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Smart Licensing on the Cisco Ultra-Reliable Wireless Backhaul for Catalyst IW Access Points

Smart Licensing

This document provides information on how to streamline and enhance your licensing experience using Smart Licensing on the Cisco Ultra-Reliable Wireless Backhaul for Catalyst IW Access Points.

Benefits of using Smart Licensing are as follows:

- Smart license management provides a seamless experience across various licensing aspects.

- IIoT-specific seats cache a device list in mobility scenarios and reserve licenses based on the expected maximum number of devices in the network.

- Airgap mode allows manual syncing with Cisco Smart Software Manager (CSSM) using a downloaded file.

- The same license level must be configured on the primary and secondary Layer 2 Mesh End (ME) or Layer 3 Global Gateway (GGW).

The Smart license level determines the feature list. There are three licensing levels to manage the feature set and throughput:

- Essential

- Advantage

- Premier

> **Note**
>
> The unlocked features vary depending on the device model.

Table 1: Features Tied to Licenses for IW9165 and IW9167

License Type	Features
Essential	• Unlimited fixed infra throughput (Fluidity and pure fixed infra) • 0.5 Mbps Mobility client throughput
Advantage	• 50 Mbps mobility client throughput • Multipath Operations (MPO)[1] • Cisco URWB Essentials

License Type	Features
Premier	• Unlimited mobility client throughput • Cisco URWB Advantage • Cisco URWB Essentials

[1] Applicable only for IW9167.

📝 **Note**

- The license is not enforced, but a warning log will be generated if the device fails to report license usage to CSSM.

- Only Generic Gigabit Wireless (GGW) and Layer 2 Media Extenders (L2-ME) devices have license-related configuration and show commands. Other devices in the network will synchronize the license from the primary GGW/L2-ME.

- Ensure the device synchronizes with the Network Time Protocol (NTP) server to establish a successful connection with CSSM.

Configure Smart License

Use the **license iw-level** {**essential** | **advantage** | **premier**} command to configure smart license.

```
Device# license iw-level premier
```

Configure Smart License Device Number

Use the **license iw-network platform** *platform* **seats** *seats* command to configure smart license device number.

```
Device# license iw-network platform iw9165 seats 6
```

Configure Smart License Online Deployment

Step 1 Use the **license smart transport smart** command to set the transport mode to smart transport.

```
Device# license smart transport smart
```

Step 2 Use the **license smart url smart** *url* command to configure the smart licensing URL for communication with CSSM.

```
Device# license smart url smart https://smartreceiver.cisco.com/licservice/license
```

Step 3 (Optional) Use the **license smart proxy address** *ip-address* command to configure the smart licensing system to use a specific proxy server for license management.

```
Device# license smart proxy address 192.168.1.1
```

Step 4   (Optional) Use the **license smart proxy port** *port* command to configure the smart licensing system to to use a specific proxy server for license management.

```
Device# license smart proxy port 3128
```

Step 5   Use the **license smart trust idtoken** *token* **local** command to configure the device to trust the locally stored identity token for smart licensing.

```
Device# license smart trust idtoken id_token_generated_from_CSSM local
```

Step 6   (Optional) Use the **license smart usage interval** *interval* command to set the interval at which the device reports its license usage to the licensing server.

```
Device# license smart usage interval 50
```

Configure Smart License Offline Deployment

Step 1   Use the **license smart transport off** command to disable the smart transport feature for licensing.

```
Device# license smart transport off
```

Step 2   Use the **license smart trust idtoken** *token* **local** command to configure the device to trust the locally stored identity token for smart licensing.

```
Device# license smart trust idtoken id_token_generated_from_CSSM local
```

Step 3   Use the **license smart save usage all** *tftp-link* command to save all the license usage data to the smart licensing system.

```
Device# license smart save usage all tftp://192.168.216.201/rum_report_all.xml
```

Step 4   Use the **license smart import** *link* command to to import license information into the smart licensing system.

```
Device# license smart import tftp://192.168.216.201/rum_report_ack.xml
```

Configuring Smart Licensing from GUI

Step 1   Select the network license level for the Cisco URWB stack.

The license level is bound to software features and monitored by CSSM.

Step 2   Set the network seats to consume usage for a particular license level, for example, Network Essentials for Radios.

Step 3 To Download a usage, Save RUM (Resource Utilization Measurement) reports (license usage information) and save all RUM reports using All options. Save the RUM report for the last n number of days (excluding the current day) using the Days option.

Step 4   To Upload CSSM Acknowledge and sync license usage, import the ACK (Acknowledge) that was downloaded from CSSM on the production instance when Smart agent is in Airgap (Offline) Mode.

Reset Smart License

Use the **license smart factory reset** command to reset the smart licensing configuration on a device to its factory default settings.

```
Device# license smart factory reset
```

Verify Smart License Configuration

Verify Smart License Usage

```
Device# show license usage

License Authorization:
  Status: Not Applicable

IW9167_URWB_NW_P (IW9167_URWB_NW_P):
  Description: Network Premier for Catalyst Industrial Wireless CURWB Radios
  Count: 1
  Version: 01
  Status: IN USE
  Export status: NOT RESTRICTED
  Feature Name: IW9167_URWB_NW_P
  Feature Description: Network Premier for Catalyst Industrial Wireless CURWB Radios
  Enforcement type: NOT ENFORCED
  License type: Perpetual
```

Verify Smart License Device Number

```
Device# show license iw seats

Platform  Configured    Current
IW9167          1            1
IW9165          0            0
```

Verify Smart License Usage Count

```
Device# show license summary

Account Information:
  Smart Account: <none>
  Virtual Account: <none>

License Usage:
  License                 Entitlement Tag                 Count Status
  --------------------------------------------------------------------------
  IW9167_URWB_NW_P        (IW9167_URWB_NW_P)              1 IN USE
```

📄 **Note**

- License usage count reflects the maximum number of configured license seats and active devices.

- For offline devices, the system retains the device record for 2 days.

- If active devices exceed the configured license seats, a license usage report is sent to CSSM every 8 days.

Verify Smart License HA Role

```
Primary_ME# show license tech support

License Usage
=============
Handle: 1
  ...
  Measurements:
    ENTITLEMENT:
      Interval: 00:15:00
      Current Value: 0
      Current Report: 0        Previous: 0
    Application HA Info:
      Application Name: UrwbSLP
      Application Id: UrwbHA
      Application Role: Active
      Info For Peer: 197
      Peer Info:
        Application Name: UrwbSLP
        Application Id: UrwbHA
        Application Role: Standby
        Hostname: 'nullPtr'
        PIID: 620f78ec-fae9-4a56-929e-69a4ca07ad9b
        UDI: P:IEC-6400-URWBT,S:WZP26220Q5Z
        Smart Account Name: 'nullPtr'
        Virtual Account Name: 'nullPtr'

Standy_ME# show license tech support

License Usage
=============
Handle: 1
  ...
  Measurements:
    ENTITLEMENT:
      Interval: 00:15:00
      Current Value: 0
      Current Report: 0        Previous: 0
    Application HA Info:
      Application Name: UrwbSLP
      Application Id: UrwbHA
      Application Role: Standby
      Info For Peer: 199
      Peer Info:
        Application Name: UrwbSLP
        Application Id: UrwbHA
        Application Role: Active
        Hostname: 'nullPtr'
        PIID: 566e9ed0-132d-4f70-90cc-526692a96e22
        UDI: P:IEC-6400-URWB,S:WZP262304VR
        Smart Account Name: 'nullPtr'
        Virtual Account Name: 'nullPtr'
```

Verify Smart License CSSM Connection

```
Device# show license status
.
.
.
Account Information:
  Smart Account: SA-IOT-Polaris As of Sep 21 2023 11:04:03 CST
  Virtual Account: CURWB
```

```
...
Transport:
  Type: Smart
  URL: https://smartreceiver.cisco.com/licservice/license
  Proxy:
    Address: 192.168.216.201
    Port: 3128
...
Policy:
  Policy in use: Installed On Sep 21 2023 11:03:46 CST
  Policy name: Test Policy
  Reporting ACK required: no (Customer Policy)
  Unenforced/Non-Export Perpetual Attributes:
    First report requirement (days): 94 (Customer Policy)
    Reporting frequency (days): 100 (Customer Policy)
    Report on change (days): 100 (Customer Policy)
...

Trust Code Installed: Sep 21 2023 11:03:46 CST
```