



# Monitor Network Services

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## Monitor the AAA Network Service

Use this procedure to view and monitor all the AAA server transactions reported by wireless controllers in your network.



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### Note AAA Limitations

- AAA Network Service supports wireless clients and Local mode.
- AAA Network Service does not support the following:
  - AireOS Wireless Controller
  - Flex mode or fabric mode

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### Before you begin

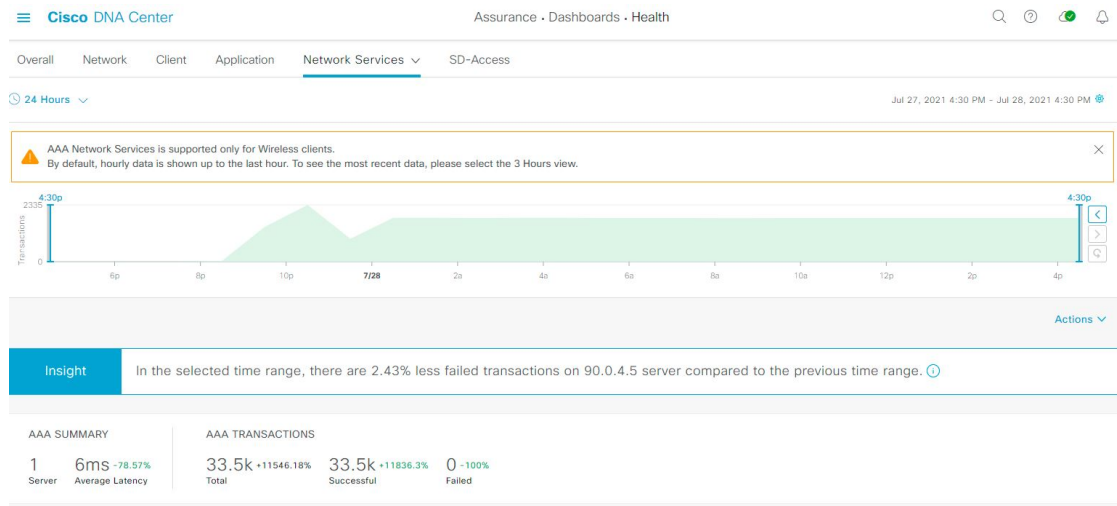
Ensure that you have installed a Cisco Catalyst 9800 Series Wireless Controller with version 17.6.1 or later and deployed with local mode AP.

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**Step 1** Click the menu icon (☰) and choose **Assurance > Health**.  
The **Overall** health dashboard appears.

**Step 2** Choose **Network Services > AAA**.  
The **AAA** dashboard appears.

Figure 1: AAA Dashboard



**Step 3** Click the time range setting (🕒) at the top-left corner to specify the time range of the data that you want displayed:

- From the drop-down menu, choose a time range: **3 hours**, **24 hours**, or **7 days**.
- Specify the **Start Date** and time and the **End Date** and time.
- Click **Apply**.

**Step 4** Click the autofresh setting (⚙️) at the top-right corner to enable or disable the **Data Auto Refresh** on the supported Assurance pages in a 5-minute refresh interval.

**Step 5** Use the timeline slider to view the information about the total successful and failed transactions of the AAA server over a period of time. The timeline slider has the following functionality:

- You can hover your cursor over the timeline slider to view the AAA server transactions 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 6** Click the **Actions** drop-down list below the timeline slider for the following functionality:

- Edit Dashboard:** Enables you to customize the dashboard display. See [Change the Position of a Dashlet](#) and [Create a Custom Dashboard](#).

**Step 7** Use the **Insight** area, below the timeline, to view the percentage of successful AAA server transactions compared with the current and previous time range.

**Step 8** Use the AAA summary dashlet to view the following information:

AAA Summary	
Item	Description
AAA Summary	Displays the number of AAA server and average latency (in ms) of your network.
AAA Transactions	Displays the percentage of total number of AAA transactions, successful transactions, and failed transactions in your network.

**Step 9** Use the AAA server dashlets for the following functionality:

<p><b>Top Sites by Highest Latency</b></p> <p>The chart displays the top sites with the highest AAA server latency, in milliseconds.</p> <p>Click <b>View Details</b> to open a slide-in pane with additional details. From the slide-in pane, you can hover on a color segment in the chart to view the site with the highest AAA server latency.</p> <p>You can select the data displayed as horizontal bars to filter the client table based on the top AAA servers, sites, SSIDs, and APs.</p>
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<p><b>Top Sites by Transaction Failures</b></p> <p>The chart displays the top sites with the highest AAA server transaction failures.</p> <p>Click <b>View Details</b> to open a slide-in pane with additional details. From the slide-in pane, you can hover on a color segment in the chart or its corresponding legend to view the site with the most AAA server transaction failures.</p> <p>You can select the data displayed as horizontal bars to filter the client table based on the top AAA servers, sites, SSIDs, and APs.</p>
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<p><b>AAA Server Latency</b></p> <p>The chart displays the average AAA latency for each AAA server. You can filter the latencies based on <b>All</b>, <b>MAB</b>, or <b>EAP</b>.</p> <p>Click <b>View Details</b> to open a slide-in pane with additional details. From the slide-in pane, you can display the chart based on the filter selection to view the AAA server latencies.</p> <p>You can select the data displayed as horizontal bars to filter the client table based on the top AAA servers, sites, SSIDs, APs, and so on.</p>
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<p><b>AAA Server Transactions</b></p> <p>The chart displays the average AAA server transaction status for each AAA server reported by wireless controllers. You can filter the status based on <b>All</b>, <b>Failures</b>, or <b>Successes</b>.</p> <p>Click <b>View Details</b> to open a slide-in pane with additional details. From the slide-in pane, you can display the chart based on the filter selection to view the AAA server transactions.</p> <p>You can select the data displayed as horizontal bars to filter the client table based on the top AAA servers, sites, SSIDs, APs, and so on.</p>
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**Step 10** Use the AAA Servers by WLC dashlets for the following functionality:

<b>AAA Server by WLC Dashlet</b>	
<b>Item</b>	<b>Description</b>
AAA Server table	<p>View the AAA server information in a table format that contains AAA Server IP, WLC Name, WLC Location, Transactions, Failures, Avg Latency, and so on. Click <b>AAA Server IP</b> to open a slide-in pane that display the AAA server Avg Latency and Transaction charts.</p> <p>You can select the data displayed as horizontal bars to filter the client table based on the top AAA servers, sites, SSIDs, APs, and so on.</p>

AAA Server by WLC Dashlet	
Item	Description
 <a href="#">Export</a>	Click <b>Export</b> to export the device information to a CSV file.
	Customize the data that you want displayed in the table: <ol style="list-style-type: none"> <li>a. From the <b>Table Appearance</b> tab, set the table density and striping.</li> <li>b. From the <b>Edit Table Columns</b> tab, check the check boxes for the data that you want displayed in the table.</li> <li>c. Click <b>Apply</b>.</li> </ol>

## Monitor the DHCP Network Service

Use this procedure to view and monitor all the DHCP server transactions reported by wireless controllers in your network.




### Note DHCP Limitations

- DHCP Network Service supports wireless clients and Local mode.
- DHCP Network Service does not support the following:
  - SD-Access fabric clients
  - AireOS Wireless Controller
  - Flex mode or fabric mode

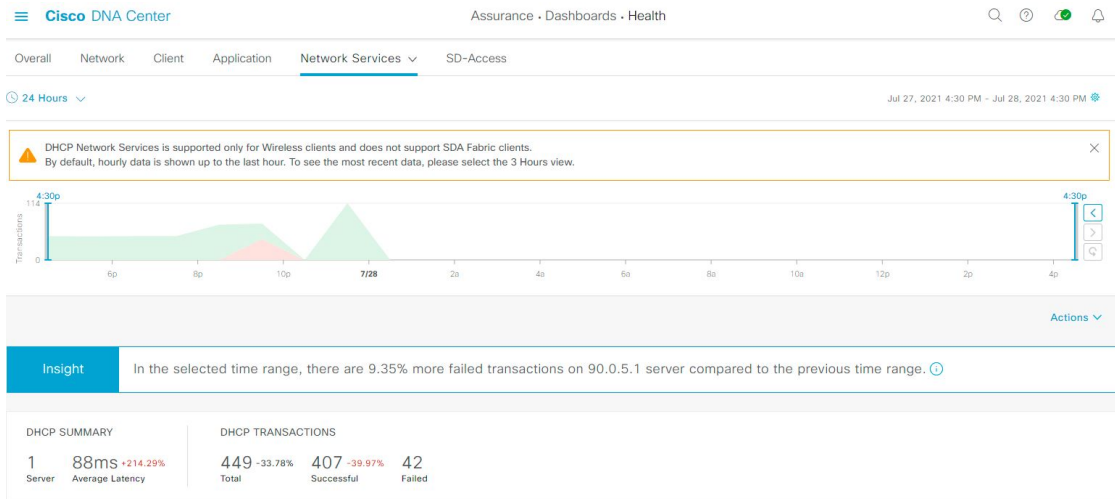
### Before you begin

Ensure that you have installed a Cisco Catalyst 9800 Series Wireless Controller with version 17.6.1 or later.

**Step 1** Click the menu icon () and choose **Assurance > Health**.  
The **Overall** health dashboard appears.

**Step 2** Choose **Network Services > DHCP**.  
The **DHCP** dashboard appears.

Figure 2: DHCP Dashboard



**Step 3** Click the time range setting (🕒) at the top-left corner to specify the time range of the data that you want displayed in the window:

- a) From the drop-down menu, choose a time range: **3 hours**, **24 hours**, or **7 days**.
- b) Specify the **Start Date** and time and the **End Date** and time.
- c) Click **Apply**.

**Step 4** Click the autofresh setting (⚙️) at the top-right corner to enable or disable the **Data Auto Refresh** on the supported Assurance pages in a 5-minute refresh interval.

**Step 5** Use the timeline slider to view the information about the total successful and failed transactions of the DHCP server over a period of time. The timeline slider has the following functionality:

- You can hover your cursor over the timeline slider to view the DHCP server transactions 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 6** Click the **Actions** drop-down list below the timeline slider for the following functionality:

- **Edit Dashboard:** Enables you to customize the dashboard display. See [Change the Position of a Dashlet](#) and [Create a Custom Dashboard](#).

**Step 7** Use the **Insight** area below the timeline to view the percentage of successful DHCP server transactions compared with the current and previous time range.

**Step 8** Use the DHCP summary dashlet to view the following information:

DHCP Summary	
Item	Description
DHCP Summary	Displays the count of DHCP servers and average latency (in ms) of your network.
DHCP Transactions	Displays the percentage of total number of DHCP transactions, successful transactions, and failed transactions in your network.

**Step 9** Use the DHCP server dashlets for the following functionality:

#### Top Sites by Highest Latency

The chart displays the top sites with the highest DHCP server latency, in milliseconds.

Click **View Details** to open a slide-in pane with additional details. From the slide-in pane, you can hover on a color segment in the chart to view the site with highest DHCP server latency.

You can select the data displayed as horizontal bars to filter the client table based on the top DHCP servers, sites, SSIDs, and APs.

#### Top Sites by Transaction Failures

The chart displays the top sites with the most DHCP server transaction failures.

Click **View Details** to open a slide-in pane with additional details. From the slide-in pane, you can hover on a color segment in the chart or its corresponding legend to view the site with the most DHCP server transaction failures.

You can select the data displayed as horizontal bars to filter the client table based on the top DHCP servers, sites, SSIDs, and APs.

#### DHCP Server Latency

The chart displays the average DHCP latency for each DHCP server. You can filter the latencies based on **All**, **Discover-offer**, or **Request-Ack**.

Click **View Details** to open a slide-in pane with additional details. From the slide-in pane, you can display the chart based on the filter selection to view the DHCP server latencies.

You can select the data displayed as horizontal bars to filter the client table based on the top DHCP servers, sites, SSIDs, APs, and so on.

#### DHCP Server Transactions

The chart displays the average DHCP server transactions status for each DHCP server reported by wireless controllers. You can filter the status based on **All**, **Failures**, or **Successes**.



Click **View Details** to open a slide-in pane with additional details. From the slide-in pane, you can display the chart based on the filter selection to view the DHCP server transactions.

You can select the data displayed as horizontal bars to filter the client table based on the top DHCP servers, sites, SSIDs, APs, and so on.

**Step 10** Use the DHCP Servers by WLC dashlets for the following functionality:

#### DHCP Server by WLC Dashlet

Item	Description
DHCP Server table	<p>View the DHCP server information in a table format that contains AAA Server IP, WLC Name, WLC Location, Transactions, Failures, Avg Latency, and so on. Click <b>DHCP Server IP</b> to open the slide-in pane that display the Server Avg Latency and Transaction charts.</p> <p>You can select the data displayed as horizontal bars to filter the client table based on the top DHCP servers, sites, SSIDs, APs, and so on.</p>

DHCP Server by WLC Dashlet	
Item	Description
 <a href="#">Export</a>	Click <b>Export</b> to export the device information to a CSV file.
	Customize the data that you want displayed in the table: <ol style="list-style-type: none"><li>From the <b>Table Appearance</b> tab, set the table density and striping.</li><li>From the <b>Edit Table Columns</b> tab, check the check boxes for the data you want displayed in the table.</li><li>Click <b>Apply</b>.</li></ol>

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