input the IP address/prefix here

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Cisco SD-WAN Self Service Portal (SSP)

Operation Services

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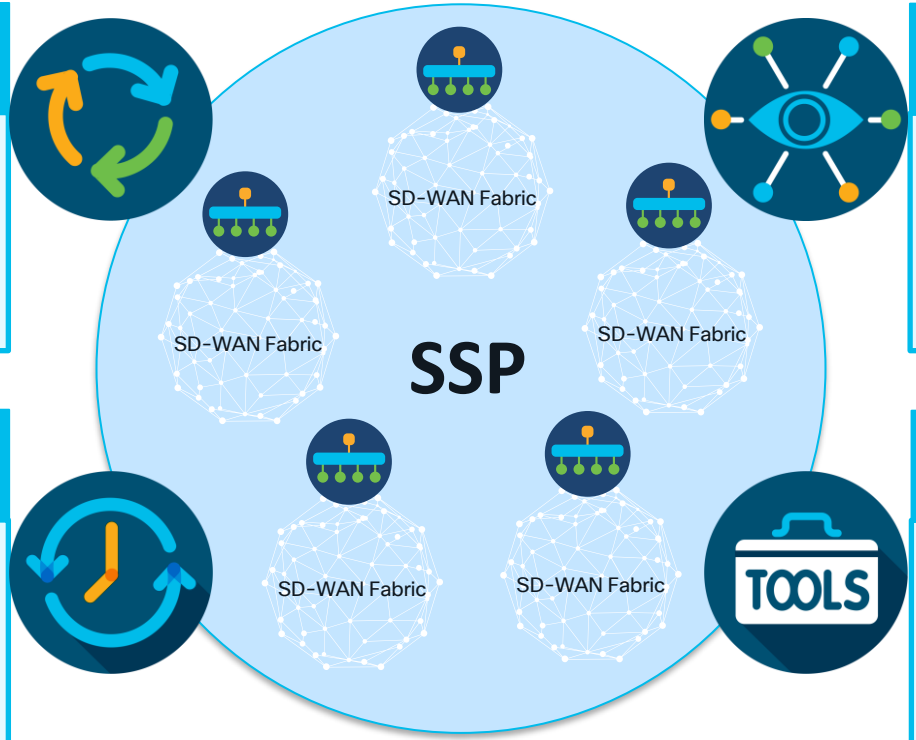

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SD-WAN SSP and IdP Integration

SSP simplifies user management!

Use Case

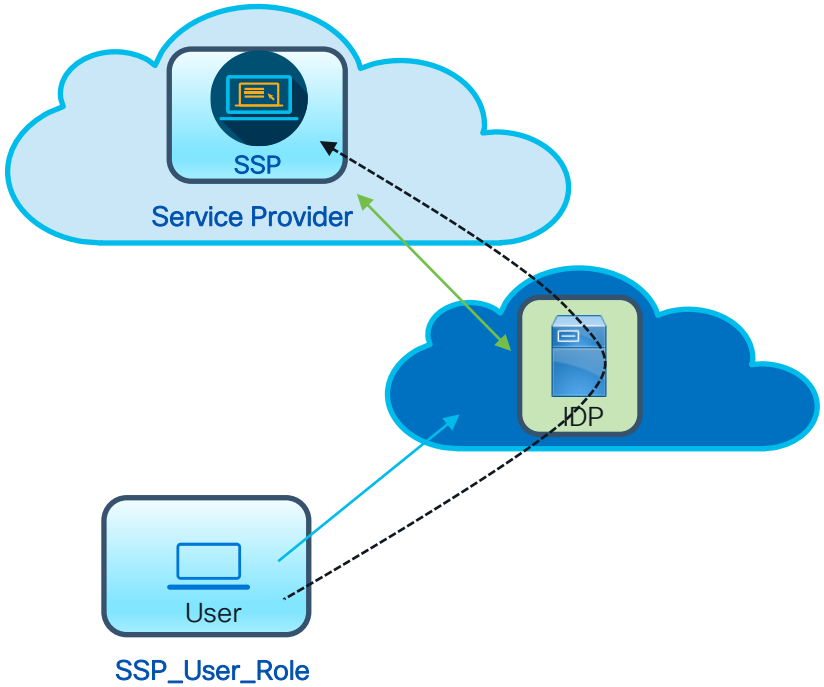
- Customer ABC has multiple functions/departments with separate Virtual accounts (VAs) each under the same Smart Account (SA). Each VA has separate “Admin” who is not a SA admin but still want to login to SD-WAN SSP

Problem

- Customers need easier user management

Solution

- Customers can now setup their IdP (Okta) login on the SSP which allows them to assign permissions to different users so that they can login to the SSP without being a SA admin



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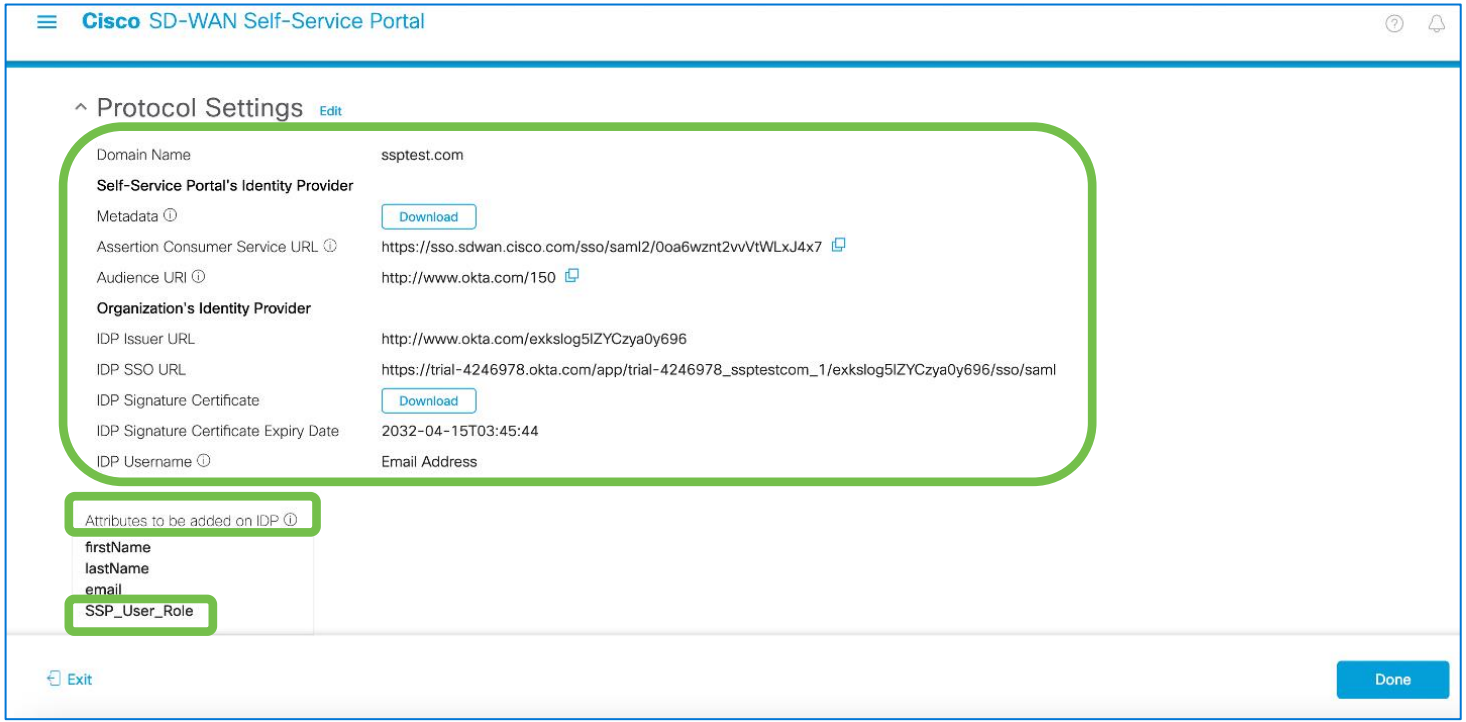
SD-WAN SSP and IdP Integration

Configure SSP to use the IdP of your organization



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SD-WAN SSP and IdP Integration

SSP provides user role management (RBAC)!

- RBAC feature facilitates granting permission to Virtual Account (VA) for users
  - After first time login by Smart Account (SA) admin, these roles can be defined and assigned to users who are onboarded by IDP config
  - Assign Permissions to VAs

Overlay Management	Monitor	Administration
Allows you to create, modify, and monitor overlay networks	Allows you to view and monitor all the overlay options	Allows you to perform all the tasks defined by the monitor and overlay RBAC, and to onboard a secondary IdP

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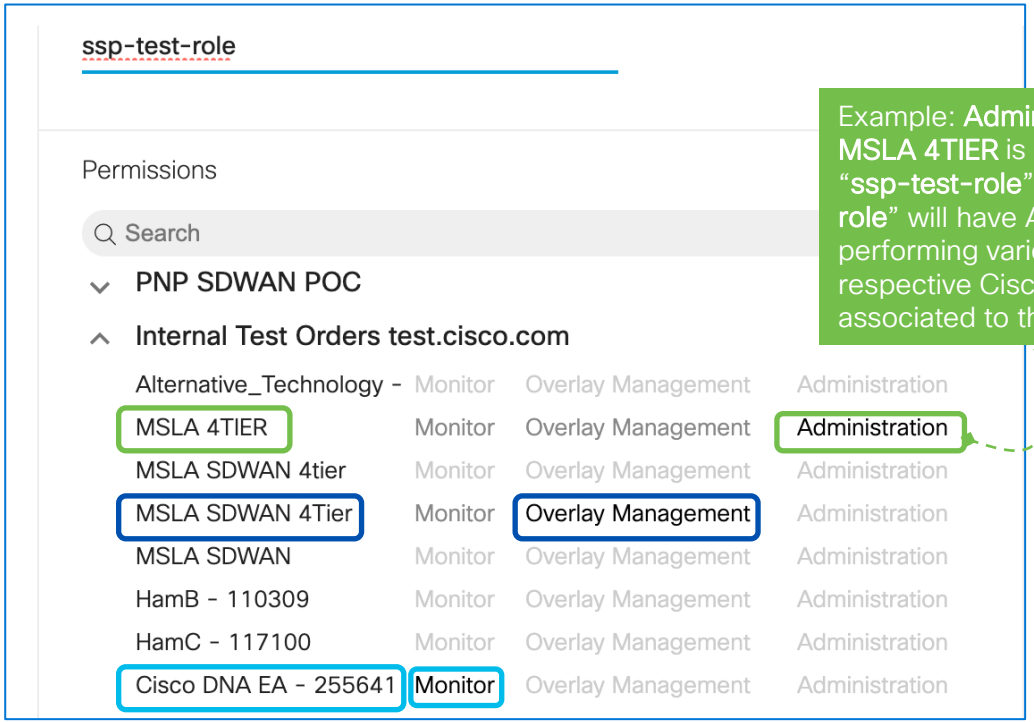
SD-WAN SSP and IdP Integration

SSP helps to assign permissions to multiple VAs simultaneously ☺



Example: **Administration** permission on VA **MSLA 4TIER** is assigned to role name "**ssp-test-role**", so any user of "**ssp-test-role**" will have Admin access for performing various tasks related to respective Cisco SD-WAN overlay associated to this VA

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SD-WAN SSP AAA Server Integration Support

SSP helps provision Cloud Edge Routers for AAA/TACACS/Syslog Access!

Use Case

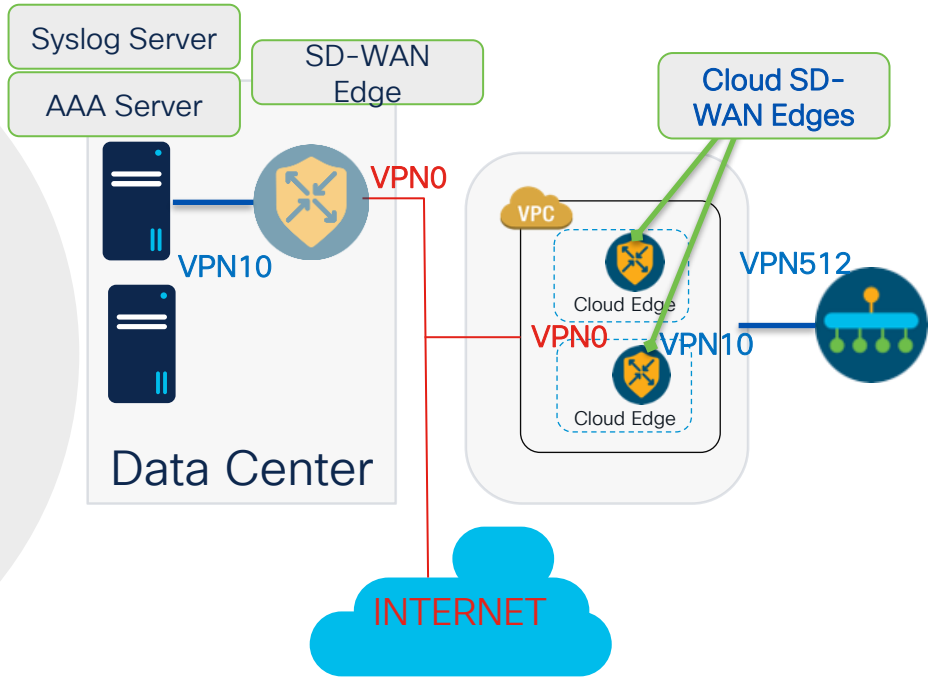
- Customers or Partners would need management access to the controllers using **on-prem AAA/TACACS** server-based authentication. And, to send syslog from vManage to on-prem Syslog server

Problem

- Customers or Partners have hybrid environments and there are on-prem assets which would like access to the Cisco-managed cloud hosted SD-WAN controllers

Solution

- Customers or Partners can request SSP to provision **Cloud Edge routers** using their enterprise prefixes and enable seamless connectivity



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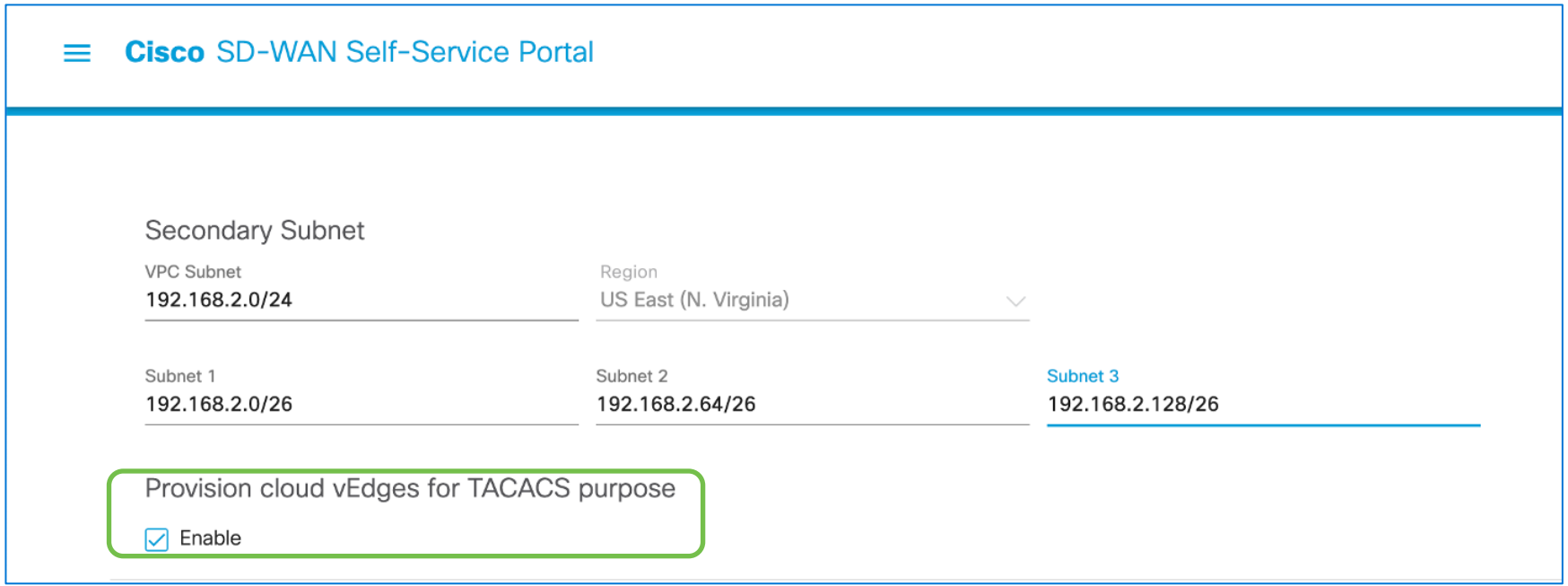
Advanced Options for AAA use cases

Helps provisioning Cloud Edge Device for AAA/TACACS by simple checkmark



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SD-WAN SSP Advanced Options

Customizing Subnets/DNS/Org/Snapshots is Easy ☺

Use Case

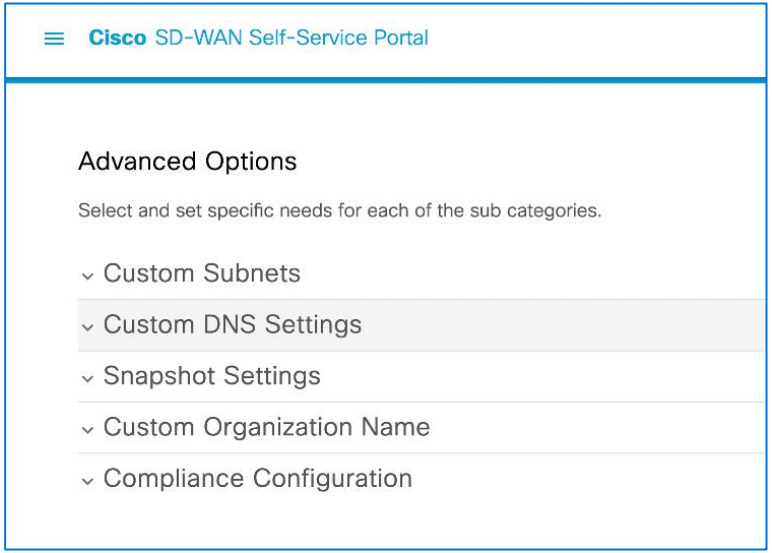
- Customers or Partners operate multiple networks and lot of times have different requirements when it comes to supporting custom prefixes, org names, on-prem AAA server support

Problem

- Customers or Partners have requirements to support specific dns, custom org name, and custom subnets

Solution

- Customers or Partners can setup SSP to customize vpc subnets, dns config, org name and other options available



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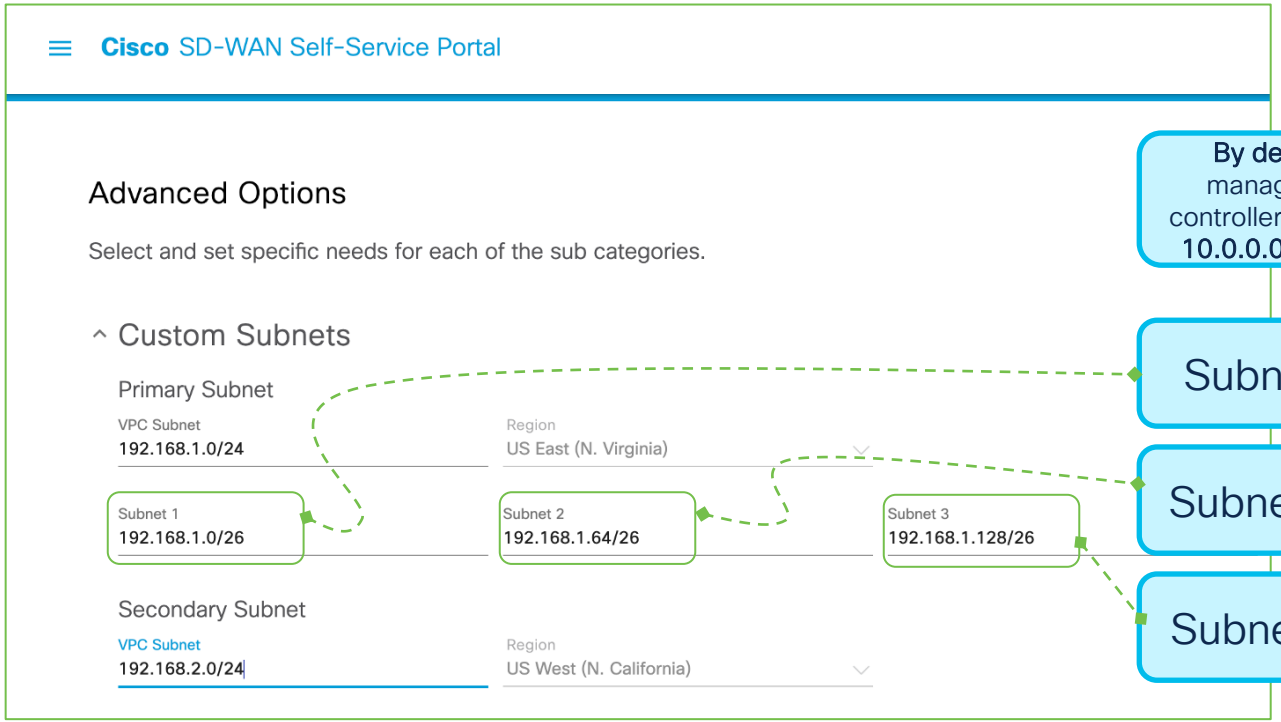
SD-WAN SSP Advanced Options

Customizing VPC Subnets is Easy



By default, the Cisco-managed cloud hosted controllers are deployed with **10.0.0.0/16** based subnets

Subnet1 – Mgmt

Subnet2 – Control

Subnet3 – Cluster

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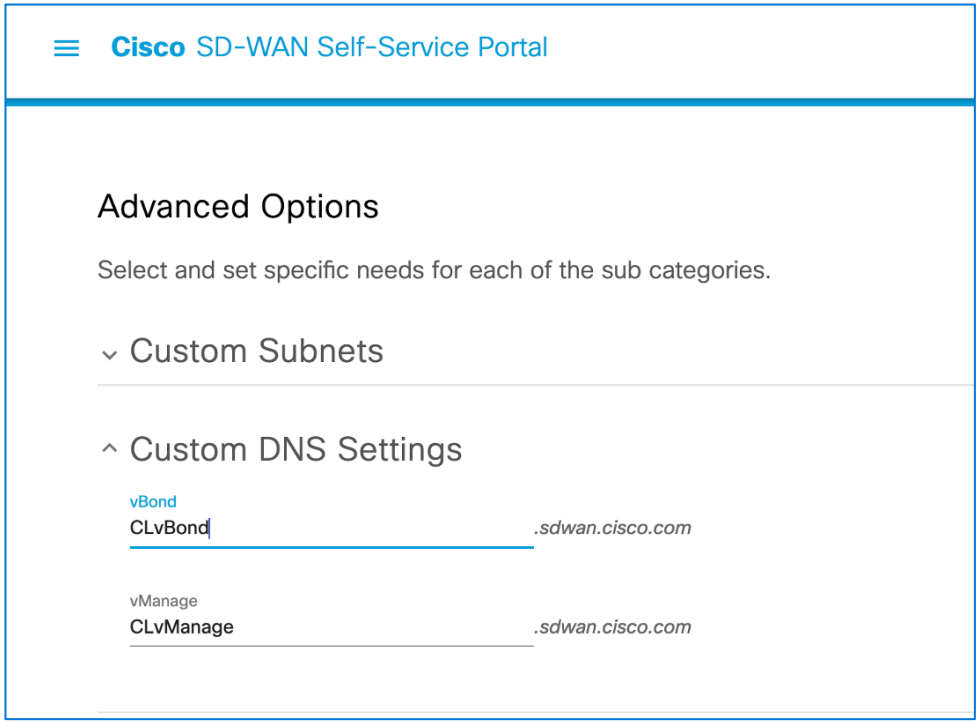
SD-WAN SSP Advanced Options

Customizing Overlay DNS Name is Easy



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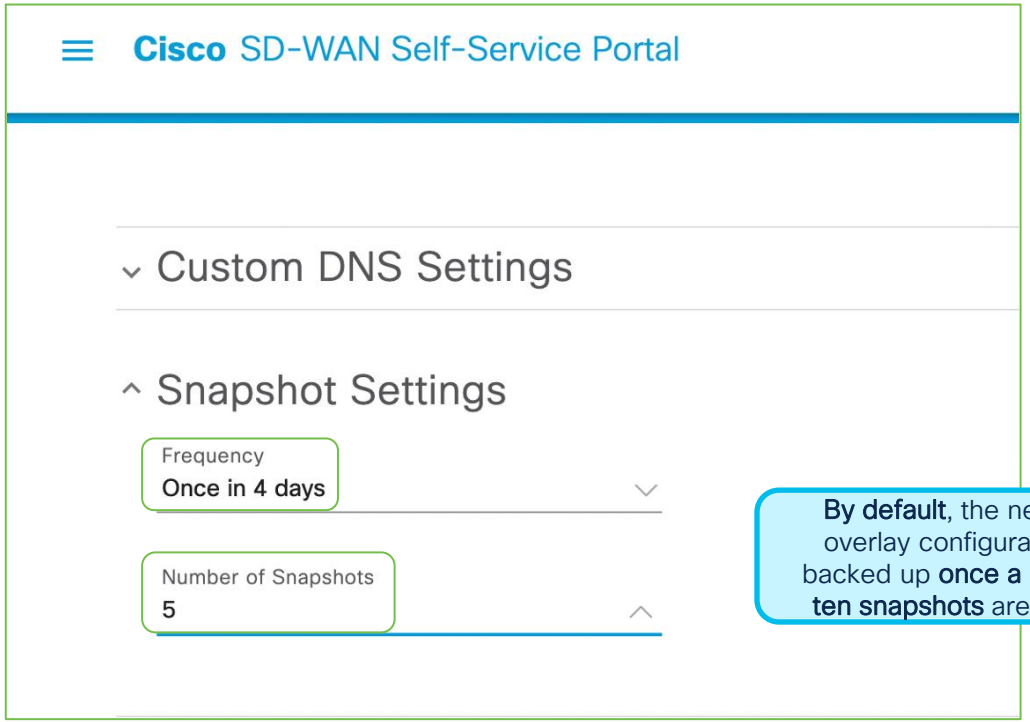
SD-WAN SSP Advanced Options

Customizing Snapshots



By default, the network overlay configuration is backed up **once a day** and **ten snapshots** are stored

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SD-WAN SSP PCI DSS Support

SSP supports PCI DSS level 1 certification for Cisco SD-WAN fabrics!

Use Case

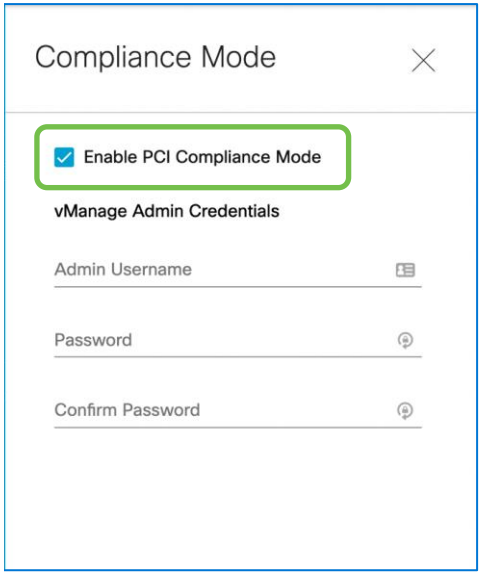
- Customers or Partners need to meet PCI compliance for hosting SD-WAN controllers on the public cloud

Problem

- Customers or Partners would need to meet PCI DSS compliance for hosting infrastructure in the cloud

Solution

- Customers must purchase the Cisco SD-WAN certified software controller version 20.6.X for the PCI certification. SSP can support deploying PCI compliant Cisco-managed cloud hosted SD-WAN controllers



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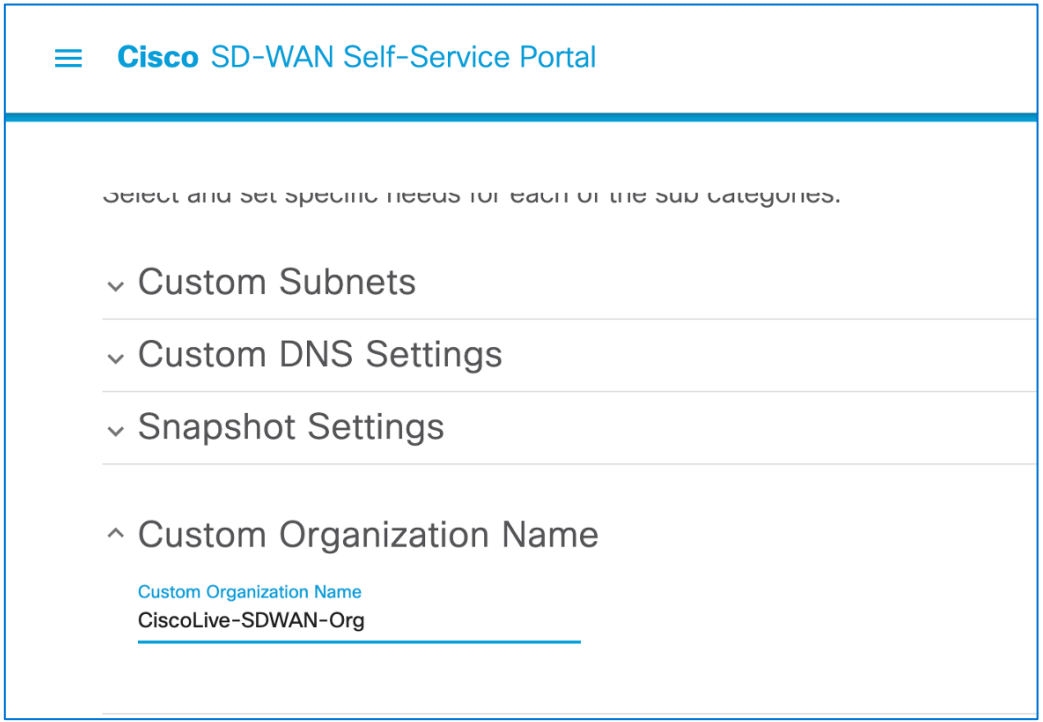
SD-WAN SSP Advanced Options

Customizing Organization Name is Easy



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Best Practices

SD-WAN SSP Best practices

- Purchase a Cisco DNA subscription on the Cisco Commerce Workspace
- Create or use an existing Smart Account
- Create or use an existing **Virtual Account** associated with your **Smart Account**
- Providing **Virtual Account (VA)** plays an important role in SSP
  - Cloud hosted SD-WAN Controller entitlement is part of SD-WAN licenses
  - SSP relies on SD-WAN subscription associated to a VA to determine cloud controller entitlement and facilitating controller provisioning (AKA **VA is SD-WAN capable**)
  - To have successful provisioning via SSP, providing a VA at the time of SD-WAN license ordering is **critical**
- Add the device serial numbers on the **Cisco Plug and Play (PnP) Connect portal**
- For more information, see Cisco Network Plug and Play Connect Capability Overview

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Roadmap

SD-WAN Self Service Portal - Roadmap

Next
1H FY23

- Choice+ program – SSP Modules
- SSP APIv2 availability

- EA order info available on SSP
- SDWANaaS Offer

- Provisioning fabrics in Customer hosted Cloud - AWS (Phase 1)
- Provisioning for multiple types of fabrics - Shared, Dedicated 1N ST
- Phase out cloud vEdge (EOL) & replace with c8Kv

Future
2H FY23

- Controller resizing (based on controller SKUs)
- IPv6 support
- Migration support for various fabrics ST to MT, MT to ST, MT to MT
- Provisioning fabrics in Customer hosted Cloud - AZURE (Phase 2)
- SD-WAN fabric on-prem deployment
- Provisioning for all types of fabrics-Dedicated ST, MT (3 or 6 node)

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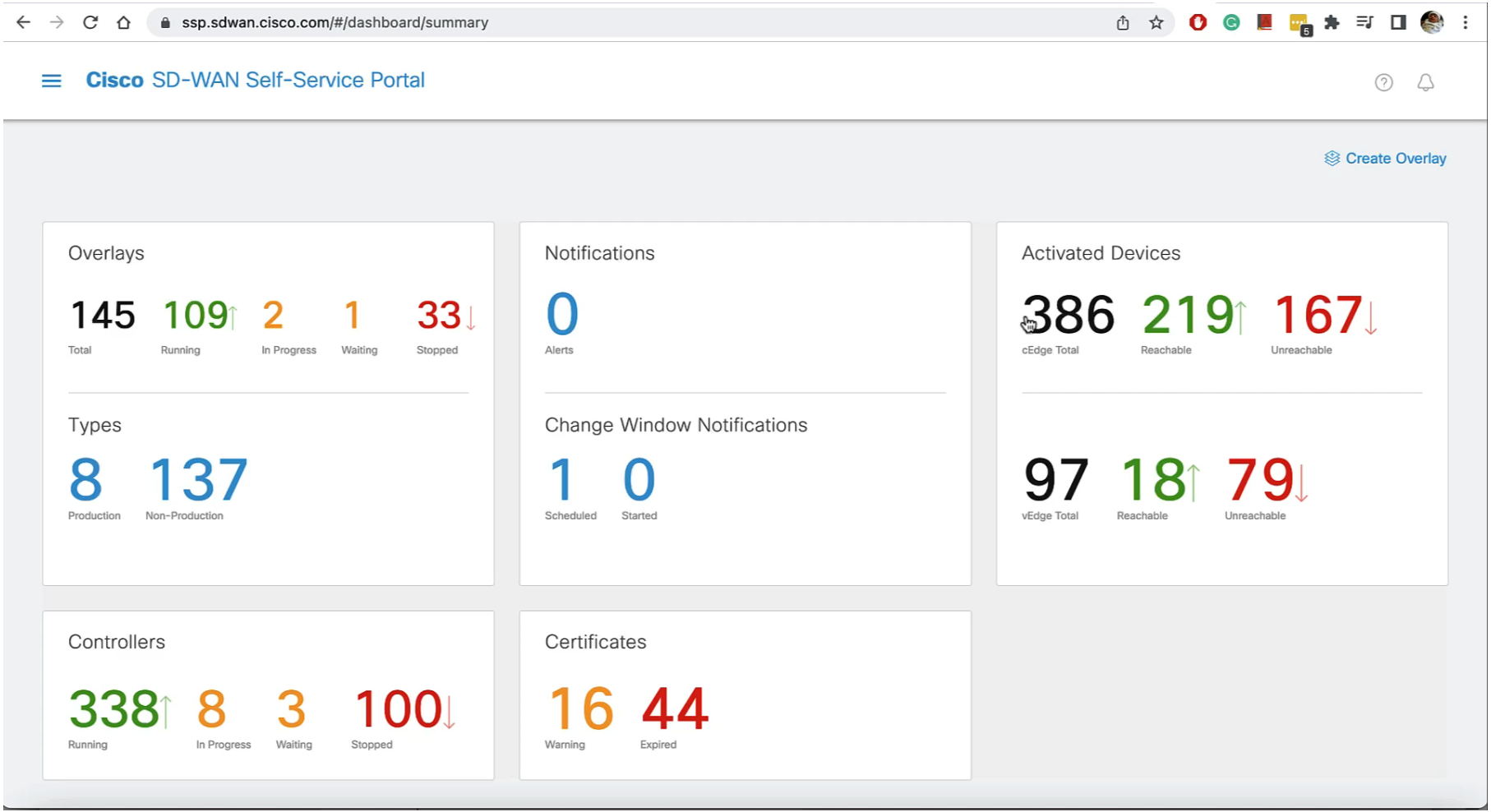
Demo



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Conclusion

Cisco SD-WAN Self Service Portal (SSP)

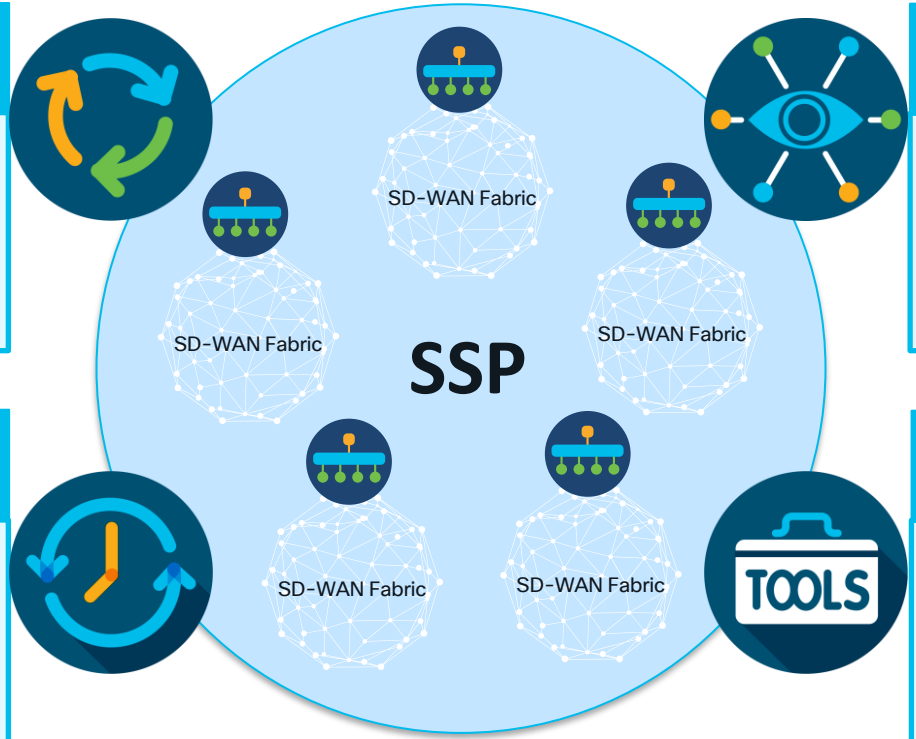
Benefits and Operations

Controller Lifecycle Mgmt.

- Just-in-time provisioning
- Region selection
- Cloud Provider selection

Deployment Accelerator

- Simple day 0 cloud operation
- No delay in provisioning
- Reduced TAC interaction



Visibility

- Cloud infra monitoring & auditing
- Holistic Device status
- Geographic selection for data storing

Operation Services

- BYOIDP and RBAC
- Backup
- TACACS service

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Where to look for Cisco SSP Resources?

- Cisco SD-WAN Self-Service Portal Configuration Guide
- Cisco SD-WAN CloudOps
- Cisco SD-WAN: Self Service Portal Introduction
- Cisco SD-WAN: Self-Service Portal Demonstration

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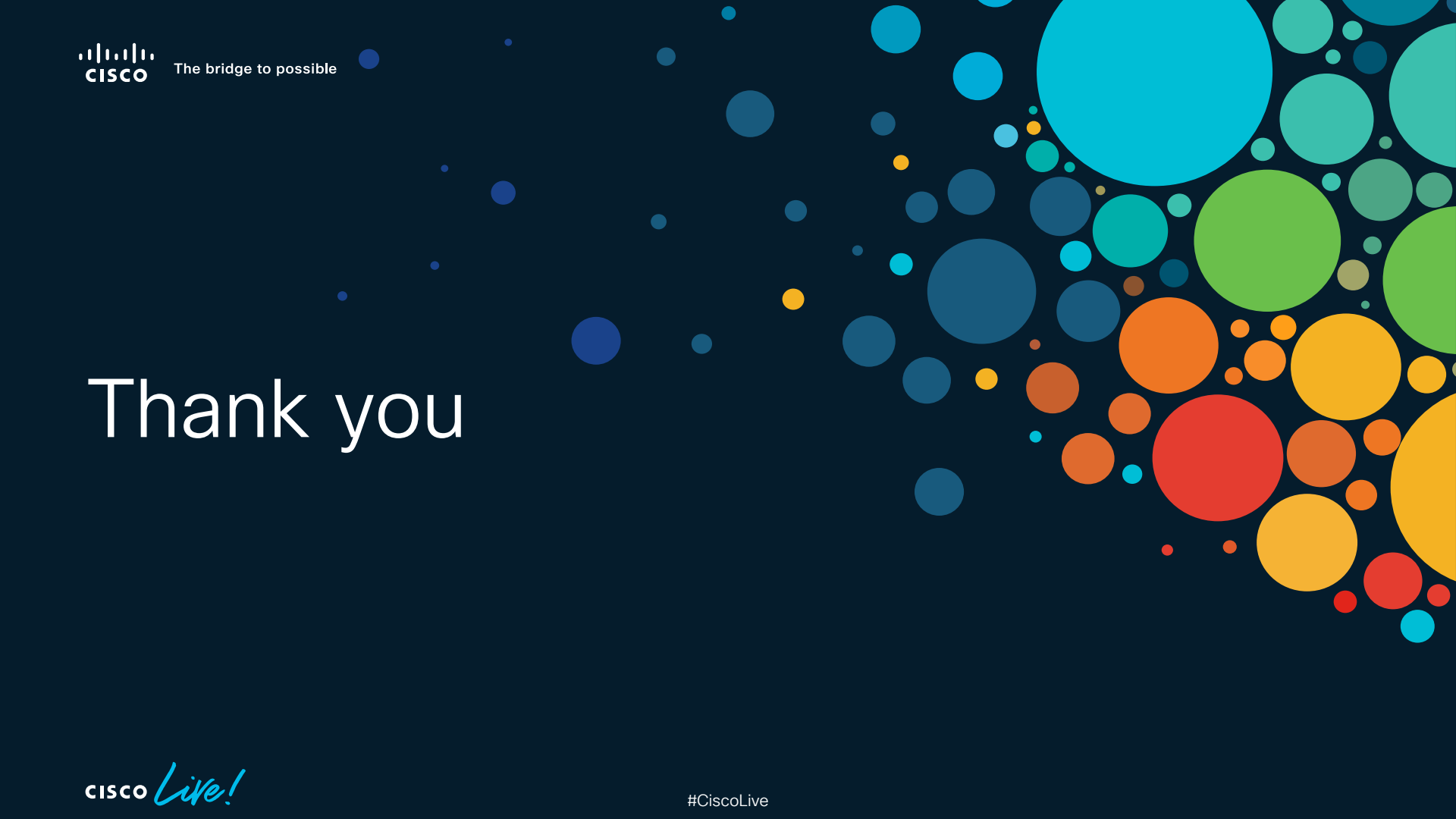
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