

Cisco Catalyst 9000 License Upgrade - Offline Method

Contents

[Introduction](#)

[Cisco Catalyst 9000 License Upgrade - Offline Method](#)

Introduction

This document describes the steps needed to upgrade from Evaluation License to DNA Subscription License (Essentials/Advantage/Premier).

Cisco Catalyst 9000 License Upgrade - Offline Method

When a new switch comes online, it boots up with the Evaluation Network License, which is valid for 90 days. During this time period, the switch needs to communicate with Cisco Smart Software Manager (CSSM). As the CSSM server is based in Cisco's cloud, internet connectivity is needed, for the switch to reach Cisco's cloud.

However, this is not permitted in some customer's networks, such as the Financial and Banking sectors, or some customers' secure environments, that do not have access to the internet (AirGap environment).

In such cases, customers and partners would need to rely on offline methods of Installing the DNA License.

This document relies on DNA Center acting as the License Manager. It is important that DNA Center be connected to the Internet so that it can collect information of ALL the licenses the customer has purchased via their SMART ACCOUNT/VIRTUAL ACCOUNT. Once DNA Center has this information, it can be taken offline, and the rest of the steps can all be performed without DNA Center and Switches connecting to the Internet.

1. DNA Center was connected to the Internet, and it communicated with the CSSM server to gather information on the customers' licenses. The customer has 53 licenses (48 Essential and 5 Advantage).



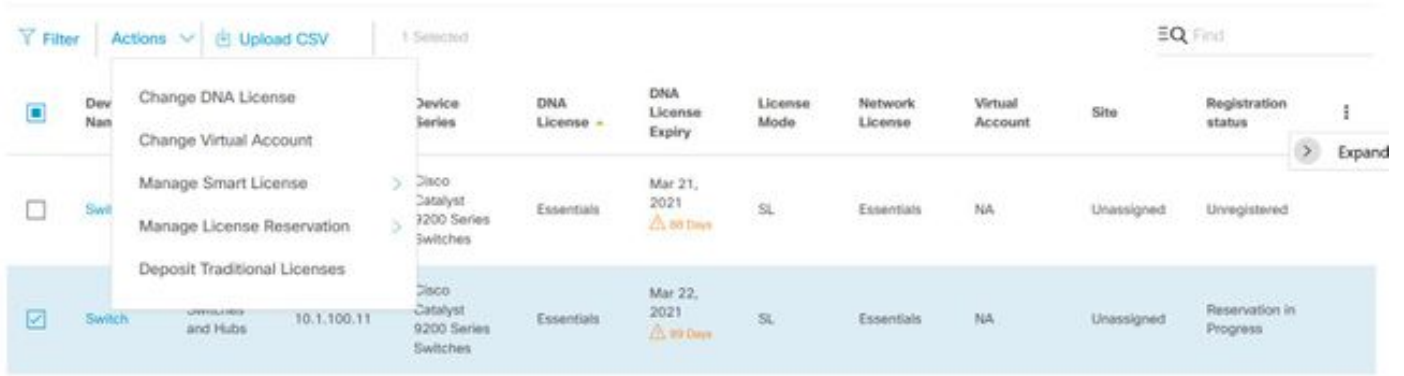
In the 'License Management' App of DNA Center, navigate to All Licenses. You will get a summary of all the devices managed by DNA Center, and their License status. The **Registration Status** and **Authorization Status** fields show the status of the DNA license, whether the device is running in Eval mode or DNA subscription mode. You need to see the **Registered-SLR** and **Authorized** state of the devices as shown in the image.

Filter | Actions | Upload CSV | Find

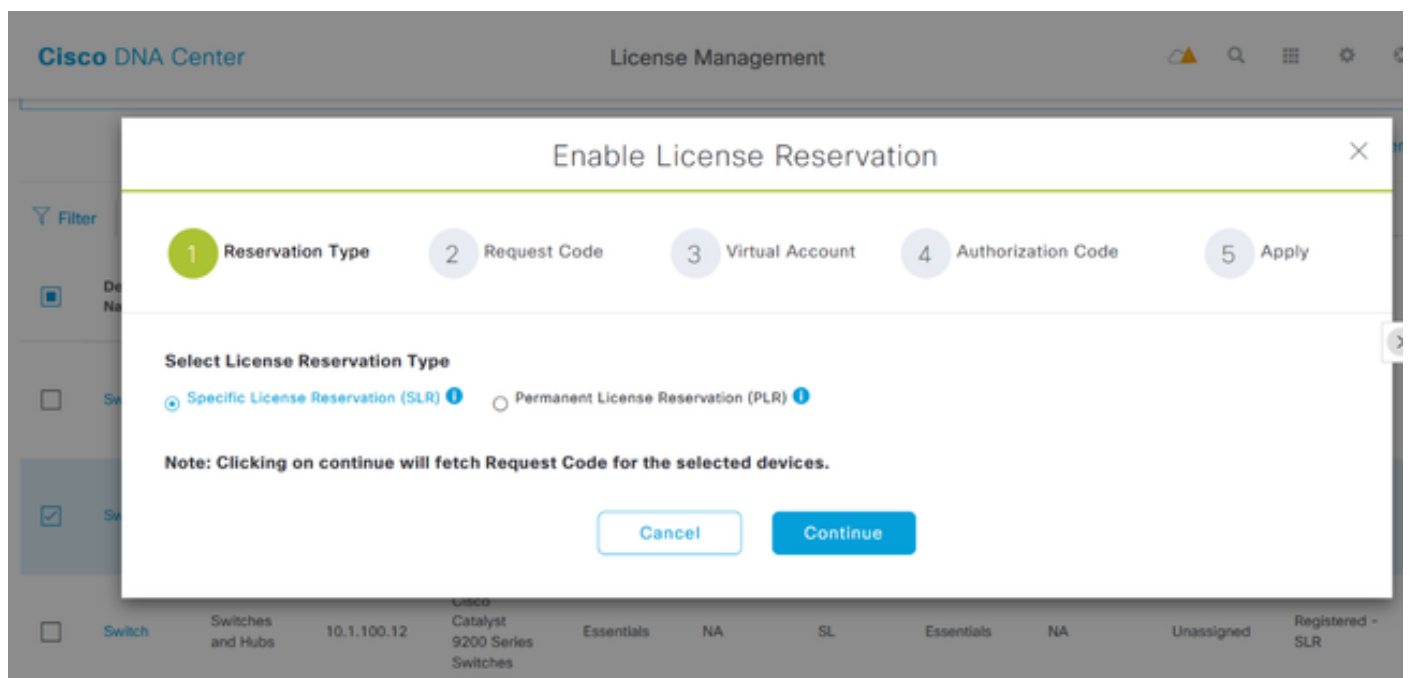
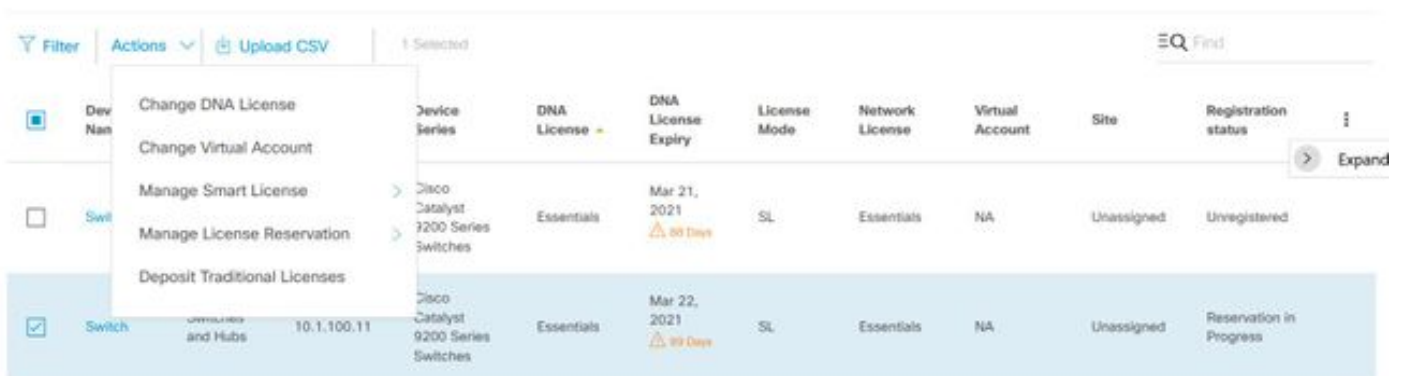
| <input type="checkbox"/> | Device Name | Device Family | IP Address | Device Series | DNA License | DNA License Expiry | License Mode | Network License | Registration status | Authorization status | Reservation Status |
|--------------------------|-------------|-------------------|-------------|-------------------------------------|-------------|---------------------------|--------------|-----------------|---------------------|-----------------------|------------------------|
| <input type="checkbox"/> | Switch | Switches and Hubs | 10.1.100.10 | Cisco Catalyst 9200 Series Switches | Essentials | Mar 22, 2021 ⚠ 55 Days | SL | Essentials | Unregistered | Evaluation Mode | Request code generated |
| <input type="checkbox"/> | Switch | Switches and Hubs | 10.1.100.11 | Cisco Catalyst 9200 Series Switches | Essentials | NA | SL | Essentials | Registered - SLR | Authorized - Reserved | Installed |

2. For DNA Center to manage the switch, the switch should be in DNA Center's Inventory list. If it is not already there, then this can be achieved by 1. Plug n Play process, which is done via DHCP. Or 2. Manually configure the switch with an IP address, enable a password and a local username/password. DNA Center uses this information in the Discovery process, to locate the newly configured switch.

3. Once the switch shows up in the DNA Centers **Inventory**. Navigate to **License Manager > All Licenses**. Select the switch or devices that you need to add the DNA License to as shown in the image.




4. Then navigate to **Actions**, select **Manage License Reservation**, then **Enable License Reservation**. Select **Specific License Reservation**, click **Continue** to Generate the Request Code as shown in the image.



5. At this stage, DNA Center will log in to the switch, and generate a Request Code from the switch. Once the request code is generated, click **Export the CSV file**.


6. Login with Cisco Smart Software Manager (CSSM). You will see all the DNA licenses purchased by the customer. This image shows an example of a customer's smart account as shown in the image.

Virtual Account: **DEFAULT** ▾

| General | | Licenses | Product Instances | Event Log | | | |
|--------------------------|---|---------------------|------------------------|--|--------------|---------|--------|
| Available Actions ▾ | | Manage License Tags | License Reservation... |  | Search b... | | |
| <input type="checkbox"/> | License | Billing | Purchased | In Use | Substitution | Balance | Alerts |
| <input type="checkbox"/> | Alronet DNA Advantage Term Licenses | Prepaid | 3 | 0 | - | + 3 | |
| <input type="checkbox"/> | AP Perpetual Networkstack Advantage | Prepaid | 3 | 0 | - | + 3 | |
| <input type="checkbox"/> | C9200 DNA Essentials, 24-port Term licenses | Prepaid | 85 | 1 (1 Reserved) | - | + 84 | |
| <input type="checkbox"/> | C9200 Network Essentials, 24-port license | Prepaid | 85 | 1 (1 Reserved) | - | + 84 | |
| <input type="checkbox"/> | C9200L DNA Essentials, 24-port Term license | Prepaid | 2 | 0 | - | + 2 | |
| <input type="checkbox"/> | C9200L DNA Essentials, 48-port Term license | Prepaid | 2 | 0 | - | + 2 | |
| <input type="checkbox"/> | C9200L Network Essentials, 24-port license | Prepaid | 2 | 0 | - | + 2 | |
| <input type="checkbox"/> | C9200L Network Essentials, 48-port license | Prepaid | 2 | 0 | - | + 2 | |
| <input type="checkbox"/> | C9300 48P DNA Advantage | Prepaid | 5 | 0 | - | + 5 | |
| <input type="checkbox"/> | C9300 48P Network Advantage | Prepaid | 5 | 0 | - | + 5 | |

7. With the use of the earlier generated **CSV file** from DNA Center, generate an authorization code from the CSSM. This authorization code allows the use of a permanent DNA license, on a device that does not have Internet access.

Virtual Account: **DEFAULT** ▾

| General | | Licenses | Product Instances | Event Log | | | |
|--------------------------|---|---------------------|------------------------|--|--------------|---------|--------|
| Available Actions ▾ | | Manage License Tags | License Reservation... |  | Search b... | | |
| <input type="checkbox"/> | License | Billing | Purchased | In Use | Substitution | Balance | Alerts |
| <input type="checkbox"/> | Alronet DNA Advantage Term Licenses | Prepaid | 3 | 0 | - | + 3 | |
| <input type="checkbox"/> | AP Perpetual Networkstack Advantage | Prepaid | 3 | 0 | - | + 3 | |
| <input type="checkbox"/> | C9200 DNA Essentials, 24-port Term licenses | Prepaid | 85 | 1 (1 Reserved) | - | + 84 | |
| <input type="checkbox"/> | C9200 Network Essentials, 24-port license | Prepaid | 85 | 1 (1 Reserved) | - | + 84 | |
| <input type="checkbox"/> | C9200L DNA Essentials, 24-port Term license | Prepaid | 2 | 0 | - | + 2 | |
| <input type="checkbox"/> | C9200L DNA Essentials, 48-port Term license | Prepaid | 2 | 0 | - | + 2 | |
| <input type="checkbox"/> | C9200L Network Essentials, 24-port license | Prepaid | 2 | 0 | - | + 2 | |
| <input type="checkbox"/> | C9200L Network Essentials, 48-port license | Prepaid | 2 | 0 | - | + 2 | |
| <input type="checkbox"/> | C9300 48P DNA Advantage | Prepaid | 5 | 0 | - | + 5 | |
| <input type="checkbox"/> | C9300 48P Network Advantage | Prepaid | 5 | 0 | - | + 5 | |

STEP 1

Enter Request Code

STEP 2

Select Licenses

STEP 3

Review and confirm

STEP 4

Authorization Code

You can reserve licenses for product instances that cannot connect to the Internet for security reasons. You will begin by generating a Reservation Request Code from the product instance. To learn how to generate this code, see the configuration guide for the product being licensed.

Once you have generated the code:

- 1) Enter the Reservation Request Code below
- 2) Select the licenses to be reserved
- 3) Generate a Reservation Authorization Code
- 4) Enter the Reservation Authorization Code on the product instance to activate the features

• Reservation Request Code:

CB-ZC9200-24T-XXXXXXXXXXXX-22

Browse

Upload

To learn how to enter this code, see the configuration guide for the product being licensed

Cancel

Next

STEP 1 ✓

Enter Request Code

STEP 2

Select Licenses

STEP 3

Review and confirm

STEP 4

Authorization Code

Product Instance Details

Product Type: C9200
 UDI PID: C9200-24T
 UDI Serial Number: XXXXXXXXXXXX

Licenses to Reserve

In order to continue, ensure that you have a surplus of the licenses you want to reserve in the Virtual Account.

Reserve a specific license

| License | Expires | Purchased | Available | Reserve |
|---|----------------|-----------|-----------|--------------------------------|
| Level 2 Supports substitution | | | | |
| C9200 Network Essentials, 24-port license <small>C9200 Network Essentials, 24-port license</small> | -never- | 85 | 83 | <input type="text" value="1"/> |
| C9200 DNA Essentials, 24-port Term licenses <small>C9200 DNA Essentials, 24-port Term licenses</small> | multiple terms | 85 | 84 | <input type="text" value="1"/> |

Cancel

Next

STEP 1 ✓
Enter Request Code

STEP 2 ✓
Select Licenses

STEP 3
Review and confirm

STEP 4
Authorization Code

Product Instance Details

Product Type: C9200
 UDI PID: C9200-24T
 UDI Serial Number: [REDACTED]

Licenses to Reserve

| License | Expires | Quantity to Reserve |
|---|---------|---------------------|
| Level 2 | | |
| C9200 Network Essentials, 24-port license <small>C9200 Network Essentials, 24-port license</small> | -never- | 1 |
| C9200 DNA Essentials, 24-port Term licenses <small>C9200 DNA Essentials, 24-port Term licenses</small> | - | 1 |

Cancel Back Generate Authorization Code

Once the Authorization codes have been generated, either Download them as a **File** or **Copy them to Clipboard**.

STEP 1 ✓
Enter Request Code

STEP 2 ✓
Select Licenses

STEP 3 ✓
Review and confirm

STEP 4
Authorization Code

✓ The Reservation Authorization Code below has been generated for this product instance. Enter this code into the Smart Licensing settings for the product, to enable the licensed features.

Product Instance Details

Product Type: C9200
 UDI PID: C9200-24T
 UDI Serial Number: [REDACTED]

Authorization Code:

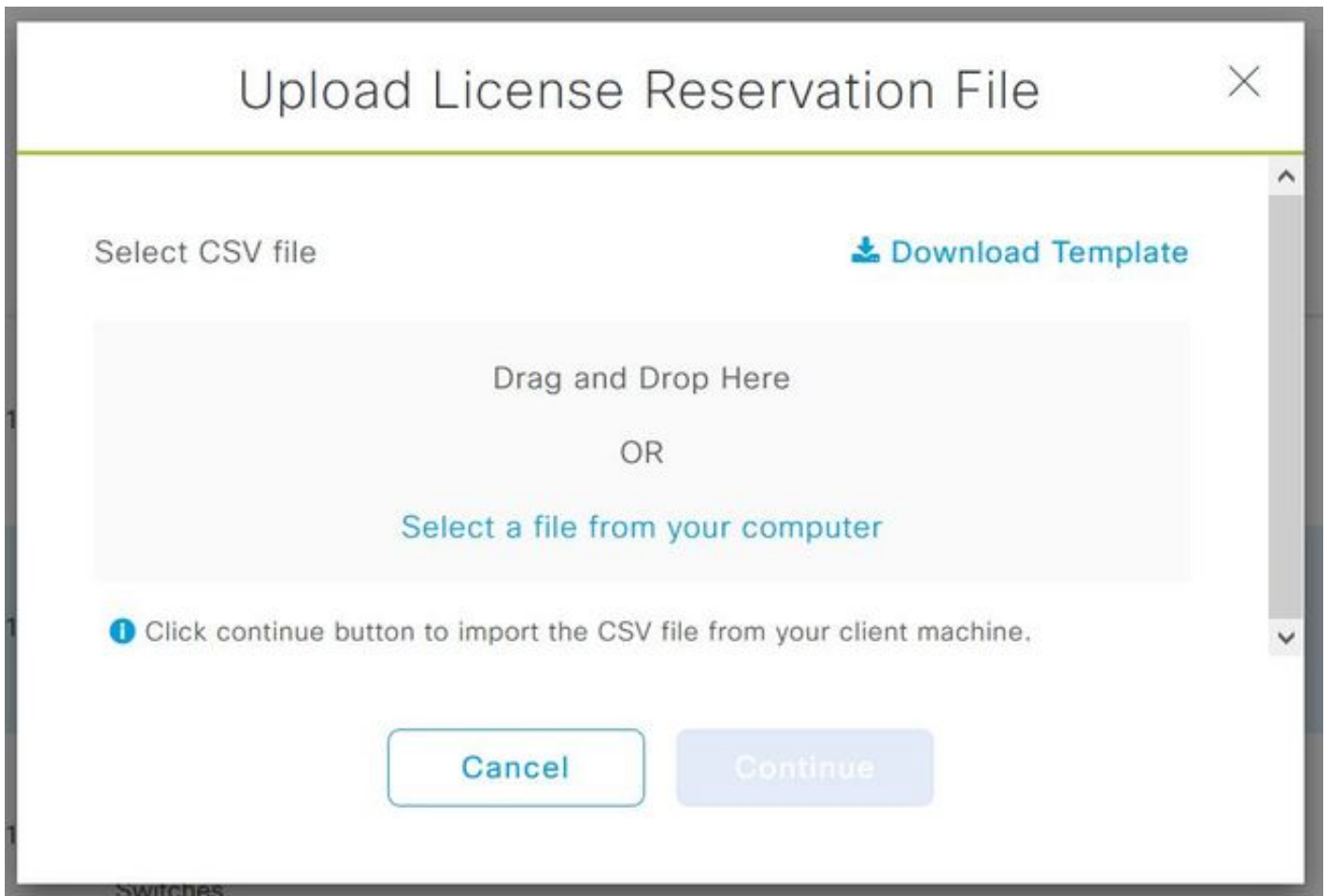
```

<specificPLR><authorizationCode><flag>A</flag><version>C</version><pld>[REDACTED]</pld><timestamp>1608613269804</timestamp><entitlements>
<entitlement><tag>regid.2018-05.com.cisco.C9200-NW-E-24,1.0</tag><count>1</count><startDate></startDate><endDate></endDate>
<licenseType>PERPETUAL</licenseType><displayName>C9200 Network Essentials, 24-port licenses</displayName><tagDescription>C9200 Network Essentials, 24-port
license</tagDescription><subscriptionID></subscriptionID><entitlement><entitlement><tag>regid.2018-02.com.cisco.C9200-DNA-E-24,1.0</tag>
<count>1</count><startDate>2020-Dec-03 UTC</startDate><endDate>2023-Dec-02 UTC</endDate><licenseType>TERM</licenseType><displayName>C9200 DNA Essentials, 24-port
Term licenses</displayName><tagDescription>C9200 DNA Essentials, 24-port Term licenses</tagDescription><subscriptionID></subscriptionID><entitlement><entitlements>
</authorizationCode><signature>[REDACTED]</signature>
```

To learn how to enter this code, see the configuration guide for the product being licensed

Download as File Copy to Clipboard Close

9. Click on **Download Template** and download the License Reservation Template as shown in the image.



Update the information for the fields of DeviceName, Serial No., RequestCode (from Step 5.), and Authorization Code that was Copied earlier (Step 8.) as shown in the image.

| | A | B | C | D | E | F | G | H | I |
|---|-----------|------------|--------------|--------------------|--|---|---|---|---|
| 1 | IPAddress | DeviceName | SerialNumber | RequestCode | AuthorizationCode | | | | |
| 2 | 10.1. | DNASW001. | ABCDEF12345 | CB-ZC9200-24T:LhGz | MEUCIQDNMGgBh30N2tamddHt3GtFKKqP30rPWDZ2 | | | | |
| 3 | | | | | | | | | |

10. Once the CSV file is ready, click on **Upload CSV** to upload the Authorization Code to the Device. This will install the SLR license to the device, and the license will be respective DNA license is authorized to run on the device as shown in the image.

Upload License Reservation File



Select CSV file

 [Download Template](#)

 licenseReservationTemplate.csv 

 Click continue button to import the CSV file from your client machine.

Cancel

Continue

Switches

Upload License Reservation File



License Reservation will be applied on 1 devices.

| Device Name | IP Address/DNS Name | Serial Number | Request Code | Authorization Code |
|-------------|---------------------|---------------|---|--------------------|
| Switch | 10.1.100.11 | [REDACTED] | CB-ZC9200-24T: [REDACTED] A4T2LhGzf-22 | Available |

Showing 1 of 1

Cancel

Confirm



Saved

Initiated License reservation for 1 devices.

OK

You should see the Registration Status change to **Registered – SLR**.

Cisco DNA Center License Management

Last updated: 1:09 pm Refresh Export Recent

Filter Actions Upload CSV Find

| Device Name | Device Family | IP Address | Device Series | DNA License | DNA License Expiry | License Mode | Network License | Virtual Account | Site | Registration status |
|-------------|-------------------|-------------|-------------------------------------|-------------|-------------------------|--------------|-----------------|-----------------|------------|---------------------|
| Switch | Switches and Hubs | 10.1.100.10 | Cisco Catalyst 9200 Series Switches | Essentials | Mar 21, 2021 88 Days | SL | Essentials | NA | Unassigned | Unregistered |
| Switch | Switches and Hubs | 10.1.100.11 | Cisco Catalyst 9200 Series Switches | Essentials | NA | SL | Essentials | NA | Unassigned | Registered - SLR |
| Switch | Switches and Hubs | 10.1.100.12 | Cisco Catalyst 9200 Series Switches | Essentials | NA | SL | Essentials | NA | Unassigned | Registered - SLR |