

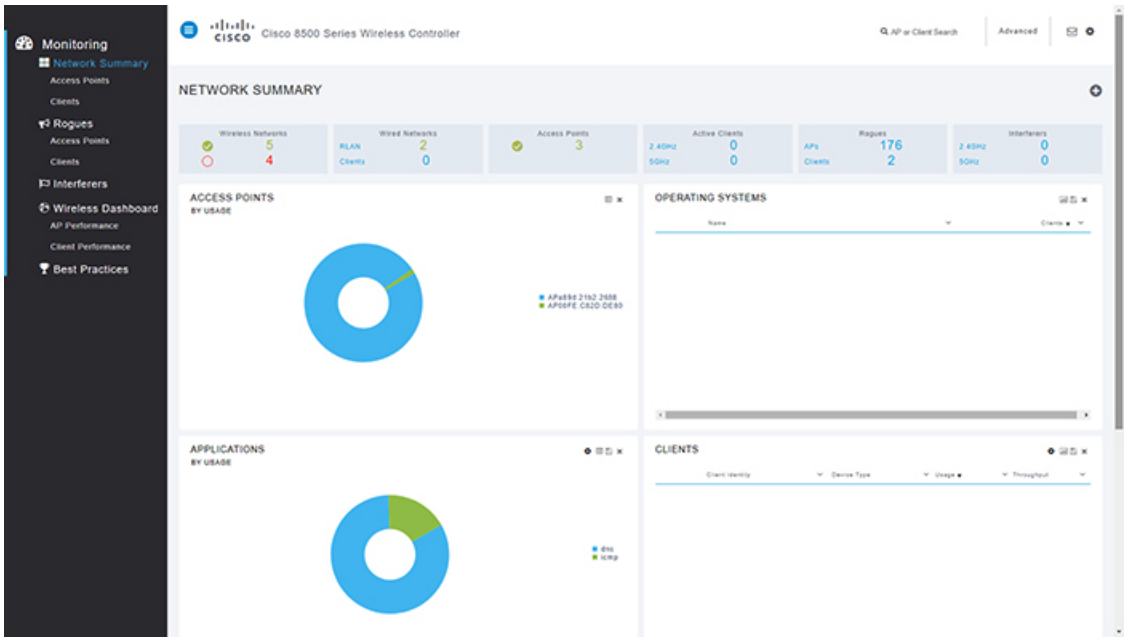
Monitoring Dashboard

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Monitoring Dashboard

The controller GUI has a monitoring dashboard that gives a single-window overview of the network devices that are connected to the controller.

Figure 1: Monitoring Dashboard



The monitoring dashboard is displayed by default when you log in to the controller GUI. The dashboard is split into three sections:

- Numerical statistics
- Graphical widgets
- Monitor pane with selection options

At an interval of 60 seconds, the dashboard widgets and the statistical data are automatically refreshed.

Note After you enable debugging on the controller using SSH protocol, you may experience sluggish GUI response. We recommend that you use one of the following two ciphers for SSH connection to minimize the sluggish response:

- aes256-gcm@openssh.com
- aes128-gcm@openssh.com

You can SSH to the controller by entering this command:

ssh -c { **aes128-gcm@openssh.com** | **aes256-gcm@openssh.com** } *controller username controller ip-addr*

This section contains the following subsections:

Numerical Statistics

This is the top section of the dashboard where you get a quick view of what is on the network:

- Wireless Networks: Shows the number of WLANs enabled and disabled on this controller.
- Wired Networks: Shows the number of RLANs and clients that are associated to the network.
- Access Points: Shows the number of active Cisco APs in the network.
- Active Clients: Shows the number of 2.4 and 5–GHz clients in the network.
- Rogues: Shows the number of APs and clients which are found in your network.
- Interferers: Shows the number of detected interference devices on 2.4 and 5–GHz bands.

Note Selecting the headline or the statistical value takes you to the respective page in the **Advanced** section.

Graphical Widgets

These graphical widgets present the numbers in the form of graphs. You can select the widgets to display from the available list.

Access Points

You can see the doughnut graph representing the AP usage in percentage on this controller. To change to the list view, click  on the top right of the widget. The list view displays the APs with the number of connected

clients, amount of data traffic served, and the throughput values. By default, the AP list is sorted by name; however, you can also sort the list by clients, usage, or throughput.

Note The AP list is limited to display only top 10 APs. Therefore, you might not see all the APs associated with the controller in this widget.

Clicking on the AP takes you to the **Access Point View** page. The **Access Point View** page gives the Cisco AP's general, performance, and radio parameter details for both 2.4 GHz and 5-GHz radios. You can restart the AP from this page.

The AP performance values displayed are gathered from the AP. The **Usage Traffic** parameter shows the total amount of data transferred during the uptime duration of the AP. The **Throughput** value is the cumulative value of number of bytes (during the past 90 seconds) divided by the number of seconds (90 seconds).

To export the values, click and save the excel sheet to your system.

Click to remove this widget from the dashboard.

Operating Systems

You can see the operating system running in the connected clients. This list is sorted according to the number of clients of each OS type.

Applications

You can see the doughnut graph presenting the application with its usage and throughput. This widget gives you the ability to clear the current records to start afresh, click on the top right of this widget to clear the records.

To change to list view, click . This view shows details of each application like usage and the throughput values.

To export the values, click and save the excel sheet to your system.

Click to remove this widget from the dashboard.

Clients

You can see the doughnut graph presenting the network usage by each client in percentage. This widget gives you the ability to clear the current records to start afresh, click the on top right of this widget to clear the records.

To change to list view, click . This view shows each client's details like the type of device, data usage, and the throughput values. You can sort the client list by identity, device type, usage, throughput also.

Click the client to open the **Client View** page. The **Client View** page displays the general, the connectivity, the QoS, and the security and policy details.

To export the values, click  and save the excel sheet to your system.

Click  to remove this widget from the dashboard.

Top WLANs

The doughnut graph shows the top SSIDs based on the number of clients and usage. The list view displays the SSIDs with the statistics in numbers.

Network Summary

This section contains the following subsections:

Network Summary—Access Points

Selecting this option displays the list of Cisco APs connected to this controller. The page segregates the 2.4 and 5 GHz APs in two tabs. The AP details are shown on this page. Choose any AP to know more details.

The **Access Point View** page shows the general and performance summary of the selected AP. The AP details section provides tabs with information on the clients, RF Troubleshooting with neighboring and rogue APs (2.4 and 5 GHz) found in the surroundings, CleanAir with active interferers and the tool tab to restart the AP.



Note This section does not display access points in monitor mode.

Network Summary—Clients

This section displays the detailed information of clients that are associated with the access points in a list view.

The **Client View** page is displayed when a client is selected. On this page, the client's general details are shown. Click **Connection Score** value to see the connection quality between the client and the AP.

There are two info graphic representations on the **Client View** page.

- The first infographic shows the connection stage of the client.
- The second infographic shows the connectivity roadmap between the controller and the client. It also shows the types of connection and the path that is used in the network from the controller to the client.

The **Network and QoS** and the **Security Policy** dashlets show the status of their respective parameters.

The **Client View** page also offers debugging tools to assess the connectivity from the client with the controller. Tools available are:

- Ping Test—helps to know the connectivity status and the latency between the two systems in a network.

- Connection—shows the connection logs for a client.
- Event Log—records the events and the option to save the logs on to a spreadsheet.
- Packet Capture—select from the various options to get precise information about the flow of packets to help resolve issues.



Note Cisco Wave 2 APs do not support Packet Capture feature.

Rogues

This section contains the following subsections:

Rogue Access Points

This page displays the rogue access points grouped under 2.4-GHz and 5-GHz networks in the following groups.

- Unclassified
- Friendly
- Malicious
- Custom

Choose the rogue AP from the list to display the **Rogue AP Detail** page. This page displays the connection details and the APs that are detected this rogue AP. To view the AP details choose the AP to get the **Access Point View** page.

Rogue Clients

This page displays the list of clients that are yet to be identified. Choose the rogue client for more details.

The **Rogue Client View** page shows the connection information, the state and the APs that detected this client. To view the AP details choose the AP to get the **Access Point View** page.

Interferers

This page displays the list of interfering devices that are detected in the 2.4-GHz and 5-GHz spectrum. Use the filters available for each category to view a customized list which can help identify the interfering devices and take corrective actions to improve the air quality.

Wireless Dashboard

This page shows a graphical overview of various selectable widgets and their performances over 2.4 GHz and 5–GHz networks.

AP Performance

This page displays the performance values of the Cisco APs graphically. These parameters are selectable widgets to create a custom AP performance dashboard.

Client Performance

This page graphically displays the client parameters, which range from signal strength to state of association and other selectable widgets.

Best Practices

The **Best Practices** page offers current compliance assessment and available categories of best practices. The Best Practices are enabled by default if you have used the Cisco WLAN Express Setup to configure the controller.

Note The Best Practices are not enabled through CLI setup wizard or image upgrades.

Every parameter under each category has a + icon which provides an expert recommendation and the option **Learn More** gives detailed information on that parameter. Each parameter may have one or more of the following options.

- Fix it Now—sets the parameter to the Cisco recommended settings.
- Restore Default—resets the Best Practice parameter configurations to default values.
- Manual Configuration—opens the advanced view to configure the parameter.
- Ignore—removes the parameter from the best practice list.

  The ignored parameters are grouped under the  icon. This icon is found at the top right corner of the Best Practices page. This icon displays the **Add Best Practice** window; click the parameter that you want to add to the main page.
- Detailed—opens a new window with WLAN profile settings and option to manual configuration.