



Location Accuracy

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Location Accuracy

You can perform a location accuracy test for a single device with multiple location points. You can use the Location Accuracy Test tool to validate the placement and number of access points (APs), for a good location accuracy experience. The Location Accuracy tool provides you with the ability to quantify the location accuracy for a specific location. During the Location Accuracy test, the administrator uses a wireless client device to measure the difference between the actual and the calculated location of a device.

Restrictions for Location Accuracy

- The display refresh time is three seconds and cannot be reconfigured.
- You cannot run this location accuracy test on APs with external antennas. However, location detection is supported on these APs.
- You cannot reconfigure the display refresh time. The display refresh time is three seconds.
- The sample count displayed during a location accuracy test is a best-effort estimate of location values collected during back end processes. This sample count may differ from actual samples captured during an accuracy test.

Test Location Accuracy

This Cisco Spaces: Detect and Locate shows you how to run the location accuracy test.

Procedure

- Step 1** From the Detect and Locate dashboard, search for a device using a MAC address from the **Search MAC, IP, SSID, Manufacturer** text field.

Figure 1: Detect and Locate: Dashboard

The screenshot shows the Cisco DNA Spaces interface. On the left, a floor plan of 'Floor1' is displayed with numerous green dots representing client devices. A search bar at the top right is active, with the IP address '10.0.2.97' entered. Below the search bar, a 'Search for devices' button is highlighted. The search results window on the right shows details for the device with IP 10.0.2.9. The 'Status' is 'ASSOCIATED' and the 'Source' is 'COMPUTE'. The 'Accuracy Test' tab is selected, showing a 'Start Test' button.

Step 2 Ensure that the **Status** of the device is **ASSOCIATED** and the **Source** is **COMPUTE**.

Step 3 In the device details window, click **Accuracy Test** tab.

Figure 2: Detect and Locate; Initiate Accuracy Test

The screenshot shows the 'List of Devices' window in Cisco DNA Spaces. The 'Accuracy Test' tab is selected, and a blue callout bubble points to the 'Start Test' button. The device details are as follows:

Field	Value
MAC Address	bc:e6:3f:00:00:d9
Status	ASSOCIATED
IP Address	10.0.0.21
Coordinates	X: 357.06, Y: 159.14
Compute Type	RSSI
Last Seen	Dec 13th, 2019 03:39:32 PM
Manufacturer	Samsung Electronics Co.,Ltd
Connected AP	10:00:01:01:00:00
Detecting Controller	nmsp-sim-1
SSID	ssid0
Username	Clientbc:e6:3f:00:00:d9
Band	2.4 GHz
Bytes Sent	53.97 MB
Bytes Received	53.97 MB
Source	COMPUTE
Device Location	Simulator-1-Campus0->Building0->Floor1

Step 4 Enter a unique report name. Move the blue pointer to the client's real-time location or adjust the X and Y coordinates. To begin, click **Start Test**.

Figure 3: Detect and Locate Initiate Accuracy Test

Client : 6c:19:c0:e5:87:3a ×

Overview History **Accuracy Test**

Report Name	X	Y	Test time (minutes)
6c:19:c0:e5:87:3a-12-03-2020	21.1	138.3	5


Unique test name **Start Test**

Stops in	35:00
Data Collection	New
Data Points	0

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You can observe that the number of samples begins to increase.

Note

The display refresh time is three seconds.

Step 5

Wait for the number of samples to reach 20 and click **Stop Test**. Move the blue pointer representing the data point to a new location and click **Start Test** again.

Figure 4: Sample Size Must Reach 20



Step 6 Repeat for multiple locations for a more accurate understanding of location accuracy.

Figure 5: Repeat For Multiple Locations

Client : 6c:19:c0:e5:87:3a


Overview History Accuracy Test

● Accuracy Report Generation Completed.

RESULTS

Report Name	Status	finish
MAC Address 6c:19:c0:e5:87:3a	Start Time	Dec 3rd, 2020 07:20:21 PM

No report details



The floor plan diagram shows a complex layout of rooms and corridors. Several rooms are highlighted in green, and one room in the center is highlighted in blue. A navigation control with a plus sign, minus sign, and up/down arrows is located on the left side of the diagram.

Step 7 Repeat for multiple locations for a more accurate understanding of location accuracy.

Figure 6: Repeat For Multiple Locations

Client : 6c:19:c0:e5:87:3a

Overview History **Accuracy Test**

Accuracy Report Generation Completed.

RESULTS

Report Name	Status	finish
MAC Address: 6c:19:c0:e5:87:3a	Start Time	Dec 3rd, 2020 07:20:21 PM

No report details

The accuracy reports are generated after the accuracy testing is done. You can also check it from the Detect and Locate left navigation bar under **Accuracy Report**.

Figure 7: Repeat For Multiple Locations

Spaces

Detect and Locate

As of: Dec 17, 2023 8:20 PM Refresh Export

0 Selected EQFind

<input type="checkbox"/>	Report Name	MAC Address	Status	Hierarchy	Start Time	AOA Percent	Fusion Percent	RSSI Percent
<input type="checkbox"/>	#00:00:00:03:25-10-23-2023	#00:00:00:03:25	finish	Zhimi>Campus-118AP>CiscoBuilding118-floor2	Oct 23rd, 2023 03:31:43 PM	0	0	100.00
<input type="checkbox"/>	00:a2:ee:a2:e0:a0-05-24-2023	00:a2:ee:a2:e0:a0	new	Zhimi>SJC>building20-test>Floor1	May 24th, 2023 03:52:44 PM	--	--	--
<input type="checkbox"/>	00:03:71:12:a8:6f-05-24-2023	00:03:71:12:a8:6f	finish-with-no-data	Zhimi>SJC>building20-test>Floor1	May 24th, 2023 10:50:38 AM	--	--	--
<input type="checkbox"/>	00:03:71:12:92:b7-04-13-2023	00:03:71:12:92:b7	finish-with-no-data	Zhimi>SJC>building20-test>Floor1	Apr 13th, 2023 01:13:05 PM	--	--	--
<input type="checkbox"/>	00:03:71:12:92:b7-04-13-2023	00:03:71:12:92:b7	stop	Zhimi>SJC>building20-test>Floor1	Apr 13th, 2023 01:12:15 PM	--	--	--
<input type="checkbox"/>	00:77:8d:90:71:a8-02-28-2023	00:77:8d:90:71:a8	finish-with-no-data	Zhimi>System Campus>SJC 14>D-R-C	Feb 28th, 2023 11:54:03 AM	--	--	--
<input type="checkbox"/>	00:77:8d:90:71:a8-02-28-2023	00:77:8d:90:71:a8	finish-with-no-data	Zhimi>System Campus>SJC 14>D-R-C	Feb 28th, 2023 11:47:39 AM	--	--	--
<input type="checkbox"/>	00:77:8d:90:60:1a-02-28-2023	00:77:8d:90:60:1a	new	Zhimi>System Campus>SJC 14>D-R-C	Feb 28th, 2023 11:20:04 AM	--	--	--