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#CiscoLive



The bridge to possible

# Smart Licensing Using Policy

## A Simplified Licensing Approach

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BRKARC-2027



#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
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Webex spaces will be moderated by the speaker until June 17, 2022.



<https://cislive.ciscoevents.com/cislivebot/#BRKARC- 2027>



# Agenda

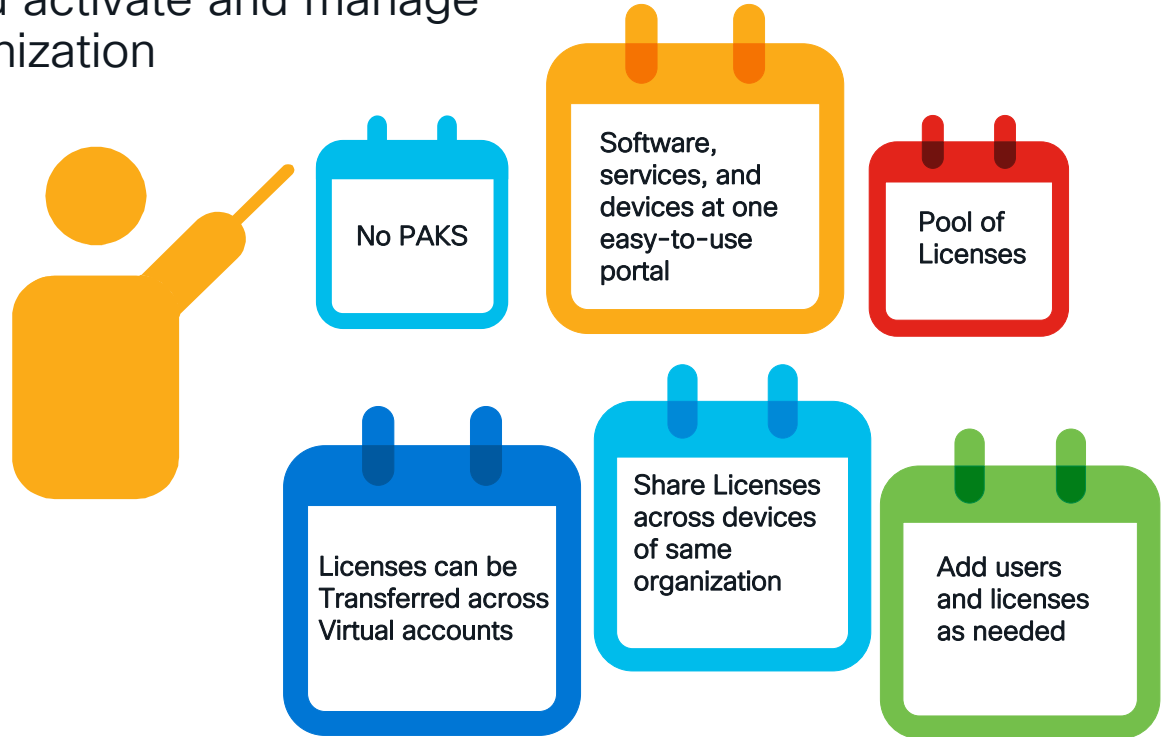
- Smart Licensing using Policy(SLP)
  - SSM On-Premise
- Cisco License Servers
  - SSM Cloud (Direct)
  - Controller Model
  - SSM On-Premise
- Deploying Smart Licensing using Policy – Basic setup
  - Upgrading Existing Products Scenarios
  - Deploying New Product Scenarios
- Demo
- References

# Smart Licensing using Policy

# Introduction – What is Smart Licensing?

Smart Licensing is a flexible software licensing model that simplifies the way you activate and manage licenses across your organization

- ✓ Easy Registration
- ✓ Complete Visibility
- ✓ License Pooling
- ✓ License Portability
- ✓ Company Specific
- ✓ Cost Reduction
- ✓ Compliance Reporting



# Smart Licensing Using Policy Advantages

Smart Licensing using Policy is a simplify licensing Experience without impacting security policies and OPEX costs

- ✓ Simplified Operations
- ✓ No Eval mode
- ✓ Less Connectivity to Cisco
- ✓ Eliminated Day-0 Friction
- ✓ Supports Closed Networks
- ✓ Maintains regulatory compliance



\*\* Typical  
Customer reaction  
to new approach

Device just  
works out  
of box

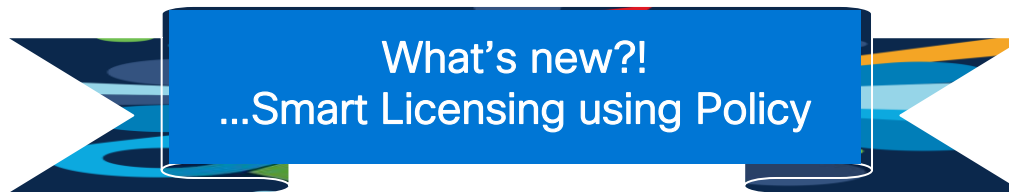
Customer  
network  
operations  
success never  
impacted by any  
license operation

Supports  
closed  
networks

Connectivity of the  
device to the  
internet is not  
required

License  
compliance is  
managed on-  
change versus  
acquire before use

Factory shipped  
perpetual  
licenses are  
reported at  
factory – not at  
customer



### What?

- Enterprise, IoT, NEXUS, and ACI products
- Collab CUBE, SRST, CME on XE products
- Cisco Smart Software Manager (CSSM)
- New Cisco Smart Licensing Utility (CSLU)
- Cisco SSM On-Prem



### WHY?

- Simplify licensing Experience
- Enable customers to be SW compliant without impacting security policies and OPEX costs



### When?

- ACI: Feb 2022 5.2(4)
- CSSM, CSLU, XE Released: November 2020
- Cisco DNAC with SL Using Policy Support – Available December 2020 (2.3.2.x )
- Cisco SSM On-Prem: May 2021 (Latest: 8-202201)
- NEXUS: Sept 2021



### How?

- Cloud CSSM systems enabled
- Upgrade devices to the latest SLP supported releases
- Legacy PAK, SLR, PLR keys honored
- Choose direct or offline reporting options



# Smart Licensing Simplified



No change to the ordering processes of HW and SW

## THREE IMPORTANT CHANGES



No EVAL @ product boot, No registration per device



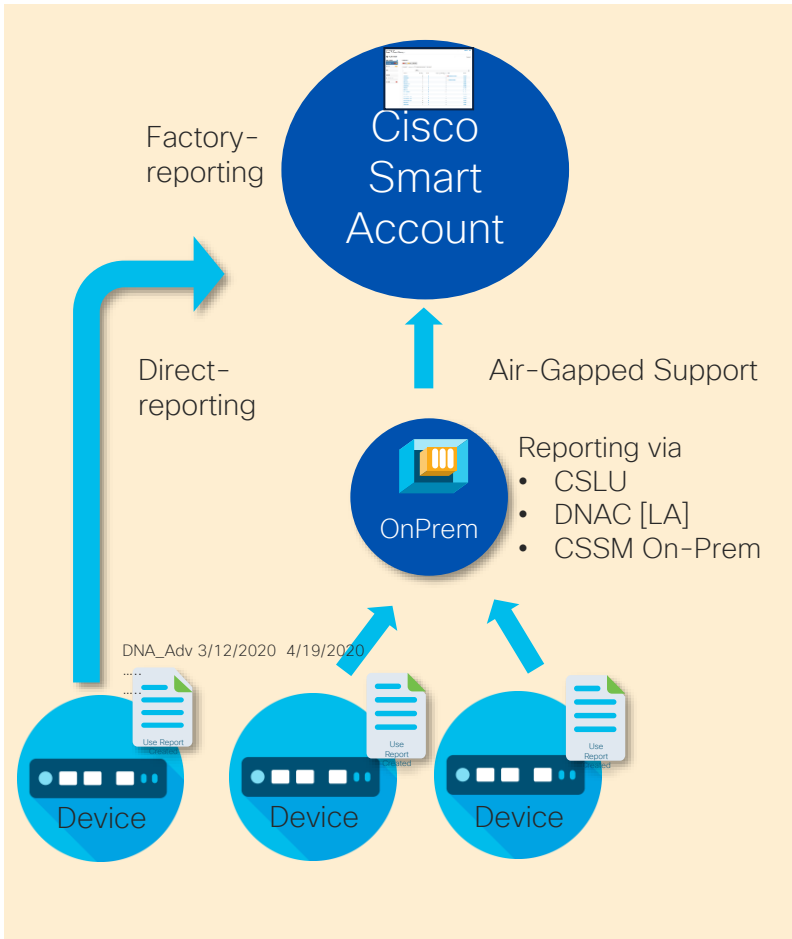
Flexible Reporting Model



Send Cisco a report with SW license use only on-change, and within 90/365days

# Software License using Policy – Basics

DNA\_Adv 3/12/2020 4/19/2020



- Device records usage reports (RUM Reports)
- Reports sent to Cisco for compliance operations
  - Factory / Direct / Off-Line
  - License servers (CSLU, CSSM On-Prem, DNAC)
- Cloud CSSM reads reports and updates compliance statistics
- Day 0 friction (no eval mode, no registration, no reservations, syslog only)

# Software License using Policy Fulfillment on Order

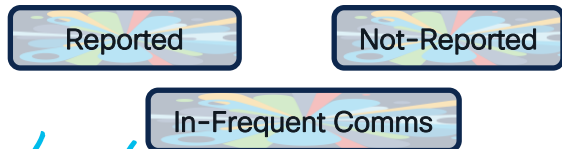


- @Cisco Factory - marked as reported and consumed in CSSM
- For Perpetual
  - Never report again unless consumption changes
  - On change - reporting required syslog is thrown and customer needs to do reporting. Once reporting is done no further reporting is needed
- For Subscription
  - Reporting based on policy timer

# Software License using Policy Key Differences

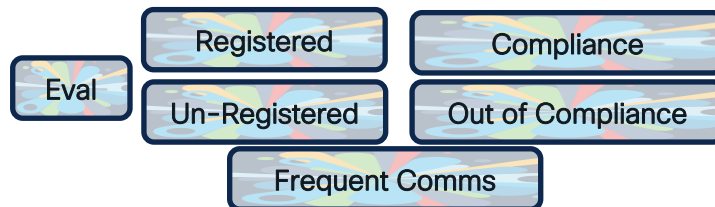
## Smart Licensing Using Policy

- No evaluation mode - No registration
- Acquire before use for export control licenses
- Usage reports are stored on device and reported later
- Allows unlimited usage of un-enforced licenses
- Syslog compliance
- No SLR/PLR required due to flexible policy model



## Smart Licensing Today

- Mandatory evaluation mode
- Registration to CSSM Cloud or On-Prem for compliance
- Acquire before use model
- Licenses reported at regular intervals
- Varied reporting and enforcement
- SLR/PLR for off-line customers



# Software License using Policy Key Differences

\*Token used for direct connect

\*\*For post-paid mode usage start and stop times are provided

INFORMATION COLLECTED	SL	SLP
Trusted Unique Identifier (SUDI/SUVI/ID)	Yes	Yes
Licenses Consumed	Yes	Yes
Organization Identifier (Token)	Yes	Optional *
Hostname	Optional	No
IP Address	Optional	No
MAC Address	Optional	No
Other Smart Call Home Information	Optional	No
Usage Start and Stop Times	N/A**	Yes

- License information collected in Reported Usage Measurement (RUM) report
- Usage Information transferred is:
  - Serial number or unique identifier of the device
  - Licenses and quantities in use.
  - Start / Stop times of feature usage
- Reported Usage Measurement reports
  - Are per license type – device can have multiple
  - Contains start and stop time of usage
  - End time is only updated if no change

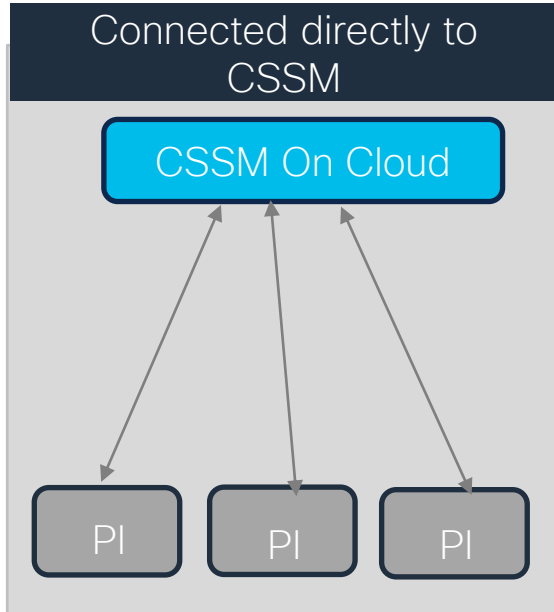
# Cisco License Servers

# Options to Report

	CSLU App Cisco Smart Licensing Utility Windows/Linux Application	CSSM On-Prem Avail: 8-202102(May 2021) Latest: 8-202201	DNAC Avail: 2.2.1.x (Dec 2020) Latest: 2.3.2.x	
Direct to CSSM	Set-up reporting cadence preferences	Set-up reporting cadence preferences	Set-up reporting cadence preferences	
Report on-line automatically	Report on-line automatically	Supports both SL and SL Using reporting	IDs products running SLP	
Report off-line via upload to CSSM	Report off-line via upload to CSSM	Report on-line automatically or offline	Report on-line automatically	3 <sup>rd</sup> Party
Same as current SL	Doesn't require continuous operation	Syncs to CSSM and shows compliance locally	Report off-line via upload to CSSM	Build your own
Push Operations	Push and Pull Operations	Push and Pull Operations	Pull Operations	APIs and CLIs to push or pull report data

Cisco Smart Software Manager (CSSM) Use APIs or the web portal to report use, [https://apidocs-prod.cisco.com/explore:category=Smart\\_Accounts\\_&Licensing\\_APIS:sgroup=Smart\\_Licensing\\_Using\\_Policy](https://apidocs-prod.cisco.com/explore:category=Smart_Accounts_&Licensing_APIS:sgroup=Smart_Licensing_Using_Policy)

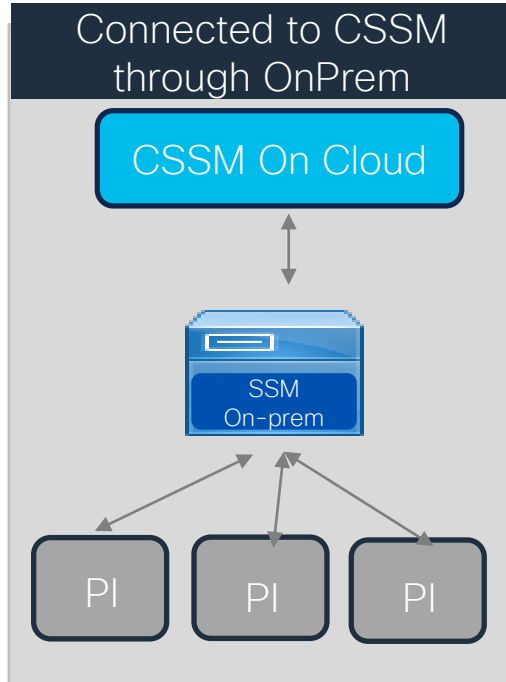
# Topology: PI Directly Connected to CSSM



- Configuration Required
  - license smart transport smart
  - license smart url  
<https://smartreceiver.cisco.com/licservice/license>
- Establish Trust
  - license smart trust idtoken <token-from-cssm> all
  - Same idtoken can be used on multiple product instances

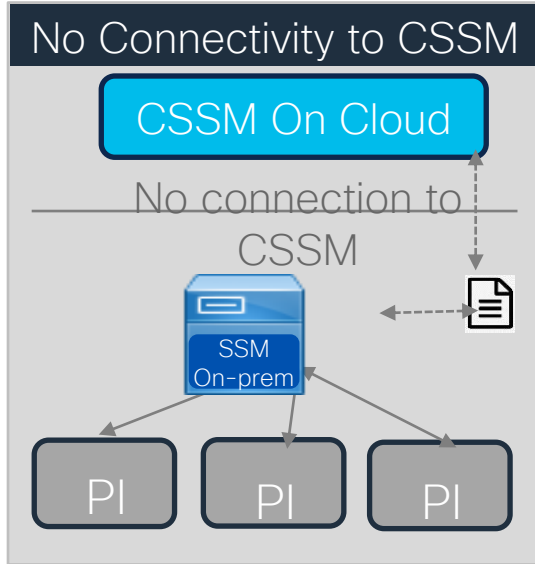


# Topology: PI Connected to CSSM through OnPrem



- Configuration Required
  - `license smart transport cslu`
  - `license smart url cslu <CSLU url link from OnPrem UI>`
- No trust establishment required
- PI reports usage periodically
- Can report usage instantly by
  - `license smart sync all`

# Topology: PI Connected to OnPrem offline from CSSM

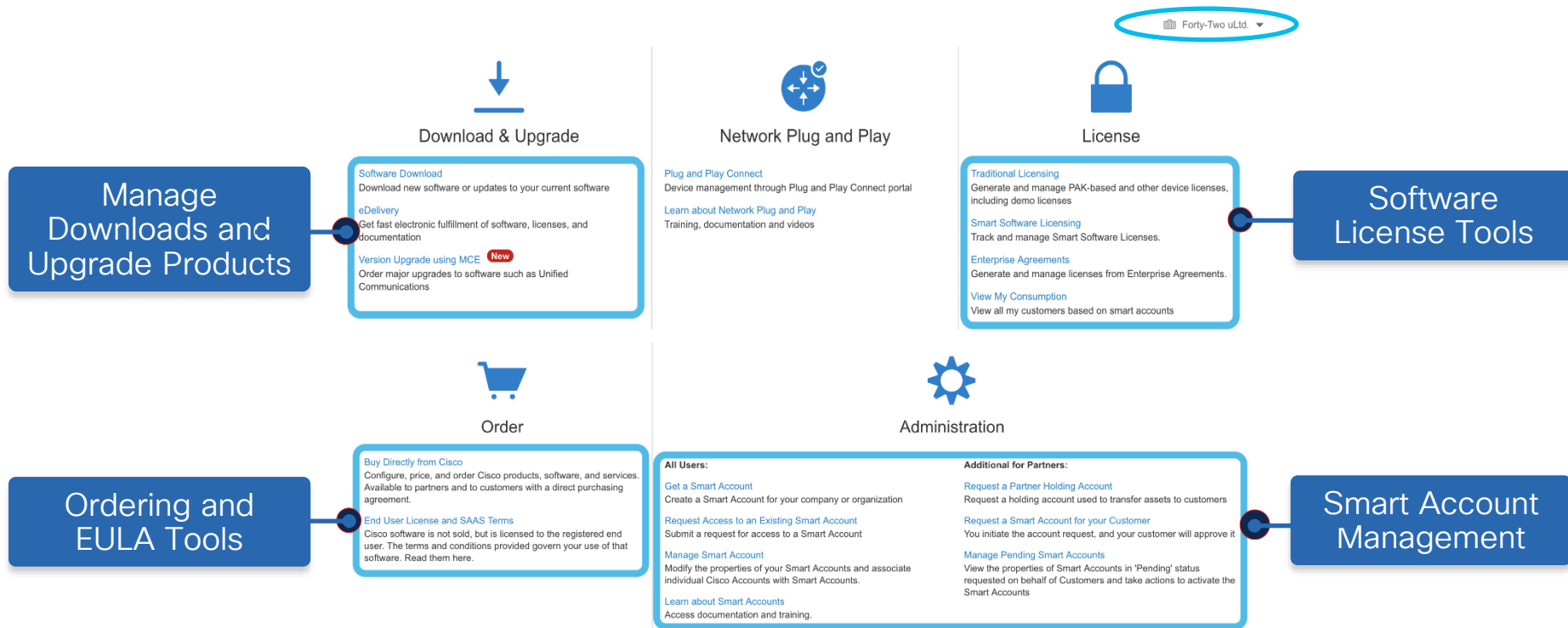


- Configuration Required
  - `license smart transport csu`
  - `license smart url csu <CSLU url from OnPrem>`
- No Trust establishment required
- PI reports usage periodically
- Can report usage instantly by
  - `license smart sync all/local`
- Download usage reports from OnPrem
- Upload to CSSM into appropriate SA/VA

# Cisco Software Central

software.cisco.com

One stop for all your software and licensing needs



# CSSM Changes for SL Using Policy

- Automated and manual uploading of license usage data
- Parsing of data for compliance displays
- Authorization code generation and download
- Equipment shipped direct from Cisco will be shown in CSSM automatically

Cisco Software Central > Smart Software Licensing

Smart Software Licensing

OVERSTOCKCOM INC

Feedback Support Help

Alerts | Inventory | Convert to Smart Licensing | Reports | Preferences | On-Prem Accounts | Activity

### Reports

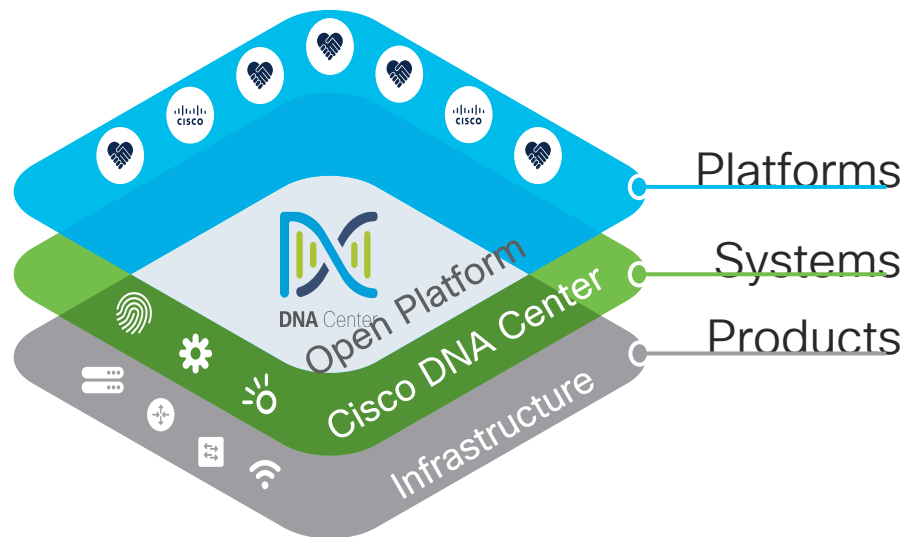
Report Usage Data Files Reporting Policy

Devices can be configured to report the features that they are using.  
This usage then determines which licenses are needed, in order to be compliant.

Upload Usage Data... Search by File Name, Virtual Account

Usage Data File	Reported	Virtual Account	Reporting Status	Devices	Acknowledgement
DeviceDetails.csv	2020-Jun-03	111	No Errors	1	<a href="#">Download</a>
DeviceDetails.csv	2020-Jun-03	DEFAULT	Errors (1)	1	<a href="#">Download</a>
DeviceDetails.csv	2020-Jun-03	DEFAULT	No Errors	1	<a href="#">Download</a>

# Cisco DNA Center License Manager



- Cisco DNA Center License Manager adds Smart License support
  - Auto registered Smart License (SL)-enabled devices which are added to Cisco DNA Center to be automatically registered to the chosen virtual account.
  - Support for highly secured networks with limited internet access by reserving licenses securely from CSSM
- Cisco DNA Center support for SL Using Policy will add:
  - CSLU type Support for retrieving and forwarding RUM reports

# Cisco Smart Licensing Utility (CSLU)

Smart Account

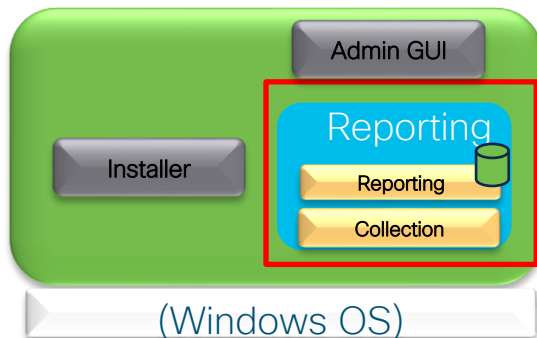
Devices Schedules

Devices

Available Actions

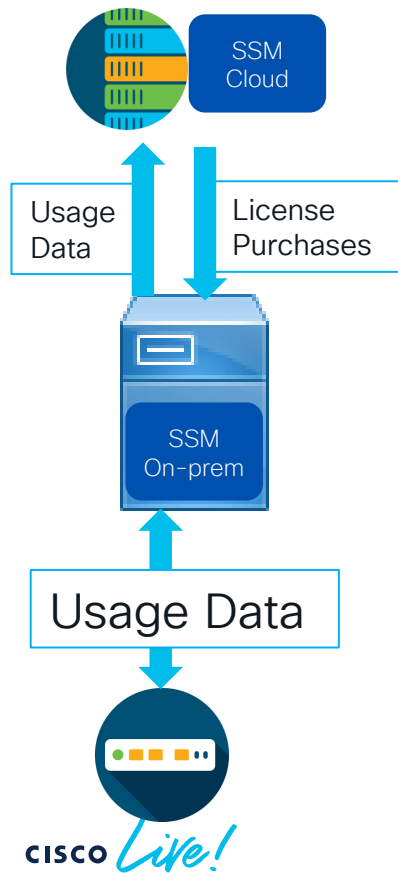
Device	Product Type	Virtual Account	Last Contacted	Last Reported	Reports	Alerts
<input type="checkbox"/> ISR-1921-chem1 SN: 88d7Y66yR76w5ltr4 PID: CISCO192/K9	ISR 1921	Cal_Bechtel	12-Jun-2020 10:15	11-Jun-2020 10:16	10	Failed to Connect
<input type="checkbox"/> ISR-1921-chem2 SN: 88d7Y66yR76w5ltr5 PID: CISCO192/K0	ISR 1921	Cal_Bechtel	01-Jan-2020 10:00	11-Jun-2020 10:16	50	

- Windows/Linux Application
- Supports multiple users but only one Smart Account/Virtual Account
  - Use CSSM On-Prem for multi-tenancy
- Long-lived application or use on-demand
- Simple windows install
- Connects to Cisco with CCO Id
- Supports Push or Pull of data from device



# On-Prem for SL Using Policy – What's New!!

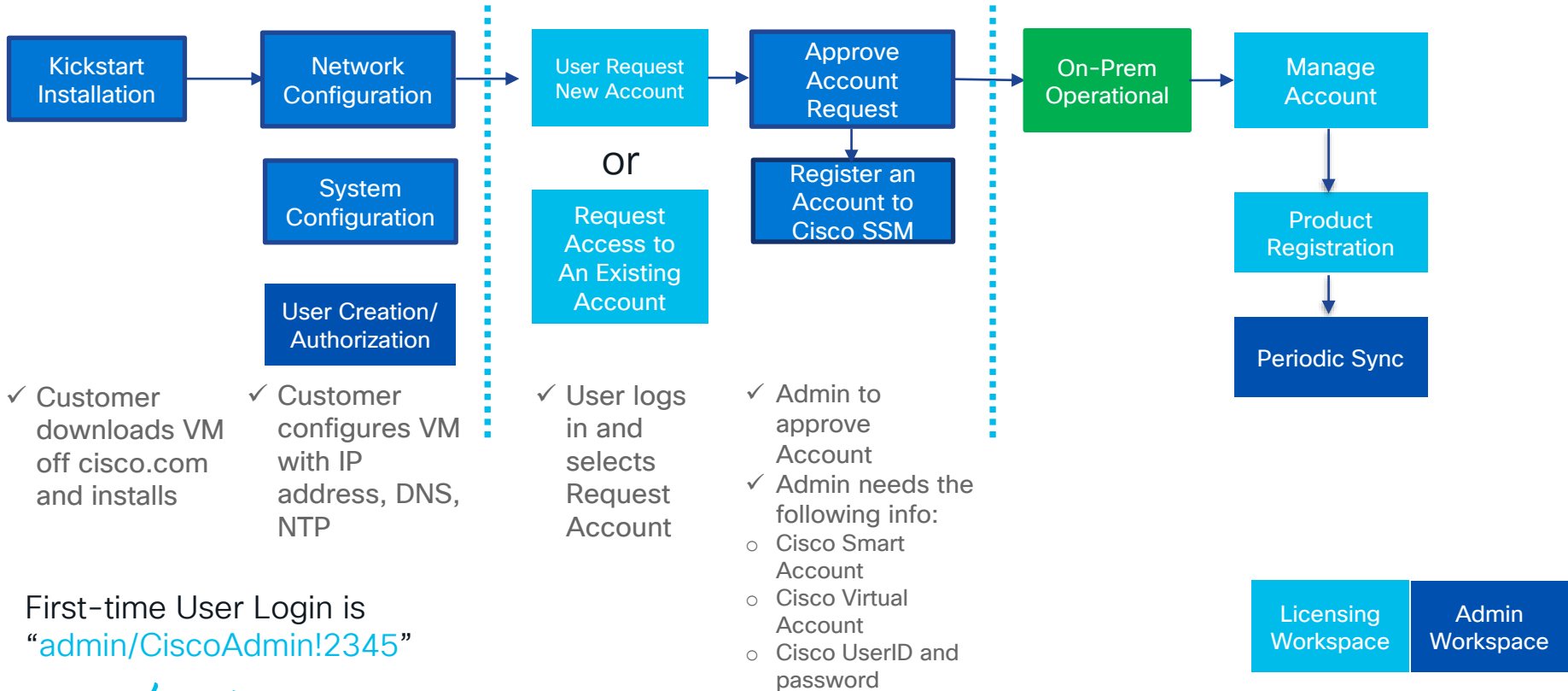
## *Interaction between Device and On-Prem Basic License Operations*



- On-Prem stores and forwards usage reports
  - Usage reports are forwarded, parsed and used to show compliance data
  - License Compliance Data is still synced back and forth with CSSM cloud
- Device communication to On-Prem Process – Two Flavors
  - Push Mode
    - Send data to CSSM on-Prem from device
    - IP Addr is the identifier
  - Pull Mode
    - Pull data from device and send to on-prem
    - IP addr is the identifier
    - Pull mode is not supported in NAT setup, devices behind a NAT.



# Smart Software Manager On-Prem - Setup/Registration



First-time User Login is  
“[admin/CiscoAdmin!2345](#)”



# Key Features in SSM On-Prem



## Multi-tenancy: Manage multiple local accounts in a single management portal

- Support for Multiple Local Accounts
- Multiple levels of RBAC (Admin, Operator, User)



## Data Privacy:

- Restrict Product information (hostname, ip, etc.) from being sent to Cisco
- Auditable data exchange between SSM On-Prem and Cisco
- Local User Authentication Control: LDAP, Active Directory
- Local User Accounts limit need for users to have a Cisco CCOid or access to Cisco Smart Account



## Networking Support

- IPv4 and IPv6 support
- Multi-NIC: multiple interfaces for traffic separation between network management and product instance registrations.
- Proxy support: Allow for SSM On-Prem to have a proxy between itself and Cisco
- Firewall Zones: Ability to configure interfaces for Internal (access) or External (no access)



## System Alerts and Notifications

- Email and Syslog support: Account events can be configured to be sent to a syslog server

# Key Features in SSM On-Prem



## New License Features

- License AppHA: Allows for the reporting of a single license usage for both standby and active Applications
- License Hierarchy: Enable borrowing of a higher-tier license to be fulfilled when a lower tier license is not available



## API Support

- Resource and Owner credentials **grant** supported
- 5 major API groups for over 15 unique APIs



## Longer Sync Intervals

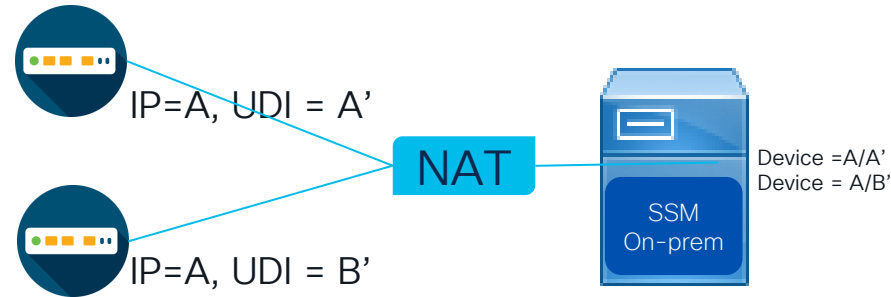
- Native 365-day Synchronization Schedule
- Allow SSM On-Prem to functions as long as it synchronizes with Cisco once a year.



## Improved Scalability

- 500+ accounts
- 50,000 Product Instances (25000 per Local Account)
- Active development in progress to increase scale

# On-Prem for SL Using Policy – NAT Considerations



- Push Mode

- For NAT, Global setting in admin area of on-prem is set to NAT enabled
- Device sends data to CSSM on-Prem from device
- UDI/UUID is used to validate devices and identify.
- Add products, single or bulk, need to be added with valid device UDI/UUID.

- Pull Mode

- Not available when NAT enabled

# On-Prem SLP Support

1. Only PUSH mode is supported in NAT mode.
2. On Device, make sure the transport is CSLU.
3. Update the transport URL to OnPrem. This URL is available in the General tab in the Default VA on the On-Prem UI.

Example config

conf terminal

license smart transport cslu

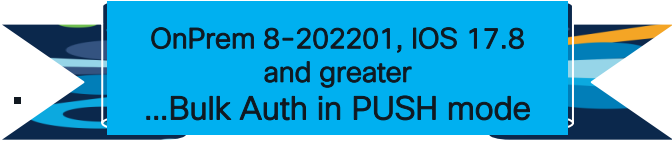
license smart url cslu <https://10.81.106.113/cslu/v1/pi/testcsluApril6-1>

exit

wr

1. Use the “license smart sync local/all” command to send usage on demand.

# On-Prem SLP Support Cont..



OnPrem 8-202201, IOS 17.8  
and greater  
...Bulk Auth in PUSH mode

1. For SLAC or Authorization Code needed for export/enforced licenses on routers
  - a. Make sure the device is on On-Prem. Either add manually or send a usage report which will add the device automatically to the On-Prem
  - b. Run the CLI to send auth request from device.
  - c. The auth request is part of usage report.
2. If connected mode, make sure to sync with CSSM after usage is sent from device.
3. If disconnected mode, download the file from OnPrem and upload to CSSM. CSSM will give the response file back with both Acks to rum report and Auth file.
4. It will take several minutes for the ack to come back to device, depends on CSSM load.
5. CLIs [show license authorization](#) or [show license tech support](#) will show the auth code is installed.
6. Now enable the export/enforced feature to use license

# On-Prem SLP Support

## Smart Licensing

[Alerts](#)[Inventory](#)[Convert to Smart Licensing](#)[Reports](#)[Preferences](#)[Activity](#)Local Virtual Account: [Default](#) ▼[General](#)[Licenses](#)[Product Instances](#)[SL Using Policy](#)[Event Log](#)[Add Single Product](#)[Actions for Selected...](#) ▼[Export/Import All...](#) ▼

Search by Name, Product Type

<input type="checkbox"/>	Name	Product Type	Last Contact	Alerts
<input type="checkbox"/>	<a href="#">172.20.85.52</a>	CSR1KV	2022-Mar-10 18:45:10	✓ Sync request from product instance
<input type="checkbox"/>	<a href="#">10.81.106.120</a>	CAT8KV	2022-Mar-22 02:26:58	✓ Sync request from product instance
<input type="checkbox"/>	<a href="#">172.20.85.51</a>	CSR1KV	2022-Mar-10 19:23:53	✓ Sync request from product instance
<input type="checkbox"/>	<a href="#">10.81.106.118</a>	CAT8KV	2022-Mar-18 04:43:09	✓ Sync request from product instance

10 ▼

Showing Page 1 of 1(4 Records)

# On-Prem SLP Synchronization with CSSM - Connected

On-Prem License Workspace



[Smart Software Manager On-Prem](#) > **Smart Licensing**

## Smart Licensing

[Alerts](#)

[Inventory](#)

[Convert to Smart Licensing](#)

**Reports**

[Preferences](#)

[Activity](#)

### Reports

Reports

**Usage Schedules**

Synchronization schedule with Cisco

Synchronization pull schedule with the devices

#### Synchronization schedule with Cisco

Schedule synchronization for specified times

[Synchronize now with Cisco](#)

Days Frequency:

Time Of Day: Hour  Minutes

[Save](#)

[Reset](#)

# On-Prem SLP Synchronization with CSSM – Air gapped

## Smart Licensing

[Alerts](#) | [Inventory](#) | [Convert to Smart Licensing](#) | [Reports](#) | [Preferences](#) | [Activity](#)

Local Virtual Account: [Default](#)

[General](#) | [Licenses](#) | [Product Instances](#) | [SL Using Policy](#) | [Event Log](#)

Add Single Product

Actions for Selected... ▾

Export/Import All... ▾



Name



10.81.106.90

Export All Product Instances List

Import Product Instances List

Export Usage to Cisco

Import From Cisco

Last Contact

2022-Apr-06 22:22:59

Alerts

✓ Sync request from product instance

Search by I

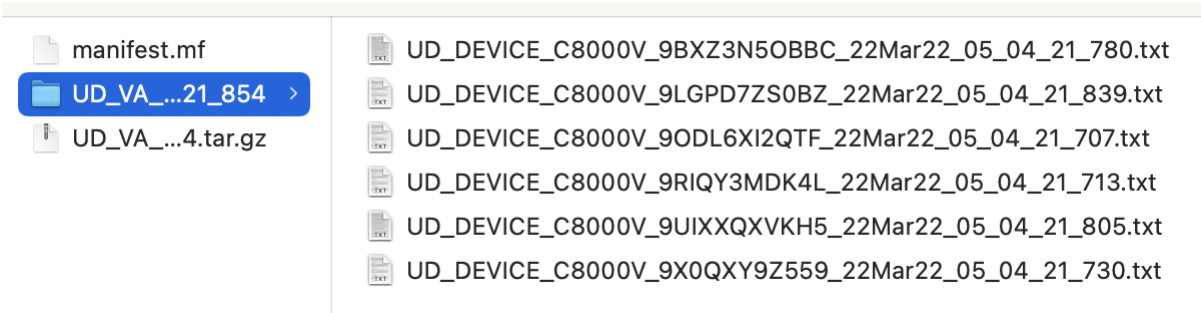
10 ▾

Showing Page 1 of



# SLP Synchronization files to and from OnPrem and CSSM

- File is in form of .tar.gz file
  - UD\_SA\_DLO\_Test\_Account\_22Mar22\_05\_04\_21\_909.tar.gz
  - ACK\_UD\_SA\_DLO\_Test\_Account\_22Mar22\_05\_04\_21\_909.tar.gz
- The tar file has txt files for each of the devices in the OnPrem
  - Each txt file has Usage report request/response for respective devices



# RUM Report Example – communicated from device

- Asset Data
  - name:"regid.2017-05.com.cisco.C9300,v1\_727af1d9-6c39-4444-b301-863f81445b72"
  - instance: sudi/udi\_pid "C9300-24UX"
  - udi\_serial\_number: "FCW2249C0J1"
  - signature: "SHA256 "key: "21246675",value: "a3acOO0pqzyuos....."
- Entitlements Data
  - entitlement\_tag: "regid.2017-03.com.cisco.advantagek9,1.0\_bd1da96e-ec1d-412b53846b347d53"
  - report\_id: "1603703186"
  - ha\_udi:        role: "Active"
- Measurements Data
  - log\_time: "1603703215" (Epoch GMT)
  - "start\_time\:1603703196,\"end\_time\:1603703226,\"sample\_interval\:30,\"num\_samples\:3  
"termination\_reason\:\"CurrentUsageRequested\", \"value\:{\"type\:\":\"COUNT\", \"value\:\":\"2\"}}\",  
"header\":{\"type\":\"rum\"}, \"signature\:{g2KzCeySW4lqHqCvDV5HiF3XajUXC"

# Deploying Smart Licensing using Policy

# On-Prem for SL Using Policy– Basic Setup

For greenfield CSSM On-Prem: Perform install and register On-Prem with CSSM cloud before any device operations

For brownfield CSSM On-Prem: Upgrade to CSSM On-Prem supporting SL Policy [CSSM cloud registration is retained and need not be performed again]

On-Prem to CSSM Cloud: Setup the usage reporting scheduler on CSSM On-Prem to periodically deliver usage reports to Cisco

- The reporting value on CSSM On-Prem is by default set to the devices default policy. Reset if need a lower value to report more frequently or if they have a custom policy then can be changed. For example, if default device policy is 90 days, then reporting should be set <90 days (i.e. 85 days)

Device to CSSM On-Prem setup:

- Devices do not need an ID token to communicate with On-Prem CSSM
- Configure CSLU smart transport to send usage reports to On-Prem CSSM for push mode
- But if a customer wants more security and wants to validate connecting devices, they can choose to validate via a .csv file.
- For pull mode - On-Prem CSSM thru a .csv file

# On-Prem for SL Using Policy- Greenfield Device Flow

Interaction between Device and On-Prem Basic License Operations

## On-Prem

1) New on-prem installs and registers with CSSM before any device operations

6) On-Prem CSSM receives messages and parses into DB as well as prepares for forwarding to CSSM Cloud per the schedule

7) The usage reports will be shown in the Default VA on On-Prem CSSM

## Device

2) Device needs to be configured with the tenant URL pointing to specific On-Prem tenant. This is a similar step for customers using On-Prem CSSM today

3) The transport mode is CSLU by default - no change needed

4) Configuration change needs to be saved by customer (if applicable to the OS/platform)

5) The usage reports now can be sent to On-Prem CSSM

# On-Prem for SL Using Policy– Brownfield Device Flow

Interaction between Device and On-Prem Basic License Operations

## On-Prem

1) Customer upgrades to CSSM on-prem with SL Policy support

## Device

2) Device is upgraded to SL Policy supported image

3) If export control or enforced features are in, SLAC should be generated on CSSM and uploaded to On-Prem before upgrade.

4) On device upgrade, Authorization renewal is done with On-Prem CSSM

5) On-Prem CSSM responds with new transport URL that points to the CSLU tenant inside On-Prem CSSM

6) Device automatically changes the transport from call-home or smart to CSLU. The transport URL is also updated automatically.

7) Configuration change needs to be saved by customer, wr mem (if applicable to the OS/platform)

# Demo





# Cisco Learning and Certifications

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IT learning hub that guides teams and learners toward their goals

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### Cisco Learning Network

Resource community portal for certifications and learning



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Intensive team & individual automation and technology training programs

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Authorized training partners supporting Cisco technology and career certifications

### Cisco Instructor-led and Virtual Instructor-led training

Accelerated curriculum of product, technology, and certification courses



## Certify

### Cisco Certifications and Specialist Certifications

Award-winning certification program empowers students and IT Professionals to advance their technical careers

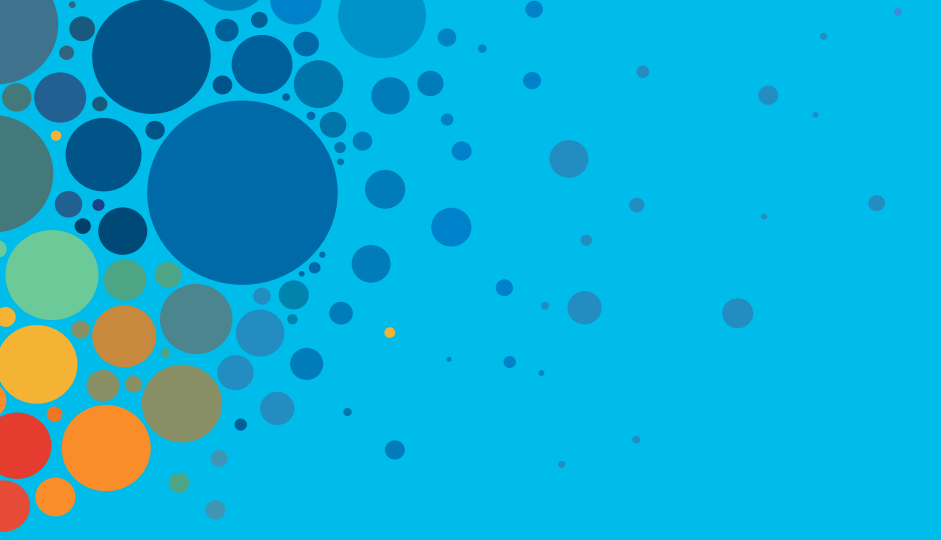
### Cisco Guided Study Groups

180-day certification prep program with learning and support

### Cisco Continuing Education Program

Recertification training options for Cisco certified individuals

Here at the event? Visit us at **The Learning and Certifications lounge at the World of Solutions**



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Visit the Cisco Showcase for  
related demos

Visit [cisco.com/go/licensing](https://cisco.com/go/licensing)

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](https://www.CiscoLive.com/on-demand)



The bridge to possible

# Thank you

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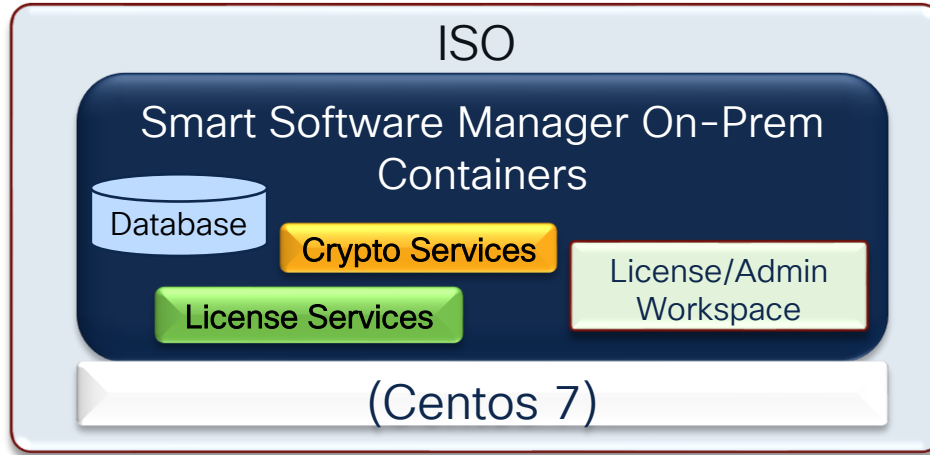
#CiscoLive

# Backup Slides

# Smart Software Manager On-Prem

## Requirements

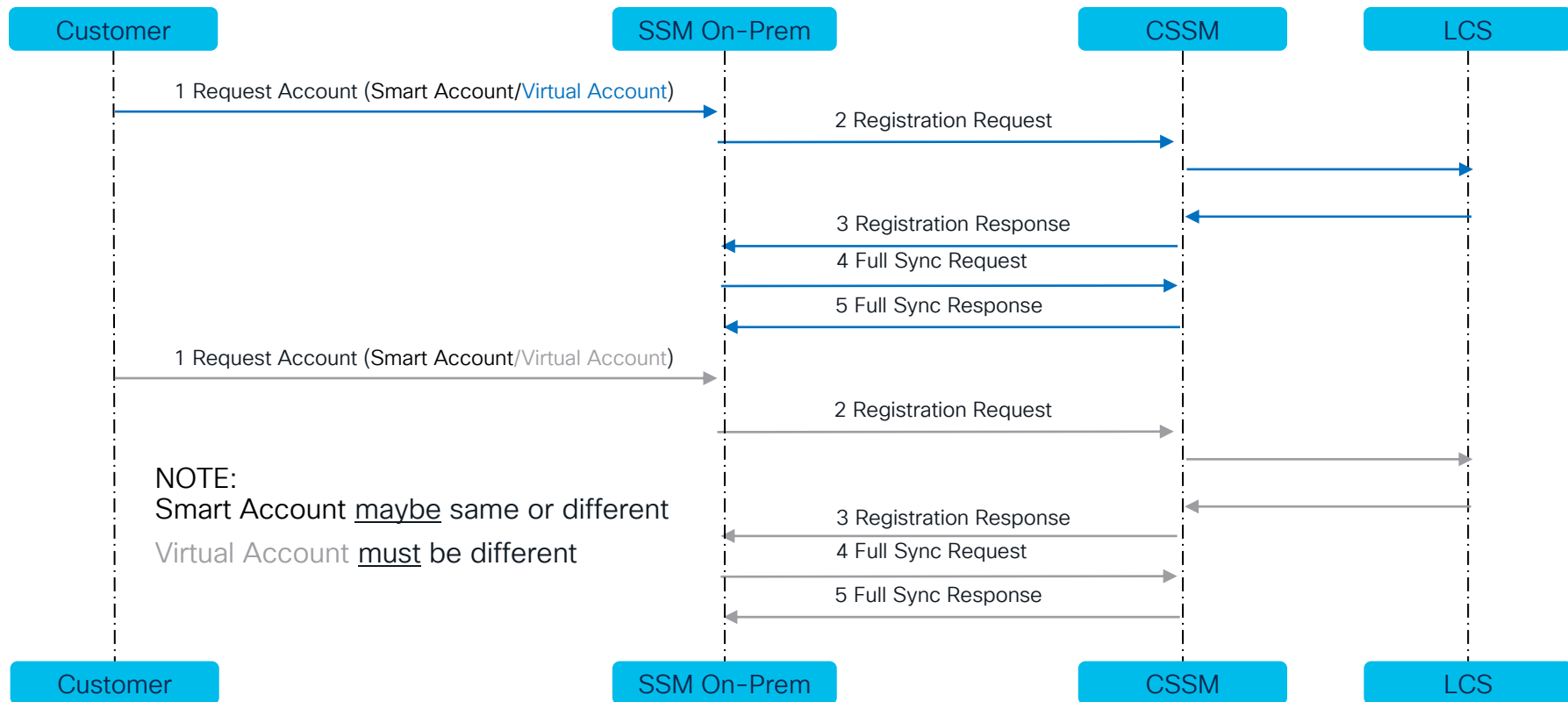
- Installation package is available in ISO installable via Bootable Media
- No Cost Software download
- Fully Supported by Cisco TAC and Licensing Office



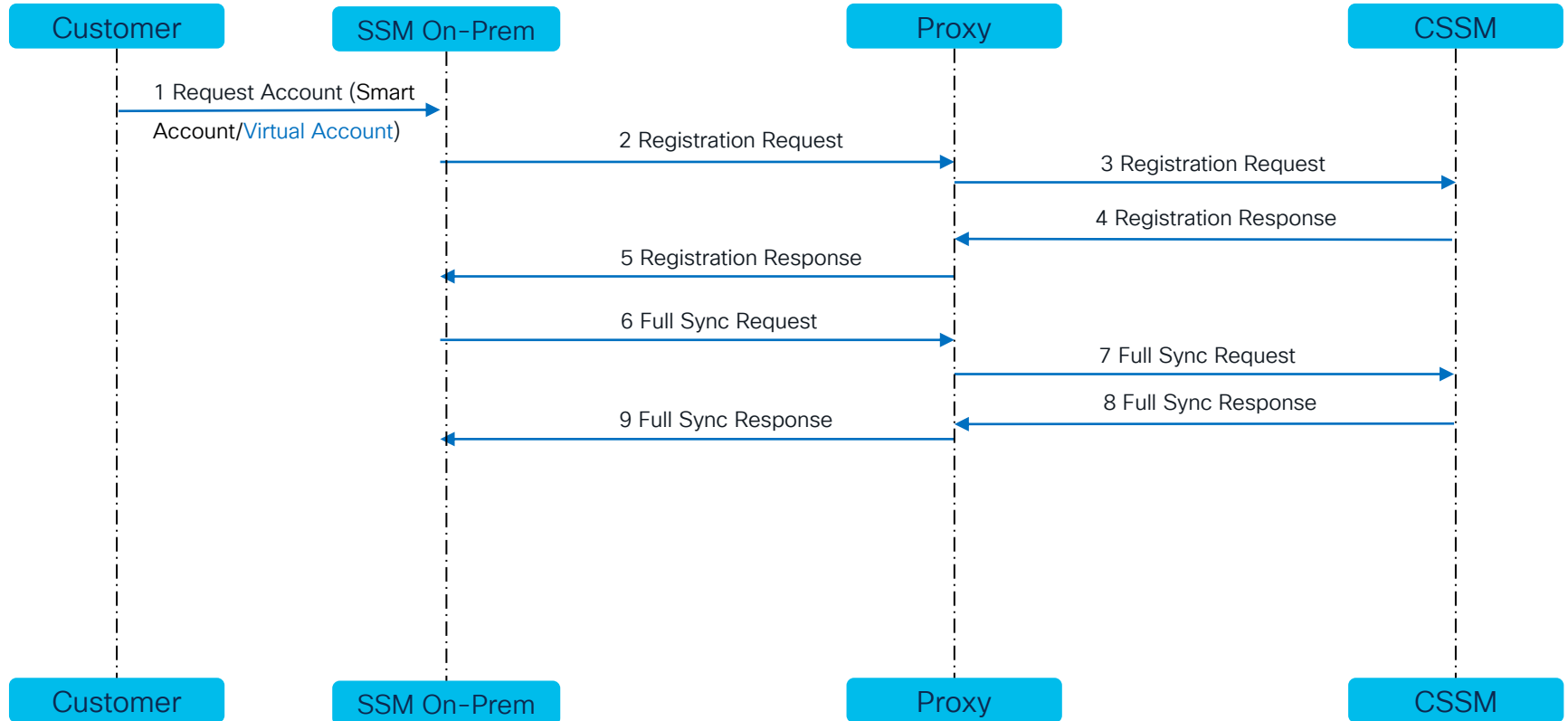
## System Requirements (Customer Provided):

Minimum	Recommended
200 GB Hard Disk	200 GB Hard Disk
8GB Memory	8GB Memory
2 vCPUs	4 vCPUs
4000 products	50000 products

# Smart Software Manager On-Prem - Registration



# Smart Software Manager On-Prem – Registration via Proxy

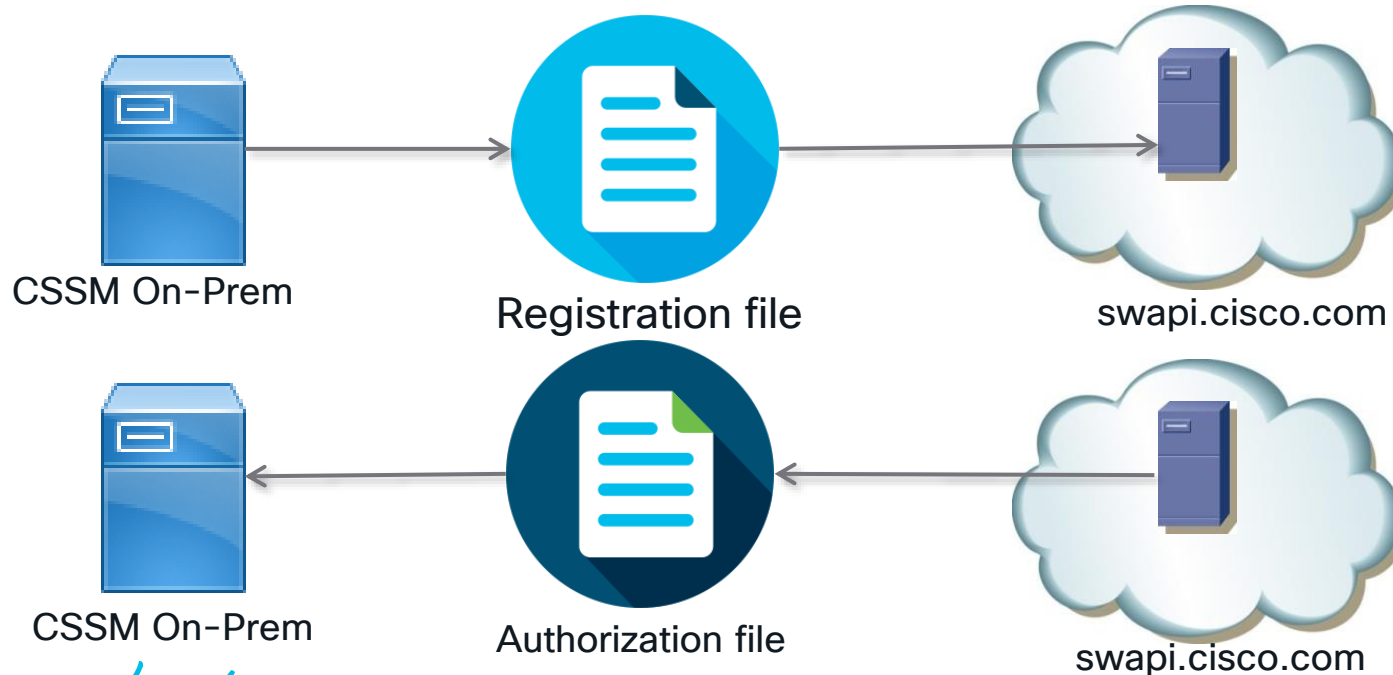






# Administration Workspace – Account Registration

At registration there are 2 files exchanged between CSSM On-Prem and Cisco



# Administration Workspace – Synchronization



## Synchronization Requirements

The SSM On-Prem server must be synchronized with Cisco periodically. If network attached storage can be scheduled to occur automatically, or via a manual file transfers in disconnected Mode

- Synchronization can be scheduled or performed manually
  - By default SSM On-Prem should synchronize with Cisco every 30 days
  - Many Customers doing manual synchronization, synchronize with Cisco every 90 days
  - It is recommended you do not exceed 180 days (6 months) without synchronization
- Synchronization with Cisco MUST occur within 364 days.  
After 364 days without synchronization;
  - A new Account MUST be registered with Cisco
  - All product instances in the Account are removed
  - All ID Tokens in the Account are expired
  - Products will need to be re-registered

# Administration Workspace – Account

## Account Synchronization

### Local Account: Quebec

#### Default

<input type="checkbox"/>	License	Billing	Purchased
<input checked="" type="checkbox"/>	Cisco ASAv30	Prepaid	5
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	Prepaid	15



#### ASAv30

5
0
+ 0
= 5

#### CSR 1KV

15
0
+ 0
= 15

### Smart Account: Acme Enterprise

#### Quebec VA

<input type="checkbox"/>	License	Billing	Purchased
<input checked="" type="checkbox"/>	Cisco ASAv30	Prepaid	5
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	Prepaid	15



Synchronization

Cisco

# Administration Workspace – Account

## Account Synchronization

### Local Account: Quebec

#### Default

<input type="checkbox"/>	License	Billing	Purchased
<input type="checkbox"/>			
<input checked="" type="checkbox"/>	Cisco ASAv30	Prepaid	1
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	Prepaid	6

#### IT Department LVA:

<input type="checkbox"/>	License	Billing	Purchased
<input type="checkbox"/>			
<input checked="" type="checkbox"/>	Cisco ASAv30	Prepaid	4
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	Prepaid	7

#### Data Center LVA:

<input type="checkbox"/>	License	Purchased
<input type="checkbox"/>		
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	2



Synchronization

### Smart Account: Acme Enterprise

Cisco

#### Quebec VA

<input type="checkbox"/>	License	Billing	Purchased
<input type="checkbox"/>			
<input checked="" type="checkbox"/>	Cisco ASAv30	Prepaid	5
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	Prepaid	15

# Administration Workspace – Account

## Account Synchronization



Synchronization

### Local Account: Quebec

#### Default

<input type="checkbox"/>	License	Billing	Purchased
<input type="checkbox"/>			
<input checked="" type="checkbox"/>	Cisco ASAv30	Prepaid	1
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	Prepaid	6

#### IT Department LVA:

<input type="checkbox"/>	License	Billing	Purchased
<input type="checkbox"/>			
<input checked="" type="checkbox"/>	Cisco ASAv30	Prepaid	4
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	Prepaid	7

#### Data Center LVA:

<input type="checkbox"/>	License	Purchased
<input type="checkbox"/>		
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	2



#### ASAv30

1
4
+ 0
= 5

#### CSR 1KV

6
7
+ 2
= 15

### Smart Account: Acme Enterprise

Cisco

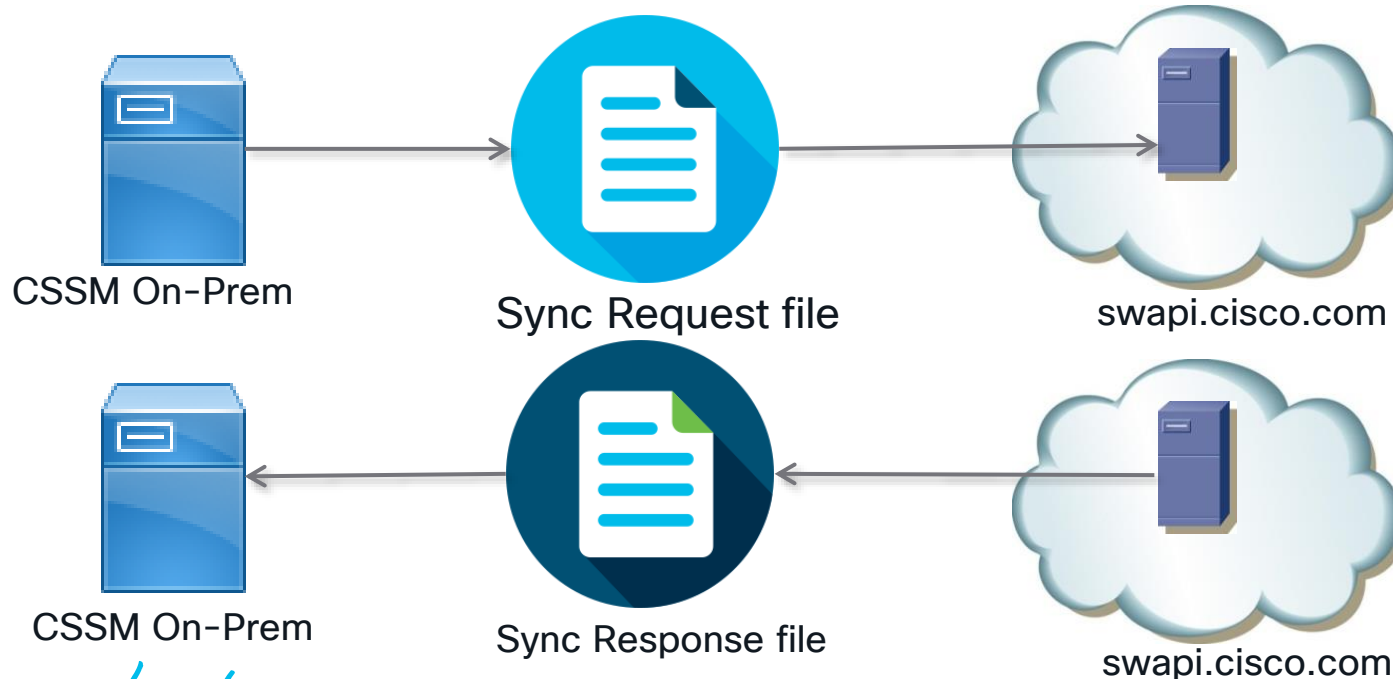
#### Quebec VA

<input type="checkbox"/>	License	Billing	Purchased
<input type="checkbox"/>			
<input checked="" type="checkbox"/>	Cisco ASAv30	Prepaid	5
<input checked="" type="checkbox"/>	CSR 1KV AX 100M	Prepaid	15



# Smart Software Manager On-Prem - Sync

During normal operation, there are 2 different files exchanged between SSM On-Prem and Cisco





# SSM On-Prem- Sync Request

- id\_cert, signing\_cert, csr, signatures
  - Certificate information to secure communication between Smart Software Manager On-Prem and Cisco
- last\_generated/last\_sync
  - timestamps used to get the (delta)synchronization data.
- virtual\_accounts
  - This contains the virtual accounts, registered product instances and licenses in the Smart Software Manager On-Prem .

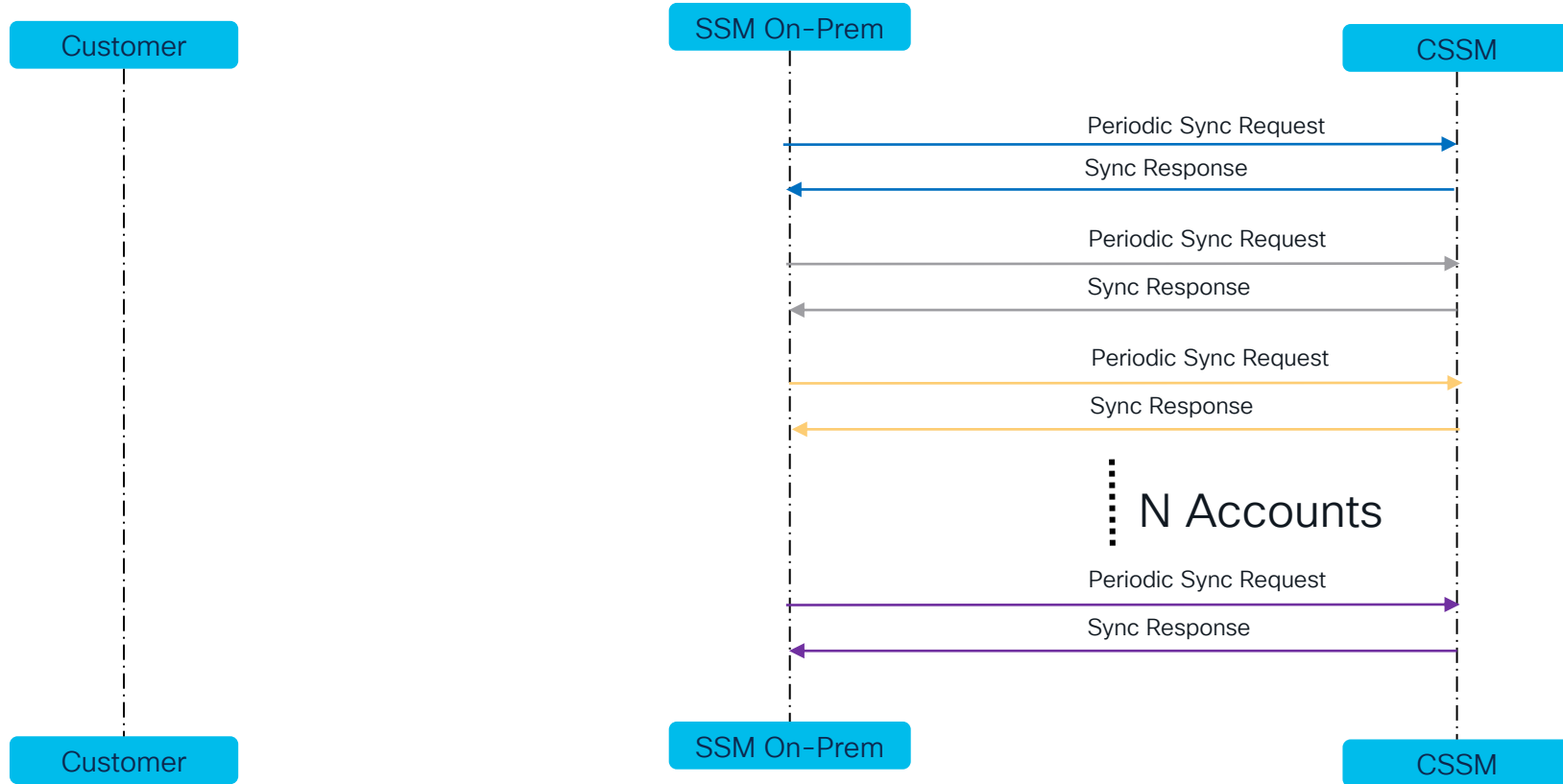


# SSM On-Prem- Sync Response File

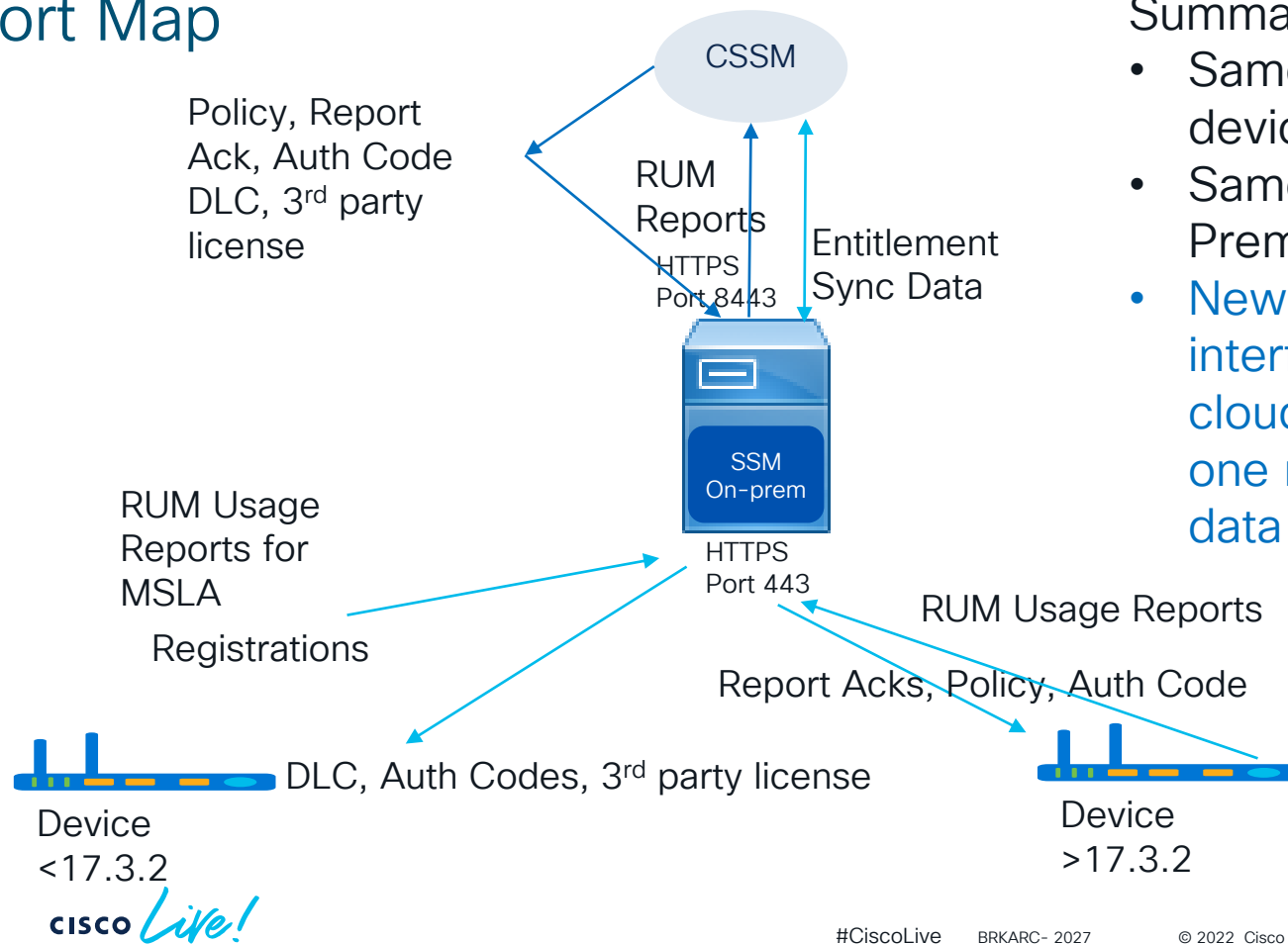
- id\_cert, sub\_ca\_cert, signing\_cert, local\_sub\_ca\_cert, signature  
Certificate information to secure communication between Smart Software Manager On-Prem and Cisco
- collector\_instance\_id
- On-Prem\_name
- last\_generated/last\_sync  
timestamps used to get the (delta) synchronization data.
- Synchronization Information  
Includes info about virtual accounts and licenses from Smart account to Smart Software Manager On-Prem .



# Smart Software Manager On-Prem Sync



# Smart Licensing Security Update Port Map



## Summary

- Same security posture device to On-Prem
- Same sync interface On-Prem to cloud
- **New RUM report interface for sending to cloud. In the response one may get optional data auth codes,...**

# Cisco Smart Licensing Utility (CSLU)

- Authorizations Flow



1) Select the devices on CSLU, auth request file generated on CSLU

2) In CSSM inventory, upload the file of requests and assign licenses and codes generated

3) The file is then taken out of CSSM and input in CSLU

4) CSLU downloads file to the devices