Release Notes for Cisco Sensor Connect for IoT Services, Release 1.2.x

Contents

Cisco Sensor Connect for IoT Services

The Cisco Sensor Connect for IoT Services solution enables delivery of advanced BLE capabilities over Cisco Catalyst Wireless infrastructure. The key component of this solution is the Cisco Sensor Connect which is a Cisco IOx application that can be deployed on any existing Cisco Catalyst 9800 Wireless Controller platforms running software version Cisco IOS-XE 17.15.3 and later. With the Cisco Sensor Connect for IoT Services solution, you have the capabilities to securely onboard and control BLE devices and consume data telemetry using the Message Queuing Telemetry Transport (MQTT).

Document revision history

Table 1. Document revision history

Date	Description
September 9, 2026	Release 1.2.2 updates
January 30, 2026	Release 1.2.1 updates
September 2, 2025	Added information about CSCwq83768 in the Known issues section
August 5, 2025	Release 1.2.0 updates

Supported licenses

- Cisco Spaces Smart Operations
- Cisco Spaces ACT
- Cisco Spaces Unlimited
- Cisco Wireless Advantage

System configuration

The section lists the supported Cisco APs and Catalyst 9800 Controllers.

Supported Access Points

Table 2. New and changed information

AP Model	VIDs	Scan mode	Transmission mode	Dual mode (scan and transmit mode)	BLE device connection without pairing	BLE device connection with pairing	Maximum concurrent BLE device connection limit
Cisco Catalyst 9105AXI or 9105AXIT	VID 02 or lower	Yes	Yes	Yes	Yes	No	8
	VID 03 or higher	Yes	Yes	Yes	Yes	Yes	8
Cisco Catalyst	VID 01 or lower	Yes	Yes	Yes	Yes	No	8

AP Model	VIDs	Scan mode	Transmission mode	Dual mode (scan and transmit mode)	BLE device connection without pairing	BLE device connection with pairing	Maximum concurrent BLE device connection limit
9105AXW or 9105AXWIT	VID 02 or higher	Yes	Yes	Yes	Yes	Yes	8
Cisco Catalyst 9115AX	–	Yes	Yes	No	No	No	–
Cisco Catalyst 9120AX	VID 06 or lower	Yes	Yes	Yes	Yes	No	8
	VID 07 or higher	Yes	Yes	Yes	Yes	Yes	8
Cisco Catalyst 9130AX	VID 02 or lower	Yes	Yes	Yes	Yes	No	8
	VID 03 or higher	Yes	Yes	Yes	Yes	Yes	8
Cisco Catalyst 9124AX	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Catalyst 9136 (I)	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Catalyst 9162 (I)	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Catalyst 9164 (I)	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Catalyst 9166 (I)	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Wireless 9171 (I) [From Cisco IOS XE 17.18.2]	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Wireless 9172 (I) [From Cisco IOS XE 17.15.3]	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Wireless	–	Yes	Yes	Yes	Yes	Yes	8

AP Model	VIDs	Scan mode	Transmission mode	Dual mode (scan and transmit mode)	BLE device connection without pairing	BLE device connection with pairing	Maximum concurrent BLE device connection limit
9172 (H) [From Cisco IOS XE 17.17.1]							
Cisco Wireless 9174 (I) [From Cisco IOS XE 17.18.2]	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Wireless 9174 (E) [From Cisco IOS XE 17.18.2]	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Wireless 9176 (I/D1)	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Wireless 9178 (I)	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Wireless IW9167 Heavy Duty Series Access Points [From Cisco IOS XE 17.15.3]	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Wireless 9179F	–	Yes	Yes	Yes	Yes	Yes	8
Cisco Wireless 9177	–	Yes	Yes	Yes	Yes	Yes	8

Note:

- While Cisco Catalyst 9115 AP is supported with Sensor Connect for IoT Services feature for scanning and advertising, however, Cisco does not recommend using this AP model for delivering high density, latency-sensitive, or mission critical BLE use cases due to known hardware performance limitations.

- For information on the VIDs for the access points, see the **How to Identify Affected Products** section in the *Field Notice*.

Supported controller platforms

- Cisco Catalyst 9800-L Wireless Controller
- Cisco Catalyst 9800-40 Wireless Controller
- Cisco Catalyst 9800-80 Wireless Controller
- Cisco CW9800M Wireless Controller
- Cisco CW9800H1 and CW9800H2 Wireless Controllers
- Cisco CW9800L Wireless Controller

Software features

New software features in release 1.2.2

Table 3. New features in release 1.2.2

Feature	Description
Name change to Sensor Connect	IoT Orchestrator is now known as Sensor Connect App.
Simplified IoT Services Configuration	Starting with Cisco IOS XE Release 26.1.1, the IoT Service configuration page in the Cisco Catalyst 9800 WebUI provides a streamlined method for configuring network parameters for the Sensor Connect App. For more information, see the Cisco Catalyst 9800 release notes.
Configurable high-baud-rate	Sensor Connect App now provides an advanced option for enabling a high baud rate on the AP. This option will be supported in upcoming Cisco IOS XE releases. Enable a high baud rate only for specific deployments and under the guidance and supervision of Cisco Support.

New software features in release 1.2.1

Table 4. New features in release 1.2.1

Feature	Description
Get Connection Status API	Get Connection Status API, introduced in IoT Orchestrator 1.2.1, retrieves the current BLE connection status of a device. If the device is connected, the API also returns its discovered GATT services, characteristics, and descriptors. This API is accessed via the GET /control/connectivity/status endpoint.
Get All Onboarded Devices	For the IoT Orchestrator 1.2.1 release, this feature enables the retrieval of all Bluetooth Low Energy (BLE) devices registered under a specific onboarding application. It requires the controlApp parameter to specify the application, supports pagination using startIndex and count parameters for efficient data handling, and requires an x-api-key for secure access.
Get All Devices – With Pagination	This new feature for IoT Orchestrator 1.2.1 provides the capability to retrieve a comprehensive list of all devices with built-in pagination support. Utilizing the GET /scim/v2/Devices endpoint, users can efficiently manage and browse device data. The API supports query parameters including the required onboardApp for specifying the onboarding application name, and optional parameters such as startIndex and limit.

New software features in release 1.2.0

Table 5. New features in release 1.2.0

Feature	Description
Support for all BLE frames	All Cisco Access Points support scanning and reporting for all types of BLE frames (general discoverable and non-general discoverable advertisements). This feature is enabled by default.
Allow-list filtering	A configurable allow-list for BLE advertisement filtering is done at the access point level. Allow-list filter accepts any advertisement whose MAC address matches a filter. A filter entry can be of any length, up to a full MAC address length. A maximum of 64 filters per AP or AP profile is supported. Random private MAC addresses are still being filtered by default. This feature requires 17.15.3 APSP or a later image on the Access Point side. If this feature is enabled in an unsupported Access Point image (for example, 17.15.3 or earlier), the action sets the Access Point in an Out-of-Sync state as the allow-list filter feature is available only from the 17.15.3 APSP and later releases.
Scanning mode disabled by default	Scanning mode is disabled by default in this release. This feature permits the allow-list to be properly set and configured before enabling scanning, preventing possible BLE advertisement floods. When upgrading from a previous version with scanning enabled, configuration remains as is; however, we recommend that you keep scanning on any APs disabled where it is not needed and apply filters where relevant to reduce any noise coming from unwanted advertisements. A banner with this recommendation is displayed after the upgrade.
Configurable default profiles	With this release, you can configure and customize the default transmit and configuration profiles.
Higher scale for CW9800M, CW9800H1 and CW9800H2	Support for higher advertisement rates for onboarded and non-onboarded BLE devices is available with this release. For more information, see Table 1 in System Configuration.

Release image

Download the IoT Orchestrator (**Spaces Orchestrator Software**) image that will be posted in the following page:

https://software.cisco.com/download/home/286323456/type

For further help, reach out to Cisco TAC.

Known issues

- CSCwq56528: After you downgrade Cisco Sensor Connect for IoT Services on the Catalyst 9800 controller from 1.2.0 release to 1.1.0 release, the IoT UI fails to become accessible post downgrade. Though the CLI on the controller indicates that the IoT application is in running state, the UI does not load, and relevant ports remain non-operational. The workaround is to install the application from Day 0 state.
- CSCwq58181: Attempting to create a new filter profile after onboarding 64+ BLE devices, each with a unique MAC prefix (such as a unique first octet), results in an error. The error message indicates that not all required MAC prefixes are included in the filter.

Workarounds:

- The maximum supported BLE MAC prefixes or full MAC is 64 per filter of AP. Hence, a workaround is to undo the onboarding of the devices so that this limit is respected.
- Apply the required filtering first and onboard the devices based on the applied prefixes.

- CSCwq50607: Core files are generated on Cisco Catalyst 9105 AP, which you can see using the **show flash cores** command. The issue is seen only when a connect operation is performed, and only on the following Cisco 9105 APs:
  - Cisco Catalyst 9105AXI or 9105AXIT with VID 02 or lower
  - Cisco Catalyst 9105AXW or 9105AXWI with VID 01 or lower

  If the AP is still not scanning any BLE devices, rebooting the AP should bring it out of crash loop. We recommend that you do not to use the above-mentioned Cisco 9105 APs for connect operations. For information about the VIDs for the access points, see the How to Identify Affected Products section in the following field notice: https://www.cisco.com/c/en/us/support/docs/field-notices/724/fn72424.html

Open issues for Cisco Sensor Connect for IoT Services 1.2.2

Table 6. Open issues in release 1.2.2

Bug ID	Headline
CSCws92590	BLE Connectivity issues during longevity tests for multiple connections
CSCwt31247	ble_trnapsort crashes when BLE client connect on AP with TI chipset
CSCwv29818	BLE connection failure on 9105 AP with ERR_BLE_RESPONSE_TIMEOUT

Open issues for Cisco Sensor Connect for IoT Services 1.2.1

Table 7. Open issues in release 1.2.1

Bug ID	Headline
CSCws69543	AP Remains connected on IOT when the AP interface is shutdown
CSCws92532	IoT Orchestrator displays incorrect report on bulk AP config push
CSCws94021	Unsubscribe API Responds incorrect status code 200 while status is FAILURE
CSCws92590	BLE_BUSY Errors observed while BLE Connection failures in longevity

Open issues for Cisco Sensor Connect for IoT Services 1.2.0

Table 8. Open issues in release 1.2.0

Bug ID	Headline
CSCwq03579	Malformed scan packets on Silabs NCP
CSCwq18337	BLE firmware not updated when Access Point image is downgraded

Resolved issues for Cisco Sensor Connect for IoT Services 1.2.2

Table 9. Resolved issues in release 1.2.2

Bug ID	Headline
CSCwv20634	BLE devices flap due to orchestrator-initiated early mobility disconnect
CSCwt88367	[IOT - Orch] - Transmit configuration Adv.tx.power Range to be Changed
CSCwt76343	Event for mobility disconnection is not received to MQTT receiver
CSCwt33187	Mobility reconnection is not triggered when Advertisments are coming from a connected BLE device
CSCwt21795	[IoT Orch Throttle] Config profile edits fail to apply for all APs at scale
CSCwt10539	Uploaded certificates not being updated for REST Authentication
CSCwt10379	IOT UI goes down after performing system_erase
CSCws92532	IoT Orchestrator displays incorrect report on bulk AP config push
CSCws69543	[IoT Throttle] AP Remains connected on IOT when the AP interface is shutdown
CSCws94021	Unsubscribe API Responds incorrect status code 200 while status is FAILURE WLC
CSCwq81507	Extend the timeout for IoT_Orchestrator delete operation
CSCwr10836	1.2 Orchestrator app fails to install on 9800-CL

Resolved issues for Cisco Sensor Connect for IoT Services 1.2.1

Table 10. Resolved issues in release 1.2.1

Bug ID	Headline
CSCws17555	Mobility Reconnect not happening with BLE Kit Reset, back in range, disconnected from another central
CSCwr76999	BLE Device stuck in Pending API call when Mobility is enabled
CSCwq73779	Modify the input validation of iBeacon Tx interval as per AP support
CSCwq56556	Inaccurate AP Selection Behaviour in Inventory Page Leads to Misconfiguration

Bug ID	Headline
CSCwq81549	[IoT Orch] Error instructs the user to add unsupported half-byte prefixes while creating filter profile.
CSCwr01897	MQTT Data not being received in mTLS mode with custom CA cert
CSCwq18337	BLE firmware not updated when Access Point image is downgraded
CSCwq03579	Malformed scan packets on Silabs NCP
CSCwr10836	1.2 Orchestrator app fails to install on 9800-CL
CSCws21118	AP returns (scan) enabled=false even when configured to true when upgrading IOT Orch from 1.2 to 1.2.1
CSCws25055	Generic Error Message (FSM is not created or at invalid state) when the state transition is invalid
CSCws25073	BLE Connection Serialization for mobility reconnect and API connect scenarios
CSCws39416	Upload certs fails to create HTTPS server sometimes
CSCws47496	BLE Device Stuck in AP_ONGOING_CONNECTION state after performing Compound Instructions
CSCws68390	Newly joined AP receives scan config as disabled even though enabled on default-ap-profile
CSCws68570	BLE Device Connect is indefinitely blocked by IOT Orchestrator with AP_ONGOING_CONNECTION reason
CSCws72432	BLE Connection Count mismatch during continuous BLE Client power reset
CSCws91784	Fix device stuck in pending API issue
CSCwr77365	Unregister topic do not remove data topic from orchestrator UI
CSCws48365	IOT Orchestrator Needs to wait for AP BLE Chip to recover during chip reset event

Resolved issues for Cisco Sensor Connect for IoT Services 1.2.0

Table 11. Resolved issues in release 1.2.0

Bug ID	Headline
CSCwq09682	Error while sending Tx/scan config policy for more than 500 APs
CSCwq34186	Sensor Connect for IoT Services displays error message when sending config to disconnected access points
CSCwq22200	Sensor Connect for IoT Services dashboard charts show inconsistent data for the AP count
CSCwq15637	AP Inventory Tx/scan profile resets to default profile after IoT Orchestrator is restarted or upgraded
CSCwo73359	Unable to change admin password in Sensor Connect for IoT Services

Bug ID	Headline
CSCwp60839	Sensor Connect for IoT Services REST API interface may indefinitely block with mobility enabled

Resolved issues for C9800 Controller and APs impacting Cisco Sensor Connect for IoT Services

The following table lists some known resolved issues that impact C9800 Controller and Access Points which could be seen when you run the Cisco Sensor Connect for IoT Services solution. Therefore, we recommend that you review the table and use software releases with known fixes.

Table 12. Resolved issues for C9800 Controller and APs impacting Cisco Sensor Connect for IoT Services

Bug ID	Headline
CSCwi77016	IoT Services page on C9800 is stuck while trying to stop IoT Orchestrator
CSCwo04177	IoT Radio disabled may bring the AP to disconnected state on the Sensor Connect for IoT Services UI
CSCwn69536	Oper table App Image name is not updated when upgrade fails, and rollback is successful
CSCwo66956	C9800-L wireless controller might stop working if more than 6 VirtualPortGroup interfaces are configured
CSCwn56097	Increasing ulimit for Sensor Connect for IoT Services
CSCwn91253	Config table not updated with C9800 controller reload or upgrade
CSCwh56683	Support for seamless switch between Sensor Connect for IoT Services and Cisco Spaces connector
CSCwo00821	Sensor Connect for IoT Services is unable to start after an upgrade or a reload
CSCwo08759	AP GRPC status might show down after uplink to wireless controller flaps
CSCwn19509	ERR_DEVICE_ALREADY_CONNECTED is replied before successful connection to AP
CSCwq11290	17.15.4[SST] - Observing memory leaks on BLE Transport

Related content

- *Cisco Sensor Connect for IoT Services Configuration Guide*
- *Cisco Sensor Connect for IoT Services: Partner Developer Guide*

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