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Configure Cisco Wireless Licenses

Cisco Wireless licenses

Cisco Wireless licenses, a part of the Cisco Networking Subscription licensing model, is a software license that helps you to deploy your Wi-fi 7 Access Points in an on-premise, hybrid, or a cloud managed network. Cisco Wireless licenses are supported on Wi-Fi 7 Access Points (APs) running on Cisco IOS XE 17.15.2 release.

The Cisco Wireless licenses consist of the following tiers:

- **Cisco Wireless Essentials (LIC-CW-E)**: Provides fundamental features and functionalities that are essential to manage a network.
- **Cisco Wireless Advantage (LIC-CW-A)**: Provides additional features and capabilities to manage a network, which includes all the essential capabilities in addition to the advanced capabilities such asAP Auto-location and AI-powered radio resource management.

Note

The Cisco Wireless licensing feature tiers match the Cisco DNA Wireless feature tiers.

For more information on the features supported for each of these tiers, see Cisco Network Subscription Data Sheet.

Benefits

Cisco Wireless licenses offer benefits such as:

- Simplified licensing procurement and renewal workflows.
- Support for a simple, one-step onboarding and usage experience.
- Flexibility to set up networks in different ways: on-premise, cloud, or hybrid.
- Flexibility to change the management mode for the licenses without migrating to a particular license type.
- Ease of adding additional licenses to an existing network. The newly added licenses will automatically inherit the settings of the parent network.

Prerquisite

Before you use Cisco Wireless licenses, you must have a:

- Wi-Fi 7 Access Point
- Cisco IOS XE software, 17.15.2 version
- Smart Account and one or more Virtual Accounts that are set up to manage your assets such as licenses, devices, and general terms
- Cisco Wireless license that you can purchase through existing channels

Ordering Cisco Wireless licenses

You can purchase a Cisco Wireless license through the Cisco Network Subscription licensing model. For more information, see the Catalyst Wireless Ordering Guide.

Components of Cisco Wireless licenses

The Cisco Wireless licensing solution comprises of:

- **Product Instance**: A single instance of a Cisco product identified by a Unique Device Identifier (UDI). A product instance records and reports license usage, and provides alerts and system messages about overdue reports, communication failures, etc.
- **Smart Account**: A centralized account that allows you to manage your Cisco software assets across your organization. A Smart Account is associated at a subscription level. You can set up Virtual Accounts, a collection of products and licenses, within your Smart Account. Virtual Accounts are used to organize assets within your Smart Account.
- **Cisco Smart Software Manager (Cisco SSM)**: A centralized portal where all your assets, including your licenses, are populated once an order passes through. This portal enables you to manage all your Cisco software licenses from one centralized website.
- **Cisco Smart License Utility (CSLU)**: CSLU is a Windows-based application that enables you to administer licenses and the associated product Instances from an on-premise network instead of having to directly connect to Cisco SSM. You can establish a connection between CSLU and your product instance to collect license usage reports and upload them to your Virtual Accounts.

License Management

This section provides the high-level workflow to set up and use your Cisco Wireless licenses.

1. Set up a Smart Account and one or more Virtual Accounts to structure your Cisco assets (licenses, devices, and general terms). You can view and manage your Smart Account and Virtual Accounts in the Cisco SSM portal.
2. Purchase or order licenses through existing channels. Once purchased, assets are available in your organization's Smart Account and Virtual Accounts, and can be accessed through the Cisco SSM portal. Ensuring that the licenses are in the correct Smart Account and Virtual Account is essential to consume your licenses.
3. Configure and use the required licenses. The detailed steps on how to use the Cisco Wireless licenses are available in the later sections in this document.
4. Set up a method to report license usage to Cisco SSM.

If you need detailed information on steps 1, 2, and 4, see Smart Licensing Using Policy for Cisco Wireless Controllers.

Configure Cisco Wireless licenses

Cisco Wireless licenses are autoconfigured by default. You don't need to enable or configure these licenses explicitly.

Note

By default, the Cisco Wireless Advantage tier is activated. To know how to modify the license level to the Essentials tier, see Modify license level.

View license status

After you purchase the licenses and they are activated, you can check the status and the compliance status of your license on the Web UI.

Step 1 On the Web UI, navigate to **Monitoring** > **Wireless** > **AP Statistics**.

Step 2 On the **AP Statistics** window, all the licenses consumed by your AP are displayed in a table.

Step 3 To identify the Cisco Wireless licenses, check the **License Type** column. This column displays the type of license consumed by your AP. Cisco Wireless licenses are displayed by the value **CW**.

Step 4 To verify the compliance status of your license, check the **License State** column. This column specifies the compliance status of your license. Possible values are:

- **Non Compliant:** The AP is non-compliant.
- **Compliant:** The AP is complaint and functional.
- **N/A:** Implies that this AP is using an AIR license and not CW license. In this case, tracking is not possible and the N/a state is displayed.
- **Policy Allowed:** This value is displayed against APs that are deemed compliant, if a policy is installed on your WLC, or if your Smart Account has a custom policy and trust is established with your WLC.

Note If you have reserved your licenses by using Specific License Reservation (SLR), the licenses will be reserved as per your order. In this scenario, the APs will remain functional in a Policy Allowed state.

Step 5 To check the reason for non-compliance, see the **Non Compliant Reason** column. Possible values are:

- **Never Licensed**: This implies that either the AP has never reported to Cisco SSM or the Smart account on CSSM does not have any licenses at all or not enough licenses, which is required by this AP.
- **N/A**: This means that the non-compliance reason is not applicable. This could happen if you're using an AP less than version Wi-Fi 7, or your AP is compliant or has a policy allowed status.
- **License Expiration**: The license has expired and needs to be renewed.

View license count

Perform this procedure to view the license details for each license type for your APs.

Step 1 On the Web UI, from the left navigation page, go to **Licensing**.

Step 2 To view the number of APs against each license type, check the **License count** column on the dashboard.

When you click the hyperlink in the **License Count** column, the **AP Statistics** window is displayed with the license details.

Verify license status through CLI

Step 1 Run the **enable** command.

Enables privileged EXEC mode. Enter your password, if prompted.

Step 2 Enter the **show ap summary license** command.

Displays the license summary, including the license type and the license status for the Cisco Wireless licenses.

See a sample configuration here:

```
Device# show ap summary license
For AIR licenses, per AP tracking of license state is unavailable. Please use "show license summary"
 to find status of AIR subscriptions
Policy allowed state means device is deemed compliant due to a policy downloaded from licensing
authority, please check installed policy
AP Name                          AP Model             AP MAC            License Type  License State
     Non Compliance Reason
-------------------------------------------------------------------------------------------------------------------
sim_ap_radsec-1                   C9130AXE-B            00b2.b100.0200    AIR               --
          --
sim_ap_radsec-10                  C9130AXE-B            00b2.b100.0b00    AIR               --
          --
sim_ap_radsec-11                  CW9178I               00b2.b100.0c00    CW               Compliant
          --
sim_ap_radsec-12                  CW9178I               00b2.b100.0d00    CW               Compliant
          --
APC414.A26F.5FD0                  CW9178I               c414.a26f.5fe0    CW               Compliant
          --
```

Here, -- under Non Compliance Reason implies the reason is not applicable. This could happen if you're using an AP less than version Wi-Fi 7, or your AP is compliant or has a policy allowed status.

Modify license level

To modify the license level, perform these steps:

Step 1 On the Web UI, go to **Licensing** from the left navigation pane.

Step 2 On the **Licensing** window, choose the license for which you want to modify the license.

Step 3 Choose **Change Wireless License Level**.

Step 4 Reload the device by selecting **Administration** > **Reload**, for the license level update to take effect.

To modify the license level through the CLI, execute the **license cw <license-level>** command in the global configuration mode.

Here's a sample configuration:

```
Device# configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Device(config)# license cw ?
  advantage   Cisco Wireless advantage License Level
  essentials  Cisco Wireless essentials License Level
Device(config)# license cw advantage
Please reload device to get cisco wireless level updated.
```

Connect to Cisco SSM

To report license usage to the Cisco SSM, you must establish a connection between your instance and the Cisco SSM portal. Depending on your organization's network requirements and security policy, the connection to Cisco SSM may be a direct connection over the internet, or through mediated access, or through offline communication for air-gapped networks.

Perform these steps to establish this connection for the first time:

Step 1 On the Web UI, click **Licensing** in the left navigation pane.

Step 2 From the **Service Settings** tab, choose the applicable option from the **Connection Mode** drop-down list.

Connection Mode	Description
Connected Directly to CSSM	The product instance triggers reporting and installs the returning ACK.
Connected to CSSM Through CSLU	Product Instance-initiated communication: The product instance triggers reporting and installs the returning ACK. CSLU sends the RUM report to CSSM and collects the ACK from CSSM. CSLU-initiated communication: You have to collect usage from the CSLU interface: . CSLU sends the RUM report to CSSM and collects the ACK from CSSM.
CSLU Disconnected from CSSM	Product Instance-initiated communication: The product instance triggers reporting. You then have to report usage in the disconnected mode. CSLU-initiated communication: You have to collect usage from the CSLU interface and report usage in the disconnected mode.
No Connectivity to CSSM and No CSLU	License usage is recorded on the product instance. You must save RUM reports to a file on the product instance, and from a workstation that has connectivity to the internet, and Cisco, upload it to CSSM: Enter **license smart save usage** privileged EXEC command to save usage .

Once the trust is established between your instance and Cisco SSM, the status displays **Trust Established**. The license usage is reported periodically once the trust is established.

For detailed information about each of these connection modes and their respective workflows, see Connecting to Cisco SSM.

Upgrade and downgrade scenarios

Upgrade to Cisco IOS XE 17.15.2

- If you upgrade to Cisco IOS XE 17.15.2 and not add Wi-Fi 7 APs, your existing licenses will continue to function as before.

- If you upgrade to Cisco IOS XE 17.15.2, and you add Wi-Fi 7 APs, purchase the Cisco Wireless licenses for the APs. The Wi-Fi 7 APs will be activated. You can then manage and track the Cisco Wireless licenses status and usage from the Cisco SSM portal or the Meraki Dashboard. Older APs will continue to function with the legacy (DNA) licensing.

Downgrade from Cisco IOS XE 17.15.2

- If you downgrade from Cisco IOS XE 17.15.2 and do not have any Wi-Fi 7 APs, your older licenses will continue to function as before.
- If you downgrade from Cisco IOS XE 17.15.2, and you have Wi-Fi 7 APs added, the APs will not work.

Note

The Cisco Wireless licensing feature tiers match the Cisco DNA Wireless feature tiers.