



Monitor and Troubleshoot Ultra-Reliable Wireless Backhaul Network Health

- [Ultra-Reliable Wireless Backhaul , on page 1](#)
- [Monitor and troubleshoot the health of your URWB network, on page 1](#)
- [Monitor and troubleshoot the health of a URWB network, on page 4](#)

Ultra-Reliable Wireless Backhaul

Ultra-Reliable Wireless Backhaul (URWB) provides low-latency wireless backhaul connectivity for industrial mobility deployments, such as autonomous vehicles, robotics, and moving industrial assets.

Cisco Catalyst Center Assurance supports monitoring and troubleshooting of URWB networks by providing:

- Global and network-level health visibility,
- Link performance metrics,
- Issue detection and troubleshooting, and
- Historical and mobility-based telemetry views.

Monitor and troubleshoot the health of your URWB network

Monitor the health of the URWB network to ensure optimal performance and resolve potential issues.

Before you begin

- Ensure that the devices are discovered.
- Enable and configure the URWB network in a wireless environment.

Use this procedure to monitor and troubleshoot the health status of your URWB networks and determine if there are potential issues that must be addressed.

Procedure

- Step 1** From the main menu, choose **Assurance > URWB**.
The **URWB** dashboard displays global health information and operational metrics for monitored URWB networks.
- Step 2** Click the location option ( **Global**) in the top menu bar to select the site, building, or floor from the Site hierarchy.
- Step 3** Click the time range drop-down ( **24 Hours** ) to specify the time range of data displayed.
- Select the time range: **3 Hours**, **24 Hours**, or **7 Days**.
 - (Optional) Specify a custom start date, end date, and time.
 - Click **Apply**.
- Step 4** Click on the health status tile to filter the URWB networks table based on the health statuses:
- Critical
 - Warning
 - Healthy

The **URWB Networks** table displays operational information for monitored URWB networks.

Dashlet	Description
URWB Network Health	Includes these tabs: • Latest: Displayed by default. Use the search bar to search for a specific network name. Filter the URWB table by adjusting the slider value of PER, LER, MCS Index, and Throughput. • Status: Overall health state of the URWB network. • Network Name: Name of the URWB network. • PER: Packet Error Rate percentage. • LER: Link Error Rate percentage. • MCS Index: Modulation and Coding Scheme value. • Throughput: Traffic throughput across the URWB link. • Links Active: Number of active URWB links. • Export: Click Export to export the device table to a CSV file. • Trend: Filter the URWB table by adjusting the slider value of AVG PER, AVG PLER, AVG MCS Index, and AVG Throughput. • AVG Status: Displays the average of all the network status. • Network Name: Name of the URWB network. • AVG PER: Average Packet Error rate percentage. • AVG LER: Average Link Error Rate percentage. • AVG MCS Index: Average Modulation and Coding Scheme value.

Step 5 In the **Issues** table, view and address any URWB related issues.

Item	Description
Priority	Preassigned priority level of the issue type
Issue Type	Type of issue
Category	Category under which the issue type falls, such as URWB
Issue Count	Number of times this type of issue occurred
Network Count (Area)	Number of networks where this type of issue occurred
Device Count	Number of devices that were impacted by this type of issue
Last Occurred Time	Most recent date and time this issue occurred

- Issues are color coded and sorted by priority, starting with P1 (highest).
- Click an issue to open a slide-in pane with additional details about the issue type.
- From the slide-in pane, click an issue instance and complete the required tasks:

If you want to...	Then...
resolve the issue instance	from the Status drop-down list, select Resolve .
ignore the issue instance	- From the Status drop-down list, select Ignore. - On the slider, set the number of hours to ignore the issue. - Click Confirm.

For more information on managing issues, refer to [View open issues](#) and [Resolve or ignore issues](#).

Monitor and troubleshoot the health of a URWB network

Use the URWB Health dashboard to monitor the operational status, performance metrics, and issues associated with an individual Ultra-Reliable Wireless Backhaul (URWB) network.

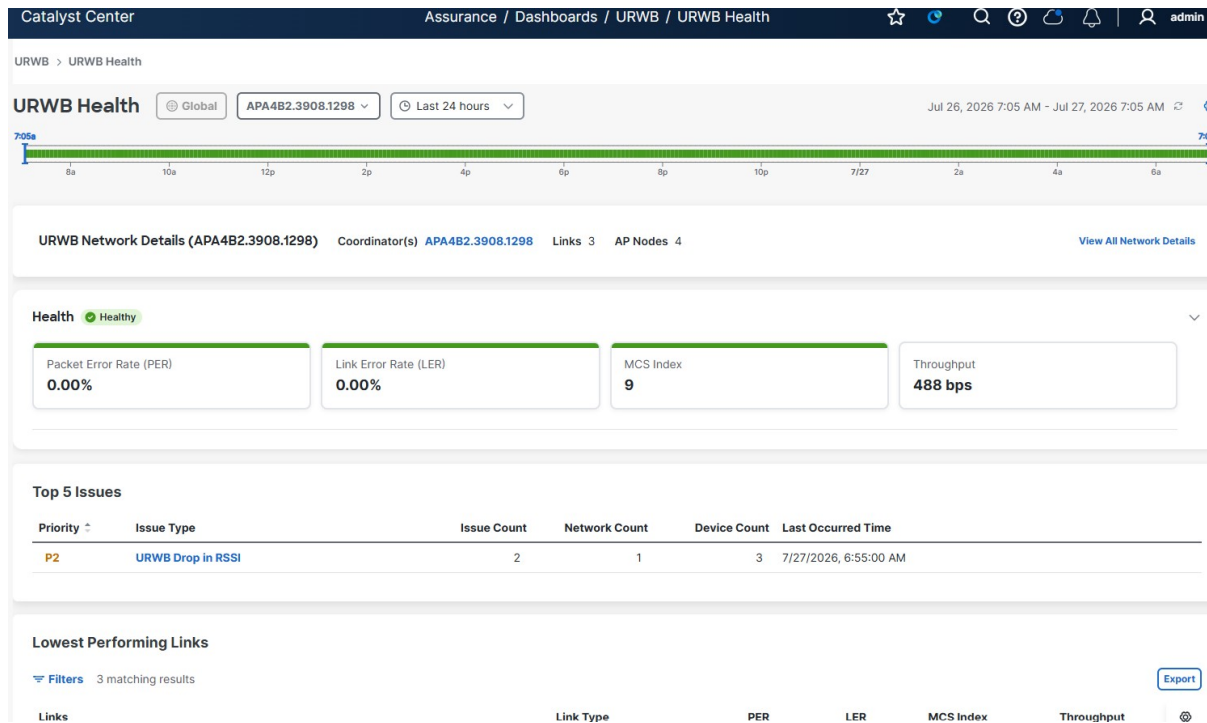
Procedure

Step 1 From the main menu, choose **Assurance** > **URWB**.

The **URWB** dashboard displays global health information and operational metrics for monitored URWB networks.

Step 2 In the **URWB Networks** table, click the hyperlinked URWB network name. The **URWB Health** dashboard window displays view of a URWB Network.

Figure 1: URWB Network Health dashboard



Step 3 Click the time range drop-down (Last 24 hours) to specify the time range of data displayed.

- Select the time range: **3 Hours**, **24 Hours**, **48 Hours** or **7 Days**.
- (Optional) Specify a custom start date, end date, and time.
- Click **Ok**.

Step 4 Use the timeline slider to view the health of a URWB network. You can hover your cursor over the timeline slider to view the URWB network health for a 5-minute window.

When you double-click the timeline, it brings the timeline slider to a 1-hour time period. The entire window is refreshed, providing updates for that hour.

Step 5 In the URWB Network Details pane, displays the operational information for the selected URWB network, including:

- Coordinator name
- Number of AP nodes
- Active mobility links
- Network identifier

Click **View All Network Details** to open a slide-pane, displays the information of Network Details, Wireless Controllers, and Access points including URWB role and profile name in the table.

APA4B2.3908.1298
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Network Details

Coordinator(s)	Links	AP Nodes
APA4B2.3908.1298	3	4

Wireless Controllers

WLC Name	Management IP	Model Platform Id
assur-wlc-19.cisco.com	121.0.11.29	C9800-CL-K9

Access Points

AP Name	AP MAC	URWB Role	Attached WLC	URWB Profile Name	RF Tag
APOC75.BDB3.E394	6C:71:0D:EB:22...	Fixed	assur-wlc-1...	Test-URWB-Network-...	Test-URWB-R...
APOC75.BDB3.E3E8	6C:71:0D:EB:24...	Fixed	assur-wlc-1...	Test-URWB-Network-...	Test-URWB-R...
AP1416.9D2C.63F8	CC:7F:75:AF:5F...	Fixed	assur-wlc-1...	Test-URWB-Network-...	Test-URWB-R...
APA4B2.3908.1298	2C:57:41:87:C5...	Coordinator	assur-wlc-1...	Test-URWB-Network-...	Test-URWB-R...

Step 6 In the **Health** pane, displays the health metrics for the selected URWB network:

Metric	Description
PER	Percentage of packets that failed transmission
LER	Percentage of packets that required retransmission
MCS Index	Current modulation and coding scheme used by the link
Throughput	Current traffic throughput for the URWB network

Step 7 In the **Issue** Pane,

Item	Description
Priority	Preassigned priority level of the issue type
Issue Type	Type of issue
Issue Count	Number of times this type of issue occurred
Network Count (Area)	Number of networks where this type of issue occurred
Device Count	Number of devices that were impacted by this type of issue
Last Occurred Time	Most recent date and time this issue occurred

For more information on managing issues, refer to [View open issues](#) and [Resolve or ignore issues](#).

Step 8

In the **Lowest Performing Links** table, you can view the list of lowest performing links of Fixed Wireless, Fixed Wired and Mobility for the selected URWB network. You can filter the table data.

- a) Click the **Filters** icon to open the **Filters** slide-in pane.
- b) Configure the required filters:
 1. **Link Type**: From the **Link Type** drop-down list, select the link type.
 - **Fixed Wireless**
 - **Fixed Wired**
 - **Mobility**
 2. Use the slider to filter links based on:
 - **PER %**
 - **LER %**
 - **MCS Index**
 - **Throughput**

Item	Description
Links	Displays the source and destination AP radios participating in the URWB backhaul link.
Link Type	Displays the type of backhaul connection established between the AP nodes.
PER	Displays the percentage packet error rate for the link.
LER	Displays the percentage of Link Error Rate for the link.
MCS Index	Displays the modulation and coding scheme (MCS) index used by the wireless link.
Throughput	Displays the throughput value.
-- (Blank Values)	Displays unavailable metric values for wired links where wireless RF metrics are not applicable.

