Cisco Catalyst 9800 Wireless Controller Smart Licensing and Specific License Reservation Guide

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Introduction to Smart Licensing

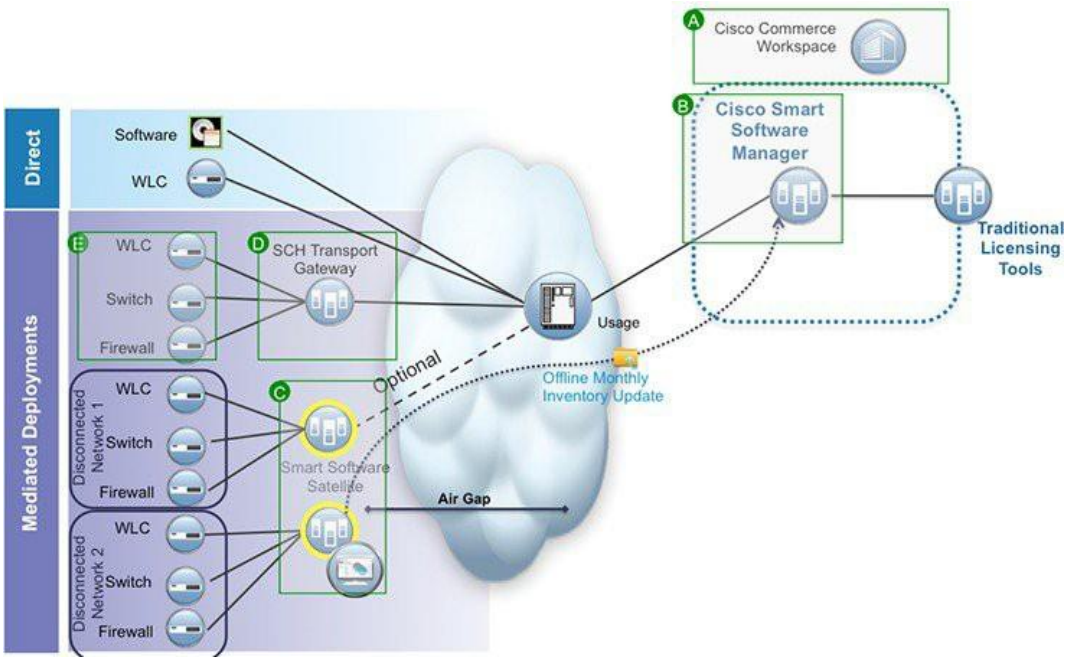
Cisco Smart Licensing is a flexible licensing model that provides you with an easier, faster, and more consistent way to purchase and manage software across the Cisco portfolio and across your organization. And it's secure – you control what users can access. With Smart Licensing you get:

- **Easy Activation**: Smart Licensing establishes a pool of software licenses that can be used across the entire organization—no more PAKs (Product Activation Keys).
- **Unified Management**: My Cisco Entitlements (MCE) provides a complete view into all of your Cisco products and services in an easy-to-use portal, so you always know what you have and what you are using.
- **License Flexibility**: Your software is not node-locked to your hardware, so you can easily use and transfer licenses as needed.

To use Smart Licensing, you must first set up a Smart Account on Cisco Software Central (software.cisco.com).

For a more detailed overview on Cisco Licensing, go to cisco.com/go/licensingguide.

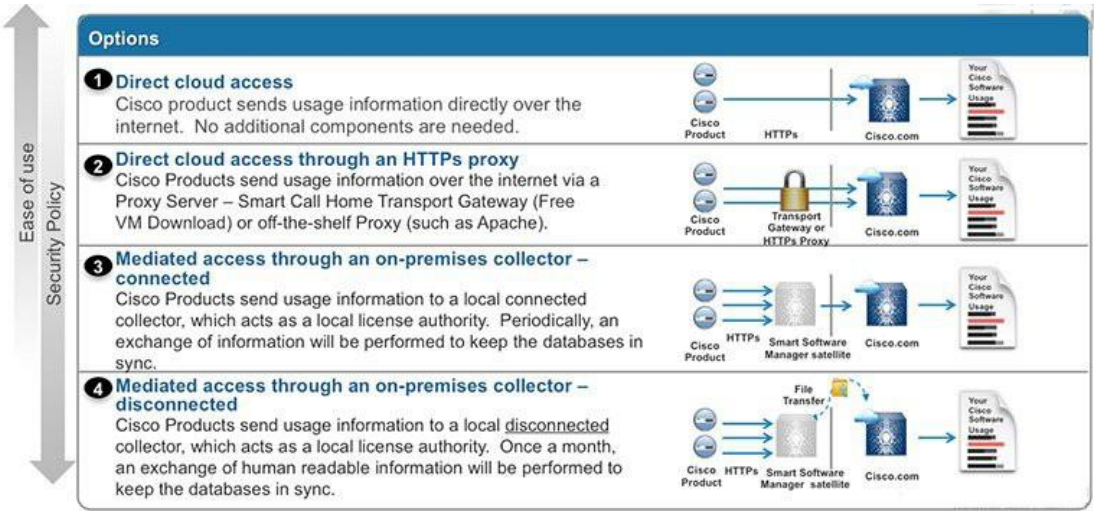
Quick Start Diagram



Smart Licensing Deployment Modes

Security is a concern for many customers. The options below are listed in an order from easiest to use to most secure.

- The first option is to transfer usage over the Internet to the Cloud server directly from the devices to the cloud via HTTPs.
- The second option is to transfer files directly over the Internet to the Cloud server through an HTTPs proxy, either Smart Call Home Transport Gateway or off the shelf HTTPs proxy such as Apache.
- The third option uses a customer internal collection device called the "Cisco Smart Software Satellite." The Satellite periodically transmits the information into the cloud using periodic network synchronization. In this instance the only customer system or database transferring information to the cloud is the Satellite. The customer can control what is included in the collector database, which lends itself to higher security.
- The fourth option is to use the Satellite, but to transfer the collected files using manual synchronization at least once a month. In this model the system is not directly connected to the Cloud and an air gap exists between the customers network and the Cisco Cloud.



Note:

Due to the change in the format of the messages when using ERM, we are unable to get a count of the Licenses for APs on SSM. With the quick workaround going into SSM OnPrem 8-202004, it will not show any counting of the APs. The workaround only provides customers with an In-Compliance response from SSM OnPrem.

- The actual AP count will NOT be shown in CSSM
- The actual AP count will NOT be shown in SSM OnPrem
- Both CSSM and OnPrem will show the AP count as 0

- The WLC will show IN compliance
- If and AP moves from WLC1 to WLC2, both will show as In Compliance with a count of 0 APs

Customers would have to upgrade to the latest release 8-202004 of the satellite software which will be available Mid-May.

Once the fix available on August 2020, customers only need to upgrade the SSM on-prem and don't need to upgrade controllers IOS XE release versions. The plan is that OnPrem 8-202007 will have the full ERM functionality that will include having the proper license counts displayed in OnPrem and CSSM.

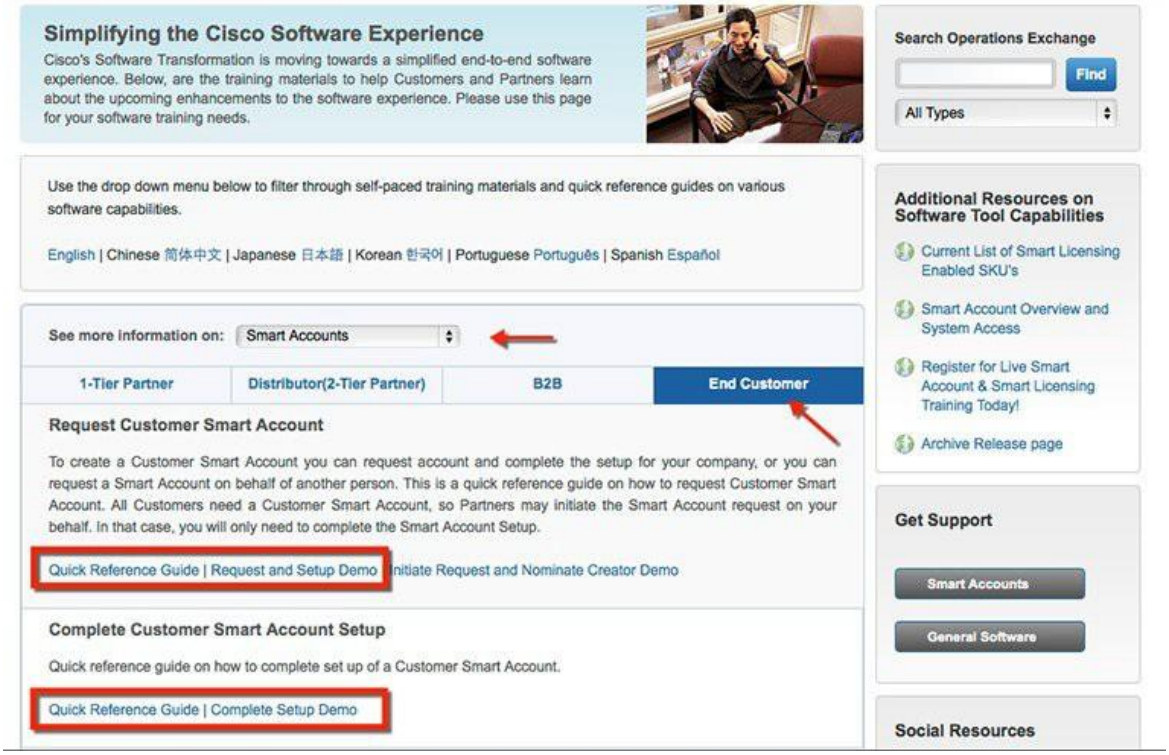
Components Used

- Cisco Catalyst 9800 Wireless Controller
- 802.11ac and 11ax Access Points
- Cisco Catalyst Switch
- Client computer (example. laptop) that is Windows or Mac, with an available wired Ethernet port
- Wireless clients (tablets, smartphones, and so on.)

Smart Account Creation

A Customer Smart Account provides the repository for Smart enabled products and enables Users to manage Cisco Licenses. Once they are deposited, Users can activate licenses, monitor license usage and track Cisco purchases. Your Smart Account can be managed by the Customer directly or a Channel Partner or authorized party. All Customers will need to create a Customer Smart Account to fully utilize the license management features of their smart enabled products. The creation of your Customer Smart Account is a one-time setup activity using the link Training Resources for Customers, Partners, Distributors, B2B

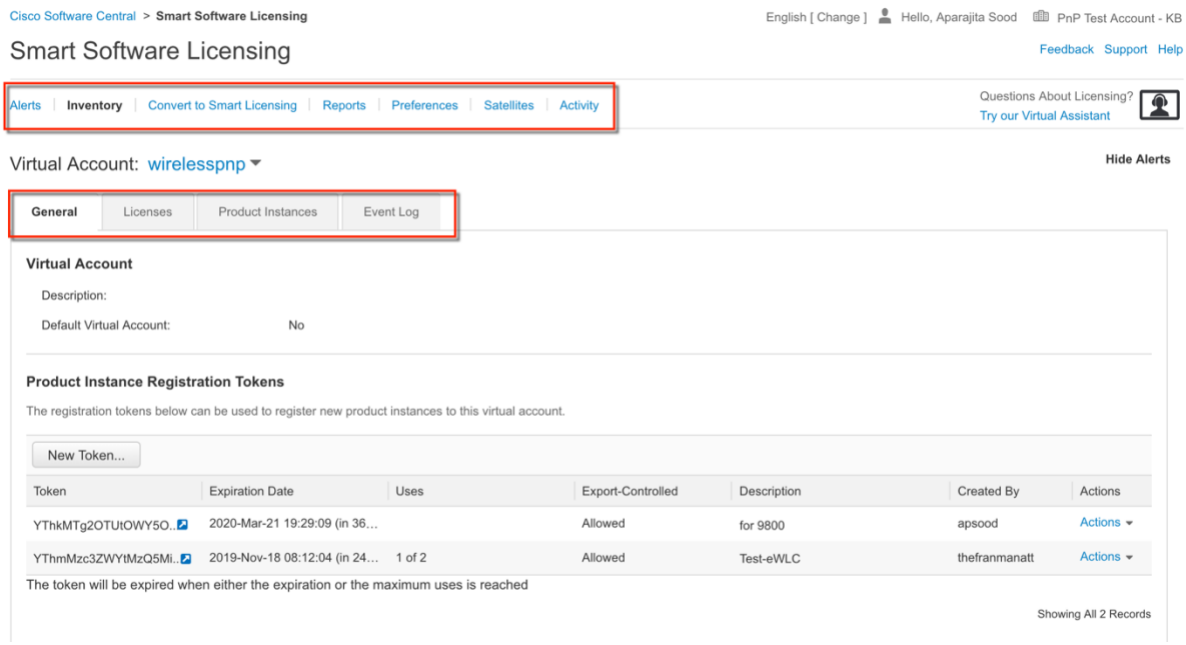
After the Customer Smart Account Request has been submitted and the Account Domain Identifier has been approved (if edited), the Creator will receive an email notification informing them that they will need to complete the Customer Smart Account setup in Cisco Software Central (CSC).



Cisco Smart Software Manager

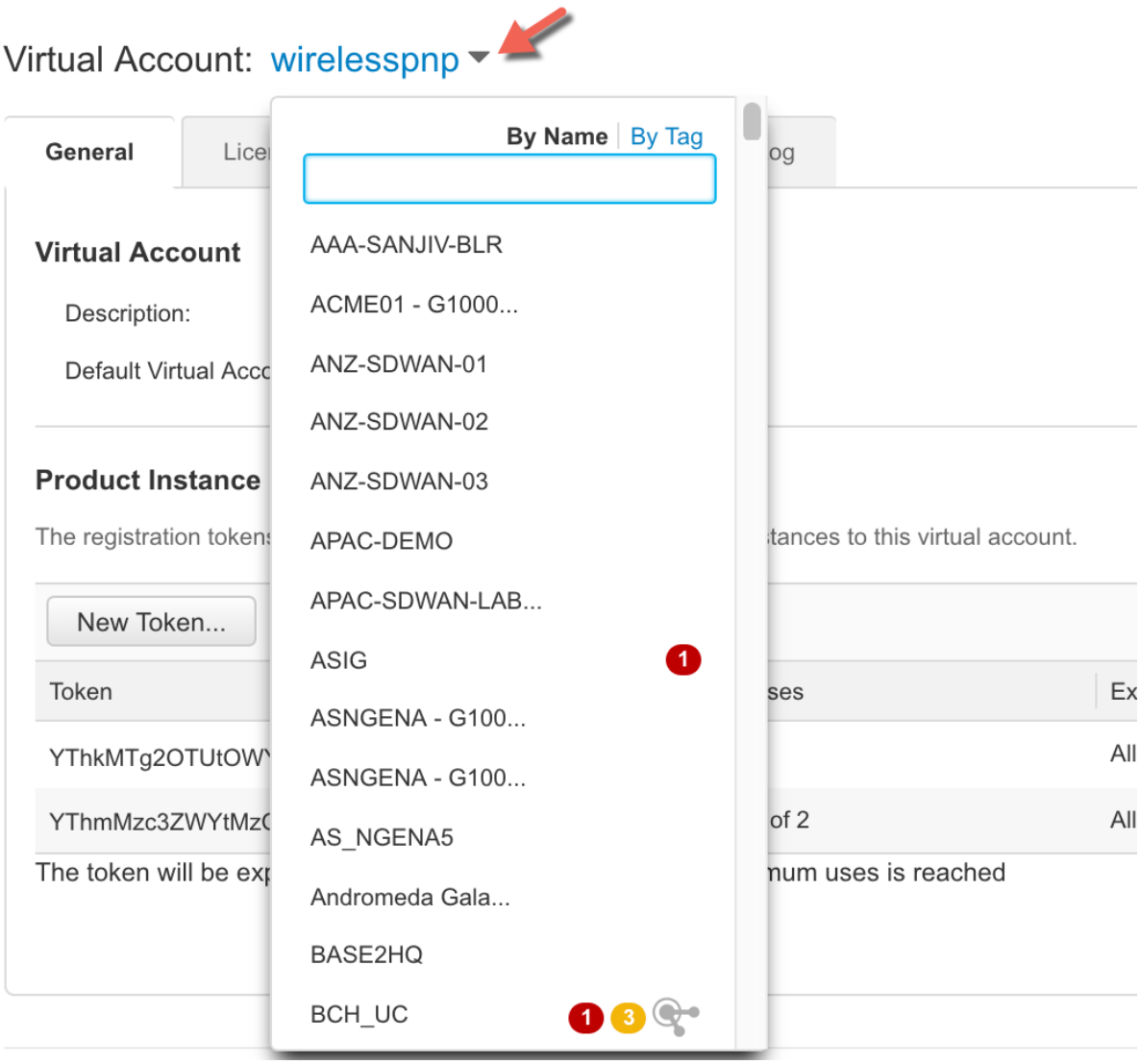
Cisco Smart Software Manager enables you to manage all of your Cisco Smart software licenses from one centralized website. With Cisco Smart Software Manager, you organize and view your licenses in groups called virtual accounts. You use Cisco Smart Software Manager to transfer the licenses between virtual accounts as needed.

CSSM can be accessed from the Cisco Software Central homepage at software.cisco.com under the Smart Licensing section. Cisco Smart Software Manager is divided into two main sections: a Navigation pane on the top and the main Work pane.

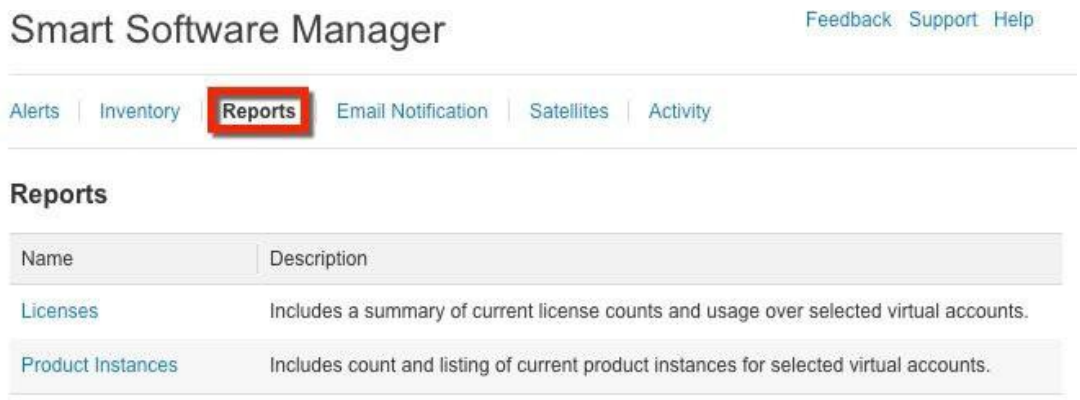


You can use the Navigation pane to do the following tasks:

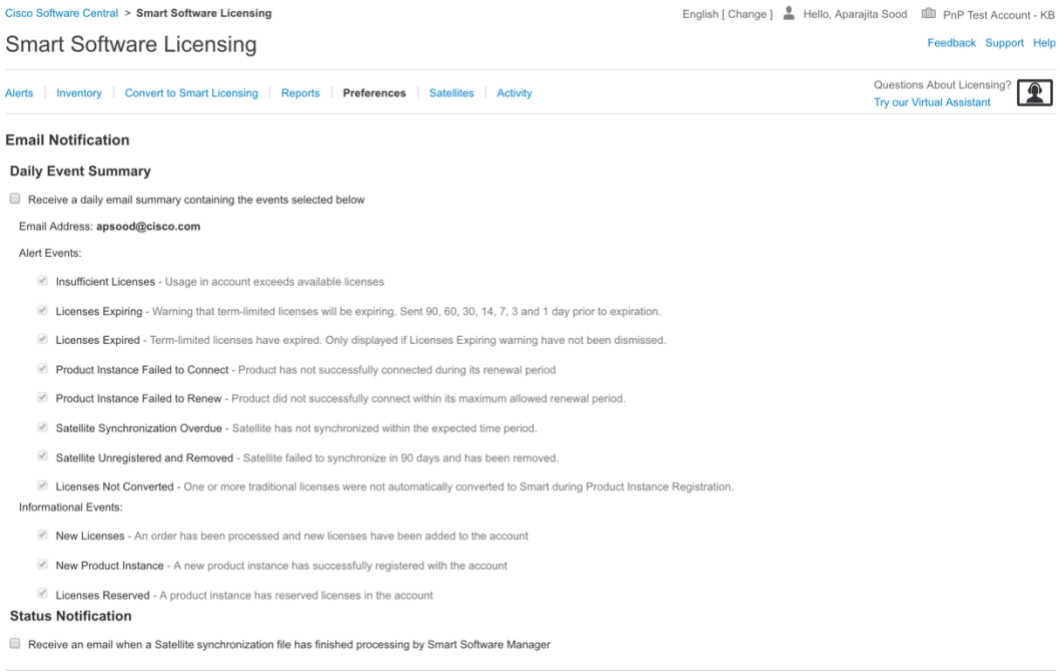
- Choose virtual accounts from the list of all virtual accounts that are accessible by the user.



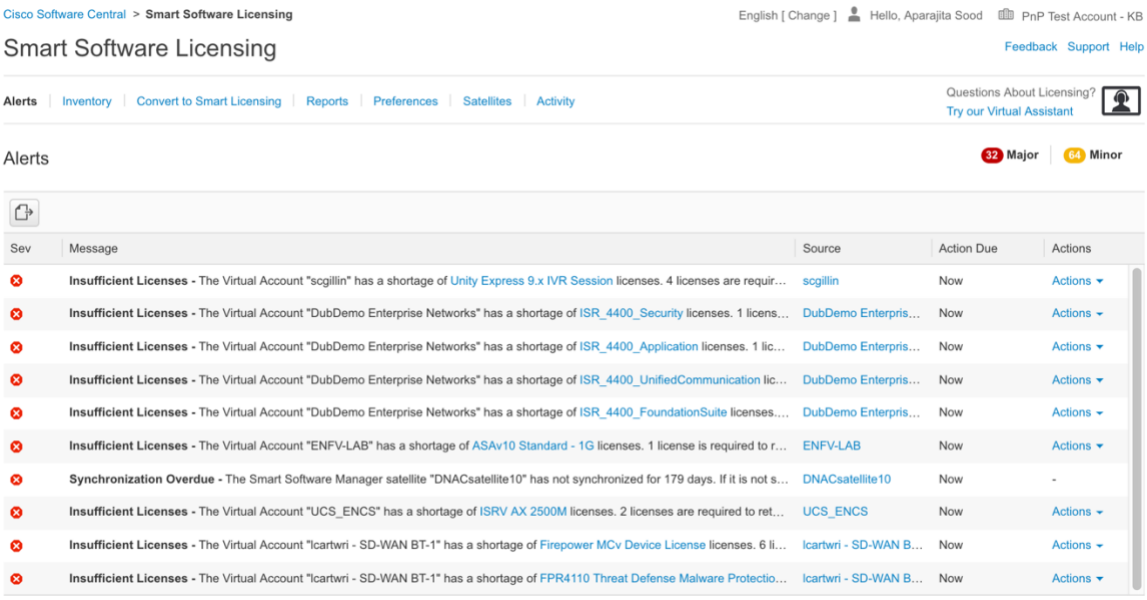
• Run reports against your virtual accounts.



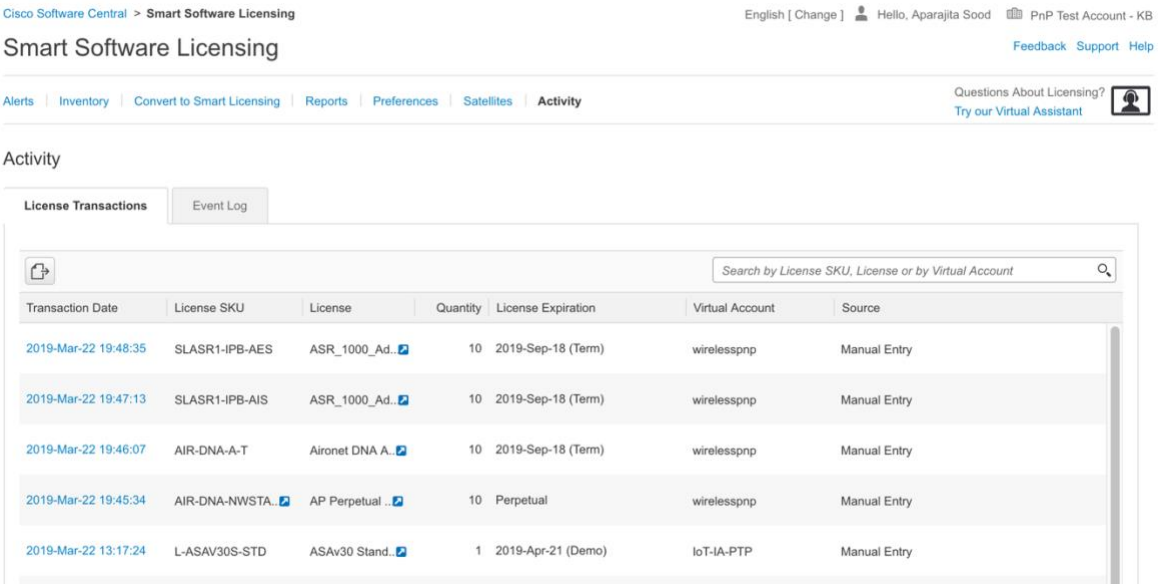
• Modify your email notification settings.



• Manage Major and Minor Alerts.


Cisco Software Central > Smart Software Licensing
English [Change]
Hello, Aparajita Sood
PnP Test Account - KB
Smart Software Licensing
Feedback Support Help
Alerts | Inventory | Convert to Smart Licensing | Reports | Preferences | Satellites | Activity
Questions About Licensing?
Try our Virtual Assistant
Alerts
32 Major
64 Minor
Sev
Message
Source
Action Due
Actions
Insufficient Licenses - The Virtual Account "scgillin" has a shortage of Unity Express 9.x IVR Session licenses. 4 licenses are requir…
scgillin
Now
Actions
Insufficient Licenses - The Virtual Account "DubDemo Enterprise Networks" has a shortage of ISR_4400_Security licenses. 1 licens…
DubDemo Enterpris…
Now
Actions
Insufficient Licenses - The Virtual Account "DubDemo Enterprise Networks" has a shortage of ISR_4400_Application licenses. 1 lic…
DubDemo Enterpris…
Now
Actions
Insufficient Licenses - The Virtual Account "DubDemo Enterprise Networks" has a shortage of ISR_4400_UnifiedCommunication lic…
DubDemo Enterpris…
Now
Actions
Insufficient Licenses - The Virtual Account "DubDemo Enterprise Networks" has a shortage of ISR_4400_FoundationSuite licenses.…
DubDemo Enterpris…
Now
Actions
Insufficient Licenses - The Virtual Account "ENFV-LAB" has a shortage of ASAv10 Standard - 1G licenses. 1 license is required to r…
ENFV-LAB
Now
Actions
Synchronization Overdue - The Smart Software Manager satellite "DNACsatellite10" has not synchronized for 179 days. If it is not s…
DNACsatellite10
Now
-
Insufficient Licenses - The Virtual Account "UCS_ENCS" has a shortage of ISRV AX 2500M licenses. 2 licenses are required to ret…
UCS_ENCS
Now
Actions
Insufficient Licenses - The Virtual Account "lcartwri - SD-WAN BT-1" has a shortage of Firepower MCv Device License licenses. 6 li…
lcartwri - SD-WAN B…
Now
Actions
Insufficient Licenses - The Virtual Account "lcartwri - SD-WAN BT-1" has a shortage of FPR4110 Threat Defense Malware Protectio…
lcartwri - SD-WAN B…
Now
Actions

- View overall account activity, license transactions and event log.



The following web browsers are supported for Cisco Smart Software Manager:

- Chrome 36.0 and later versions
- Firefox 30.0 and later versions
- Safari 5.1.7
- Internet Explorer 10.0 and later versions

Note Javascript 1.5 or a later version must be enabled in your browser.

Feature Configuration Step-by-Step

Smart Account Creation

Procedure

Step 1 Create your Smart Account and virtual accounts as needed at Cisco Software Central (CSC) https://software.cisco.com/ software/company/smartaccounts/home#accountcreation-account using the reference link http://www.cisco.com/c/en/us/ buy/smart-accounts.html

Step 2 On this page select End Customer and refer to the Quick Reference Guide

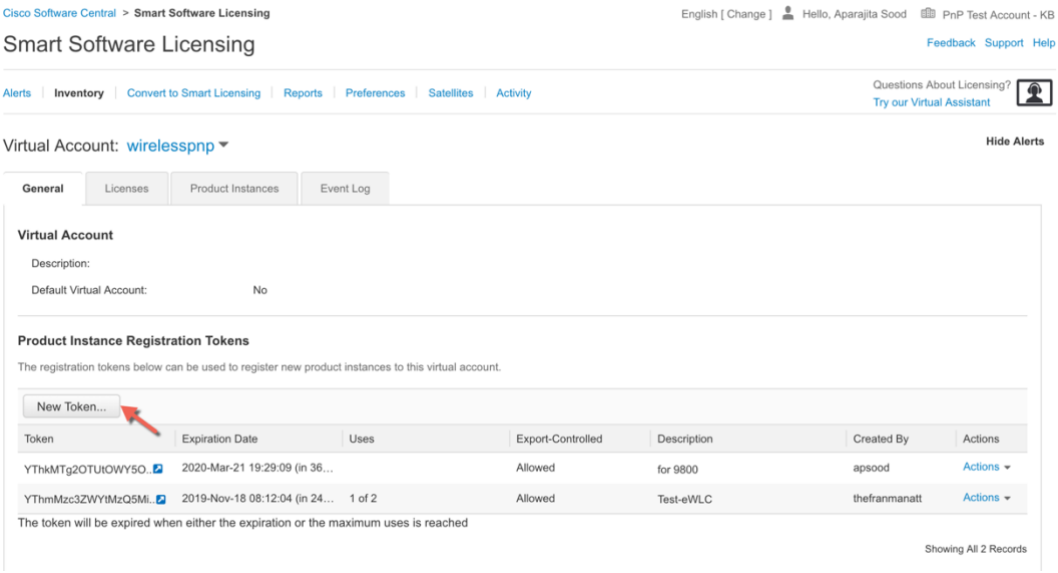
Registration and Activation

Token Creation

Token is required to register the product. Registration tokens are stored in the Product Instance Registration Token Table that is associated with your smart account. Once the product is registered, the registration token is no longer necessary and can be revoked and removed from the table. Registration tokens can be valid from 1 to 365 days.

Procedure

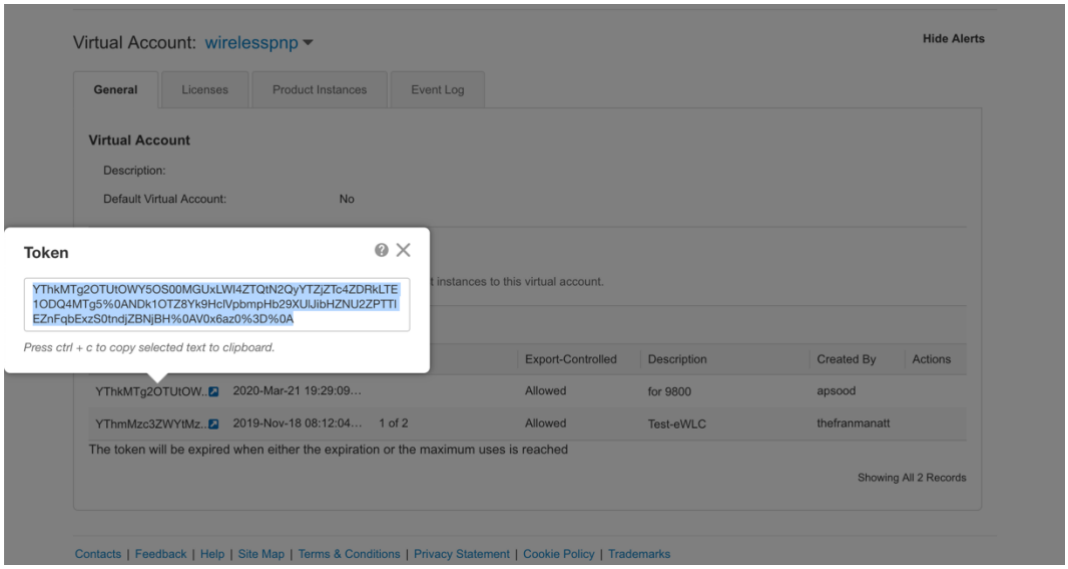
Step 1 In the General tab of the virtual account, click New Token.



Step 2 In the Create Registration Token dialog box, enter a description and the number of days that you want the token to be valid for. Select the checkbox for export-controlled functionality and accept the terms and responsibilities.

Step 3 Click Create Token to create token.

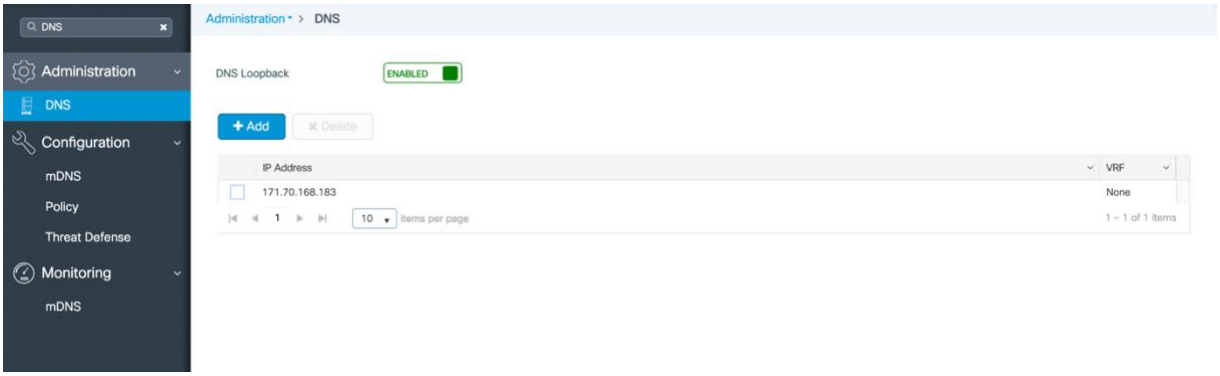
Step 4 Once the token is created click Copy to copy the newly created token.



Enable Smart Licensing and Register Device

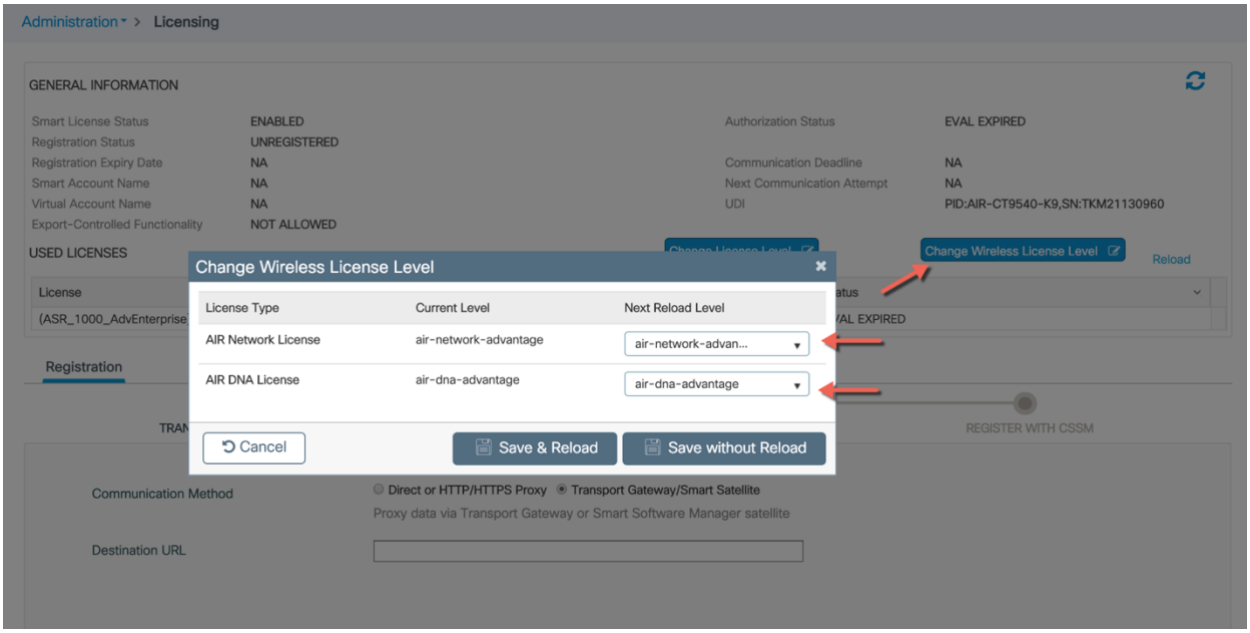
Procedure

Before configuring Smart Licensing Verify that DNS IP has been set to resolve the hostname for CSSM



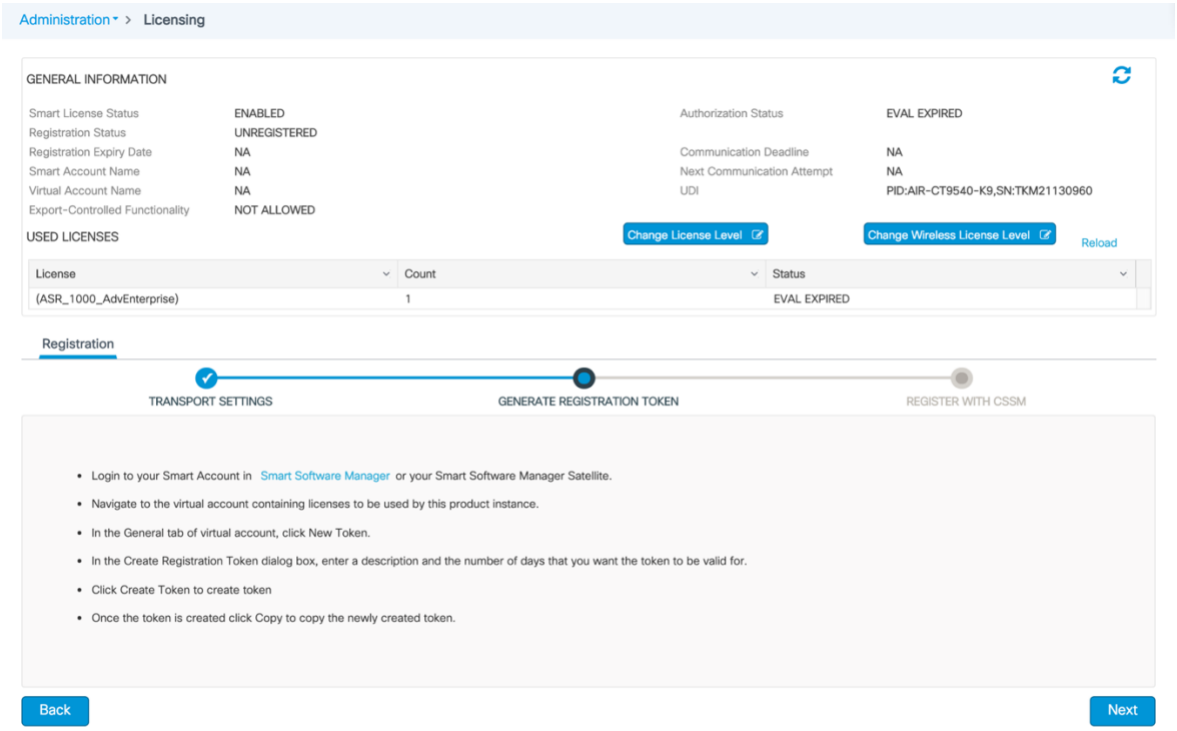
Step 1 To activate Smart Licensing on the C9800 go to Administration > Licensing.

Step 2 Set the Wireless License Level for AIR Network License and AIR DNA License as per the licenses available in the Smart Account. The default is air-network-advantage and air-dna-advantage. When the license term expires the license level should be set to air-network-essentials by selecting the same from the drop down.

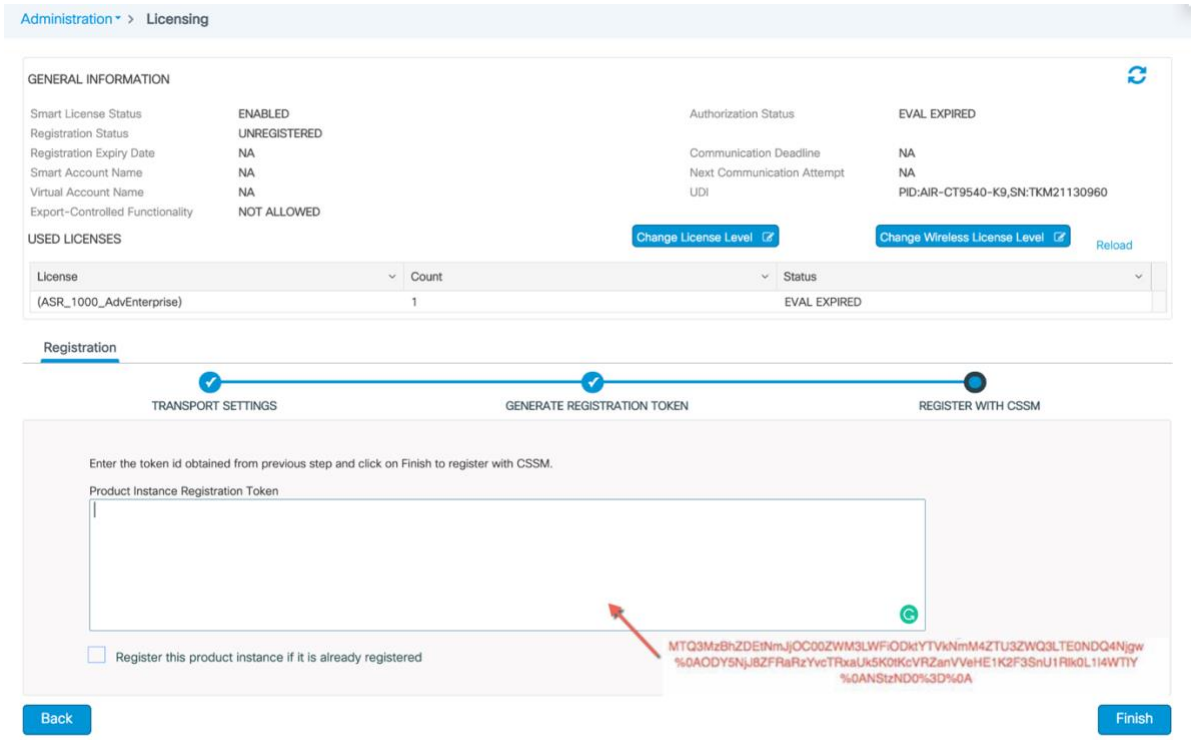


Note The following steps are for the Direct Cloud Access deployment mode. For other deployment modes please refer to the section Smart Software Satellite and Transport Gateway Mode and then return to step 3 below to complete registration.

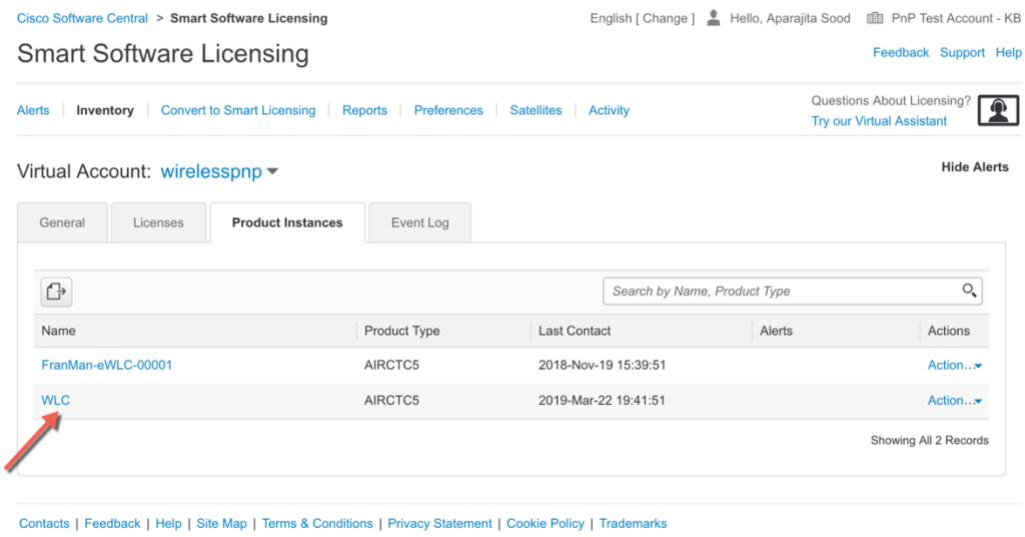
Step 3 Select Direct or HTTP/HTTPS Proxy. Click Next



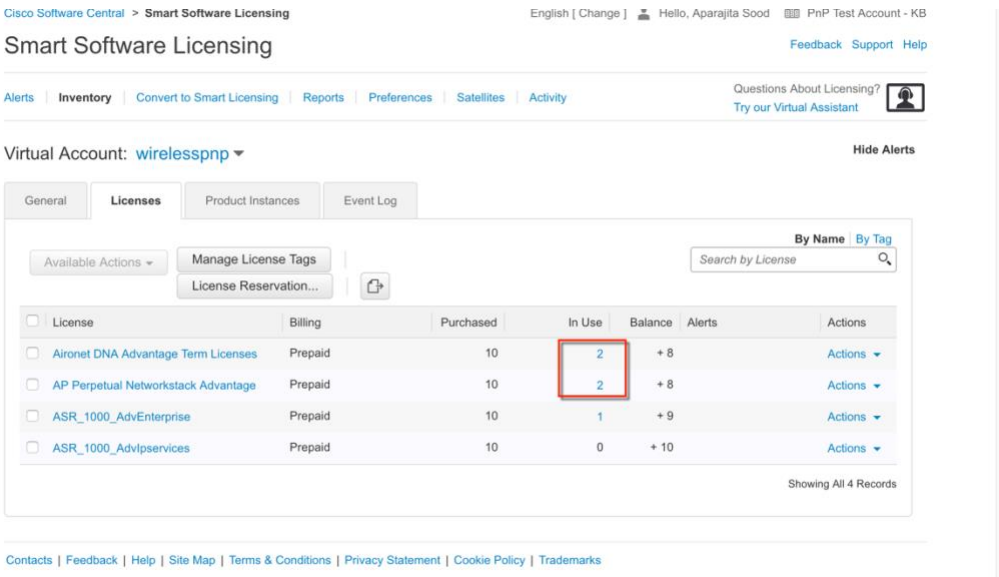
Step 4 Enter the token from CSSM as shown below and Click Finish


Administration > Licensing
GENERAL INFORMATION
Smart License Status ENABLED
Registration Status UNREGISTERED
Registration Expiry Date NA
Smart Account Name NA
Virtual Account Name NA
Export-Controlled Functionality NOT ALLOWED
Authorization Status EVAL EXPIRED
Communication Deadline NA
Next Communication Attempt NA
UDI PID:AIR-CT9540-K9,SN:TKM21130960
USED LICENSES
Change License Level
Change Wireless License Level
Reload
License
Count
Status
(ASR_1000_AdvEnterprise)
1
EVAL EXPIRED
Registration
TRANSPORT SETTINGS
GENERATE REGISTRATION TOKEN
REGISTER WITH CSSM
Enter the token id obtained from previous step and click on Finish to register with CSSM.
Product Instance Registration Token
Register this product instance if it is already registered
MTQ3MzBhZDEtNmJjOC00ZWM3LWFiODktYTVkNmM4ZTU3ZWQ3LTE0NDQ4Njgw
%0AODY5NjI8ZFRaRzYvcTRxaUk5K0tKcVRZanVVeHE1K2F3SnU1Rlk0L1I4WTlY
%0ANStzND0%3D%0A
Back
Finish

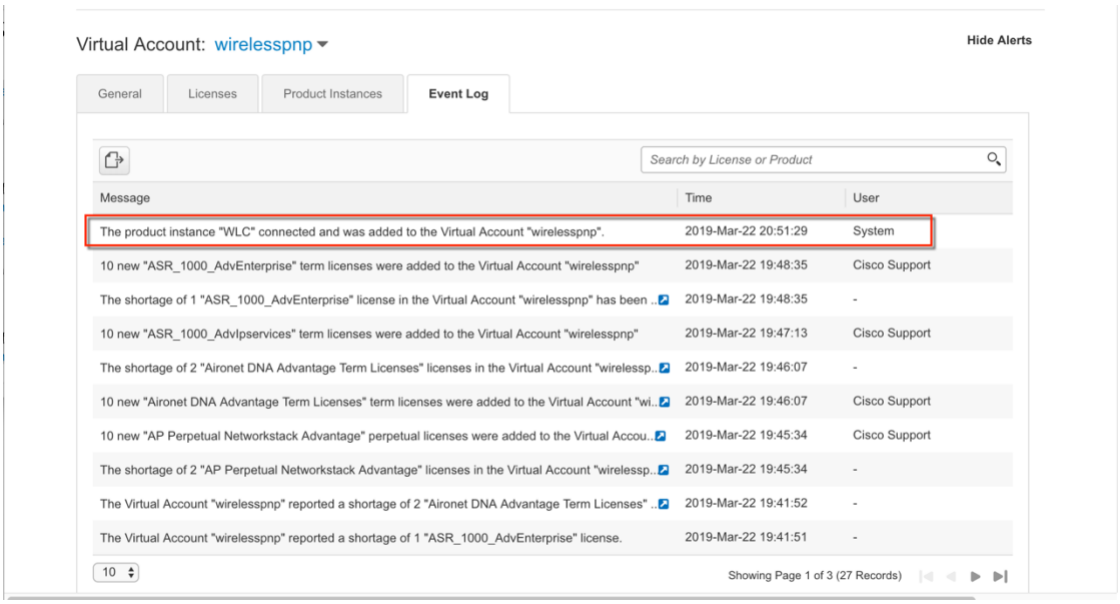
In the CSSM portal the device will show up under the Product Instances tab on the corresponding virtual account that the device was registered with.



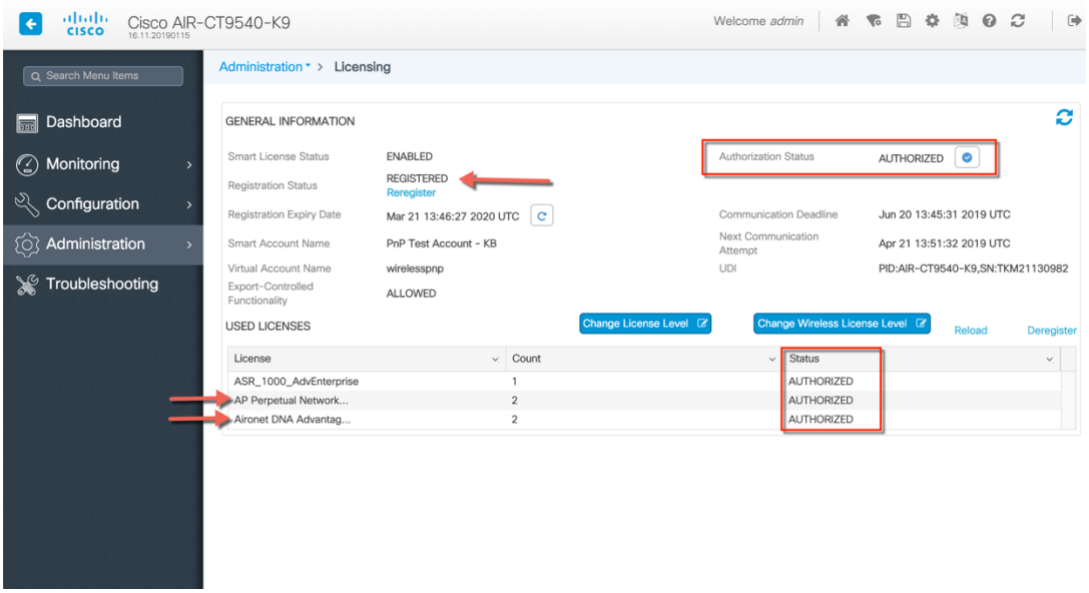
The licenses available in the account and the licenses in-use can be seen under the Licenses tab. In this example, the Cisco 9800 controller has two APs connected to it



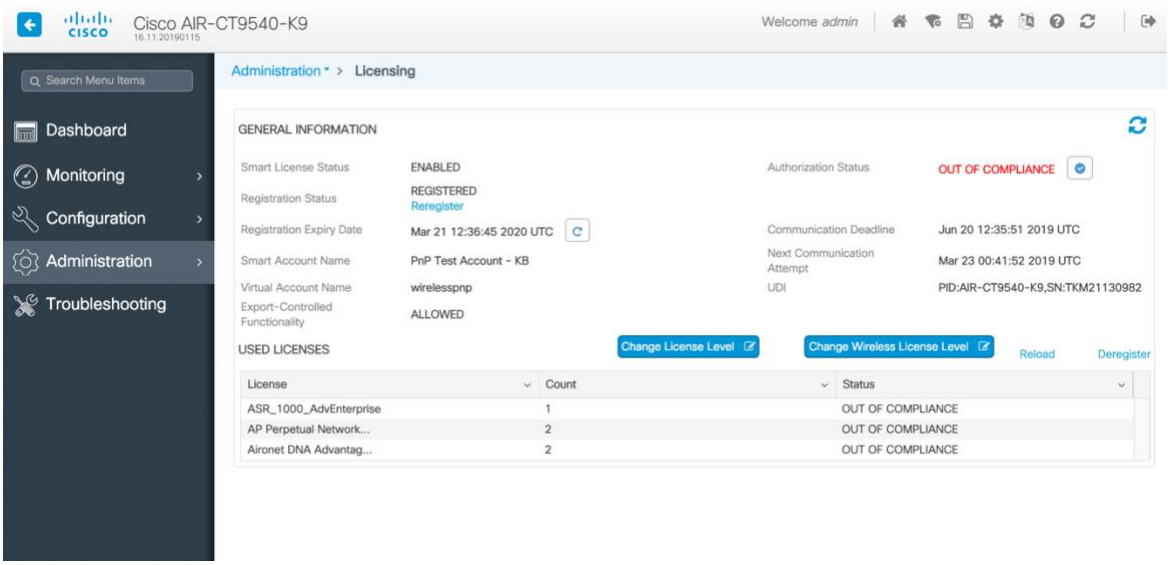
The Event Log tab will point to the events generated for this registration from Cisco 9800 controller with hostname “WLC”



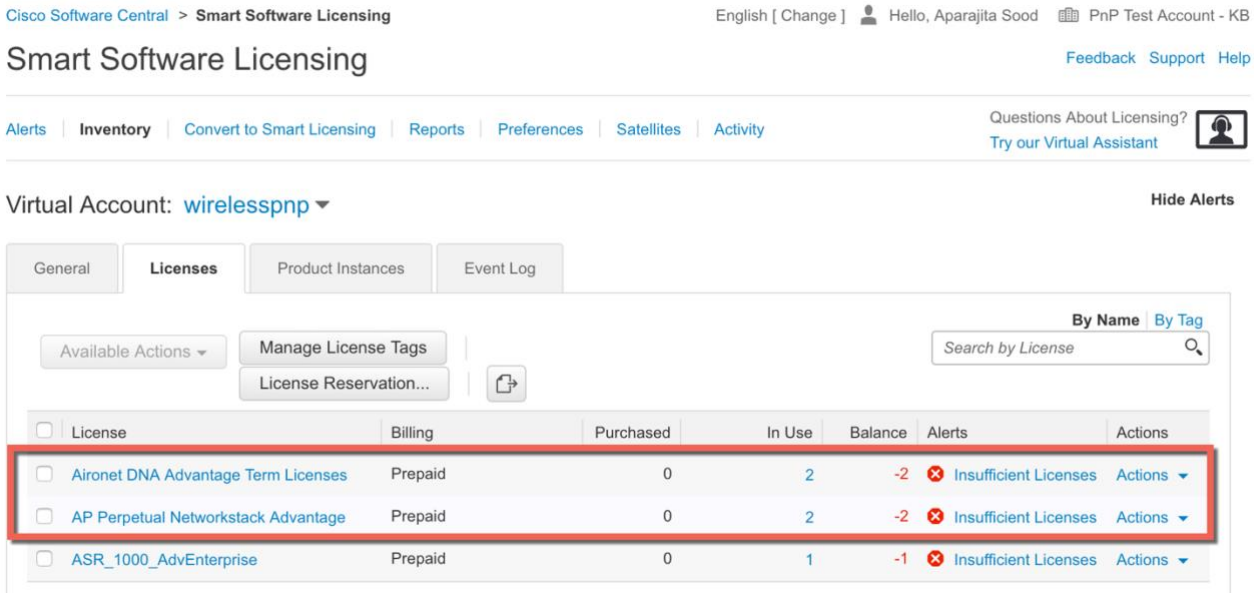
Step 5 License Status can be viewed on the controller on the Administration > Licensing page



In case sufficient licenses are not available on the smart account, the Authorization status will show Out of Compliance



CSSM will also show a warning indicating alerts on Insufficient Licenses on the Licenses tab under the virtual account

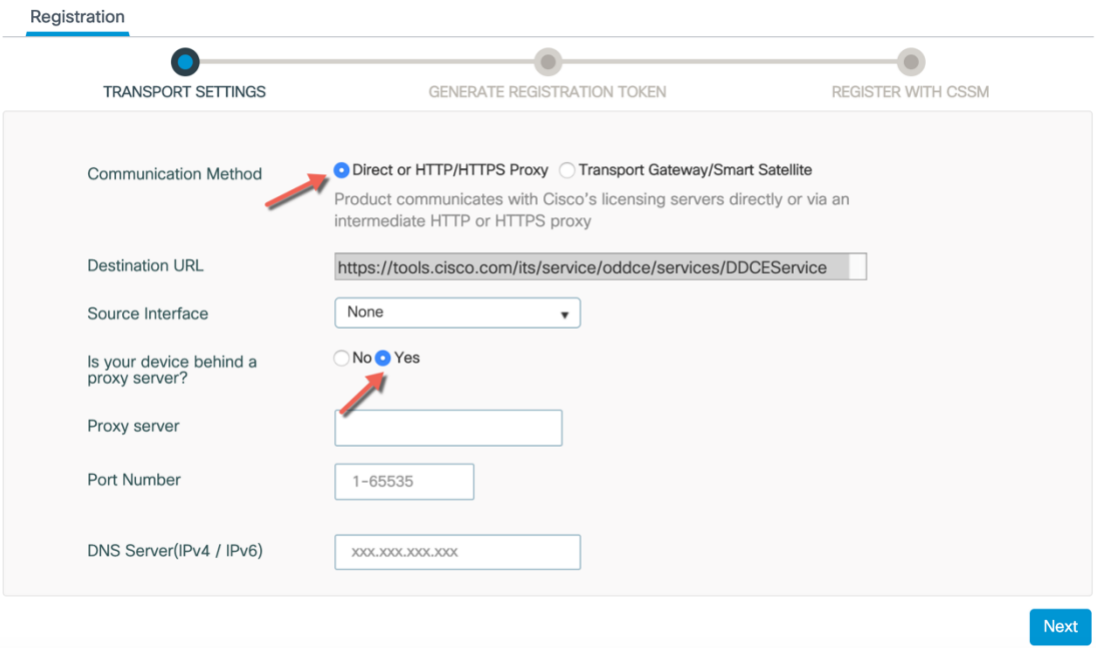


Smart Software Satellite and Transport Gateway Mode (Optional)

Direct Cloud Access through HTTPs proxy or Transport Gateway

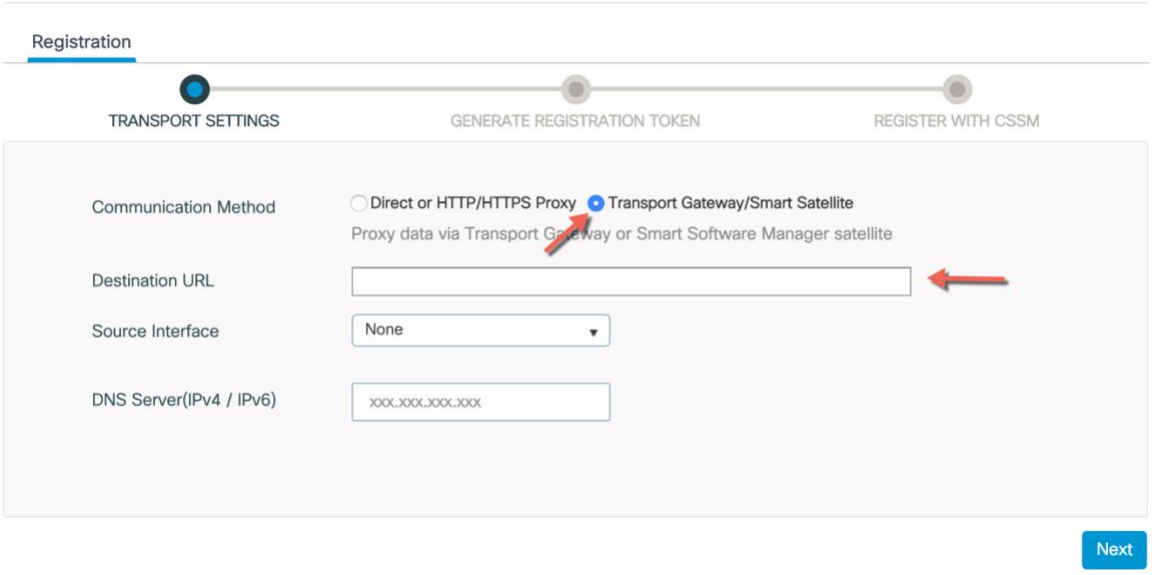
In this deployment mode Cisco Products send usage information over the Internet via a Proxy Server - Smart Call Home Transport Gateway (Free VM Download) or off-the-shelf Proxy (such as Apache). To download, install and setup the Transport Gateway, please refer to http://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart_call_home/user_guides/SCH_Ch4.pdf

On the C9800 setup the proxy as follows :




```
WLC(config)#call-home reporting anonymous http-proxy
WLC(config)#call-home reporting contact-email-addr apsood@cisco.com http-proxy
```

On the C9800 setup the Transport Gateway as follows :




```
WLC(config)#license smart url ?
  WORD     Set the Smart Transport URL.
  default  Use the default URL for Smart Transport.
  utility  Set the secondary URL for reporting Utility Licensing usage.
```

Mediated Access through on-premise Smart Software Satellite(connected or dis-connected mode)

Cisco Smart Software Manager satellite is a component of Cisco Smart Licensing and works in conjunction with Cisco Smart Software Manager (SSM) . It helps customers intelligently manage product licenses, providing near real-time visibility and reporting of Cisco licenses they purchase and consume.

For security sensitive customers who do not want to manage their install base using a direct Internet connection, the Smart Software Manager satellite is installed on the customer premises, and provides a subset of Cisco SSM functionality. Once you download and deploy the satellite application, you can perform the following functions locally and securely without sending data to Cisco SSM using the Internet:

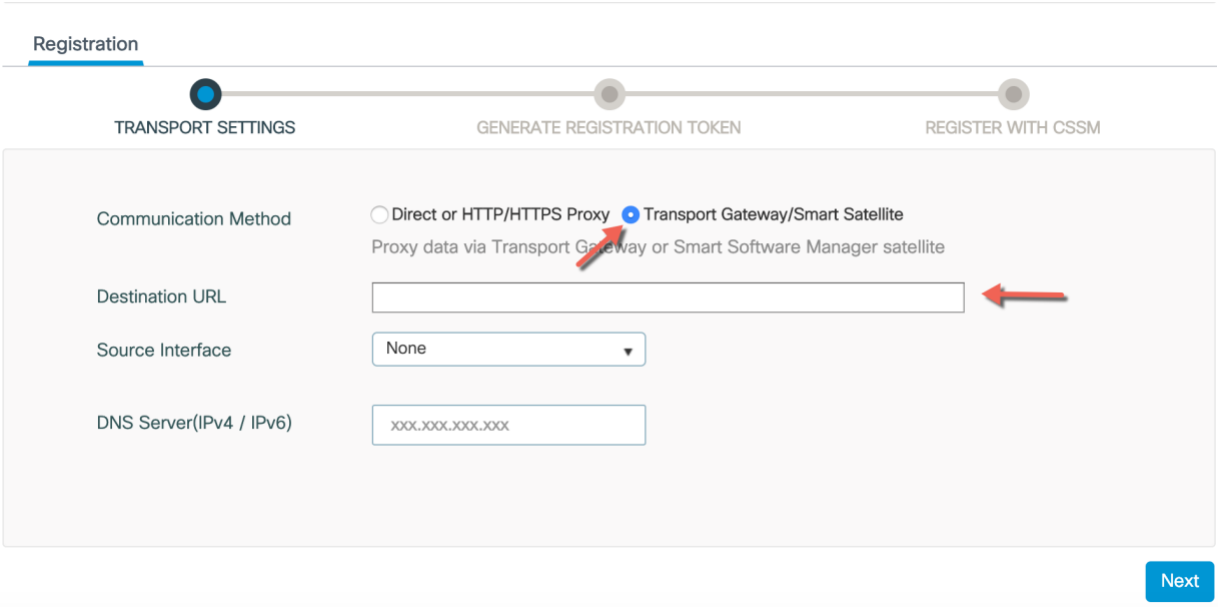
- Activate or register a license
- Get visibility to your company's licenses
- Transfer licenses between company entities

The free installation package is available in a number of formats:

- OVA, installable on ESXi 5.0+ server
- ISO bare metal
- Hyper-V for Microsoft Server 2012 virtualized host KVM for Ubuntu and CentOS

To download, install and setup the Smart Software Satellite, please refer to http://www.cisco.com/c/en/us/buy/smart-accounts/ software-manager-satellite.html

On the C9800 setup the satellite as follows:



Smart License Reservation

License Reservation allows the customer to reserve licenses from their virtual account, tie them to a devices UDI and use their device with these reserved licenses in a disconnected mode. It allows customers to maintain and manage software entitlement, and use Smart License as a standalone feature. It is a secure method of handling license subscription and benefits of DNA without communication with cisco

There are two methods the customer can use if their account is authorized to do so:

1. Specific license reservation (SLR) where the customer will reserve specific licenses and counts for a UDI from their virtual account.
2. Permanent License Reservation (PLR) where the license will allow the customer to use any entitlement for unlimited count on the device.

Steps to enable this feature:

1. Enable SLR on device and generate a request code
2. Login to CSSM portal and enter the request code\
3. Reserve the quantity of License for the associated Controller and generate Authorization Code
4. Install the authorization code in the controller CLI

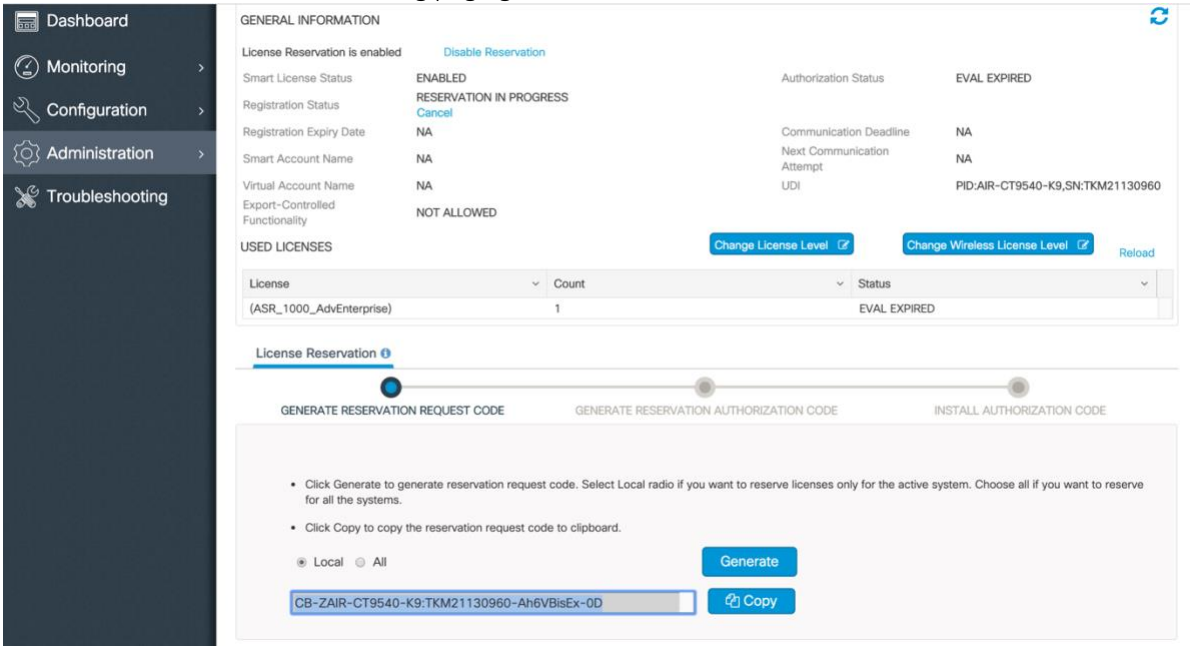
Step 1: Enable SLR mode on the Catalyst Controller

Enter SLR mode by using the appropriate command to enable Specific License Reservation.

```
Catalyst Controller > license smart reservation

cancel   Cancel a Smart License reservation request before the
authorization code is installed
install  Install a Smart License reservation authorization code
request  Request a license reservation
return   Return a Smart License reservation authorization code that was
installed
```

Step 2:

From the Administration > Licensing page generate a token



Using the CLI the same can be done as follows:

Generate request code for the Catalyst controller. This command is to request a code to reserve licenses on the controller

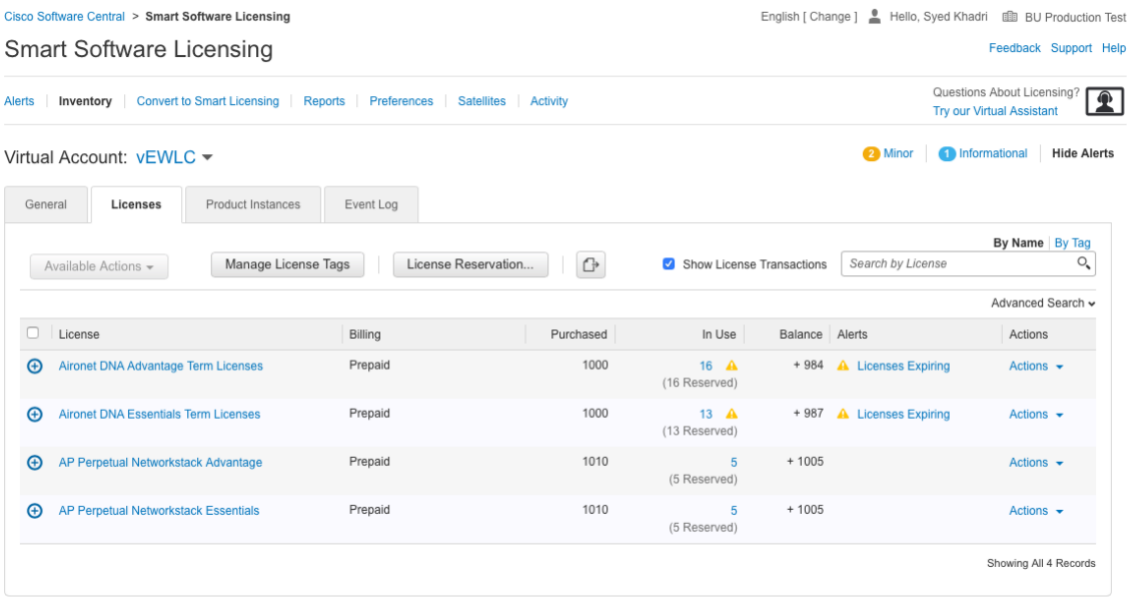
```
Catalyst Controller > license smart reservation request

  all           Reservation request for all the systems
  local      Reservation request for the active system
  universal  Request a universal license reservation (this option has
been deprecated and will be removed in the future)
```

Select the following command to request reservation for all the systems including HA, etc

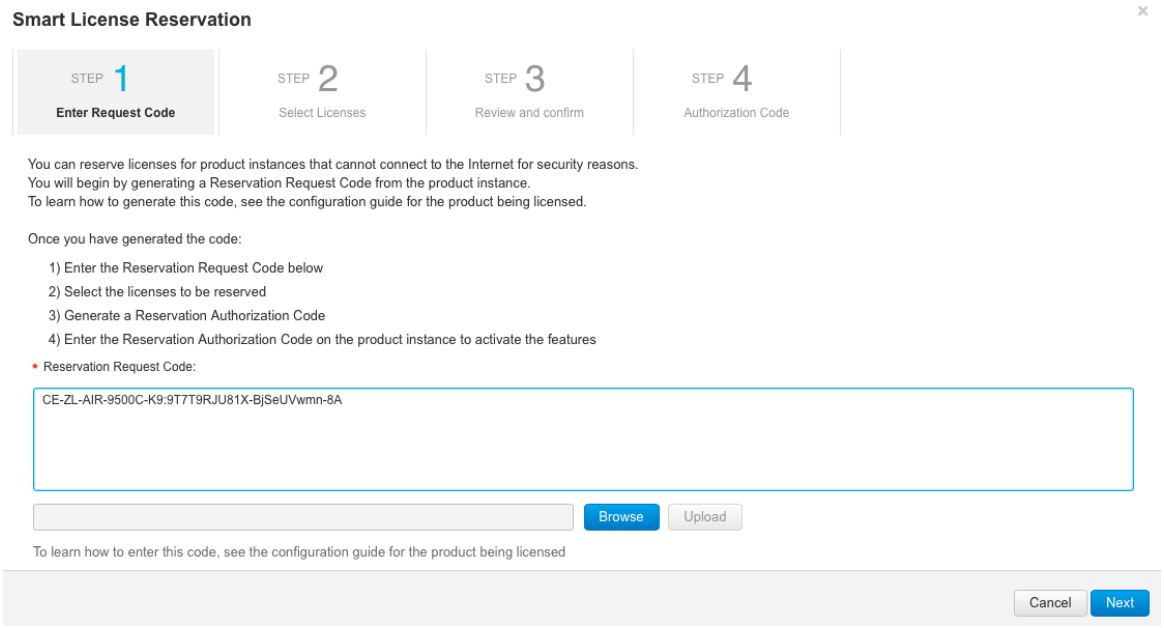
```
Catalyst Controller > license smart reservation request all

Enter this request code in the Cisco Smart Software Manager portal:
CE-ZL-AIR-9500C-K9:9T7T9RJU81X-BjSeUVwmn-8A
```

Step 3:

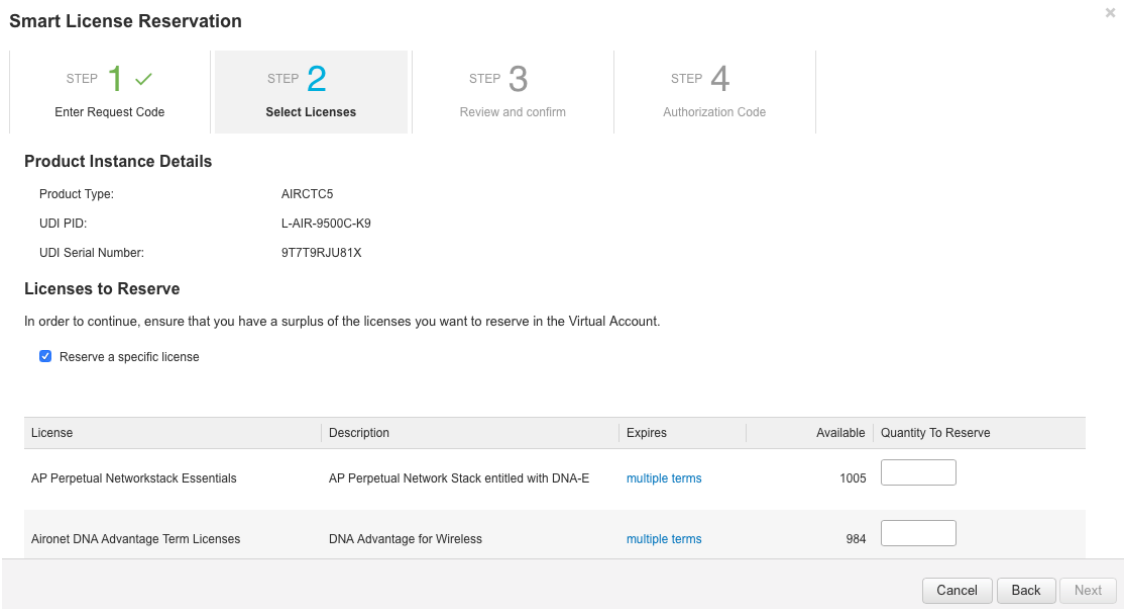
1. Click on Product Instances – It should display the list of Products in the system
2. Click on License Reservation which shows purchased Licenses and what is in use



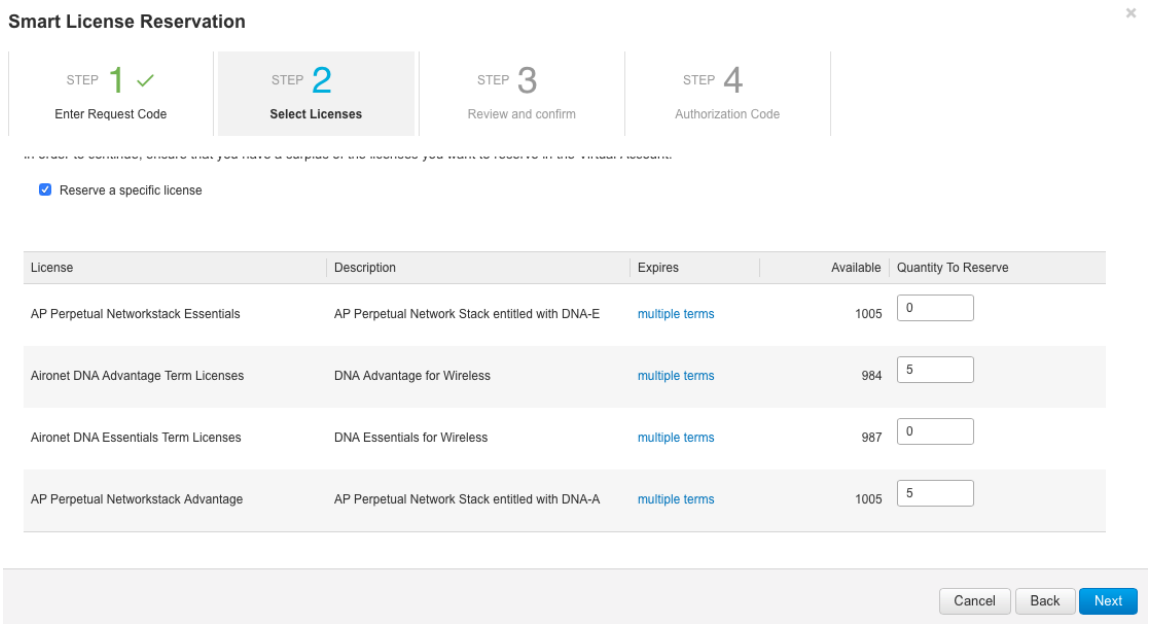
3. Enter the reservation request code that was previously generated through CLI command



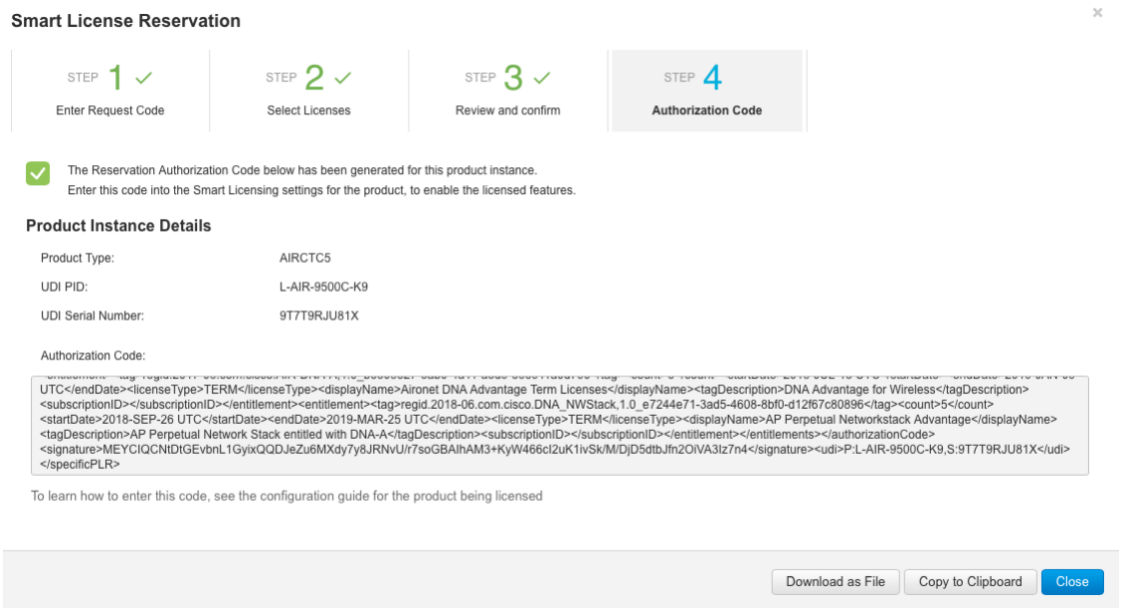
4. License reservation opens up for the particular Product ID and serial number. License reservation is node locked
   Based on the license level purchased, Select the quantity of licenses to be reserved.



Based on the license level purchased, select the quantity of licenses to be reserved. Select DNA-A and Network Advantage of the same quantity if DNA-A is purchased. Similarly select DNA-E and Network Essentials of the same quantity of DNA –E is purchased



Use this Auth Code generated on the Catalyst Controller to install the licenses.



The same can be done via CLI:

Copy the data generated from the portal and create a file Auth.txt on bootflash to install the licenses on the Catalyst Controller

```
Catalyst Controller > license smart reservation install

  WORD  The authorization key from the CSSM
 file  Install a Smart License reservation authorization code from file
```

Please input the following command to create a file on bootflash with the code generated in the portal.

```
Catalyst controller> license smart reservation install file
bootflash:Auth.txt

Following Output is obtained and confirmation code is displayed:
Reservation install file successful
Last Confirmation code UDI: PID:L-AIR-9500CK9,SN:9T7T9RJU81X 79971726
```

Deleting SLR Licenses

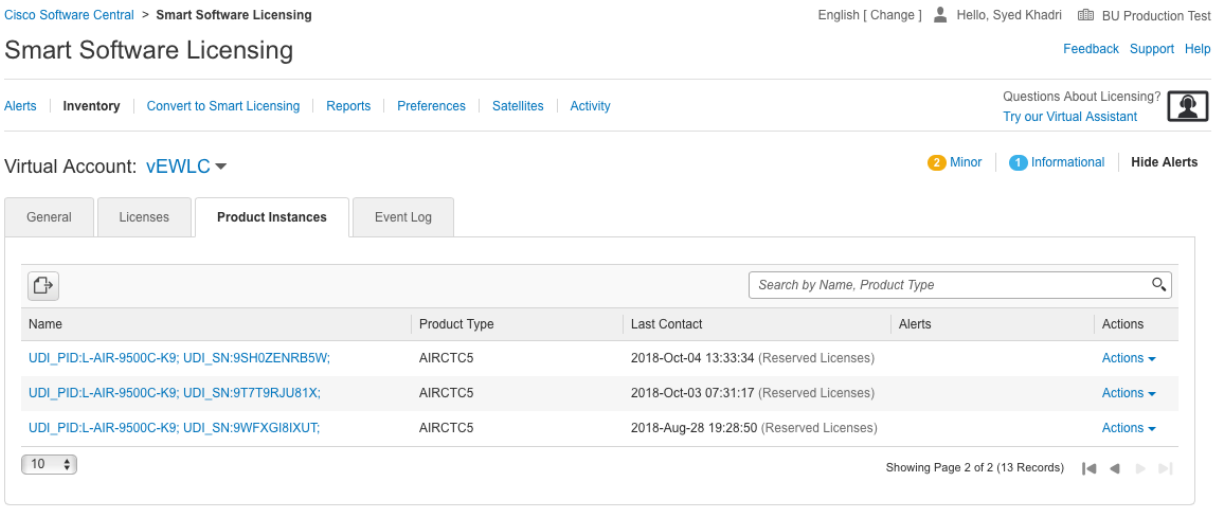
The license count is now node locked for the particular controller. If you need to modify the quantity of reserved license. The license has to be deregistered and re-reserved.
Step 1: Return the existing license reservation for the Catalyst Controller. This command is

```
Catalyst Controller > license smart reservation

cancel   Cancel a Smart License reservation request before the authorization
code is installed
install  Install a Smart License reservation authorization code
request  Request a license reservation
return   Return a Smart License reservation authorization code that was
installed
Select the following command to return reservation
Catalyst Controller > license smart reservation return
Following Output is obtained and request code is generated:
all            Reservation return for all the systems in stack
authorization  Generate return code for authorization code that has not been
                      installed
local          Reservation return for the active system
Select all so that all reservations are returned.
Catalyst Controller > license smart reservation return all
```

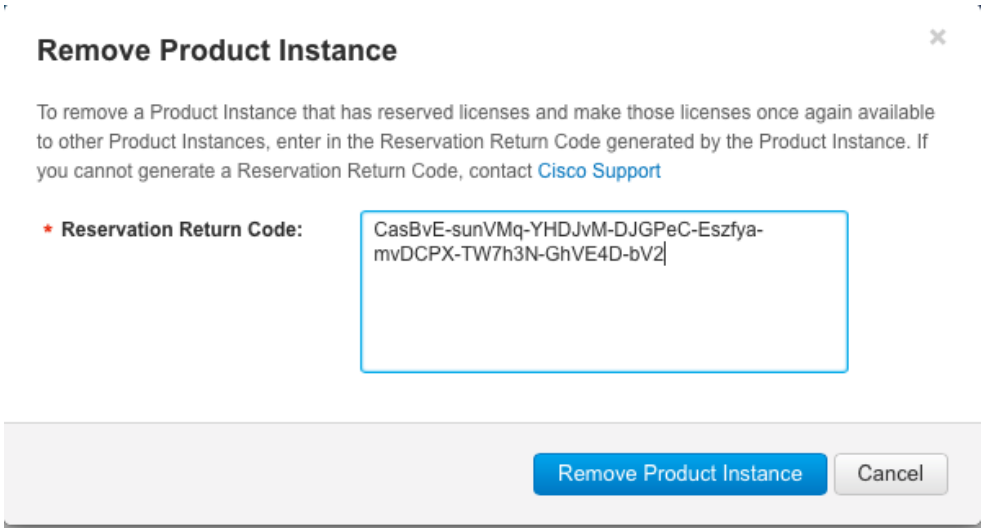
Once you type the command return all, the following message is displayed
This command will remove the license reservation authorization code and the device will transition back to the unregistered state. Some features may not function properly.

Do you want to continue? [yes/no]: yes
Enter this return code in Cisco Smart Software Manager portal:
UDI: PID:L-AIR-9500C-K9,SN:9T7T9RJU81XCasBvE-sunVMq-YHDJvM-DJGPeC-Eszfya-mvDCPX-TW7h3N-GhVE4D-bV2

Step 2: Click on Product instances to see the list of products.



Step 3: Enter the return code in the text box to remove the product instance and remove the reservation of license.



Smart Licensing HA Support

Smart Licensing is supported with the SSO as well as N+1 mode of High Availability.

Installing Smart Licensing Reservation (SLR) on a C9800 SSO HA pair

Before you start

1. Let's first make sure that SSO HA is correctly working. You can use the following command to check the status of SSO:

c9800-sso#sh redundancy
Redundant System Information :

Available system uptime = 18 hours, 40 minutes
Switchovers system experienced = 0
Standby failures = 0
Last switchover reason = none

Hardware Mode = Duplex
Configured Redundancy Mode = sso
Operating Redundancy Mode = sso
Maintenance Mode = Disabled
Communications = Up

Current Processor Information :

Active Location = slot 1
Current Software state = ACTIVE
Uptime in current state = 18 hours, 40 minutes
Image Version = Cisco IOS Software [Gibraltar], C9800-CL Software (C9800-CL-K9_IOSXE), Version 16.11.1c, RELEASE SOFTWARE (fc3)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2019 by Cisco Systems, Inc.
Compiled Tue 18-Jun-19 21:18 by mcpre
BOOT = bootflash:packages.conf,12;
Configuration register = 0x2102

Peer Processor Information :

Standby Location = slot 2
Current Software state = STANDBY HOT
Uptime in current state = 18 hours, 38 minutes
Image Version = Cisco IOS Software [Gibraltar], C9800-CL Software (C9800-CL-K9_IOSXE), Version 16.11.1c, RELEASE SOFTWARE (fc3)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2019 by Cisco Systems, Inc.
Compiled Tue 18-Jun-19 21:18 by mcpre
BOOT = bootflash:packages.conf,12;
CONFIG_FILE =
Configuration register = 0x2102

2. Make sure the communication between peers is ok, use the following command:

c9800-sso#show platform software stack-mgr chassis active R0 peer-timeout

Peer Chassis Peer-timeout (ms) 50% Mark 75% Mark
---
2 300 2533 0

NOTE: It's important that throughput this process there is no communication problems between Active and Standby:

3. If not done already, enable SLR on the active:

c9800-sso(config)#license smart reservation

4. Let's also make sure there is no any active reservation on the box, so we start from scratch. If you have an active reservation, go to the "Remove SLR" section later in this document. A key command to be used is "show license tech support":

c9800-sso#sh lic tech support
Smart Licensing Tech Support info

Smart Licensing Status
==========

Smart Licensing is ENABLED
License Reservation is ENABLED

Registration:
Status: UNREGISTERED
Export-Controlled Functionality: NOT ALLOWED

Install SLR on a C9800 SSO HA pair

All the commands mentioned in this procedure are always executed from the Active, there is no reason to go to the standby console or to break the HA pair

1. Get the active and standby UDI so you know which serial number correspond to Active and Standby. From the active exec prompt, issue the following command:

   c9800-sso#sh license udi
   UDI: PID:C9800-CL-K9,SN:9HP3YNWPC73

   HA UDI List:
   Active**:PID:C9800-CL-K9,SN:**9HP3YNWPC73
   Standby**:PID:C9800-CL-K9,SN:**9SO0PESS0A5

2. Generate the Request code for both as follows. The request code is what you need to reserve the license on the CSSM portal. Execute: "license smart reservation request all"

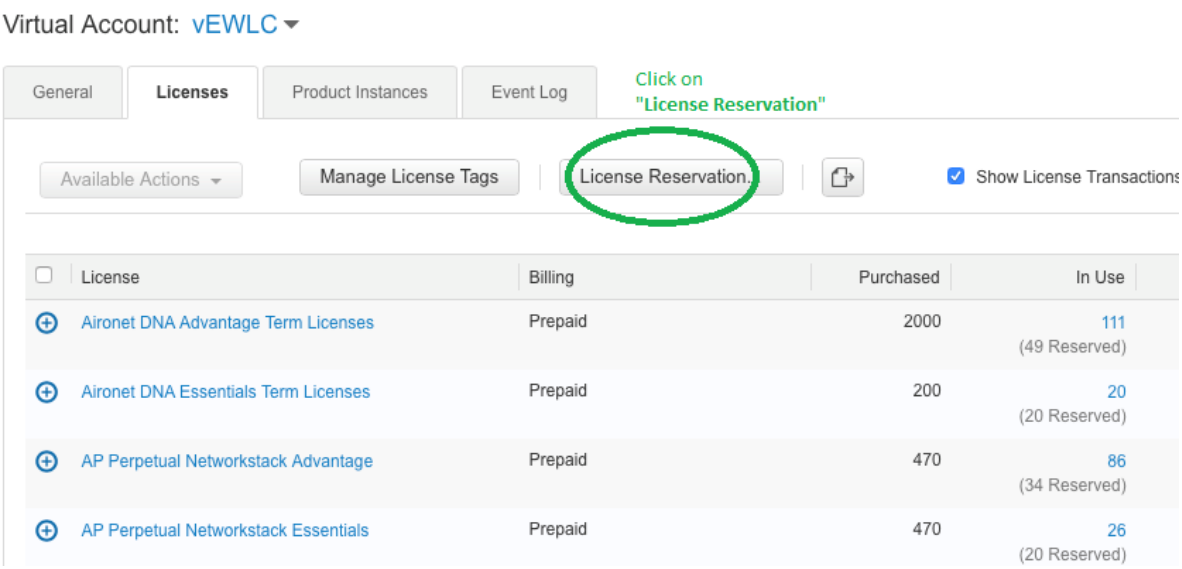
   c9800-sso#license smart reservation request all
   Enter this request code in the Cisco Smart Software Manager portal:
   *CC-ZC9800-CL-K9:**9HP3YNWPC73**-BjSeUVwmn-2D <<<< request code for Active*
   CC-ZC9800-CL-K9:9SO0PESS0A5-BjSeUVwmn-C4 <<<< request code for Standby

   To know which code corresponds to which box, Active or Standby, you can look at the UDI list above as the code includes the SN. You can also verify it by using "show inventory" on the active, this will confirm the Active serial number (SN):

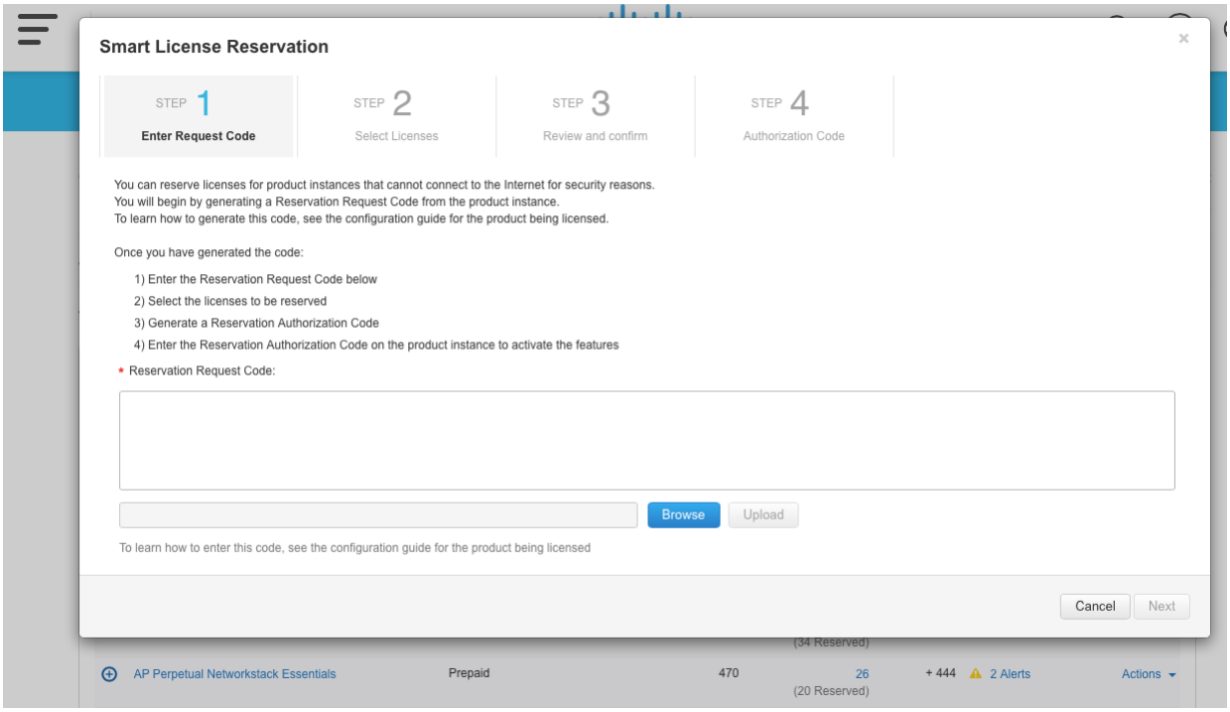
   c9800-sso#sh inventory
   NAME: "Chassis", DESCR: "Cisco C9800-CL Chassis"
   *PID: C9800-CL-K9 , VID: V00 , SN: **9HP3YNWPC73***

3. Now login to Cisco Smart Software Manager (CSSM) to generate the license reservations.
   Use two request codes as generated in step (2) above.
   a. *CC-ZC9800-CL-K9:9HP3YNWPC73-BjSeUVwmn-2D for active*
   b. *CC-ZC9800-CL-K9:9SO0PESS0A5-BjSeUVwmn-C4 for standby*

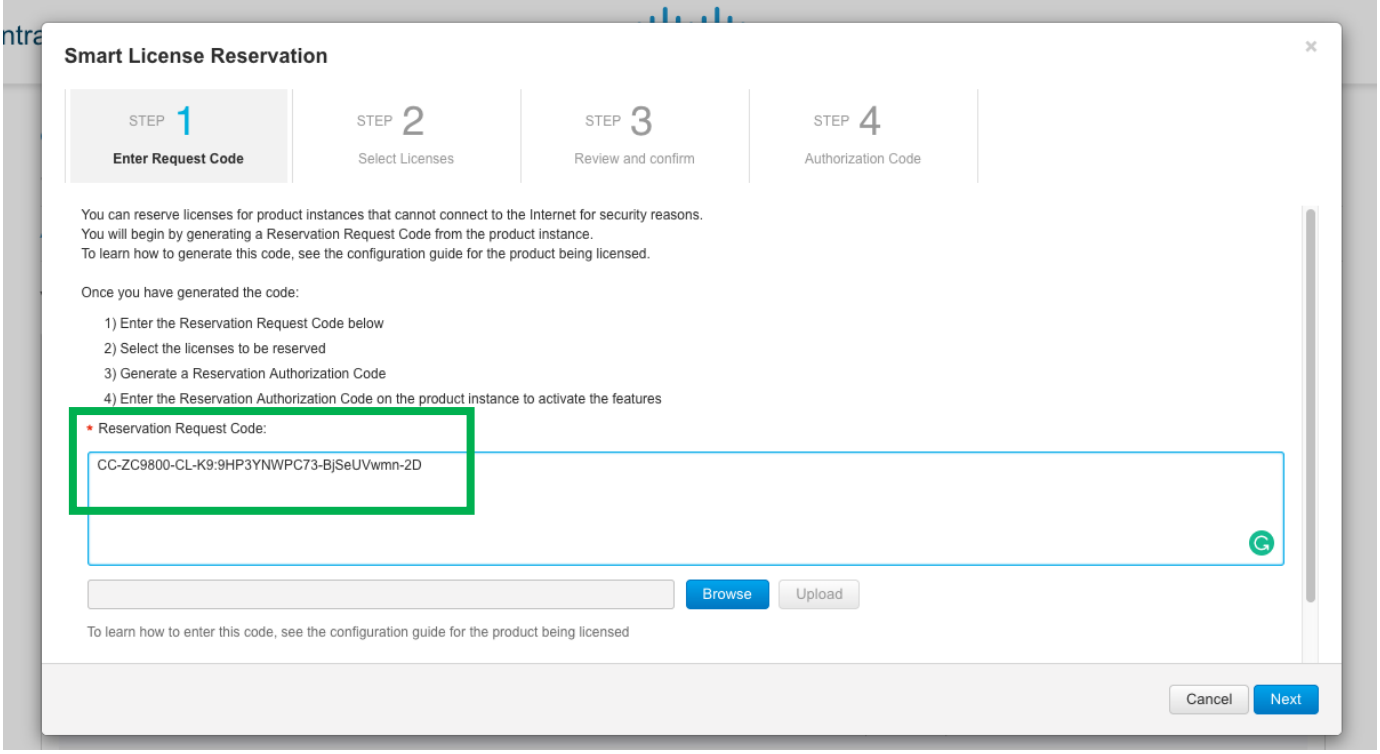
Select your Virtual account and click on License Reservation



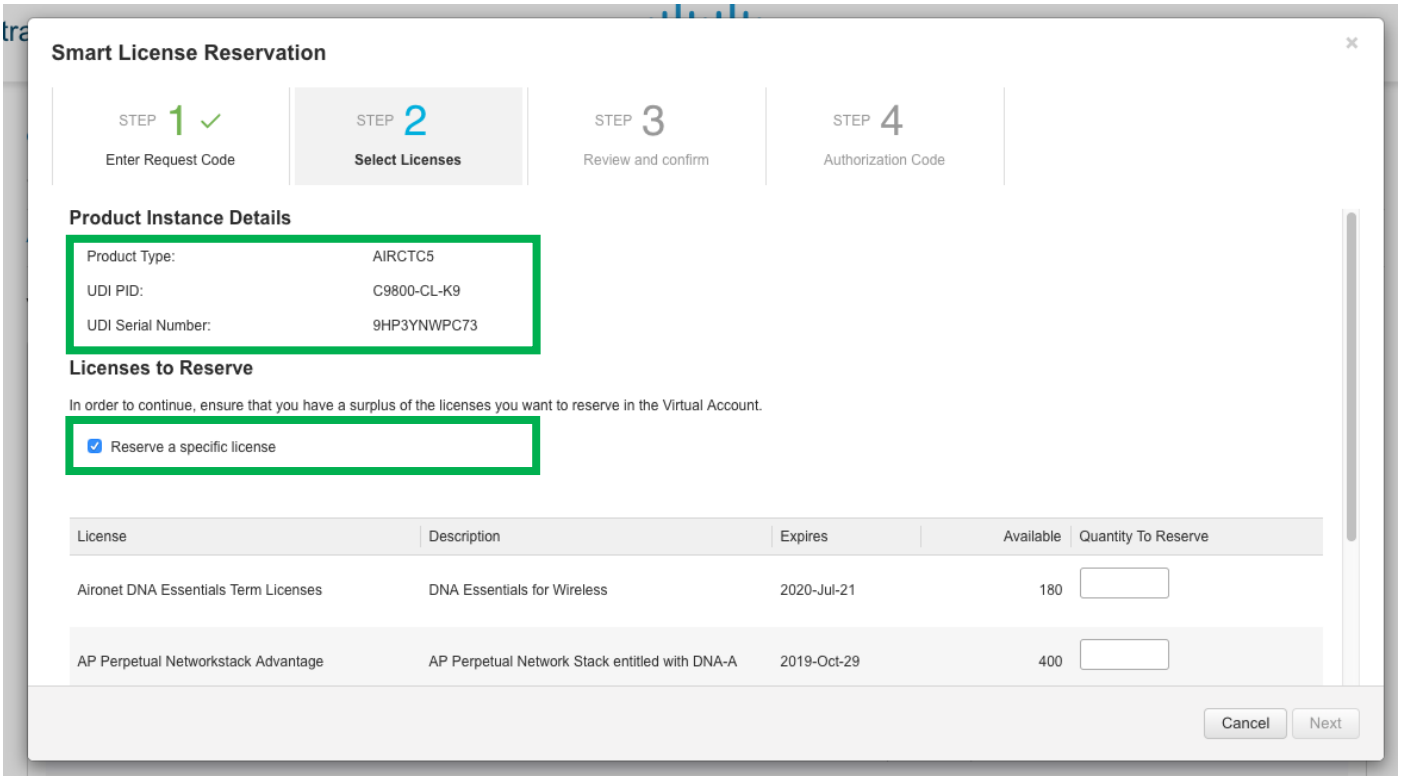
This brings a pop-up page (Please make sure pop-up is allowed to this portal) where you need to enter the reservation request codes. Let's first do the procedure for Active C9800:



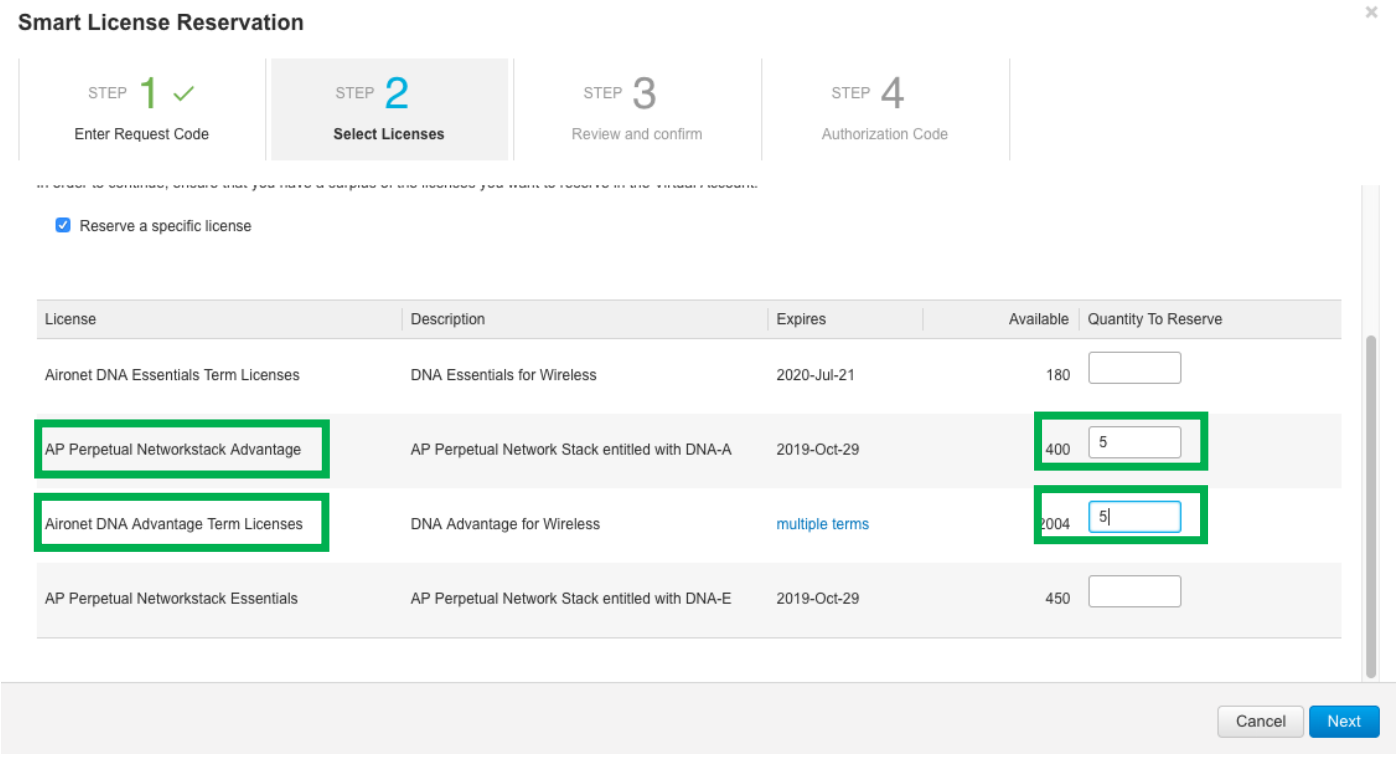
Now copy the Request code of the ACTIVE and paste it in the [* Reservation Request Code:] text box and click Next:



The following screen appears. Verify the SN is correct and thick the “Reserve a specific license”, the available license entitlement will appear:

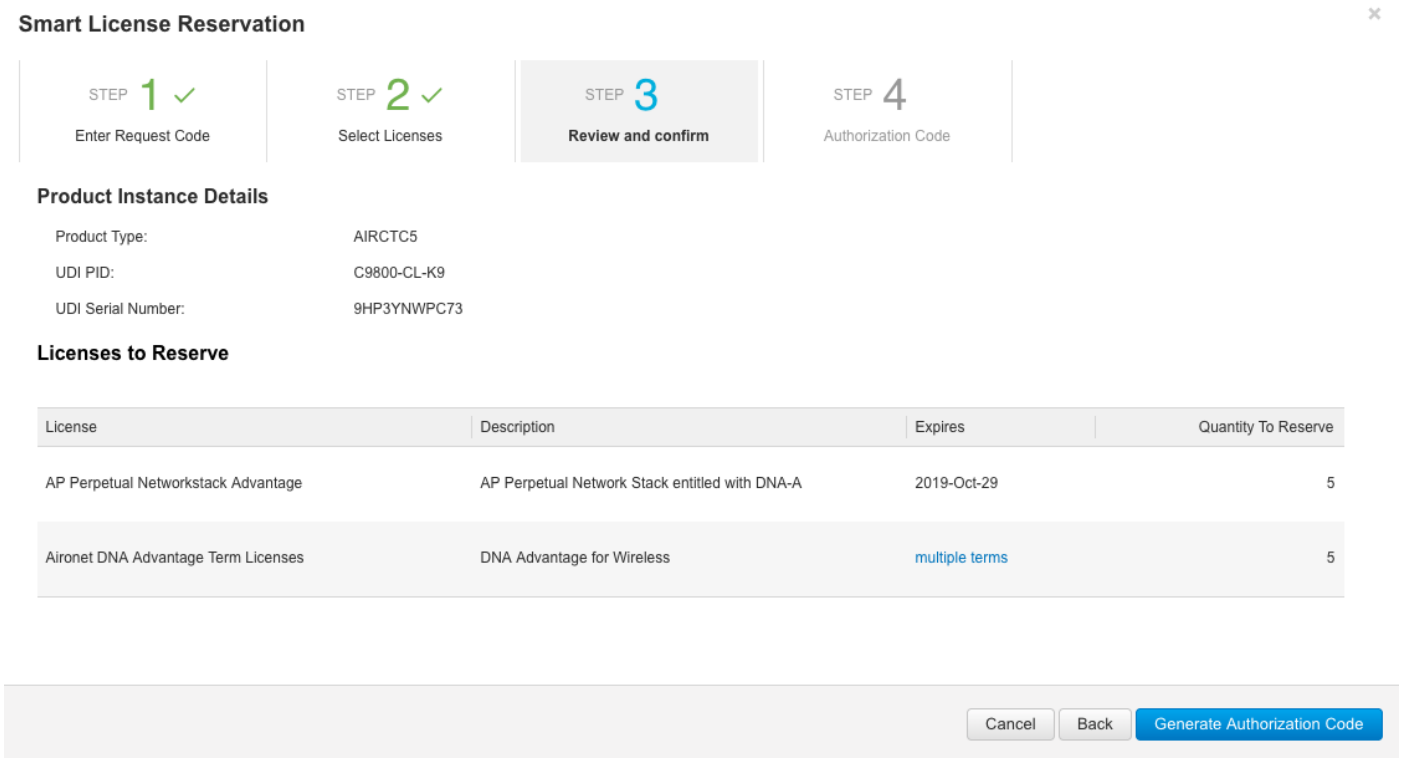


In this example, the intent is to add 10 APs to the HA pair, so the selection is 5 per C9800 box.
As C9800 uses DNA advantage licenses, we need to select two advantage license entitlements per box with equal quantities of "AP Perpetual **Networkstack Advantage**" and "Aironet **DNA Advantage** Term Licenses" as shown below. Click Next

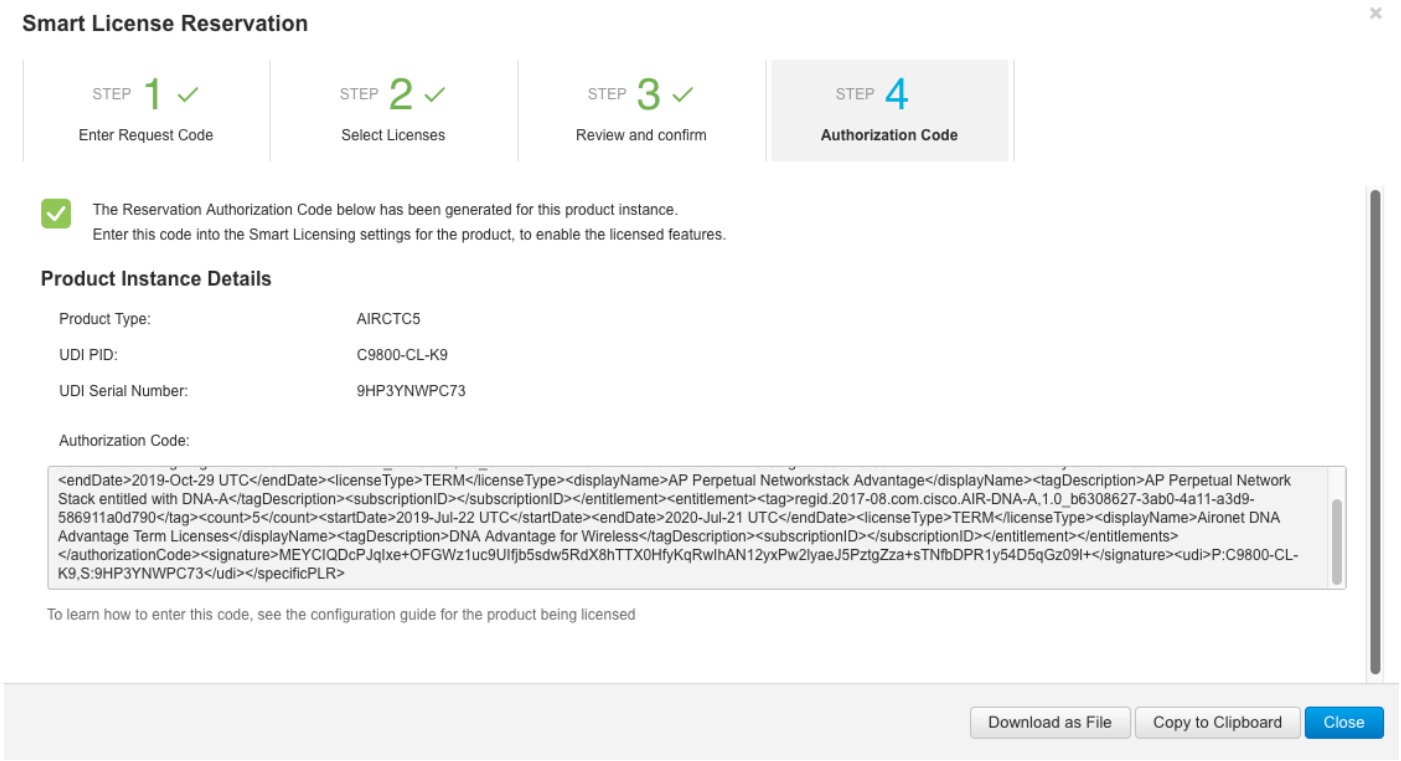


Note: if you choose a different number of Network and Advantage licenses, once you install it and AP joins the box will be out of compliance because each AP consumes one Network and one Advantage license.

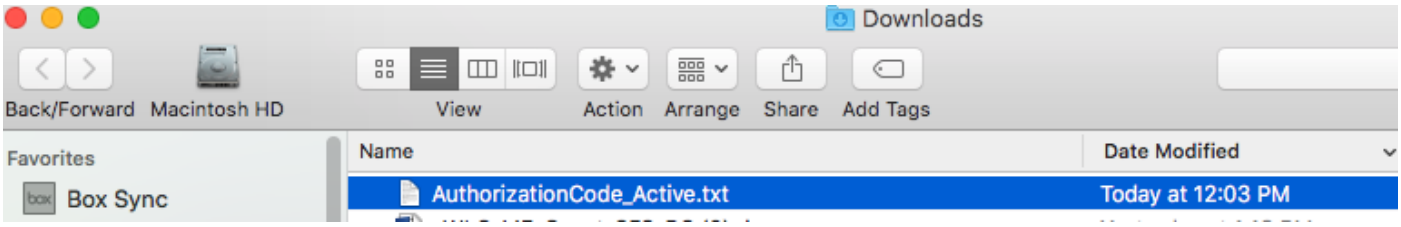
In the following screen click "Generate Authorization Code"



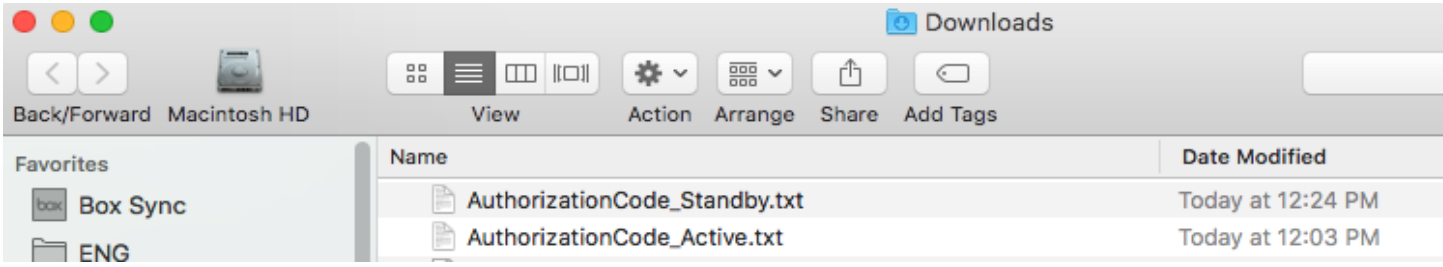
The Authorization code will be displayed in the next page. Choose to download this file to your PC (you can also copy the code and paste it to a file, but to avoid formatting mistakes, it's recommended to download the file directly)



Save this file on your machine as “AuthorizationCode_Active.txt”:



4. Repeat the procedure described in step 3 using the other reservation code for the Standby box. This will generate the Authorization code file for the Standby and save the file “AuthorizationCode_Standby.txt”



5. Copy the two files to the bootflash for example using FTP:

   c9800-sso#copy ftp: bootflash:
   Address or name of remote host [10.58.2.82]?
   Source filename [/siarena/Auth_HA_Standby_SIMONE.txt]? /siarena/AuthorizationCode_Active.txt
   *Destination filename [**AuthorizationCode_Active.txt**]?*
   Accessing ftp://10.58.2.82//siarena/AuthorizationCode_Active.txt...!
   [OK - 1163/4096 bytes]

   1163 bytes copied in 0.469 secs (2480 bytes/sec)

   And the other file:
   c9800-sso#copy ftp: bootflash:
   Address or name of remote host [10.58.2.82]?
   Source filename [/siarena/AuthorizationCode_Active.txt]? /siarena/AuthorizationCode_Standby.txt
   *Destination filename [**AuthorizationCode_Standby.txt**]?*
   Accessing ftp://10.58.2.82//siarena/AuthorizationCode_Standby.txt...!
   [OK - 1163/4096 bytes]

   Verify the files are in bootflash:

   c9800-sso#dir | i AuthorizationCode

40 -rw- 1163 Aug 2 2019 10:32:32 +00:00 AuthorizationCode_Active.txt
41 -rw- 1163 Aug 2 2019 10:33:00 +00:00 AuthorizationCode_Standby.txt

6. Let's now install the reserved licenses. Before let's check the status using "show license tech support". The status is now "reservation in progress" because we have requested the reservation codes but not yet installed the derived Authorization codes:

c9800-sso#sh lic tech support
Smart Licensing Tech Support info
Smart Licensing Status
==========
Smart Licensing is ENABLED
License Reservation is ENABLED
Registration:
*Status: **RESERVATION IN PROGRESS***

[snip]
Reservation Info
==========
License reservation: ENABLED

Overall status:
***Active**: PID:C9800-CL-K9,SN:9HP3YNWPC73*
*Reservation status: **RESERVATION IN PROGRESS** on Aug 02 09:50:29 2019 CET*
Export-Controlled Functionality: NOT ALLOWED
Request code: CC-ZC9800-CL-K9:9HP3YNWPC73-BjSeUVwmn-2D
Last return code: Ca1b6t-fTNvxj-cXttmw-CHtXuK-cH5pw2-na8SYr-pUAJ6f-sUREWk-fkr
Last Confirmation code: <none>
Reservation authorization code: <none>
***Standby**: PID:C9800-CL-K9,SN:9SO0PESS0A5*
*Reservation status: **RESERVATION IN PROGRESS** on Aug 02 09:50:29 2019 CET*
Export-Controlled Functionality: NOT ALLOWED
Request code: CC-ZC9800-CL-K9:9SO0PESS0A5-BjSeUVwmn-C4
Last return code: ChyLHf-VzyHAy-cH38ji-avPiCD-DZhUDH-5QfnkP-X9Jma4-1QeGdB-QsF
Last Confirmation code: <none>
Reservation authorization code: <none>

7. Let's install the individual Authorization codes by execute the following command "license smart reservation install file bootflash: <filename>". Since we have to install it for both boxes, we need to apply the command twice for the two files names.
As the commend is executed we should see the installation successful and a confirmation code.

*c9800-sso#license smart reservation install file AuthorizationCode_**Active**.txt*
Reservation** install file **successful
Last Confirmation code UDI: PID:C9800-CL-K9,SN:9HP3YNWPC73
363a952b

Repeat for the standby box:

*c9800-sso#license smart reservation install file AuthorizationCode_**Standby**.txt*
Reservation install file successful
Last Confirmation code UDI: PID:C9800-CL-K9,SN:9SO0PESS0A5
a7be5059

8. Now verify the status of the license reservation using the same command "show license tech support"

c9800-sso#sh lic tech support
Smart Licensing Tech Support info

Smart Licensing Status
==========

Smart Licensing is ENABLED
License Reservation is ENABLED

Registration:
*Status: **REGISTERED** - SPECIFIC LICENSE RESERVATION*
Export-Controlled Functionality: ALLOWED
Initial Registration: SUCCEEDED on Aug 02 10:45:44 2019 CET

License Authorization:
Status: AUTHORIZED - RESERVED on Aug 02 10:45:44 2019 CET

[snip]

Reservation Info
==========
License reservation: ENABLED

Overall status:
***Active**: PID:C9800-CL-K9,SN:9HP3YNWPC73*
*Reservation status: **SPECIFIC INSTALLED** on Aug 02 10:45:44 2019 CET*
Export-Controlled Functionality: ALLOWED
Request code: <none>
Last return code: <none>
Last Confirmation code: 363a952b
Reservation authorization code:
<specificPLR><authorizationCode><flag>A</flag><version>C</version><piid>2c63fb67-1847-4f3e-919c-07abe91026bf</piid><timestamp>1564740209939</timestamp><entitlements><entitlement><tag>regid.2018-06.com.cisco.DNA_NWStack,1.0_e7244e71-3ad5-4608-8bf0-

d12f67c80896</tag><count>5</count><startDate>2019-May-02 UTC</startDate><endDate>2019-Oct-29 UTC</endDate><licenseType>TERM</licenseType><displayName>AP Perpetual Networkstack Advantage</displayName><tagDescription>AP Perpetual Network Stack entitled with DNA-A</tagDescription><subscriptionID></subscriptionID></entitlement><entitlement><tag>regid.2017-08.com.cisco.AIR-DNA-A,1.0_b6308627-3ab0-4a11-a3d9-586911a0d790</tag><count>5</count><startDate>2019-Jul-22 UTC</startDate><endDate>2020-Jul-21 UTC</endDate><licenseType>TERM</licenseType><displayName>Aironet DNA Advantage Term Licenses</displayName><tagDescription>DNA Advantage for Wireless</tagDescription><subscriptionID></subscriptionID></entitlement></entitlements></authorizationCode><signature>MEYCIQDcPJqIxe+OFGWz1uc9UIfjb5sdw5RdX8hTTX0HfyKqRwIhAN12yxPw2lyaeJ5PztgZza+sTNfbDPR1y54D5qGz09l+</signature><udi>P:C9800-CL-K9,S:9HP3YNWPC73</udi></specificPLR>

***Standby**: PID:C9800-CL-K9,SN:9SO0PESS0A5*

*Reservation status: **SPECIFIC INSTALLED** on Aug 02 10:46:40 2019 CET*

Export-Controlled Functionality: ALLOWED

Request code: <none>

Last return code: <none>

Last Confirmation code: a7be5059

Reservation authorization code:

<specificPLR><authorizationCode><flag>A</flag><version>C</version><piid>593b2e2e-bf7e-4085-92bb-2a5e7b7cc398</piid><timestamp>1564741457928</timestamp><entitlements><entitlement><tag>regid.2017-08.com.cisco.AIR-DNA-A,1.0_b6308627-3ab0-4a11-a3d9-586911a0d790</tag><count>5</count><startDate>2019-Jul-22 UTC</startDate><endDate>2020-Jul-21 UTC</endDate><licenseType>TERM</licenseType><displayName>Aironet DNA Advantage Term Licenses</displayName><tagDescription>DNA Advantage for Wireless</tagDescription><subscriptionID></subscriptionID></entitlement><entitlement><tag>regid.2018-06.com.cisco.DNA_NWStack,1.0_e7244e71-3ad5-4608-8bf0-d12f67c80896</tag><count>5</count><startDate>2019-May-02 UTC</startDate><endDate>2019-Oct-29 UTC</endDate><licenseType>TERM</licenseType><displayName>AP Perpetual Networkstack Advantage</displayName><tagDescription>AP Perpetual Network Stack entitled with DNA-A</tagDescription><subscriptionID></subscriptionID></entitlement></entitlements></authorizationCode><signature>MEUCIQDP6fqtrpPZUNwR1ic2kSZK4Ly2svWbyryemi3UMIqrsAIgHoA37+1g9gWF27PIzFAPCjeT1NrBhrwTTWUVSrZw0nQ=</signature><udi>P:C9800-CL-K9,S:9SO0PESS0A5</udi></specificPLR>

Specified license reservations:

***AP Perpetual Networkstack Advantage** (DNA_NWStack):*

Description: AP Perpetual Network Stack entitled with DNA-A

Total reserved count: 10

Term information:

***Active**: PID:C9800-CL-K9,SN:9HP3YNWPC73*

License type: TERM

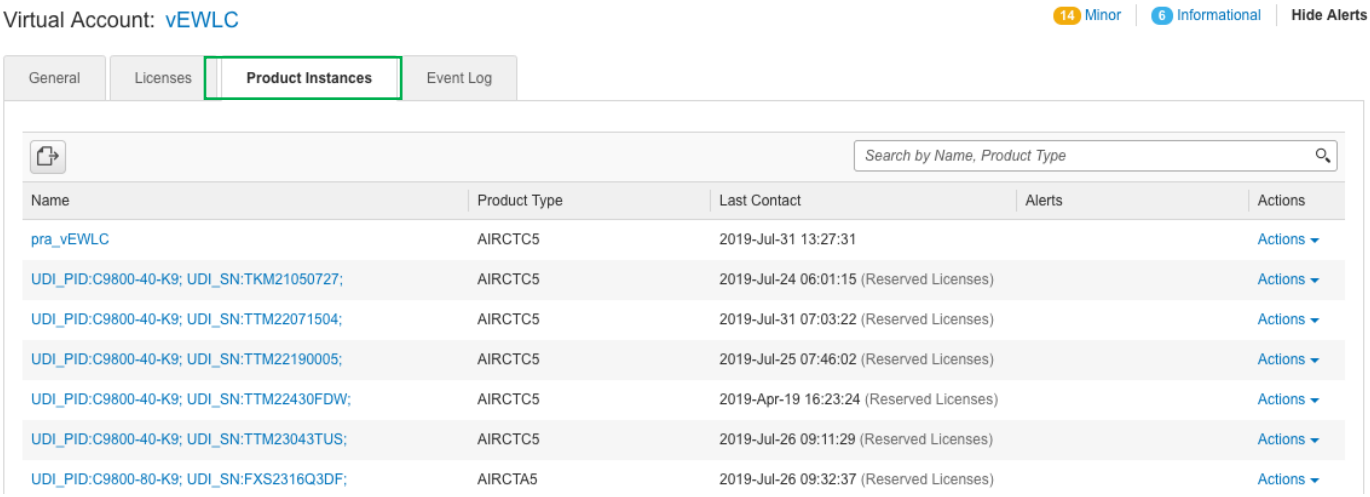
Start Date: 2019-MAY-02 UTC

End Date: 2019-OCT-29 UTC
Term Count: 5
Subscription ID: <none>
***Standby**: PID:C9800-CL-K9,SN:9SO0PESS0A5*
License type: TERM
Start Date: 2019-MAY-02 UTC
End Date: 2019-OCT-29 UTC
Term Count: 5
Subscription ID: <none>
***Aironet DNA Advantage Term Licenses** (AIR-DNA-A):*
Description: DNA Advantage for Wireless
Total reserved count: 10
Term information:
***Active**: PID:C9800-CL-K9,SN:9HP3YNWPC73*
License type: TERM
Start Date: 2019-JUL-22 UTC
End Date: 2020-JUL-21 UTC
Term Count: 5
Subscription ID: <none>
***Standby**: PID:C9800-CL-K9,SN:9SO0PESS0A5*
License type: TERM
Start Date: 2019-JUL-22 UTC
End Date: 2020-JUL-21 UTC
Term Count: 5
Subscription ID: <none>

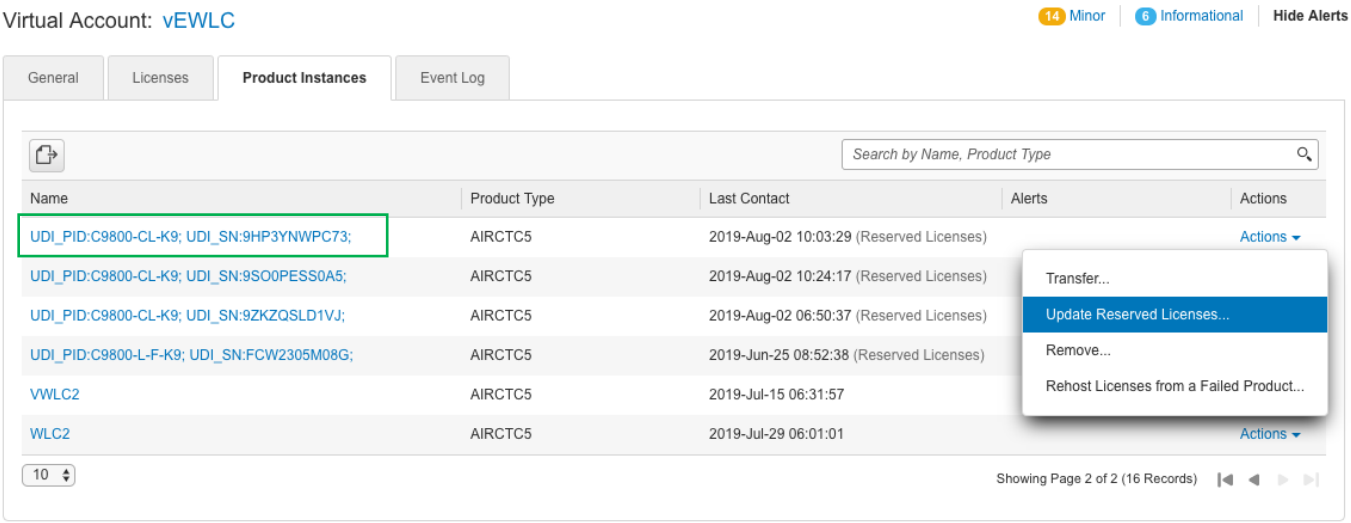
Change a SLR on a C9800 SSO HA pair

In case you want to increase/reduce the number of licenses, you can do it in these quick easy steps:

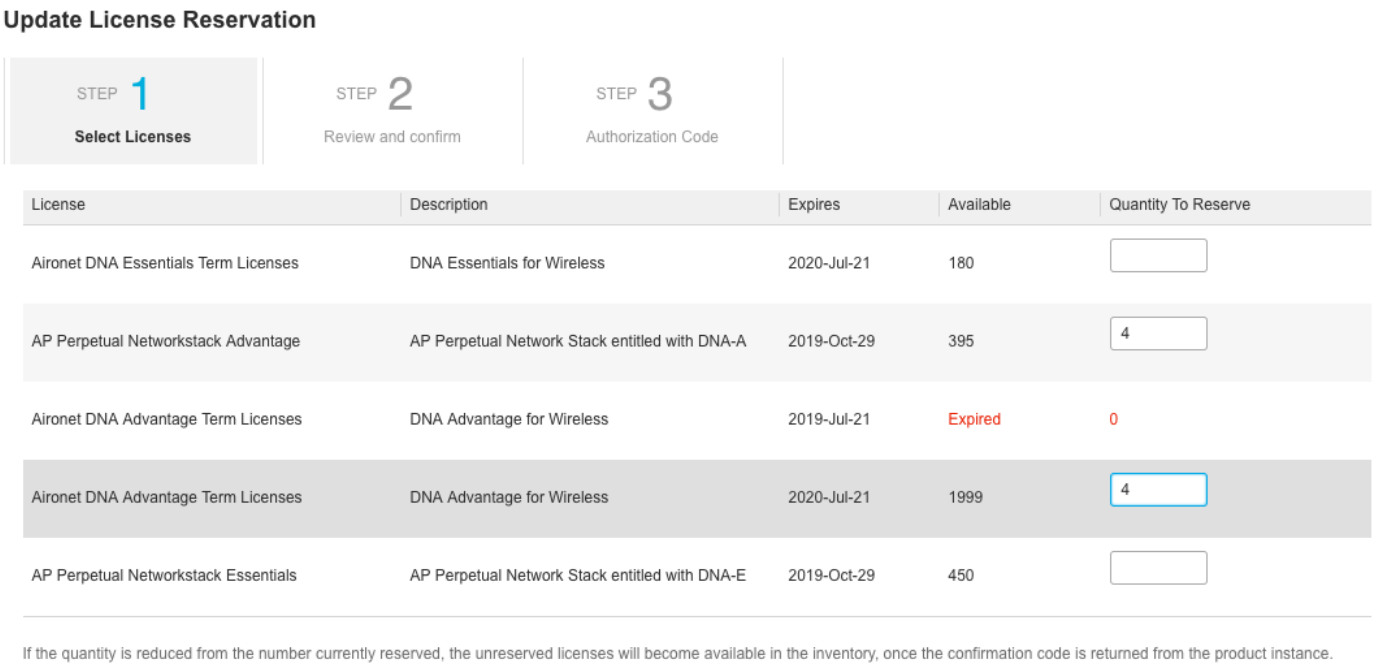
1. Go to the CSSM portal and login into your account and go to the Product Instances tab:



2. Search for your Active and Standby instances by looking at the serial number. Identify the Active and click on the Action > Update Reserved Licenses



3. In the screen that appears modify the number as needed. Please make sure you keep the number of Network Advantage an DNA advantage licenses same



4. After that, click Next and do the same exact procedure explained in steps 3 in the “Install SLR on a C9800 SSO HA pair” section, procedure to generate and download the Authorization
5. Repeat the same procedure for the Standby
6. Install the Authorization codes on the active box

Removing SLR from a C9800 SSO HA pair

If you want to remove the license reservation either because you don't need them anymore or because you have made a mistake and you want to start from scratch, you can follow these steps

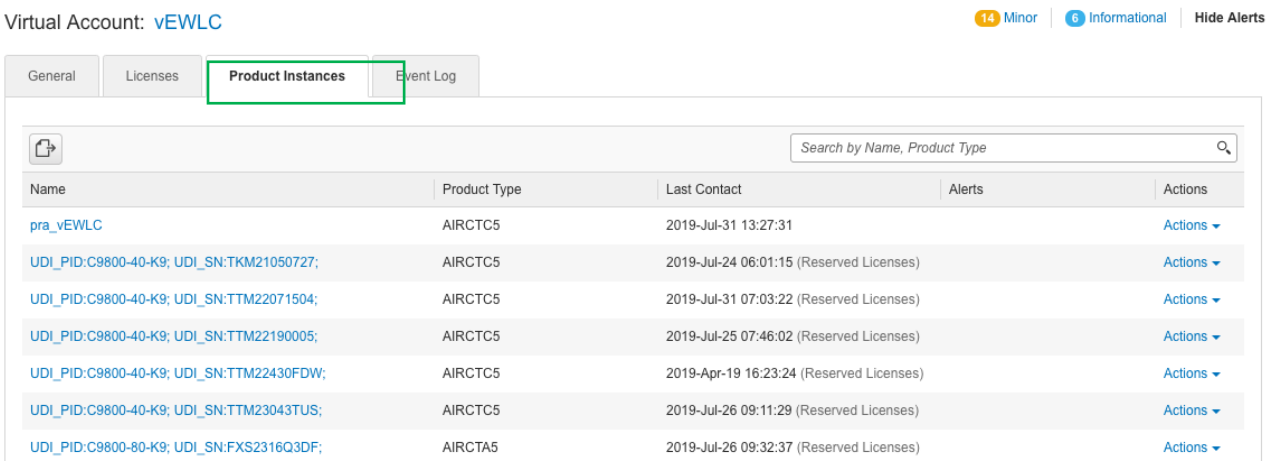
1. Return (remove) the reserved licenses on the box. Use the command "license smart reservation return" and chose the option "all" to do it for both Active and Standby.

   Note: write down the return codes that are generated and the mapping to each serial number

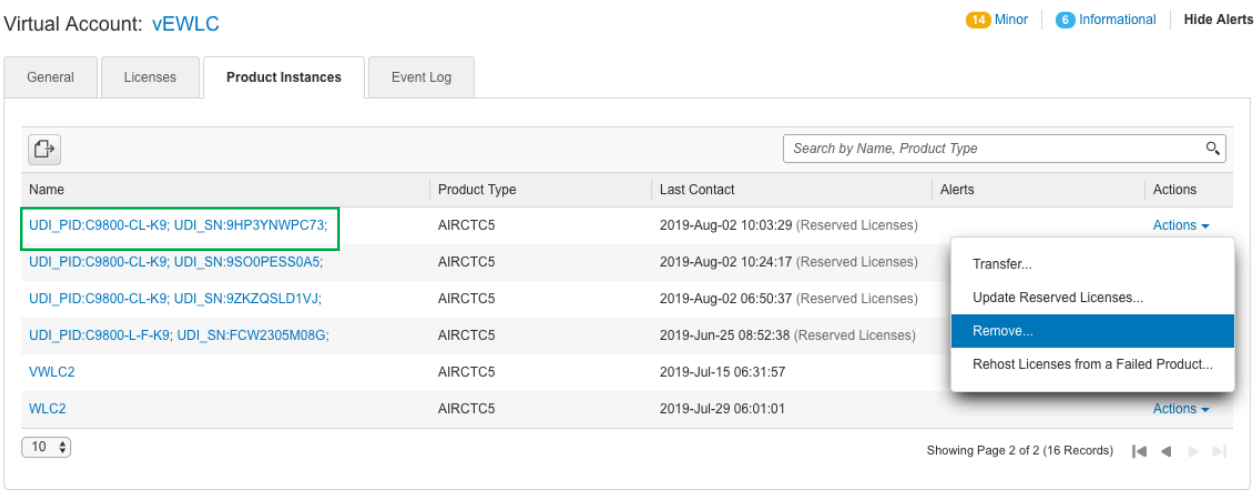
   c9800-sso#license smart reservation return all
   This command will remove the license reservation authorization code and the device will transition back to the unregistered state. Some features may not function properly.

   Do you want to continue? [yes/no]: yes
   Enter this return code in Cisco Smart Software Manager portal:
   UDI: PID:C9800-CL-K9,SN:9HP3YNWPC73 << this is the Active
   CHaoWX-vuqFJ2-aWkdxY-sXDHoA-dLuagi-9ic9tn-LyjA7L-nq1EcA-zo4
   UDI: PID:C9800-CL-K9,SN:9SO0PESS0A5 << this is the Standby
   CQ5o6k-DEiCHH-ahdj9U-yxNkWq-Ft8DgP-cyWMi1-7XTL1v-UKgAES-LGn

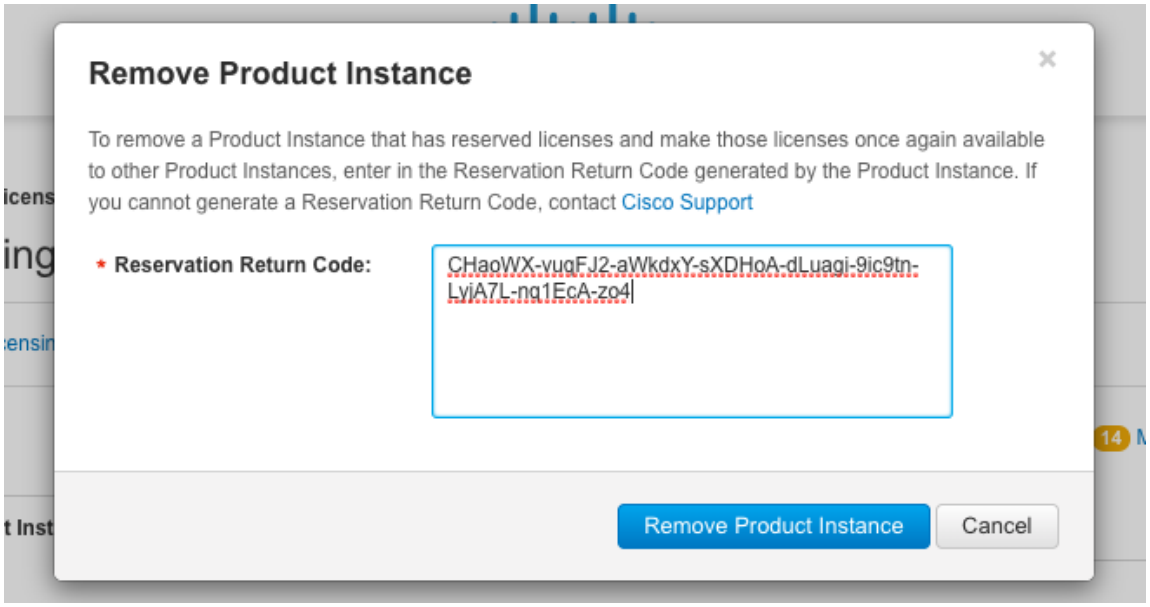
2. Go to the CSSM portal and login into your account and go to the Product Instances tab:



3. Search for your Active and Standby boxes by looking at the serial number. Identify the Active box and click on the Actions > Remove



4. In the page that pops up, copy and paste the return code for that serial number and click on Remove Product instance:



5. Repeat the same procedure and enter the other return code for the Standby

N+1 HA with SL and SLR

There is no need to purchase additional licenses for N+1 HA with Smart Licensing. Prior to release 16.12, in the case of box RMA or N+1 HA where the primary controller fails, the customer is required to manually remove the faulty C9800 from the CSSM web page so that associated entitlements are released back to the pool of licenses on the Customer Smart Account. If this is not done, the licenses will stay for 180 days and there may be out of compliance messages if the AP count on the CSSM exceeds available licenses. However,

the APs continue to remain connected and no disruption occurs. With release 16.12 and higher this behavior has been modified and entitlements are re-allocated to the secondary controller when APs failover and the secondary controller requests entitlements.

N+1 HA with SLR needs additional licenses to be purchased since licenses are reserved on the controller.

License Term Expiry FAQ

What happens after expiry of DNA license?
Network continues to run. Customers can set the license level of the controller in Network Essentials/Network Advantage mode
DNA features along with TAC support, Software upgrades and updates will expire but AP connectivity to the controller and Network Essentials/Network Advantage features will be available.

What do I do after term expiry?
Renew DNA License (3/5/7-year term) or purchase smartnet on APs and controllers for TAC support/ software upgrades and updates

How do I continue receiving software upgrade beyond DNA term expiry?
To continue receiving software upgrade purchase smartnet on APs and controllers

Can I port APs from one controller to another after DNA term expiry?
Yes. For this you must have Smart accounts. Network stack licenses should be deposited into the smart account(this will be done with purchase of AIR-DNA) and the controllers must be registered to the smart account

CLI Reference

`license smart register idtoken <token-id>`	`Register C9800 with Smart Licensing`
`license smart deregister`	`De-registers the device for smart license`

config license smart	custom_id Set a customer defined id privacy privacy related commands reservation Enable or disable the license reservation feature transport Select the type of message transport for Smart Agent url Set the Smart Transport Primary and the Utility URL utility Enable or disable usage reporting on the device
show license	all Show license all information eventlog Show license eventlog information reservation Show license reservation information status Show license status information suites Show license suite information summary Show license summary tech show license tech support information udi Show license udi information usage Show license usage information

license air level	air-network-advantage AIR Network advantage License Level air-network-essentials AIR Network essential License Level
debug license	agent License agent information core License Core errors License warnings and errors events License Events feature License feature ipc License IPC communication

```
WLC#show license all
Smart Licensing Status
======================

Smart Licensing is ENABLED

Registration:
  Status: REGISTERED
  Smart Account: PnP Test Account - KB
  Virtual Account: wirelesspnp
  Export-Controlled Functionality: ALLOWED
  Initial Registration: SUCCEEDED on Mar 22 13:51:29 2019 UTC
  Last Renewal Attempt: None
  Next Renewal Attempt: Sep 18 13:51:29 2019 UTC
  Registration Expires: Mar 21 13:46:28 2020 UTC

License Authorization:
  Status: AUTHORIZED on Mar 22 13:51:33 2019 UTC
  Last Communication Attempt: SUCCEEDED on Mar 22 13:51:33 2019 UTC
  Next Communication Attempt: Apr 21 13:51:33 2019 UTC
  Communication Deadline: Jun 20 13:45:32 2019 UTC

Export Authorization Key:
  Features Authorized:
    <none>

Utility:
  Status: DISABLED

Data Privacy:
  Sending Hostname: yes
    Callhome hostname privacy: DISABLED
    Smart Licensing hostname privacy: DISABLED
  Version privacy: DISABLED

Transport:
  Type: Callhome

License Usage
=============

ASR_1000_AdvEnterprise (ASR_1000_AdvEnterprise):
  Description: Cisco ASR 1000 Series Advanced Enterprise Services
  Count: 1
  Version: 1.0
  Status: AUTHORIZED
  Export status: NOT RESTRICTED

AP Perpetual Networkstack Advantage (DNA_NWStack):
  Description: AP Perpetual Network Stack entitled with DNA-A
```

```
  Count: 2
  Version: 1.0
  Status: AUTHORIZED
  Export status: NOT RESTRICTED

Aironet DNA Advantage Term Licenses (AIR-DNA-A):
  Description: DNA Advantage for Wireless
  Count: 2
  Version: 1.0
  Status: AUTHORIZED
  Export status: NOT RESTRICTED

Product Information
===================
UDI: PID:AIR-CT9540-K9,SN:TKM21130982

Agent Version
=============
Smart Agent for Licensing: 4.6.3_rel/58
Component Versions: SA:(1_3_dev)1.0.15, SI:(dev22)1.2.1, CH:(rel5)1.0.3,
PK:(dev18)1.0.3

Reservation Info
================
License reservation: DISABLED



WLC#show license reservation
License reservation: DISABLED

WLC#show license status
Smart Licensing is ENABLED

Utility:
  Status: DISABLED

Data Privacy:
  Sending Hostname: yes
    Callhome hostname privacy: DISABLED
    Smart Licensing hostname privacy: DISABLED
  Version privacy: DISABLED

Transport:
  Type: Callhome

Registration:
  Status: REGISTERED
  Smart Account: PnP Test Account - KB
  Virtual Account: wirelesspnp
  Export-Controlled Functionality: ALLOWED
  Initial Registration: SUCCEEDED on Mar 22 13:51:29 2019 UTC
  Last Renewal Attempt: None
  Next Renewal Attempt: Sep 18 13:51:29 2019 UTC
```

```
  Registration Expires: Mar 21 13:46:28 2020 UTC

License Authorization:
  Status: AUTHORIZED on Mar 22 13:51:33 2019 UTC
  Last Communication Attempt: SUCCEEDED on Mar 22 13:51:33 2019 UTC
  Next Communication Attempt: Apr 21 13:51:33 2019 UTC
  Communication Deadline: Jun 20 13:45:32 2019 UTC

Export Authorization Key:
  Features Authorized:
    <none>


WLC#show license summary
Smart Licensing is ENABLED

Registration:
  Status: REGISTERED
  Smart Account: PnP Test Account - KB
  Virtual Account: wirelesspnp
  Export-Controlled Functionality: ALLOWED
  Last Renewal Attempt: None
  Next Renewal Attempt: Sep 18 13:51:29 2019 UTC

License Authorization:
  Status: AUTHORIZED
  Last Communication Attempt: SUCCEEDED
  Next Communication Attempt: Apr 21 13:51:33 2019 UTC

License Usage:
  License                 Entitlement tag               Count Status
  -----------------------------------------------------------------------------
----
  ASR_1000_AdvEnterprise  (ASR_1000_AdvEnterprise)          1 AUTHORIZED
  AP Perpetual Network... (DNA_NWStack)                     2 AUTHORIZED
  Aironet DNA Advantag... (AIR-DNA-A)                       2 AUTHORIZED



WLC#show license tech support
Smart Licensing Tech Support info

Smart Licensing Status
======================

Smart Licensing is ENABLED

Registration:
  Status: REGISTERED
  Smart Account: PnP Test Account - KB
  Virtual Account: wirelesspnp
  Export-Controlled Functionality: ALLOWED
  Initial Registration: SUCCEEDED on Mar 22 13:51:29 2019 UTC
  Last Renewal Attempt: None
```

```
  Next Renewal Attempt: Sep 18 13:51:28 2019 UTC
  Registration Expires: Mar 21 13:46:27 2020 UTC

License Authorization:
  Status: AUTHORIZED on Mar 22 13:51:33 2019 UTC
  Last Communication Attempt: SUCCEEDED on Mar 22 13:51:33 2019 UTC
  Next Communication Attempt: Apr 21 13:51:33 2019 UTC
  Communication Deadline: Jun 20 13:45:32 2019 UTC

Export Authorization Key:
  Features Authorized:
    <none>

Utility:
  Status: DISABLED

Data Privacy:
  Sending Hostname: yes
    Callhome hostname privacy: DISABLED
    Smart Licensing hostname privacy: DISABLED
  Version privacy: DISABLED

Transport:
  Type: Callhome

Evaluation Period:
  Evaluation Mode: EXPIRED
  Evaluation Period Remaining: Expired on Oct 19 14:44:28 2018 UTC

License Usage
=============
Handle: 1
  License: ASR_1000_AdvEnterprise
  Entitlement tag: regid.2015-
06.com.cisco.ASR_1000_AdvEnterprise,1.0_855386bf-6b9a-4aae-bc41-
6d398da6b2be
  Description: Cisco ASR 1000 Series Advanced Enterprise Services
  Count: 1
  Version: 1.0
  Status: AUTHORIZED(3)
  Status time: Mar 22 13:51:33 2019 UTC
  Request Time: Feb 12 23:05:30 2019 UTC
  Export status: NOT RESTRICTED

Handle: 2
  License: AP Perpetual Networkstack Advantage
  Entitlement tag: regid.2018-06.com.cisco.DNA_NWStack,1.0_e7244e71-3ad5-
4608-8bf0-d12f67c80896
  Description: AP Perpetual Network Stack entitled with DNA-A
  Count: 2
  Version: 1.0
  Status: AUTHORIZED(3)
  Status time: Mar 22 13:51:33 2019 UTC
  Request Time: Feb 13 00:07:25 2019 UTC
```

```
  Export status: NOT RESTRICTED

Handle: 3
  License: Aironet DNA Advantage Term Licenses
  Entitlement tag: regid.2017-08.com.cisco.AIR-DNA-A,1.0_b6308627-3ab0-
4a11-a3d9-586911a0d790
  Description: DNA Advantage for Wireless
  Count: 2
  Version: 1.0
  Status: AUTHORIZED(3)
  Status time: Mar 22 13:51:33 2019 UTC
  Request Time: Feb 13 00:07:25 2019 UTC
  Export status: NOT RESTRICTED

Product Information
===================
UDI: PID:AIR-CT9540-K9,SN:TKM21130982

Agent Version
=============
Smart Agent for Licensing: 4.6.3_rel/58
Component Versions: SA:(1_3_dev)1.0.15, SI:(dev22)1.2.1, CH:(rel5)1.0.3,
PK:(dev18)1.0.3

Upcoming Scheduled Jobs
=======================
Current time: Mar 22 14:01:35 2019 UTC
Daily: Mar 22 23:05:19 2019 UTC (9 hours, 3 minutes, 44 seconds remaining)
Certificate Renewal: Sep 18 13:51:28 2019 UTC (179 days, 23 hours, 49
minutes, 53 seconds remaining)
Certificate Expiration Check: Mar 21 13:46:27 2020 UTC (364 days, 23 hours,
44 minutes, 52 seconds remaining)
Authorization Renewal: Apr 21 13:51:33 2019 UTC (29 days, 23 hours, 49
minutes, 58 seconds remaining)
Authorization Expiration Check: Jun 20 13:45:32 2019 UTC (89 days, 23
hours, 43 minutes, 57 seconds remaining)
Init Flag Check: Not Available
Register Period Expiration Check: Not Available
Ack Expiration Check: Not Available
IdCert Expiration Warning: Jan 21 13:46:27 2020 UTC (304 days, 23 hours, 44
minutes, 52 seconds remaining)
Reservation request in progress warning: Not Available
Reservation configuration mismatch between nodes in HA mode: Not Available

License Certificates
====================
Production Cert: True
PIID: d8f1ee0a-f0d7-43f9-b2da-b24453cfb280
Licensing Certificated:
  Id certificate Info:
    Start Date: Mar 22 13:46:29 2019 UTC
    Expiry Date: Mar 21 13:46:29 2020 UTC
    Version Number: 3
    Serial Number: 2830443
```

```
    Issuer Name: Smart Licensing CA
    Common Name: E3FB2D6024BAC594238136737B3BFD6787110A03::1,2
    Attributes:
      SN: d8f1ee0a-f0d7-43f9-b2da-b24453cfb280
      CN: E3FB2D6024BAC594238136737B3BFD6787110A03::1,2
      O: Cisco

  Signing certificate Info:
    Start Date: Sep 11 12:05:34 2013 UTC
    Expiry Date: Dec 31 17:00:00 1969 UTC
    Version Number: 3
    Serial Number: 3
    Issuer Name: Cisco Licensing Root CA
    Common Name: MMI Signer
    Attributes:
      CN: MMI Signer
      O: Cisco

  Sub CA Info:
    Start Date: Sep 11 12:06:30 2013 UTC
    Expiry Date: Dec 31 17:00:00 1969 UTC
    Version Number: 3
    Serial Number: 2
    Issuer Name: Cisco Licensing Root CA
    Common Name: Smart Licensing CA
    Attributes:
      CN: Smart Licensing CA
      O: Cisco

  Root Cert Info:
    Start Date: May 30 12:48:47 2013 UTC
    Expiry Date: Dec 31 17:00:00 1969 UTC
    Version Number: 3
    Serial Number: 1
    Issuer Name: Cisco Licensing Root CA
    Common Name: Cisco Licensing Root CA
    Attributes:
      CN: Cisco Licensing Root CA
      O: Cisco

HA Info
==========
RP Role: Active
Chassis Role: Active
Behavior Role: Active
RMF: True
CF: True
CF State: Stateless
Message Flow Allowed: True

Reservation Info
================
License reservation: DISABLED
```

```
Other Info
==========
Software ID: regid.2018-05.com.cisco.WLC_9540,1.0_0064c970-5966-47dd-8989-
30e3bc058136
Agent State: authorized
TS enable: True
Transport: Callhome
Locale: en_US.UTF-8
Debug flags: 0x7
Privacy Send Hostname: True
Privacy Send IP: True
Build type:: Production
sizeof(char)  : 1
sizeof(int)   : 4
sizeof(long)  : 4
sizeof(char *): 8
sizeof(time_t): 4
sizeof(size_t): 8
Endian: Big
Write Erase Occurred: False
XOS version: 0.12.0.0
Config Persist Received: True
Message Version: 1.3
connect_info.name: SSM
connect_info.version: 1.3
connect_info.additional:
connect_info.prod: True
connect_info.capabilities: DLC, AppHA, EXPORT_2
agent.capabilities: UTILITY, DLC, AppHA, MULTITIER, EXPORT_2, OK_TRY_AGAIN
SmartAgentCmReTrySend: True
SmartAgentCmClient: True
SmartAgentClientName: UnifiedClient
builtInEncryption: True
enableOnInit: True
routingReadyByEvent: True
systemInitByEvent: True
SmartAgentDelayCertValidation: False
enableByDefault: False
conversionAutomatic: True
conversionAllowed: False
storageEncryptDisable: False
storageLoadUnencryptedDisable: False
TSPluginDisable: False
bypassUDICheck: False
loggingAddTStamp: False
loggingAddTid: True
platformOverrideEvent: UnknownPlatformEvent
WaitForHaRole: False
standbyIsHot: True
chkPtType: 2
delayCommInit: False
roleByEvent: True
maxTraceLength: 150
traceAlwaysOn: True
```

```
debugFlags: 0
Event log max size: 0 KB
Event log current size: 0 KB

Platform Provided Mapping Table
===============================
<empty>



WLC#show license usage
License Authorization:
  Status: AUTHORIZED on Mar 22 13:51:33 2019 UTC

ASR_1000_AdvEnterprise (ASR_1000_AdvEnterprise):
  Description: Cisco ASR 1000 Series Advanced Enterprise Services
  Count: 1
  Version: 1.0
  Status: AUTHORIZED
  Export status: NOT RESTRICTED

AP Perpetual Networkstack Advantage (DNA_NWStack):
  Description: AP Perpetual Network Stack entitled with DNA-A
  Count: 2
  Version: 1.0
  Status: AUTHORIZED
  Export status: NOT RESTRICTED

Aironet DNA Advantage Term Licenses (AIR-DNA-A):
  Description: DNA Advantage for Wireless
  Count: 2
  Version: 1.0
  Status: AUTHORIZED
  Export status: NOT RESTRICTED
```

Reference

Cisco Smart Licensing

http://www.cisco.com/c/en/us/products/abt_sw.html

Cisco Smart Software Manager Satellite

http://www.cisco.com/go/smartsatellite

Cisco Smart Software Manager

http://www.cisco.com/c/en/us/buy/smart-accounts.html

Cisco Smart Accounts

http://www.cisco.com/c/en/us/buy/smart-accounts.html

Cisco Privacy and Security Compliance

http://www.cisco.com/web/about/doing_business/legal/privacy_compliance/index.html

Cisco Transport Gateway

User Guide:http://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart_call_home/user_guides/SCH_Ch4.pdf

Troubleshooting Guide: http://www.cisco.com/c/dam/en/us/td/docs/switches/lan/smart_call_home/user_guides/SCH_Ch5.pdf

Request Type	Support Provided	Contact Details
Smart Account Creation and Management	• SA Request Creation • Address Issues • Creator Email Address change • Adding / Removing Users • De-activating SA • Creating VA	sa-adoption-support@external.cisco.com
Smart Account Domain Approvals	• Email Domain mismatch • Prefix added to Top level domain • Email has public domain • Personal SA with public domain (Co-ordinate with web-help team on CCO ID Change) • Golden Rules (For DoD, Co-ordinate with Kelsey, Tiffany)	sa-adoption-support@external.cisco.com
PLR / SLR Feature Enablement	• Enable SLR • Responding to Email SLR category – Pending Customer Account	sa-adoption-support@external.cisco.com
Export Hold Support	• SA ops team to co-ordinate with TA-15 system to check address for all DPL denied party status error.	sa-adoption-support@external.cisco.com
DPL Check	• SA ops team co-ordinates with Trade Ops team to approve the address. • SA ops team changes the status of SA from Export Hold to Active.	sa-adoption-support@external.cisco.com
High Touch Customer Support	• Provide Training to Customer • Reach out on Phone/Webex for resolving issues. • Assist with Complex Smart Account Structure set ups	sa-adoption-support@external.cisco.com

Request Type	Support Provided	Contact Details
Basic Classic License Support	• Classic Licenses Troubleshooting and issues • License delivery where standard processes fail or do not exist. Examples; PAK fulfillment, license purchased but is missing from the PAK. • License management where self-serve option fails or does not exist. Examples; license rehost, resend or RMA, upgrade license. • Escalate to Business Units or SWIFT for issue resolution as needed • Temporary licenses until issue resolution (where applicable) • General Smart Account questions	Licensing@cisco.com (GLO) [Include your Cisco.com ID in the email using the format: Cisco.com ID: ######.]
Basic Smart License Support	• Smart Licenses troubleshooting and issues • Device not consuming in entitlement • Missing entitlement • License hierarchy issues	Licensing@cisco.com (GLO)
Classic to Smart License Migration	• Classic to smart license PAK Led conversion • Classic to smart license Device Led conversion • Classic to smart license Device conversion	Licensing@cisco.com (GLO)
Temporary License Deposit to Smart Account	• Issue temporary licenses to Partner/Customer through Smart Demo Portal • Issue temporary internal licenses for BU Smart Account	Licensing@cisco.com (GLO)
Bulk PAK Migration to Smart Account	• Move 100+ PAK / Devices to a Smart Account at one time	Licensing@cisco.com (GLO)
Assets Movement between Smart Accounts	• Move assets between Customer Smart Accounts • Move assets from Partner Smart Account to Customer Smart Account	Licensing@cisco.com (GLO)