



SmartCell Insight 2.0

User Guide

Part Number: 800-71220-001 Rev A
Published: 21 July 2016

www.ruckuswireless.com

Contents

Copyright Notice and Proprietary Information.....	5
1 Introduction	
SmartCell Insight Overview.....	6
Terms and Definitions.....	6
Navigating the SCI User Interface.....	8
2 Schedules	
Configuring Report Delivery Schedules.....	10
3 Filters	
Working With Filters.....	12
Filtering Data by AP, SSID and Radio.....	12
Filtering Data by Date.....	13
4 Overview Page	
Using the Overview Page.....	16
Overview - Network.....	17
Overview - Clients.....	17
Overview - WLAN.....	17
Overview - Airtime.....	18
Overview - Applications.....	18
5 Network Reports Page	
Using the Network Report Page.....	20
Network - Overview.....	21
Network - Traffic Distribution.....	21
Network - Top 10 APs by Traffic Volume.....	22
Network - Top 10 APs by Client Count.....	23
Network - Top APs by Traffic Volume Table.....	23
Network - Top APs by Client Count Table.....	24
Network -Traffic Trend.....	24
Network - Traffic Over Time.....	25

6 WLANs Page

Using the WLANs Report Page.....	26
WLANs Overview.....	27
WLAN-SSID Changes Over Time.....	27
WLAN-Top Ten SSIDs by Traffic.....	28
WLAN-Top Ten SSIDs by Client Count.....	28
WLAN-Active SSID Trend.....	29
WLAN-Top SSIDs by Traffic.....	29
WLAN-Top SSIDs by Client.....	30

7 Clients Page

Using the Clients Report Page.....	32
Clients - Overview.....	32
Clients - Top 10 Unique Clients by Traffic.....	33
Client Details.....	34
Clients - Unique Clients Trends Over Time (Chart).....	34
Clients Unique Clients Trend Over Time (Table).....	35

8 Applications Page

Using the Applications Report Page.....	38
Applications - Overview.....	39
Applications - Top Applications by Traffic.....	39
Applications - Top 10 by Client Count.....	40
Applications - Top Applications by Traffic.....	40
Applications - Top Applications by Clients.....	41

9 Airtime Utilization Page

Using the Airtime Utilization Page.....	42
Airtime Utilization - Overview.....	43
Top 10 APs By Airtime Utilization.....	43
Top APs by Airtime Utilization for 2.4 Ghz.....	44
Top APs by Airtime Utilization for 5 GHz.....	44
Airtime Utilization Trend.....	45
Airtime Utilization - Over Time.....	45

10 Data Explorer

Data Explorer Overview.....	48
Using the Data Explorer.....	49

11 Admin

Admin Console.....	54
Status and Updates.....	54
Diagnostics.....	55
Settings Page.....	56
License Page.....	61

12 API Explorer

Using the API Explorer.....	64
-----------------------------	----

Copyright Notice and Proprietary Information

Copyright 2016. Ruckus Wireless, Inc. All rights reserved.

No part of this documentation may be used, reproduced, transmitted, or translated, in any form or by any means, electronic, mechanical, manual, optical, or otherwise, without prior written permission of Ruckus Wireless, Inc. (“Ruckus”), or as expressly provided by under license from Ruckus.

Destination Control Statement

Technical data contained in this publication may be subject to the export control laws of the United States of America. Disclosure to nationals of other countries contrary to United States law is prohibited. It is the reader’s responsibility to determine the applicable regulations and to comply with them.

Disclaimer

THIS DOCUMENTATION AND ALL INFORMATION CONTAINED HEREIN (“MATERIAL”) IS PROVIDED FOR GENERAL INFORMATION PURPOSES ONLY. RUCKUS AND ITS LICENSORS MAKE NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, WITH REGARD TO THE MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, NON-INFRINGEMENT AND FITNESS FOR A PARTICULAR PURPOSE, OR THAT THE MATERIAL IS ERROR-FREE, ACCURATE OR RELIABLE. RUCKUS RESERVES THE RIGHT TO MAKE CHANGES OR UPDATES TO THE MATERIAL AT ANY TIME.

Limitation of Liability

IN NO EVENT SHALL RUCKUS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, OR DAMAGES FOR LOSS OF PROFITS, REVENUE, DATA OR USE, INCURRED BY YOU OR ANY THIRD PARTY, WHETHER IN AN ACTION IN CONTRACT OR TORT, ARISING FROM YOUR ACCESS TO, OR USE OF, THE MATERIAL.

Trademarks

Ruckus Wireless, Ruckus, the bark logo, BeamFlex, ChannelFly, Dynamic PSK, FlexMaster, Simply Better Wireless, SmartCell, SmartMesh, SmartZone, Unleashed, ZoneDirector and ZoneFlex are trademarks of Ruckus Wireless, Inc. in the United States and other countries. All other product or company names may be trademarks of their respective owners.

SmartCell Insight Overview

SmartCell Insight (SCI) is a Big Data analytics and reporting engine that provides deep visibility into the performance and operational statistics of your Ruckus Wireless WiFi infrastructure.

SmartCell Insight (SCI) is designed to collect data from Ruckus network equipment, analyze that data, and then present it using a wide variety of standard and custom reports. SCI provides visibility, analytics and reports about network transmission statistics, equipment status and user traffic. It also provides details about the devices and applications that are used on the network, so that decision-makers can make better informed decisions about what types of devices and content their customers are using - and will be using more of - in the future.

To facilitate immediate value, SmartCell Insight ships with pre-built reports that solve the most common use cases faced by Engineering, Operations, and Planning organizations. These reports cover themes such as traffic usage, airtime utilization, client measurement, and application usage trends.

SmartCell Insight can collect data from the entire line of Ruckus Access Points (APs) along with ZoneDirector (ZD) and/or SmartZone (SZ) controllers. SCI uses scale-out architecture to collect data from up to 100,000 Access Points (AP). SCI can scale out horizontally, as required.

Terms and Definitions

The following table lists the terms and definitions used in this document.

Table 1: Terms and Definitions

Term	Definition
User Traffic	Traffic volume that has been transmitted and received in the IEEE 802.11 MAC Service Data Unit (MSDU) data frames. This includes all unicast, multicast and broadcast traffic. User Traffic = Rx User + Tx User.

Term	Definition
Unique client	<p>A WiFi client that has been uniquely identified by its MAC address.</p> <hr/> <p>NOTE The "All Radios" unique count will never be larger than the sum of the "2.4GHz" and "5GHz" radios. This is because a WiFi client could have connected to both radios within the selected time granularity, and the "All Radios" unique client count will consider this client as a single count.</p>
Session	<p>In SCI, a Session refers to the IEEE 802.11 session. This is a OSI Layer 2 session that is established when a WiFi client associates to an access point and it ends when the client disassociates from the access point.</p> <hr/> <p>NOTE This is NOT the same as OSI Layer 7 application layer sessions, such as HTTP sessions, Telnet sessions, etc. Often, a single application layer session can be supported by multiple IEEE 802.11 sessions, and the creation and termination of IEEE 802 sessions is often transparent to the user at the application layer.</p>
Rx User	Traffic volume that has been received by the access points in the IEEE 802.11 MAC Service Data Unit (MSDU) data frames. This includes all unicast, multicast and broadcast traffic.
Tx User	Traffic volume that has been transmitted by the access points in the IEEE 802.11 MAC Service Data Unit (MSDU) data frames. This includes all unicast, multicast and broadcast traffic.
Management Traffic	Traffic volume that has been transmitted and received in the IEEE 802.11 control and management frames. This includes all unicast, multicast and broadcast traffic. In SCI, the abbreviation Mgmt or Mgt is used. Mgmt Traffic = Rx Mgmt + Tx Mgmt.
Rx Mgmt	Traffic volume that has been received by the access points in the IEEE 802.11 control and management frames. This includes all unicast, multicast and broadcast traffic.
Tx Mgmt	Traffic volume that has been transmitted by the access points in the IEEE 802.11 control and management frames. This includes all unicast, multicast and broadcast traffic.
Total Traffic	The sum of User traffic and Mgmt Traffic.
Rx Total	Rx User + Rx Mgmt

Introduction

Navigating the SCI User Interface

Term	Definition
Tx Total	Tx User + Tx Mgmt

Relationships between the various traffic metrics

- Total Traffic = User Traffic + Mgmt Traffic = Rx Total + Tx Total
- Rx Total = Rx User + Rx Mgmt
- Tx Total = Tx User + Tx Mgmt
- User Traffic = Rx User + Tx User
- Mgmt Traffic = Rx Mgmt + Tx Mgmt

Navigating the SCI User Interface

The SCI user interface consists of four major sections: a header panel at the top, a navigation bar to the left of the screen, an expandable Schedules panel, and the main content panel.

Elements of the SCI User Interface

Use the navigation bar on the left side of the screen to access any of the built-in reports, customize the way you view your data using the Data Explorer, or configure administrator settings.

The following image illustrates the four main sections of the SCI user interface. Refer to the table below for descriptions of each web interface element.

Figure 1: SCI web interface

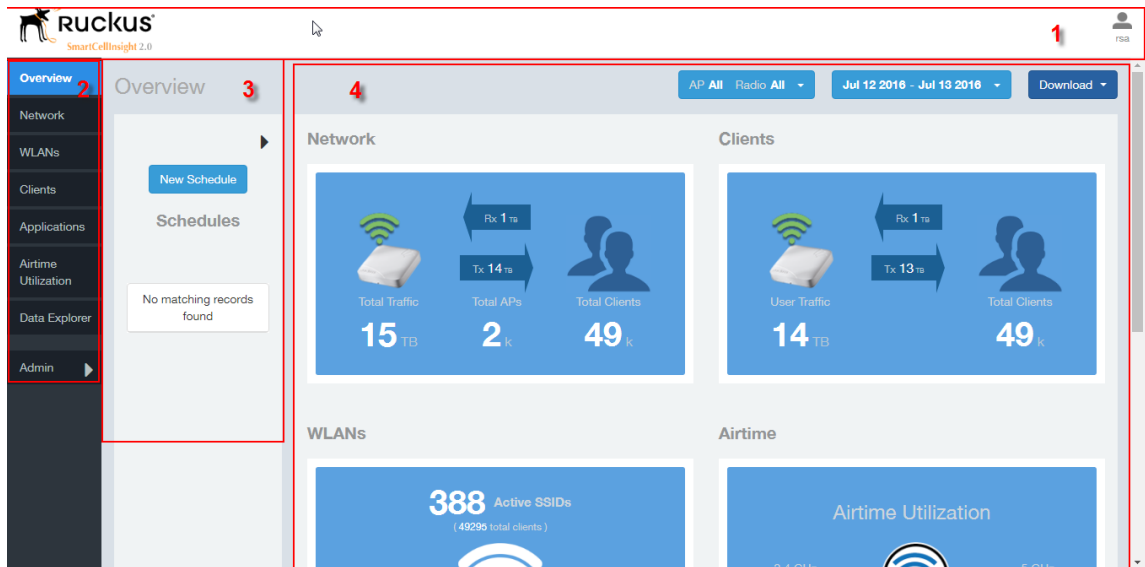



Table 2: SCI web interface elements

No.	Name	Description
1	Header Panel	Displays the currently logged in user profile. Click the user icon  to update the profile or change the password as required.
2	Navigation Bar	Contains links that take you to the Overview, Network, WLANs, Clients, Applications, and Airtime Utilization dashboards. It also contains links to Data Explorer, and the Admin console.
3	Schedules Panel	Allows you to create schedules for generating and delivering reports.
4	Content Panel	This large section contains the content of the page you are currently viewing.

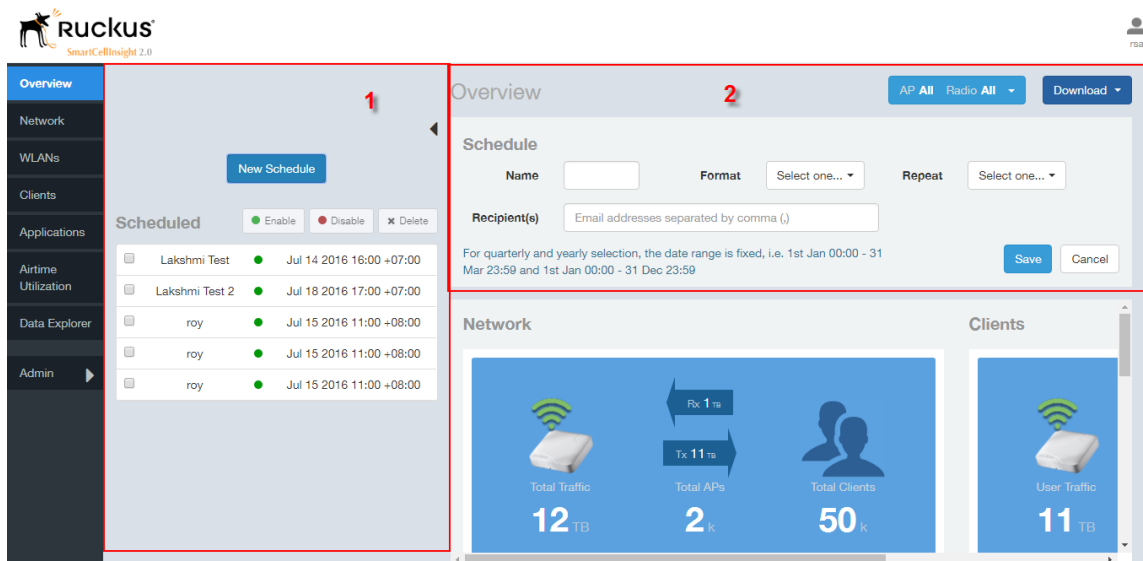
Configuring Report Delivery Schedules

Use the Scheduler to schedule automatic report generation and delivery.

1. On any of the canned report screens (**Overview**, **Network**, **Clients**, **Applications**, and **Airtime Utilization**), Click the **Schedule** button. The schedule dialog appears.
2. Click **New Schedule**. Schedule options appear.
3. Configure the following options for this scheduled report task:
 - **Name:** Enter a name for the scheduled task.
 - **Format:** Select CSV or PDF file format.
 - **Repeat:** Choose how often to repeat the schedule.
 - **Recipients:** Enter the email addresses of one or more recipients. If you have more than one email address to enter, separate the email addresses with a comma.
4. Based on your selection of Repeat options, you will be prompted to enter more details; for example, if you choose "Daily," you will be prompted to pick the time of day; if you choose weekly, you will be prompted to enter the day of the week and the time of day, etc.
5. Click **Save** to save your changes.

A new schedule is created and listed in the Scheduled list (numbered 1 in the figure below).

Figure 2: Using the Scheduler on the Overview



Working With Filters

Filters are built into every dashboard and allow you to segregate and drill down into the data.

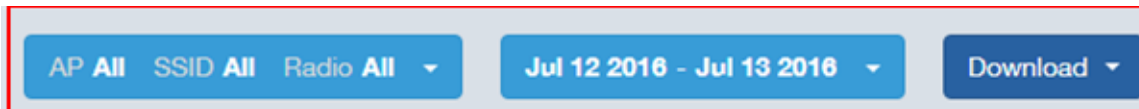
By selecting APs and setting a date range, you can examine specific subsets of data for any AP or group of APs for any time period in any of your wireless networks. For example, if you want to see just the total traffic and client counts for a certain AP on a certain day, you could use the Network Overview report, and simply select that AP and date only.

The same two filters are available on every dashboard:

- **AP/Radio Filter** (on some screens, **AP/SSID/Radio** filter)
- **Date Filter**

Once you have filtered the data, you can use the **Download** button to download the current dashboard reports in CSV or PDF format.

Figure 3: AP/Radio Filter, Date Filter and Download



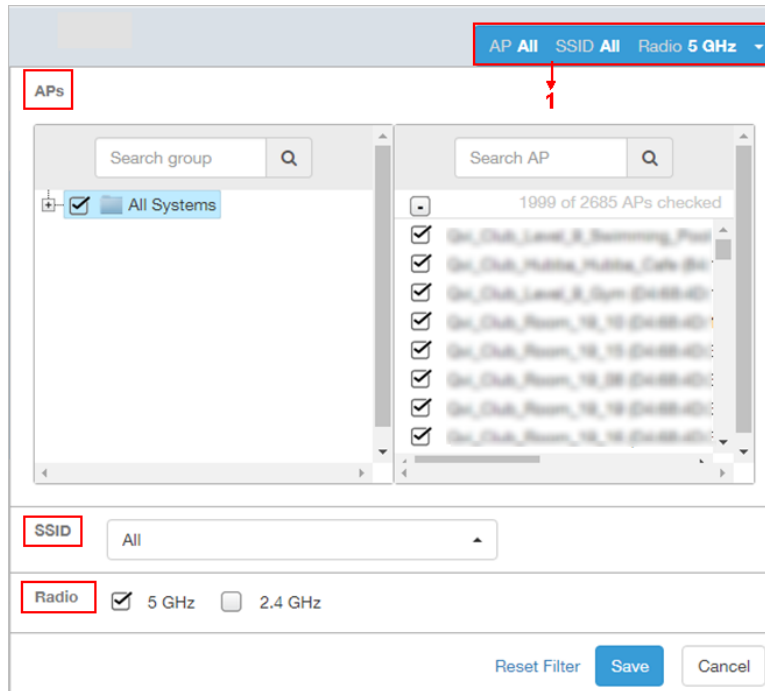
Filtering Data by AP, SSID and Radio

Use the AP/Radio Filter to display data from a certain subset of the APs in the network only.

To filter the dashboard content for a certain AP or group of APs, use the following procedure:

1. On any of the built-in report pages (Overview, Network, WLANs, Clients, Applications, Airtime Utilization), click the **AP/Radio** filter button (or **AP/SSID/Radio Filter** button).
2. Select an AP or group of APs using any of the following:
 - **Search Group:** Search for an AP Group name.
 - **Search AP:** Search for an AP name or AP MAC address.
 - Select a group of APs by controller, zone, AP Group from the left column, and choose the AP name/MAC address from the right column.
3. To filter for either the 2.4 or 5 GHz radio statistics only, select the **2.4 GHz** or **5 GHz** check box.
4. Click **Save** to save your changes.

Figure 4: Filtering data by AP or AP group



Filtering Data by Date

Use the Date Filter to display data from a certain time range only.

To filter the dashboard content for a certain date range, use the following procedure:

1. On any of the built-in report pages (Overview, Network, WLANs, Clients, Applications, Airtime Utilization), click the **Date Range** filter button.
2. Select a start date and end date from the two calanders, or
3. Click **Today**, **Last 24 Hours**, or **Last 7 Days** to filter for one of these date ranges.
4. Click **Apply** to save your changes and apply the filter.

Figure 5: Filtering data by Date Range

Filters

Working With Filters

The screenshot shows a filter configuration interface. At the top, there are dropdown menus for 'AP All', 'SSID All', and 'Radio 5 GHz'. To the right, a date range dropdown is set to 'Jul 07 2016 - Jul 08 2016', with a red box and arrow pointing to it labeled '2'. Below this, there are two date input fields: '07/07/2016' and '07/08/2016'. A calendar view shows July and August 2016, with the 7th and 8th of July highlighted. A selection menu is open, showing options: 'Today', 'Last 24 Hours', 'Last 7 Days', and 'Custom Range' (which is highlighted in blue). At the bottom of the menu are 'Apply' and 'Cancel' buttons.

Overview Page

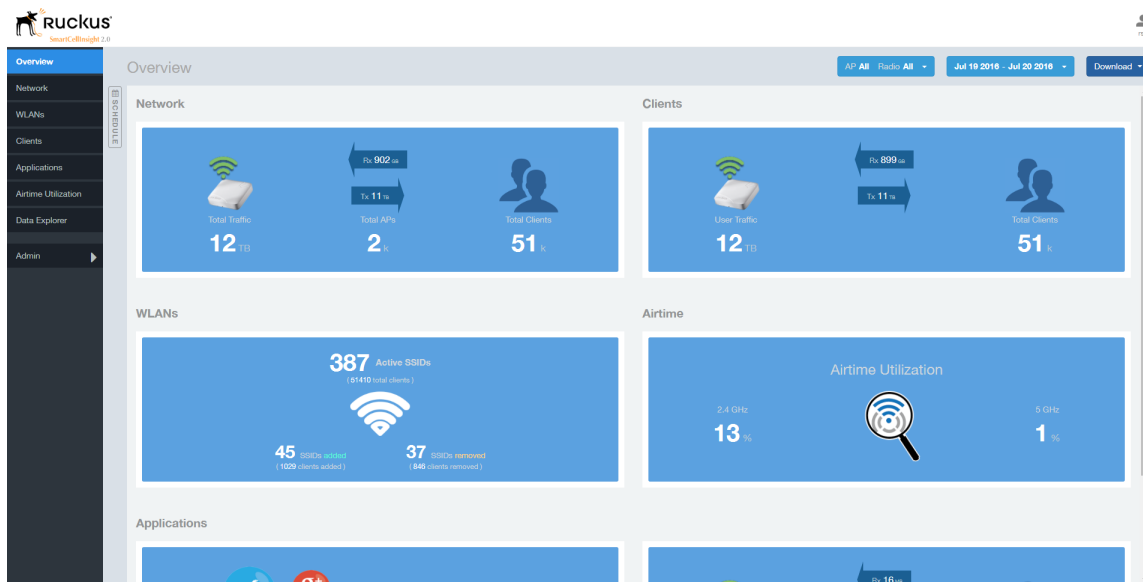
4

Using the Overview Page

The Overview screen is the main dashboard that is displayed when you log into SCI. It provides a general overview of the key statistics of your WiFi network, such as total traffic, total clients, active WLANs, airtime utilization and applications identified.

To view more detailed information, click any of the other headings on the left navigation bar, or click the section in the content panel to redirect to the same page.

Figure 6: The Overview



The Overview page contains the following reports:

- [Overview - Network](#) on page 17
- [Overview - Clients](#) on page 17
- [Overview - WLAN](#) on page 17
- [Overview - Airtime](#) on page 18
- [Overview - Applications](#) on page 18

To filter the content displayed, click either the **AP - Radio** filter or the **Time Period** filter. For more information, see [Working With Filters](#) on page 12.

To download a copy of the content currently displayed on the screen, click **Download**, and select **CSV** or **PDF** as the file type.

Overview - Network

The Overview - Network report gives an overview of the data from the network perspective, and displays the total traffic, number of APs and clients.

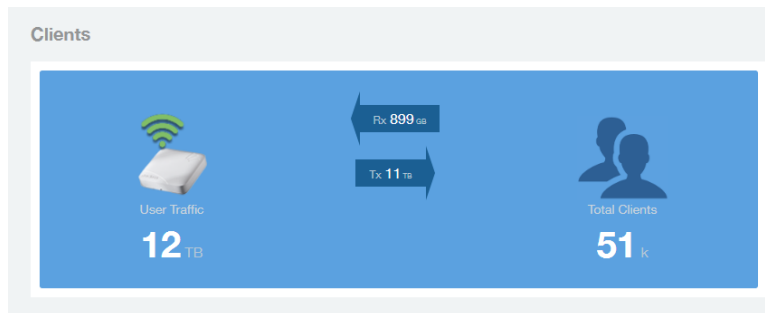
Figure 7: Network Overview report



Overview - Clients

The Overview - Clients report displays the total user traffic and total clients.

Figure 8: Clients



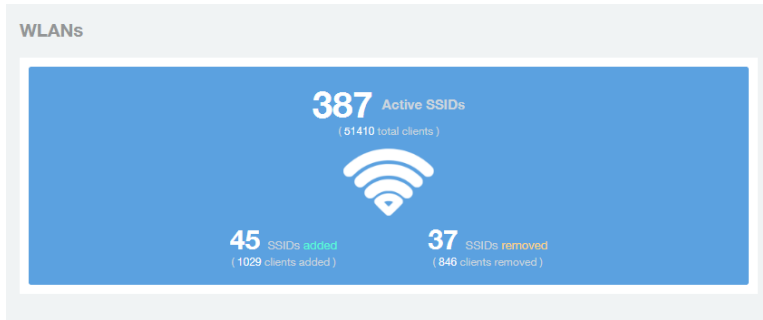
Overview - WLAN

The Overview - WLAN report displays an overview of the total number of SSIDs deployed, as well as the number of SSIDs added and removed over the selected period.

Figure 9: WLANs

Overview Page

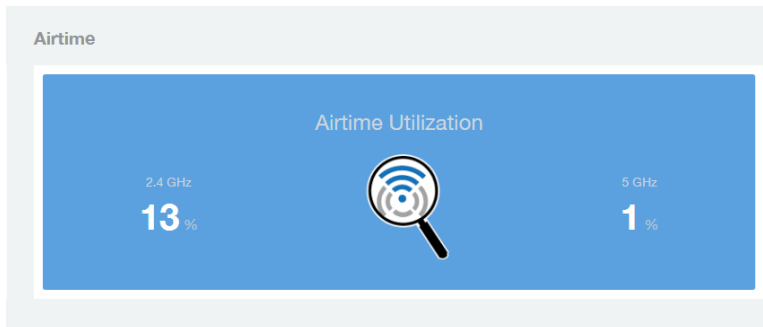
Using the Overview Page



Overview - Airtime

The Overview - Airtime report provides an overview of the airtime utilization statistics on the 2.4 and 5 GHz AP radios.

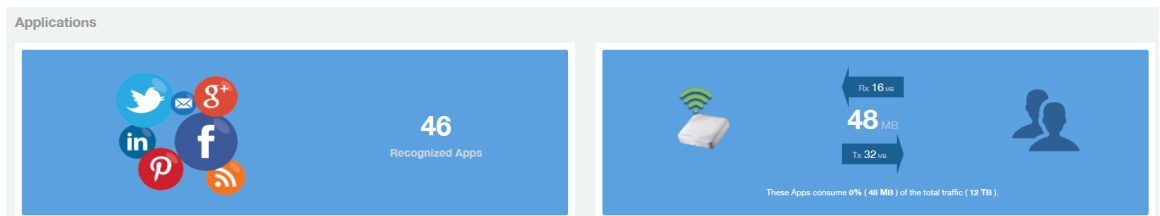
Figure 10: Airtime



Overview - Applications

The Overview - Applications report displays an overview of the applications identified by the application visibility engine.

Figure 11: Applications



Network Reports Page

5

Using the Network Report Page

The Network report page is divided into eight sections, each of which provides more detailed information on network traffic and usage statistics.

Use the Network report page to view which APs have the highest utilization, compare traffic statistics by radio type, or view different types of traffic over time.

Figure 12: The Network Report page



The Network Report page contains the following reports:

- [Network - Overview](#) on page 21
- [Network - Traffic Distribution](#) on page 21
- [Network - Top 10 APs by Traffic Volume](#) on page 22
- [Network - Top 10 APs by Client Count](#) on page 23
- [Network - Top APs by Traffic Volume Table](#) on page 23
- [Network - Top APs by Client Count Table](#) on page 24
- [Network -Traffic Trend](#) on page 24
- [Network - Traffic Over Time](#) on page 25

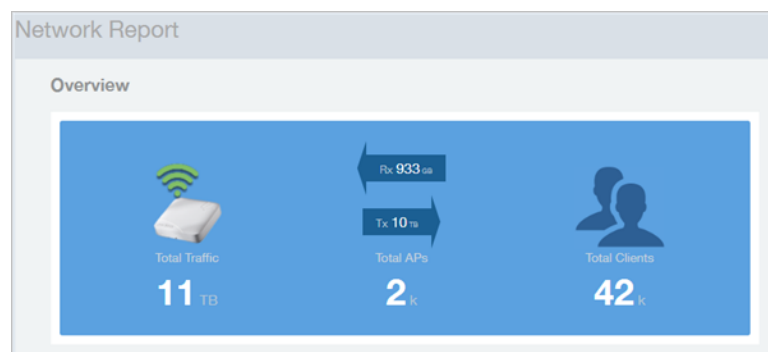
Network - Overview

The Network Overview report provides a general overview of the entire network.

The Overview report displays the following, based on your selection of AP, SSID and Radio and Date Range filters:

- Total traffic
- Total traffic received and transmitted
- Total number of APs
- Total clients on the network

Figure 13: Overview



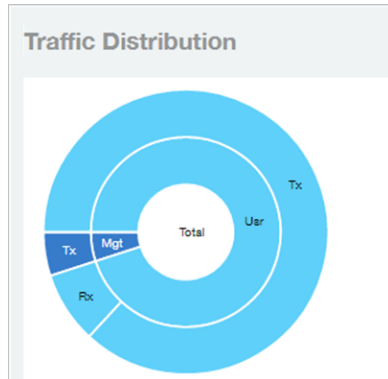
Network - Traffic Distribution

The Traffic Distribution report displays the distribution of traffic types in pie chart format.

Use the **Traffic Distribution** report to display management traffic vs. user traffic, for example, based on your selection of APs, SSID, Radio and Date Range filters.

- Tx - Transmitted traffic
- Rx - Received traffic
- Mgmt - Management traffic
- Usr - User traffic
- Total - Total of all traffic

Figure 14: Traffic Distribution



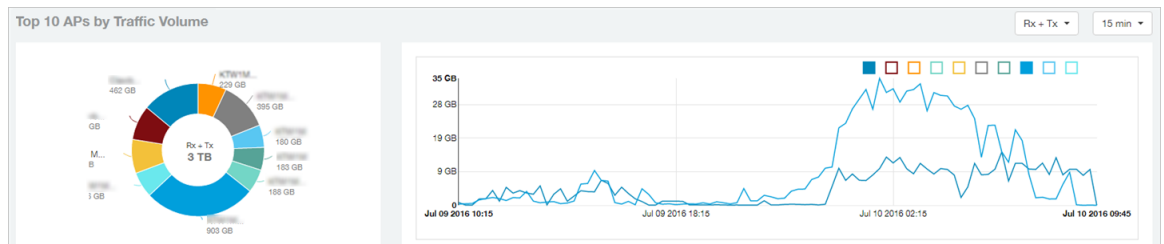
Network - Top 10 APs by Traffic Volume

The Top 10 APs by Traffic Volume report displays the list of highest traffic APs in pie chart and graph format.

Use the drop-down menus to specify the traffic type (Tx, Rx, or Tx+Rx), and the time granularity in increments of 15 minutes, 1 hour or 1 day. Click any of the colored squares to toggle display of the AP in the line graph.

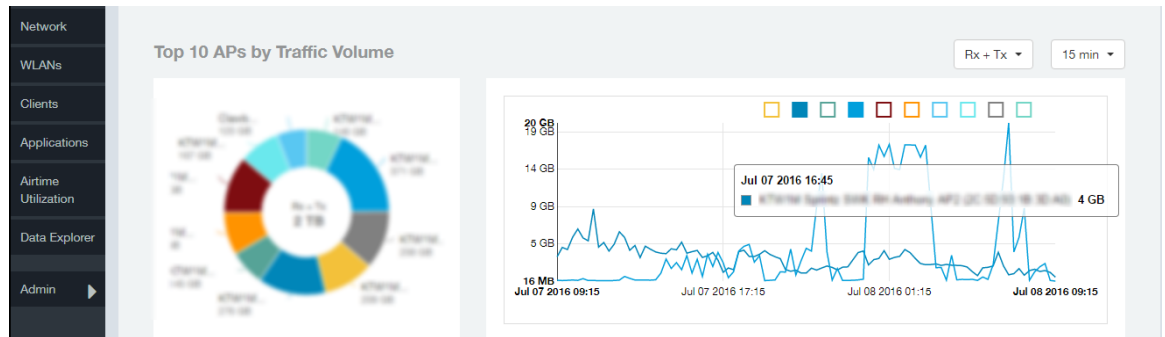
NOTE The **Rx+Tx** drop-down menu applies to both the pie chart and the line graph, but the time granularity applies to the line graph only. This applies to all sections in all reports that appear in this format (pie chart + line graph with Rx/Tx + time granularity menus).

Figure 15: Top 10 APs by Traffic Volume



If you hover over the line graph a pop-up appears containing the selected AP details as shown in the figure below.

Figure 16: Top 10 APs by Traffic Volume - Hover Over Example

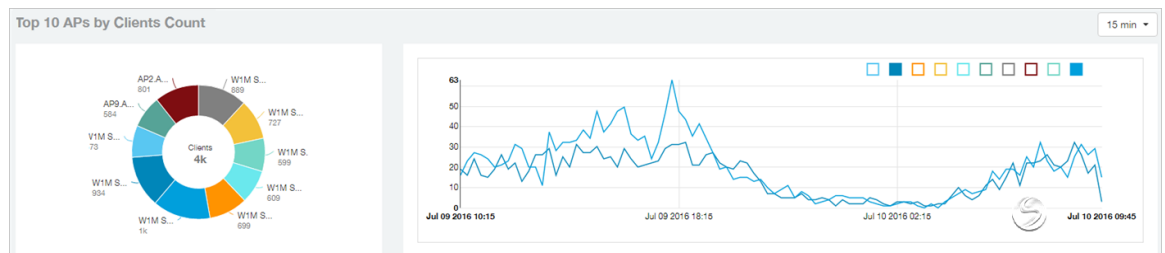


Network - Top 10 APs by Client Count

This report displays the top 10 APs by client count in pie chart and graph format.


Use the drop-down menu to specify the time granularity of 15 minutes, 1 hour or 1 day. If you hover over the line graph a pop-up appears containing the details on the selected data points. Click any of the colored squares to toggle display of the AP in the line graph.

Figure 17: Top 10 APs by Client Count



Network - Top APs by Traffic Volume Table

This table lists the APs with the highest traffic volume in the network.

Use this report to view a list the top APs with the highest traffic volume sorted according to the selected columns. Click the gear icon  to select which columns to display, or click any column heading to sort by that column.

You can also select whether to display the top 10, 20, 50, or 100 APs by traffic volume from the Top APs filter. The number of rows per page can be defined using the **Rows per page** option in the table settings drop down list.

Figure 18: Top APs by Traffic

Network Reports Page

Using the Network Report Page

Index	AP Name	AP IP Address	Controller Name	Rx Traffic	Tx Traffic	Total Traffic	Clients
1	AP1000-0000-0000-0000	192.168.15.52	192.168.1.1	58 GB	865 GB	923 GB	75
2	AP1000-0000-0000-0000	10.150.240.243	192.168.1.1	38 GB	441 GB	479 GB	21
3	AP1000-0000-0000-0000	192.168.31.12	192.168.1.1	29 GB	374 GB	399 GB	24
4	AP1000-0000-0000-0000	10.150.239.83	192.168.1.1	9 GB	270 GB	279 GB	27
5	AP1000-0000-0000-0000	192.168.21.104	192.168.1.1	21 GB	256 GB	276 GB	86
6	AP1000-0000-0000-0000	192.168.31.7	192.168.1.1	10 GB	221 GB	231 GB	51
7	AP1000-0000-0000-0000	192.168.16.81	192.168.1.1	12 GB	196 GB	207 GB	68
8	AP1000-0000-0000-0000	192.168.106.55	192.168.1.1	28 GB	158 GB	189 GB	30
9	AP1000-0000-0000-0000	192.168.106.159	192.168.1.1	13 GB	170 GB	183 GB	76
10	AP1000-0000-0000-0000	192.168.31.10	192.168.1.1	11 GB	170 GB	181 GB	57

Network - Top APs by Client Count Table

This report displays the top APs by client count in the network.

Click the gear icon to view the list of table columns, or click any column heading to sort by that column. You can also select the top 10, 20, 50, or 100 APs by client count. The number of rows in a page is defined by the Rows per Page list in table settings drop down list.

Figure 19: Top APs by Client

Index	AP Name	AP IP Address	Controller Name	Clients	Rx Traffic	Tx Traffic	Total Traffic
1	AP1000-0000-0000-0000	192.168.139.2	192.168.1.1	1k	76 MB	667 MB	743 MB
2	AP1000-0000-0000-0000	192.168.50.2	192.168.1.1	940	17 MB	425 MB	442 MB
3	AP1000-0000-0000-0000	192.168.50.2	192.168.1.1	893	37 MB	749 MB	786 MB
4	AP1000-0000-0000-0000	172.24.25.50	192.168.1.1	806	408 MB	9 GB	10 GB
5	AP1000-0000-0000-0000	192.168.33.2	192.168.1.1	737	102 MB	678 MB	780 MB
6	AP1000-0000-0000-0000	192.168.31.2	192.168.1.1	710	213 MB	974 MB	1 GB
7	AP1000-0000-0000-0000	192.168.95.2	192.168.1.1	616	98 MB	868 MB	966 MB
8	AP1000-0000-0000-0000	192.168.50.2	192.168.1.1	601	32 MB	413 MB	445 MB
9	AP1000-0000-0000-0000	172.24.26.28	192.168.1.1	587	596 MB	6 GB	6 GB
10	AP1000-0000-0000-0000	192.168.44.2	192.168.1.1	576	52 MB	492 MB	544 MB

Network -Traffic Trend

The Traffic Trend report displays the traffic by usage and radio over time.

If you hover over the line graph a pop-up appears containing the selected AP details.

Traffic by Usage: You can select the traffic by usage details from the check boxes listed in the legend on top of the graph, - namely by user, total received traffic, total transmitted traffic, the total received and transmitted traffic, and the management traffic. You can also select a date range to view this date on the line graph. You can also specify the time granularity in 15 minutes, 1 hour or 1 day increments.

Traffic by Radio: You can select the traffic by radio details from the check boxes listed in the legend on top of the graph - namely by 5GHz, 2.4GHz, or/and view the total traffic by radio details. You can also select a date range to view this date on the line graph.

Figure 20: Traffic Trend



Network - Traffic Over Time

The Traffic Over Time report displays the traffic on the network over time.

This report allows you to compare traffic over multiple time periods. Click the gear icon to select/deselect columns to display, or click any column heading to sort by that column.

Figure 21: Traffic Over Time

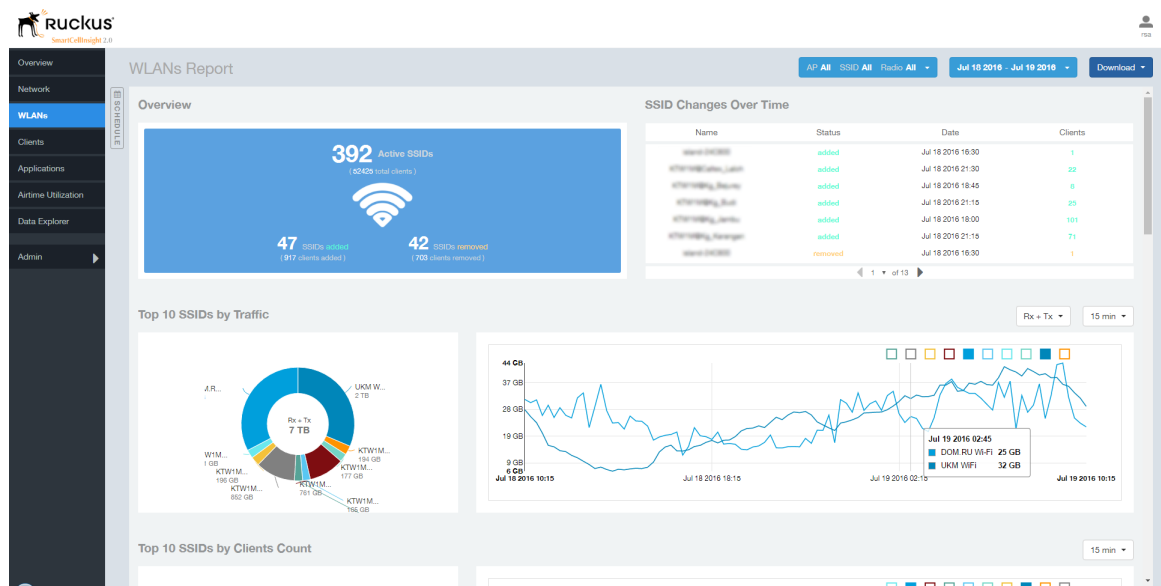


Using the WLANs Report Page

The WLANs page contains reports that allow you to visualize wireless client and traffic statistics from the SSID perspective.

The following figure shows the seven reports on the WLANs page. For details on each WLAN report, see the list below.

Figure 22: WLANs Report



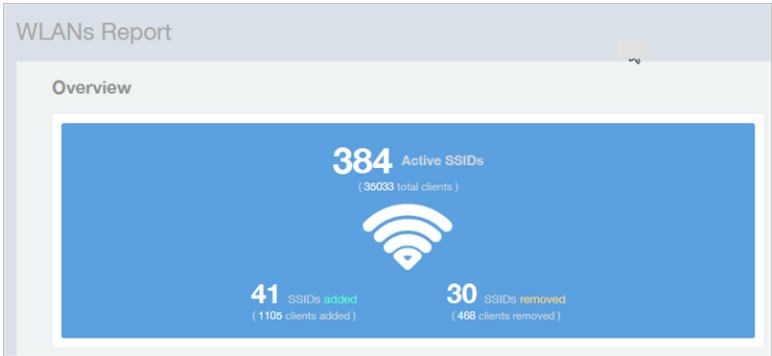
The WLANs report page consists of the following reports:

- [WLANs Overview](#) on page 27
- [WLAN-SSID Changes Over Time](#) on page 27
- [WLAN-Top Ten SSIDs by Traffic](#) on page 28
- [WLAN-Top Ten SSIDs by Client Count](#) on page 28
- [WLAN-Active SSID Trend](#) on page 29
- [WLAN-Top SSIDs by Traffic](#) on page 29
- [WLAN-Top SSIDs by Client](#) on page 30

WLANs Overview

The overview report provides a general overview of the total number of active SSIDs, and the number of added and removed SSIDs over the selected period.

Figure 23: WLANs Overview



WLAN-SSID Changes Over Time

Use the SSID Changes Over Time report to quickly view the most recent SSID changes. By default, this report displays the most recent changes up to the current time. To view changes for a previous time period, use the Time Period Filter.

Figure 24: SSID Changes Over Time

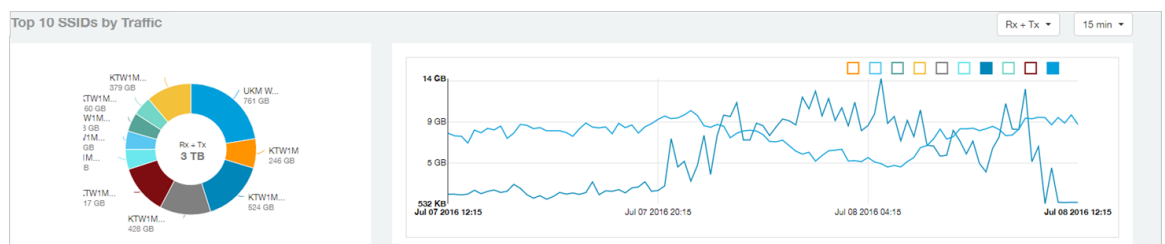
Name	Status	Date	Clients
ssid-00000	added	Jul 08 2016 11:00	1
ssid-00000	removed	Jul 07 2016 12:45	1
ssid-00000	removed	Jul 07 2016 12:15	1
ssid-00000	removed	Jul 07 2016 12:00	1
ssid-00000	added	Jul 07 2016 12:45	19
ssid-00000	added	Jul 07 2016 12:45	1
ssid-00000	added	Jul 07 2016 12:15	1

WLAN-Top Ten SSIDs by Traffic

Use the Top 10 SSIDs by Traffic reports to view which wireless networks are generating the most traffic, compare usage of the top WLANs over different time periods, and compare Tx and Rx statistics independently.

Click any of the colored squares to toggle display of the corresponding SSID. Select a time increment to display (15 minutes, 1 hour or 1 day), and choose whether to display transmit data only, receive data only, or total traffic.

Figure 25: Top Ten SSIDs by Traffic



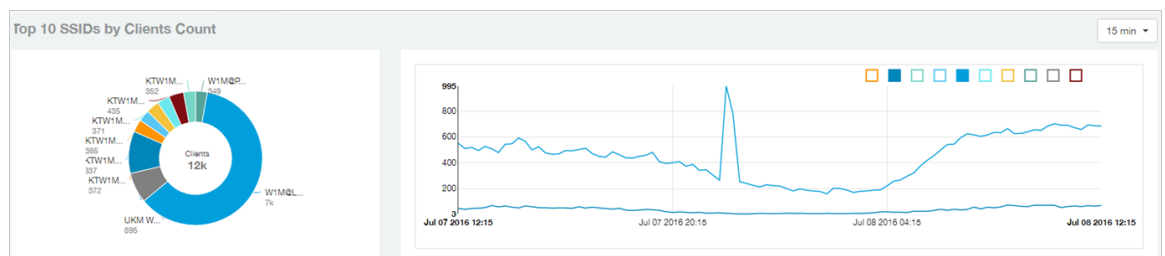
WLAN-Top Ten SSIDs by Client Count

The Top 10 SSIDs by Client Count report contains a pie chart and line graph used to view which wireless networks are most congested in terms of client count, and to compare client counts over different time periods.

Select a time increment to display (15 minutes, 1 hour or 1 day), and click any of the colored squares to toggle display of the corresponding SSID.

If you hover over the line graph a pop-up appears containing the selected SSID names and client counts at the chosen data point.

Figure 26: Top Ten SSIDs by Client Count



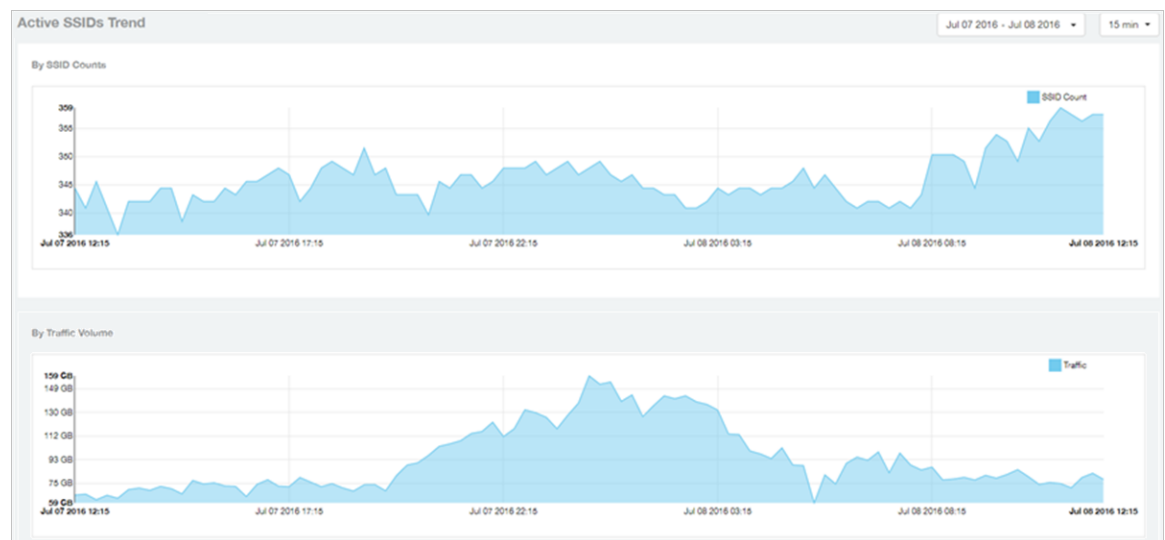
WLAN-Active SSID Trend

The Active SSIDs Trend report contains two graphs: total number of SSIDs over time, and total traffic volume over time.

This report allows you to quickly see how many WLANs are active and the total traffic volume over time. Select a date range and the time increments by which to display the graph.

Hover over the graphs to display the total SSID count or total traffic volume at any specific data point.

Figure 27: Active SSID Trend report



WLAN-Top SSIDs by Traffic

The Top SSIDs by Traffic table lists the top 10, 20, 50 or 100 SSIDs in the network by traffic volume.

You can sort the table by Total Traffic, Clients, AP count, or alphabetically by SSID name.

Additionally, you can customize the table by clicking the gear icon  and selecting from the list of columns.

You can also select whether to display only the top 10 (default value), 20, 50, or 100 SSIDs by traffic volume, or list all SSIDs. Configure the number of rows per a page using the **Rows per Page** option in the table settings drop down menu.

Figure 28: Top SSIDs by Traffic

WLANs Page

Using the WLANs Report Page

Top SSIDs by Traffic

These SSIDs consume 37% (3 TB) of the total traffic (8 TB) | Top 10 SSIDs

Index	SSID Name	Rx Traffic	Tx Traffic	Total Traffic	Clients	APs
1	SSID1	68 GB	69 GB	781 GB	895	750
2	SSID2	254 GB	289 GB	624 GB	111	3
3	SSID3	44 GB	524 GB	628 GB	141	3
4	SSID4	27 GB	391 GB	417 GB	134	3
5	SSID5	11 GB	368 GB	379 GB	186	3
6	SSID6	34 GB	213 GB	248 GB	163	3
7	SSID7	9 GB	189 GB	198 GB	65	3
8	SSID8	11 GB	149 GB	160 GB	138	3
9	SSID9	7 GB	151 GB	158 GB	33	4
10	SSID10	18 GB	138 GB	153 GB	159	3


Table Settings: APs, Clients, Rx Mgmt, Tx Mgmt, Index, User Traffic, Rx Traffic, Tx Traffic, Sessions, Total Traffic, Rx User, SSID Name, Tx User, Mgmt Traffic

Rows per page: 10

WLAN-Top SSIDs by Client

The Top SSIDs by Client report contains a table listing the top wireless networks by client count.

You can sort the table by Total Traffic, Clients, AP count, or alphabetically by SSID name.

Additionally, you can customize the table by clicking the gear icon  and selecting from the list of columns.

You can also select whether to display only the top 10 (default value), 20, 50, or 100 SSIDs by client count, or list all SSIDs. Configure the number of rows per a page using the **Rows per Page** option in the table settings drop down menu.

Figure 29: Top SSIDs by Clients

Top SSIDs by Clients

These SSIDs consume 14% (1 TB) of the total traffic (8 TB) | Top 10 SSIDs

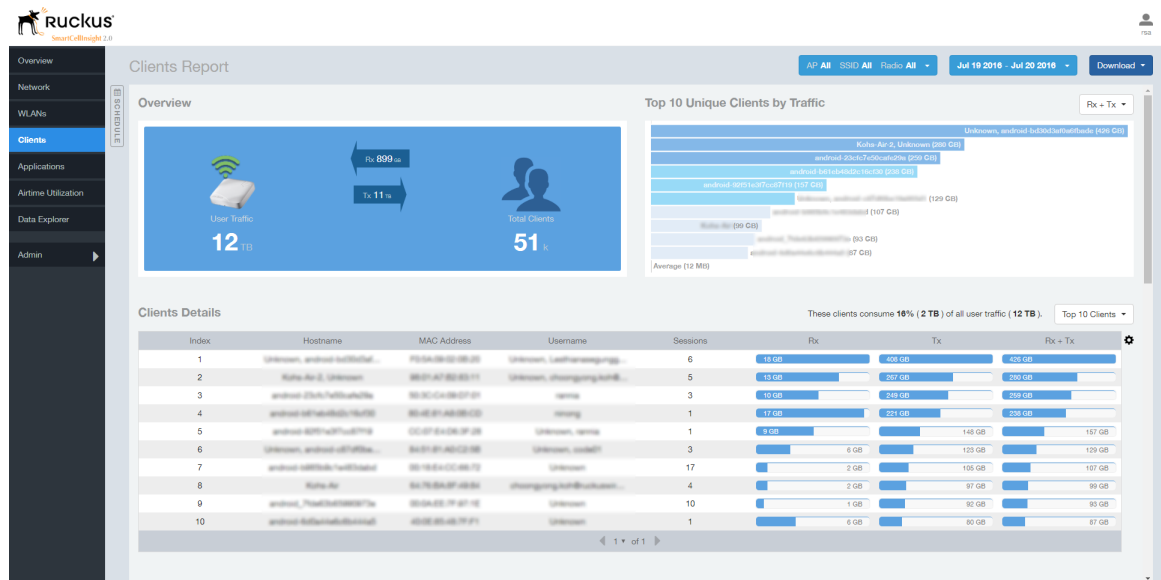
Index	SSID Name	Clients	Rx Traffic	Tx Traffic	Total Traffic	APs
1	SSID1	7k	6 GB	91 GB	97 GB	228
2	SSID2	1k	4 GB	82 GB	86 GB	39
3	SSID3	895	66 GB	696 GB	761 GB	750
4	SSID4	435	1 GB	27 GB	28 GB	3
5	SSID5	385	11 GB	125 GB	136 GB	3
6	SSID6	372	3 GB	66 GB	69 GB	3
7	SSID7	371	1 GB	24 GB	25 GB	3
8	SSID8	352	501 MB	6 GB	7 GB	3
9	SSID9	349	240 MB	2 GB	3 GB	3
10	SSID10	337	1 GB	16 GB	18 GB	3

Using the Clients Report Page

The Clients report page is divided into five sections, each of which provides more detailed information on numbers of unique clients and client traffic statistics.

Use the Clients Report page to identify the top clients generating the most traffic, or evaluate client counts over different time periods.

Figure 30: Clients Report



The Clients report page contains the following reports:

- [Clients - Overview](#) on page 32
- [Clients - Top 10 Unique Clients by Traffic](#) on page 33
- [Client Details](#) on page 34
- [Clients - Unique Clients Trends Over Time \(Chart\)](#) on page 34
- [Clients Unique Clients Trend Over Time \(Table\)](#) on page 35

Clients - Overview

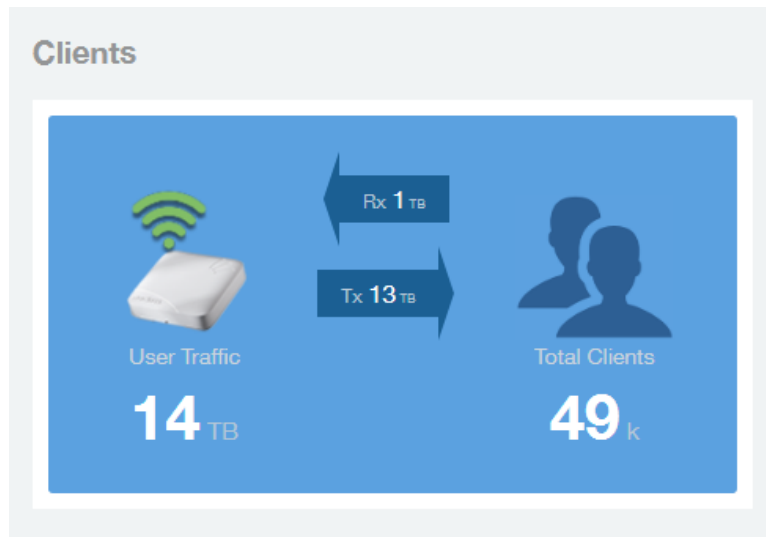
Provides an overview of the total traffic, both received and transmitted, and the total number of clients over the selected time period.

The Overview section contains the following:

- Total user traffic
- Total received and transmitted user traffic
- Total clients on the network

This is based on your selection of AP/Radio and Date Range filters.

Figure 31: Overview



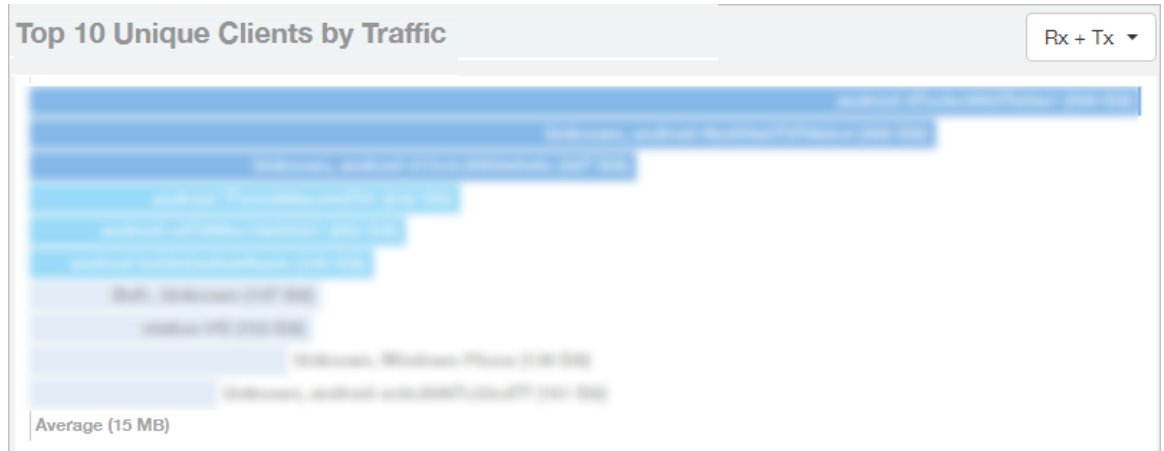
Clients - Top 10 Unique Clients by Traffic

This section provides you with the details of the top 10 unique clients by traffic, filtered on received traffic, transmitted traffic, and received and transmitted traffic.

Figure 32: Top 10 Unique Clients by Traffic

Clients Page

Using the Clients Report Page



Client Details

This table contains a list of clients with the highest traffic volume in the network as per the selected components.


Click the gear icon  to select the list of components from the table. By default, the table is sorted by total traffic (Rx + Tx). Click on a column heading to sort by that value. You can also select the top 10 (default), 20, 50, or 100 clients to display. The number of rows per page is defined by the **Rows per Page** option in the table settings menu.

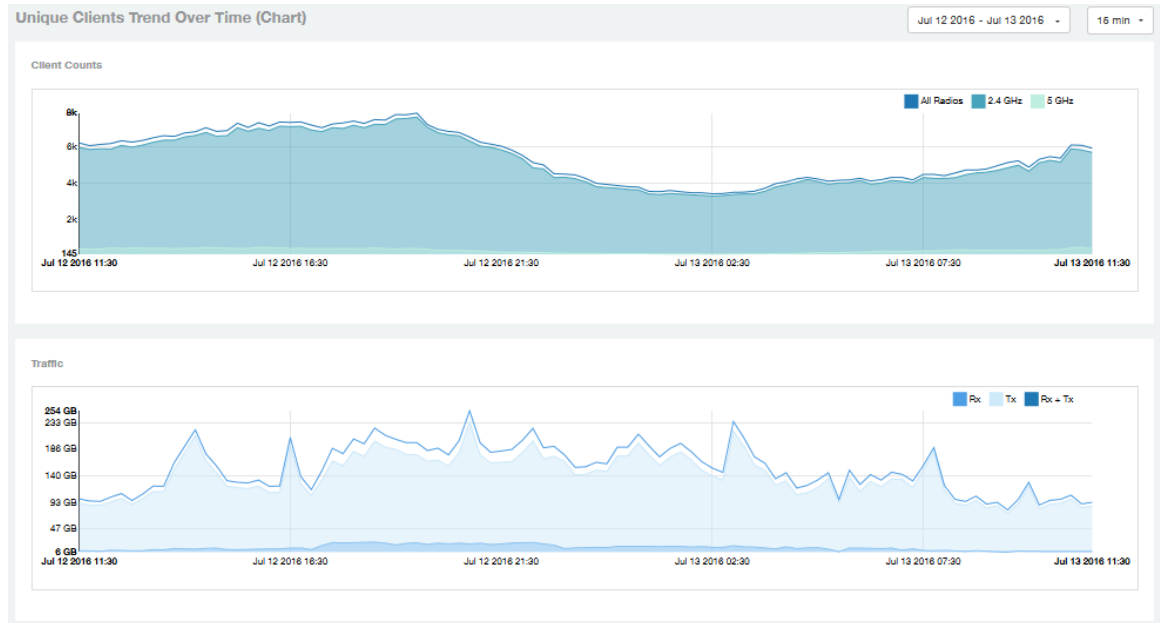
Figure 33: Client details

Index	Hostname	MAC Address	Username	Sessions	Rx	Tx	Rx + Tx
					These clients consume 16% (3 TB) of the total traffic (13 TB).		
					Top 10 Clients		
1	1	34 GB	565 GB	599 GB
2	12	21 GB	457 GB	488 GB
3	3	17 GB	309 GB	327 GB
4	1	7 GB	225 GB	232 GB
5	1	11 GB	192 GB	203 GB
6	1	7 GB	178 GB	185 GB
7	29	1 GB	156 GB	157 GB
8	1	9 GB	144 GB	153 GB
9	3	5 GB	135 GB	139 GB
10	7	4 GB	98 GB	101 GB

Clients - Unique Clients Trends Over Time (Chart)

Use the Unique Clients Trend chart to view a breakdown of unique clients by radio type over time.

Figure 34: Unique Clients Trend Over Time Chart



Clients Unique Clients Trend Over Time (Table)

This table displays the total numbers of unique clients over the specified time intervals, as well as unique client count per radio, and client traffic (Tx, Rx, total) for a given time period.


The unique clients trend can be used to identify which time periods have the highest number of new clients connecting to the networks, or to compare transmit/receive traffic over different time periods throughout the day. Click the gear icon  to select the list of columns to display. The table is sorted on the total traffic by default. Click any column heading to sort by that value. You can also select the top 10 (default value), 20, 50, or 100 clients to display, or display all clients. The number of rows per page is defined by the **Rows per Page** option in the table settings menu.

Figure 35: Unique Clients Trend Over Time Table

Clients Page
Using the Clients Report Page

Unique Clients Trend Over Time (Table) Jul 12 2016 - Jul 13 2016 ▾ 15 min ▾

Time Period	2.4 GHz	5 GHz	Total	Rx	Tx	Rx + Tx
Jul 12 2016 11:30 - 11:44	6k	430	6k	7 GB	92 GB	99 GB
Jul 12 2016 11:45 - 11:59	6k	411	6k	7 GB	88 GB	95 GB
Jul 12 2016 12:00 - 12:14	6k	429	6k	7 GB	88 GB	95 GB
Jul 12 2016 12:15 - 12:29	6k	484	6k	8 GB	94 GB	102 GB
Jul 12 2016 12:30 - 12:44	6k	499	6k	8 GB	100 GB	108 GB
Jul 12 2016 12:45 - 12:59	6k	478	6k	7 GB	89 GB	96 GB
Jul 12 2016 13:00 - 13:14	6k	470	6k	8 GB	99 GB	107 GB
Jul 12 2016 13:15 - 13:29	6k	488	6k	10 GB	112 GB	121 GB
Jul 12 2016 13:30 - 13:44	6k	489	7k	9 GB	112 GB	121 GB
Jul 12 2016 13:45 - 13:59	6k	448	7k	12 GB	151 GB	163 GB

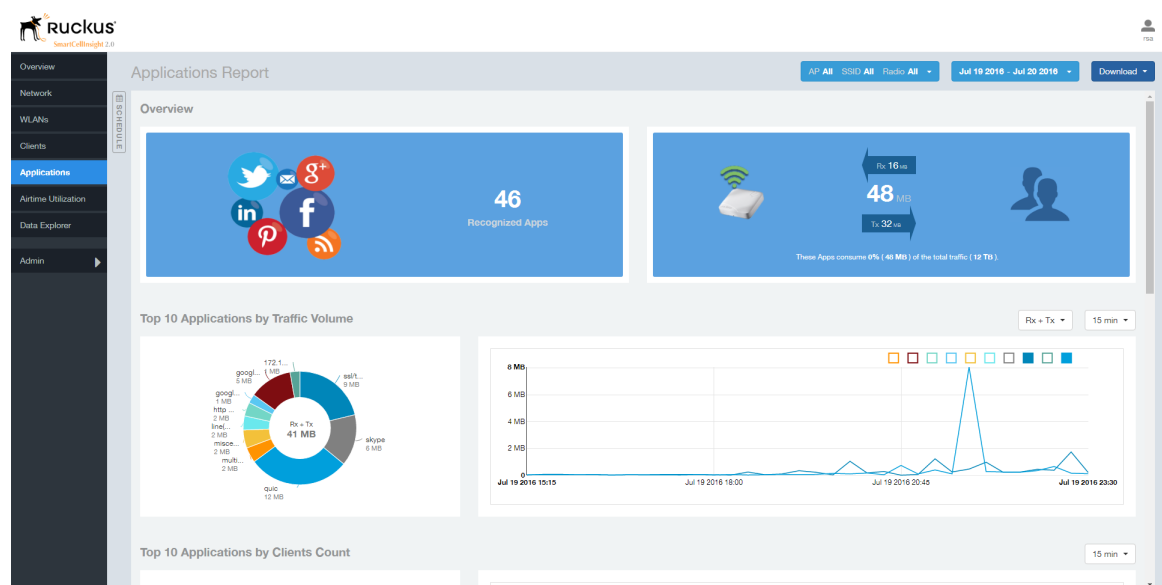
◀ 1 of 10 ▶

Using the Applications Report Page

The Applications reports page contains five reports, each of which provides more detailed information on applications identified by the application recognition engine.

Use the Applications reports to identify which applications your users are using the most, compare the top applications over time, and which applications have the highest numbers of users.

Figure 36: Applications Report



The Applications page contains the following reports:

- [Applications - Overview](#) on page 39
- [Applications - Top Applications by Traffic](#) on page 39
- [Applications - Top 10 by Client Count](#) on page 40
- [Applications - Top Applications by Traffic](#) on page 39
- [Applications - Top Applications by Clients](#) on page 41

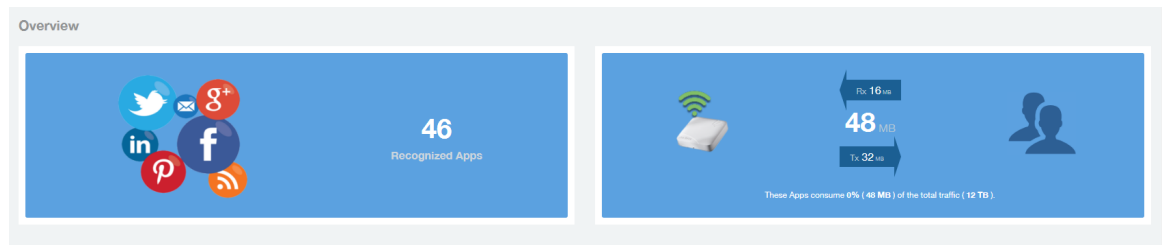
Applications - Overview

The Applications Overview report provides an overview of all the applications recognized by the application recognition engine and the traffic volumes that these applications consume.

The Overview section contains the following:

- The number of recognized applications
- Total traffic
- Total number of APs, which also contains the received and transmitted traffic between them
- Total clients on the network

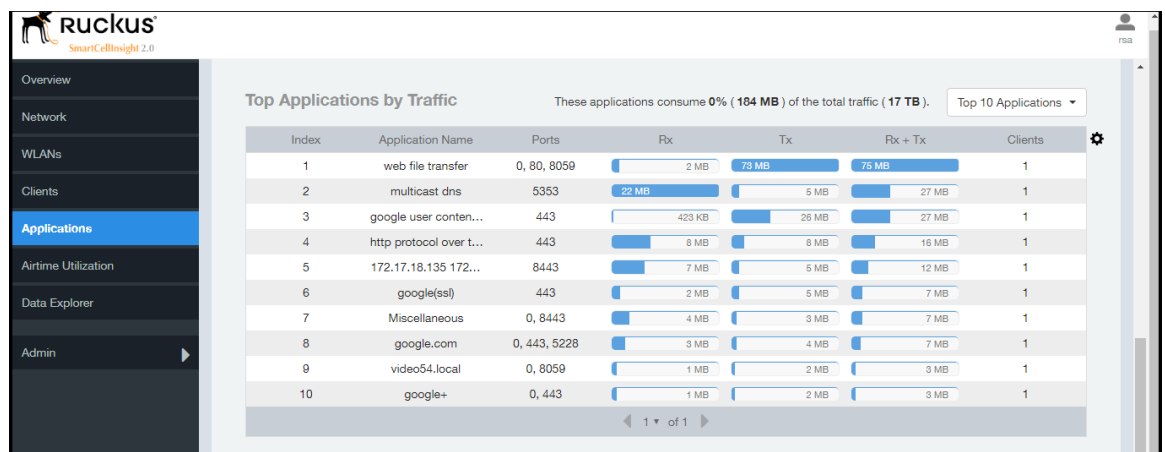
Figure 37: Applications Overview



Applications - Top Applications by Traffic

The Top Applications by Traffic report displays the the top (10, 20 or 50) applications by amount of traffic generated over the time period selected.

Figure 38: Top Applications by Traffic



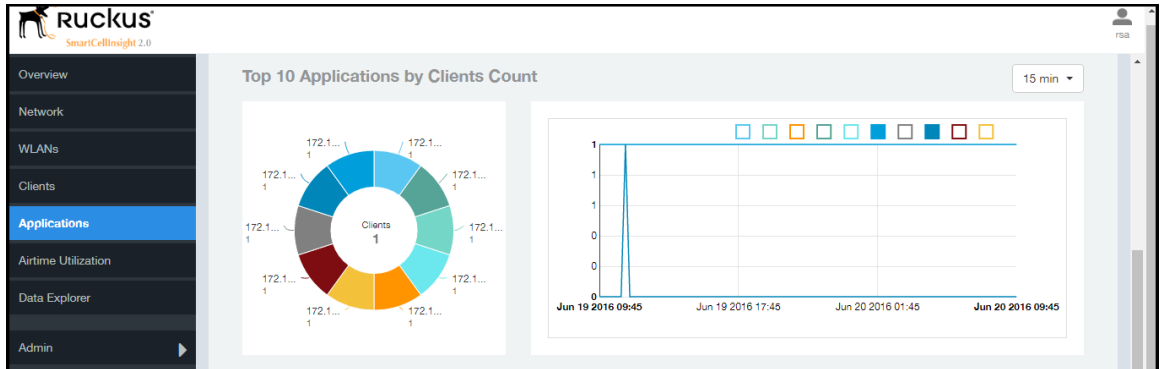
Applications Page

Using the Applications Report Page

Applications - Top 10 by Client Count

The Top 10 Applications by Client Count report consists of a pie chart and graph containing the top 10 applications by client count in the network.

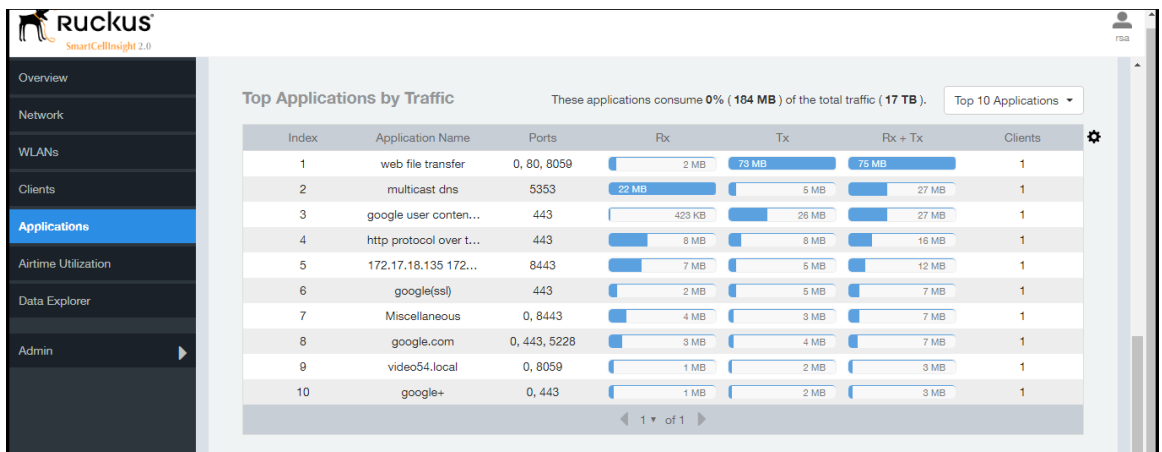
Figure 39: Top 10 Applications by Clients Count



Applications - Top Applications by Traffic


The Top Applications by Traffic report displays the the top (10, 20 or 50) applications by amount of traffic generated over the time period selected.

Figure 40: Top Applications by Traffic



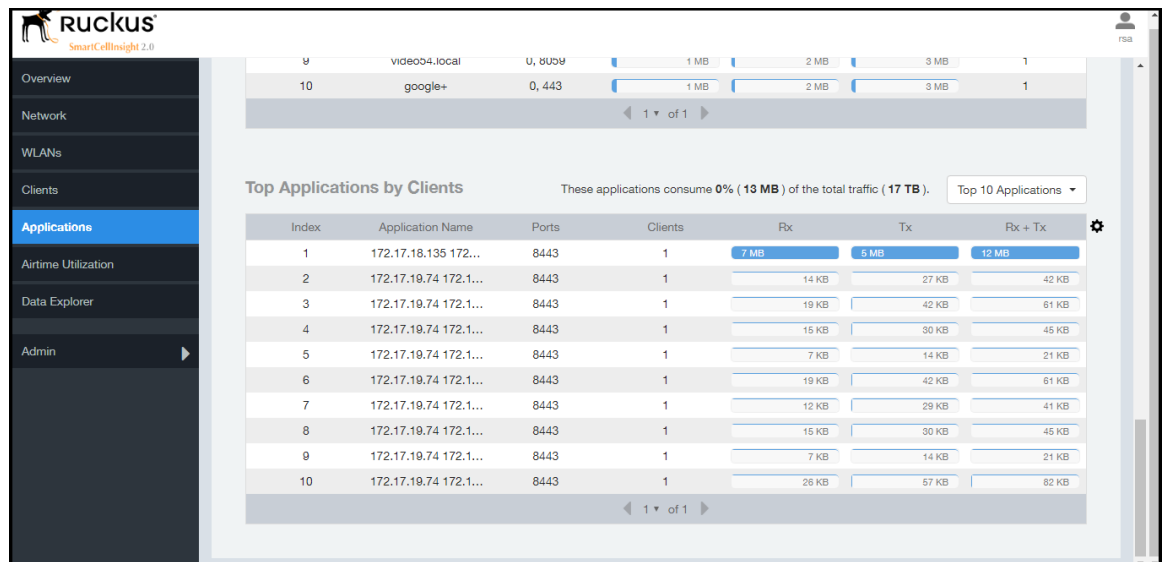
Applications - Top Applications by Clients

Use the Top Applications by Clients table to view which applications are being used by the most clients on the network.

You can sort the table by any column by clicking on the column heading. Additionally, you can customize the table by clicking the gear icon  and selecting from the list of columns to display.

You can also select whether to display only the top 10 (default value), 20, 50, or 100 applications, or list all applications. Configure the number of rows per a page using the **Rows per Page** list in the table settings drop down menu.

Figure 41: Top Applications by Clients



Airtime Utilization Page

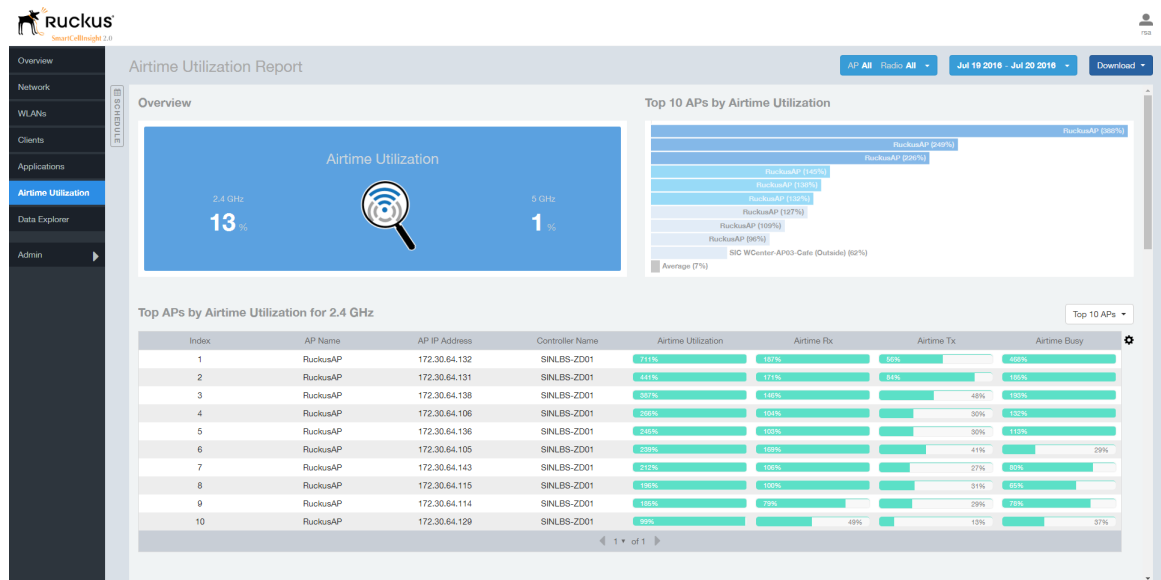
9

Using the Airtime Utilization Page

The Airtime Utilization reports page contains six reports, each of which provides more detailed information on airtime utilization statistics.

Use these reports to see which APs have the highest utilization per radio and to track utilization trends over time.

Figure 42: Airtime Utilization Report



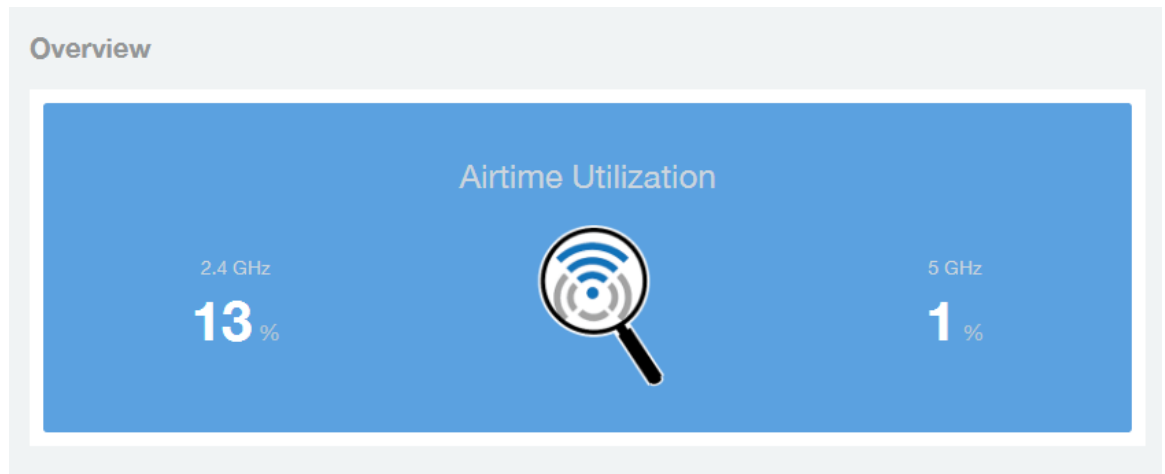
The Airtime Utilization page contains the following reports:

- [Airtime Utilization - Overview](#) on page 43
- [Top 10 APs By Airtime Utilization](#) on page 43
- [Top APs by Airtime Utilization for 2.4 Ghz](#) on page 44
- [Top APs by Airtime Utilization for 5 GHz](#) on page 44
- [Airtime Utilization Trend](#) on page 45
- [Airtime Utilization - Over Time](#) on page 45

Airtime Utilization - Overview

The Airtime Utilization Overview report displays the aggregate utilization rates for all of the 2.4 and 5 GHz radios on all APs selected for the time period.

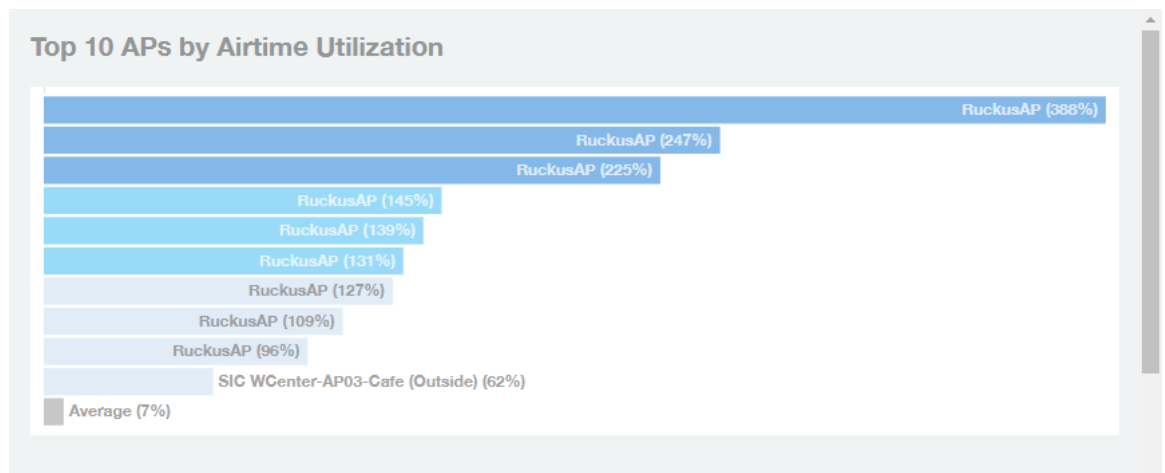
Figure 43: Airtime Utilization Overview



Top 10 APs By Airtime Utilization

Use the Top APs by Utilization report to view which APs have the highest airtime utilization rates.


Figure 44: Top 10 APs by Airtime Utilization



Top APs by Airtime Utilization for 2.4 Ghz

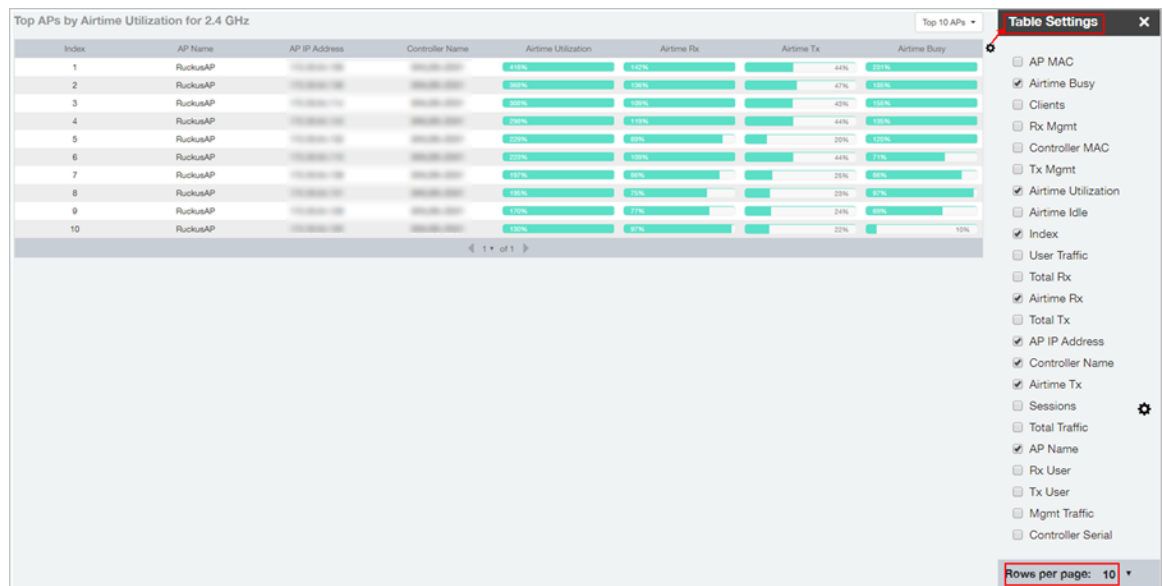
This report displays which APs have the highest utilization on the 2.4 GHz radio.

Use this report to view a list the top APs with the highest airtime utilization sorted

according to the selected columns. Click the gear icon  to select which columns to display, or click any column heading to sort by that column.

You can also select whether to display the top 10, 20, 50, or 100 APs by airtime utilization from the Top APs filter. The number of rows per page can be defined using the **Rows per page** option in the table settings drop down list.

Figure 45: Top APs by Airtime Utilization for 2.4 GHz




Index	AP Name	AP IP Address	Controller Name	Airtime Utilization	Airtime Rx	Airtime Tx	Airtime Busy
1	RuckusAP	192.168.1.10	192.168.1.1	410%	447%	44%	231%
2	RuckusAP	192.168.1.11	192.168.1.1	368%	158%	47%	180%
3	RuckusAP	192.168.1.12	192.168.1.1	168%	100%	43%	160%
4	RuckusAP	192.168.1.13	192.168.1.1	75%	119%	44%	155%
5	RuckusAP	192.168.1.14	192.168.1.1	72%	88%	20%	120%
6	RuckusAP	192.168.1.15	192.168.1.1	22%	102%	44%	17%
7	RuckusAP	192.168.1.16	192.168.1.1	16%	10%	2%	8%
8	RuckusAP	192.168.1.17	192.168.1.1	16%	7%	2%	8%
9	RuckusAP	192.168.1.18	192.168.1.1	12%	17%	24%	8%
10	RuckusAP	192.168.1.19	192.168.1.1	10%	9%	22%	10%

Top APs by Airtime Utilization for 5 GHz

This report displays which APs have the highest utilization on the 5 GHz radio.

Use this report to view a list the top APs with the highest airtime utilization sorted

according to the selected columns. Click the gear icon  to select which columns to display, or click any column heading to sort by that column.

You can also select whether to display the top 10, 20, 50, or 100 APs by airtime utilization from the Top APs filter. The number of rows per page can be defined using the **Rows per page** option in the table settings drop down list.

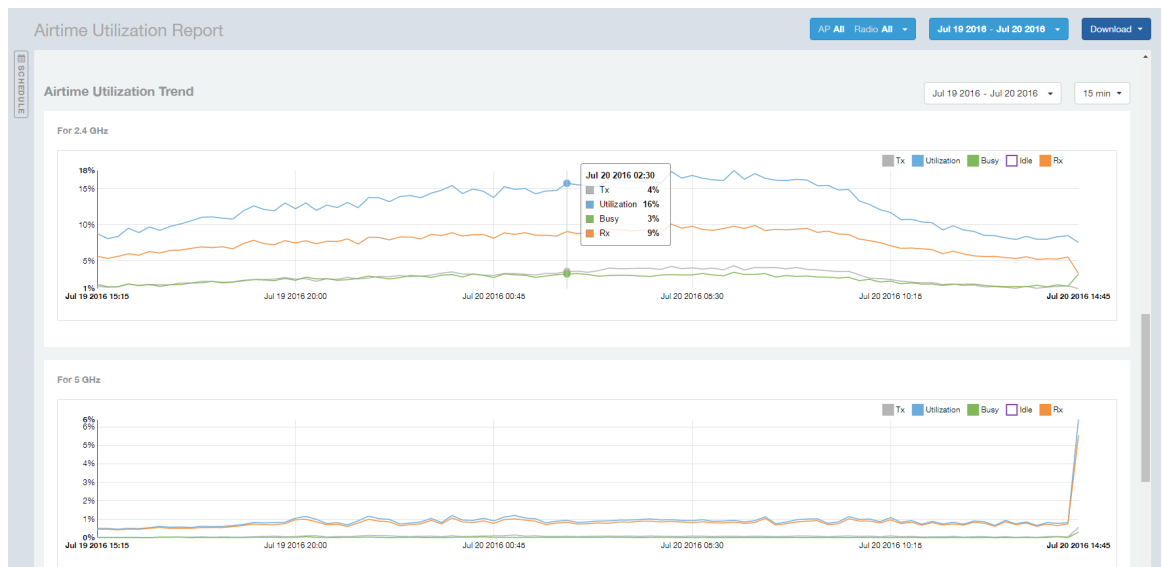
Figure 46: Top APs by Airtime Utilization for 5 GHz

Index	AP Name	AP IP Address	Controller Name	Airtime Utilization	Airtime Rx	Airtime Tx	Airtime Busy
1	WFI_8_FT_L3-FS-AP16	10.0.10.238	CMPT-8025-CON-2, CMPT-80...	72%	76%	0%	0%
2	WFI_8_FT_L3-FS-AP15	10.0.10.238	CMPT-8025-CON-1	70%	73%	0%	0%
3	RadioAP	172.30.84.130	SWL-80-2201	65%	60%	6%	0%
4	RadioAP	172.30.84.130	SWL-80-2201	64%	56%	3%	1%
5	RadioAP	172.30.84.131	SWL-80-2201	58%	29%	19%	10%
6	WFI_8_FT_L3-FS-AP18	10.0.10.238	CMPT-8025-CON-2, CMPT-80...	56%	56%	0%	0%
7	WFI_8_FT_L3-FS-AP17	10.0.10.238	CMPT-8025-CON-2, CMPT-80...	49%	49%	0%	0%
8	WFI_8_FT_L3-FS-AP12	10.0.10.233	CMPT-8025-CON-2, CMPT-80...	48%	47%	0%	1%
9	RadioAP	172.30.84.130	SWL-80-2201	45%	42%	2%	2%
10	WFI_8_FT_L3-FS-AP14	10.0.10.234	CMPT-8025-CON-2, CMPT-80...	45%	44%	0%	1%

Airtime Utilization Trend

This graph shows the airtime utilization trends for 2.4 and 5 GHz radios in percentages over time.

Figure 47: Airtime Utilization Trend



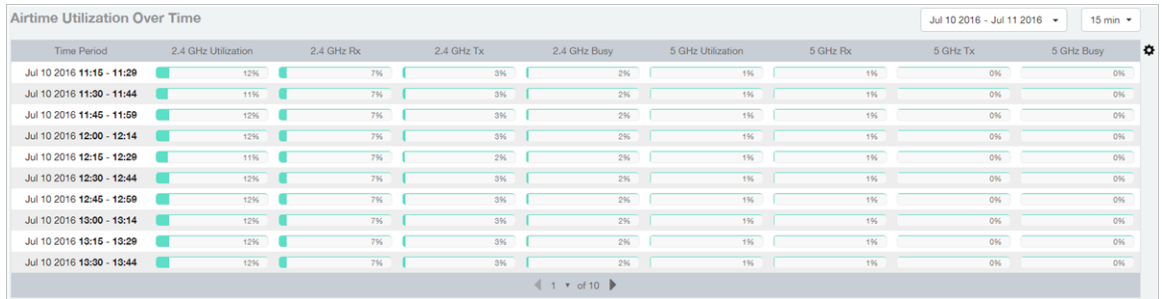
Airtime Utilization - Over Time

Use the Airtime Utilization Over Time report to compare utilization rates between time periods, and to examine specific airtime utilization data, such as time spent busy/idle, transmitting/receiving, user traffic vs. management traffic, etc.

Figure 48: Airtime Utilization Over Time

Airtime Utilization Page

Using the Airtime Utilization Page



Data Explorer Overview

The Data Explorer is an interactive data analysis tool that provides you with a rich drag-and-drop user interface that makes it easy for you to create custom reports quickly based on your exploration of your data.

The **Data Explorer** allows you to query the data in a database without having to understand how the database is structured. You can drill down into the data to discover details that may help you make important business decisions.

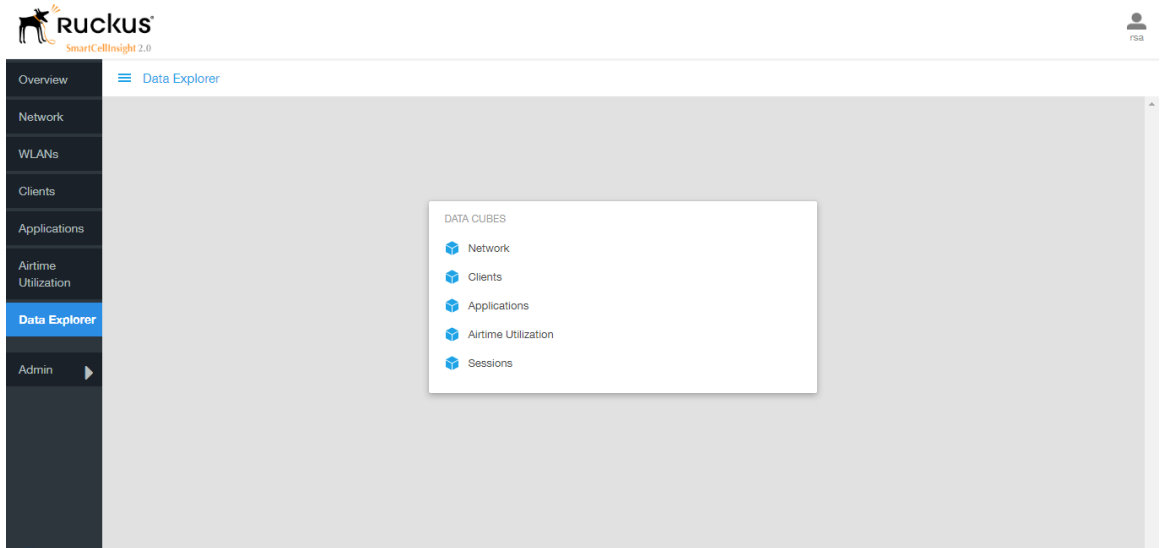
The Data Explorer presents data multi-dimensionally and lets you select which dimensions and measures you want to explore. For ease of exploration, the data sets are broken up into "data cubes," each of which contains a number of different dimensions and measures likely to be useful for exploring data from that particular perspective. Many of the dimensions are relevant for exploration from multiple perspectives, so many dimensions exist in multiple data cubes.

The SCI 2.0 Data Explorer contains the following data cubes:

- Network
- Clients
- Applications
- Airtime Utilization
- Sessions

For example, if you want to analyze data from a client perspective, select the **Clients** cube, and explore dimensions such as user name, host name, OS type, etc.

Figure 49: Data Cubes



Using the Data Explorer

If the built-in reports do not provide the exact perspective or level of detail that you need, you can use the Data Explorer to filter and explore any or all of the data that SCI has collected in any way you prefer.

The following procedure describes how to create a basic report using the Data Explorer.

NOTE For this example, we will use the **Clients** data cube.

1. Drag any of the dimensions from the **Dimensions** column into the **Explore** field.

NOTE In this example, we use the **AP Name** dimension.

2. Select one or multiple traffic measures from the **Measures** column.
3. To filter the results, drag any dimension from the **Dimensions** column into the **Filter** field, then click the filter you just created, and select which values you want to display.

NOTE In this example, we want to filter for a single Controller Name: "test."

4. Drag additional dimension from the **Dimensions** column into the **Explore** field to explore more dimensions, or into the **Filter** field to apply additional filters, or click the **X** icon on any dimension to remove it from the field.
5. You can also use the **Pinboard** to filter the content, in the same way as the **Filter** field, by dragging one or more dimensions from the **Dimensions** column.
6. Select a report display type from the following:

NOTE Note that appropriate dimensions must be in place for time series and bar chart displays.

NOTE The Geo icon is not currently in use. This is planned for a future release

- **Table:** (Default) Table is the default view.
 - **Time Series:** Displays the data in line graph format. A Time interval must be selected in the Explore field.
 - **Bar Chart:** Compare data sets in bar chart format.
 - **Geo:** Not currently used.
7. If you want to share or save this view, click the **Share** icon, and select one of the following:
- **Copy URL**
 - **Copy URL - fixed time**
 - **Export to CSV**
 - **View raw data**

Figure 50: Drag the AP Name dimension to the Explore field

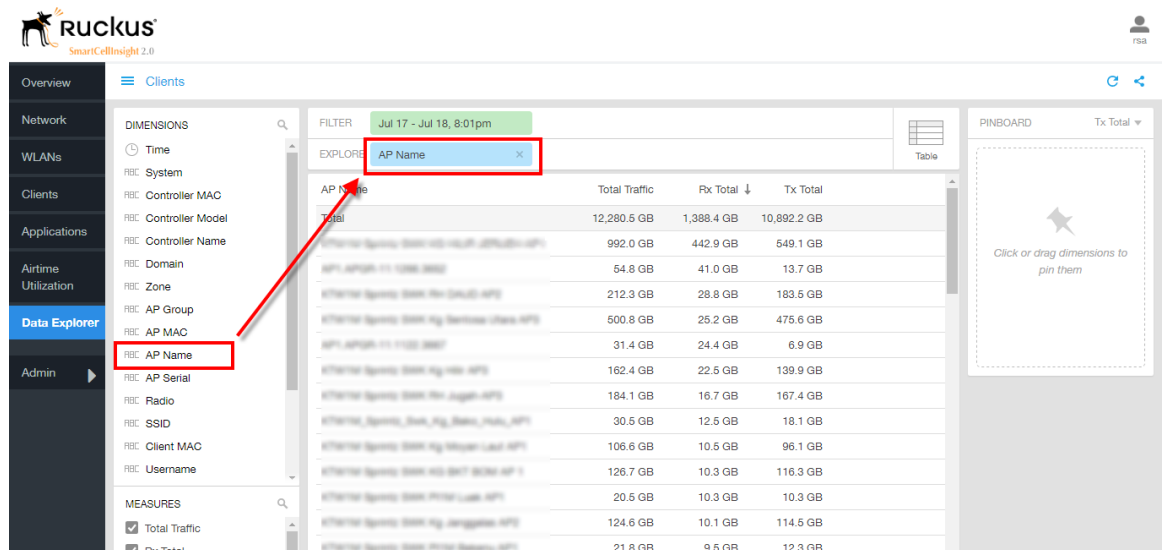


Figure 51: Filter for a specific Controller Name

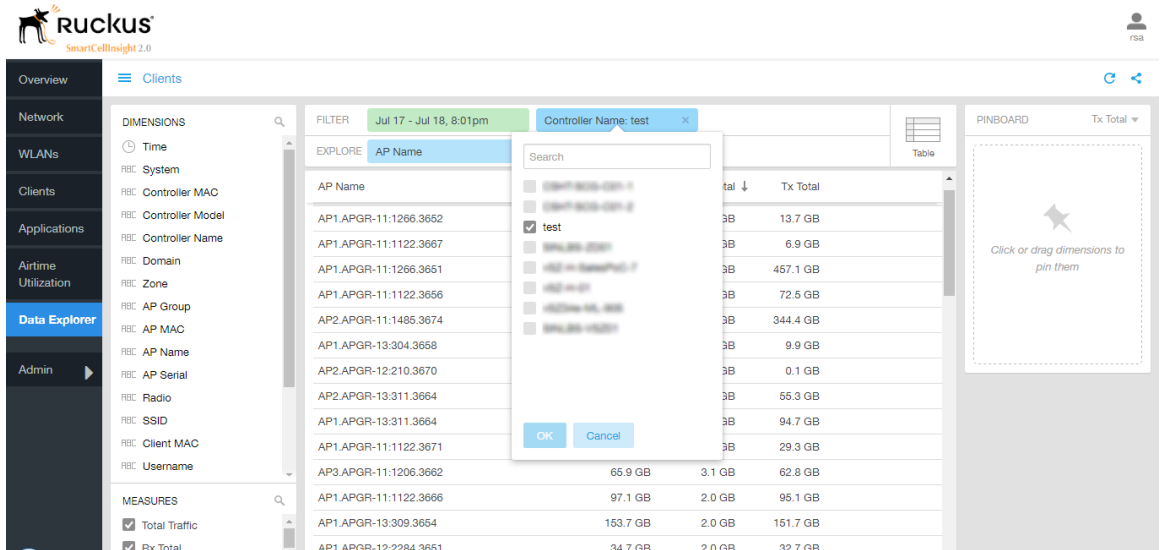


Figure 52: Drag additional dimensions to Explore

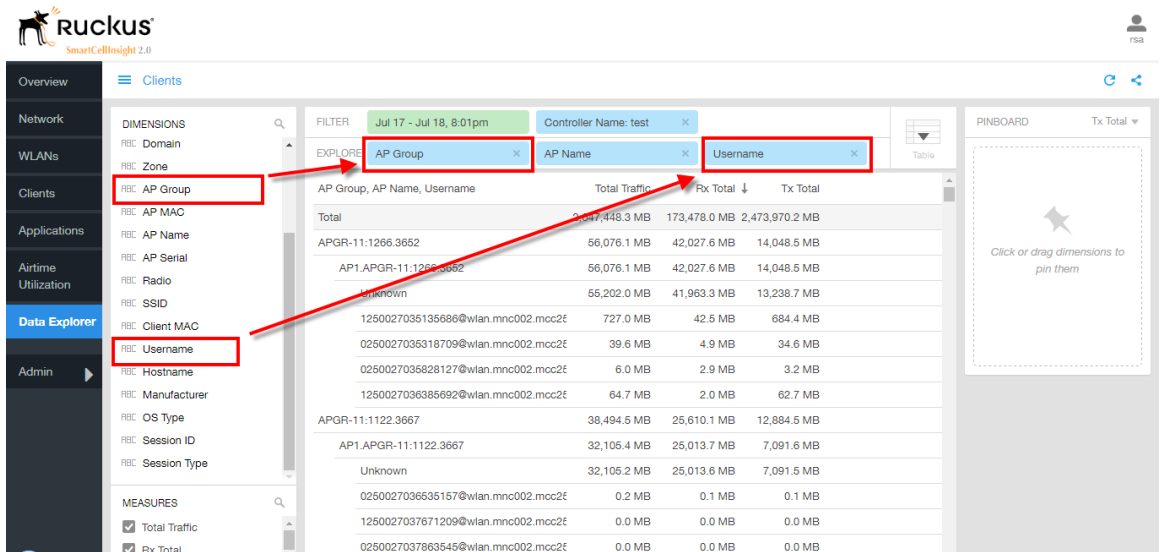


Figure 53: Drag a dimension to the Pinboard to filter quickly

Data Explorer

Data Explorer Overview

The screenshot shows the Ruckus SmartCell Insight 2.0 Data Explorer interface. The left sidebar contains navigation options: Overview, Network, WLANs, Clients, Applications, Airtime Utilization, Data Explorer (selected), and Admin. The main area is divided into DIMENSIONS, FILTER, EXPLORE, and MEASURES sections. The DIMENSIONS section lists various attributes like Domain, Zone, AP Group, AP MAC, AP Name, AP Serial, Radio, SSID, Client MAC, Username, Hostname, Manufacturer, OS Type, Session ID, and Session Type. The FILTER section shows filters for 'Jul 17 - Jul 18, 8:01pm' and 'Controller Name: test'. The EXPLORE section displays a table with columns for AP Group, AP Name, Username, Total Traffic, Rx Total, and Tx Total. The MEASURES section has checkboxes for 'Total Traffic' and 'Rx Total'. On the right, the PINBOARD section shows a list of AP names and their corresponding traffic volumes, with 'AP1.APGR-11: 457.1 GB' selected.

AP Group, AP Name, Username	Total Traffic	Rx Total	Tx Total
Total	475,637.9 MB	7,599.0 MB	468,038.8 MB
APGR-11:1266.3651	475,637.9 MB	7,599.0 MB	468,038.8 MB
AP1.APGR-11:1266.3651	475,637.9 MB	7,599.0 MB	468,038.8 MB
Unknown	475,486.8 MB	7,540.0 MB	467,946.8 MB
0250027064196788@wlan.mnc002.mcc2€	23.4 MB	21.7 MB	1.6 MB
0250027038035231@wlan.mnc002.mcc2€	18.1 MB	9.9 MB	8.2 MB
0250027037360933@wlan.mnc002.mcc2€	8.1 MB	7.7 MB	0.4 MB
1250027034553365@wlan.mnc002.mcc2€	6.2 MB	3.0 MB	3.1 MB

Figure 54: Choose a report display type

The screenshot shows the Ruckus SmartCell Insight 2.0 Data Explorer interface with report display options highlighted. The interface is similar to the previous screenshot, but with a red box around the 'Table' icon in the top right of the main area and another red box around a set of icons (Totals, Table, Time Series, Bar Chart, Geo) in the bottom right of the main area. The 'Table' icon is selected, and the 'Table' option is highlighted in the bottom right box.

Admin Console

The Admin pages provide options for configuring SCI's administrative settings, performing diagnostics and performing system updates.

The Admin section is divided into three pages:

- [Status and Updates](#) on page 54
- [Diagnostics](#) on page 55
- [Settings Page](#) on page 56
- [License Page](#) on page 61

NOTE For information on SCI installation, refer to the SCI 2.0 Installation Guide, available from support.ruckuswireless.com

Status and Updates

The Status and Update page lists the active SCI nodes and displays the current firmware version.

Nodes

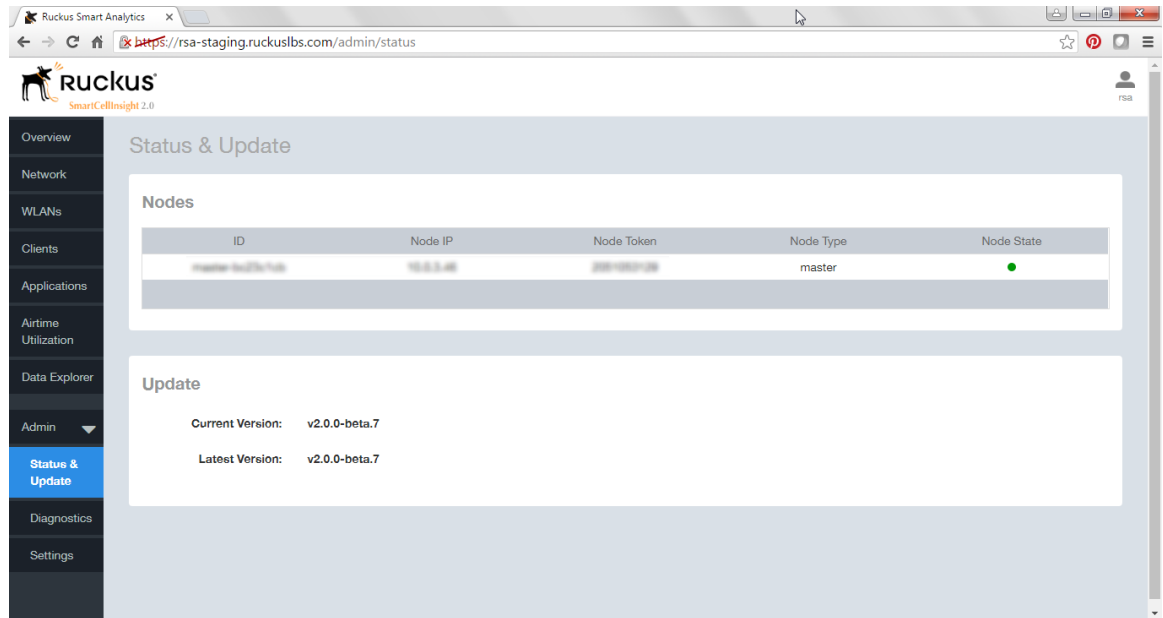
The Nodes section lists the active SCI nodes, and includes the following information on each node:

- **Node ID:** The ID number of the node
- **Node IP:** The IP address of the node
- **Node Token:** The Token number or SSH password of the node. This token number is required for a node to connect to another node. The number is available on the UI so that it is a ready reference to the user who wants to connect to a specific node.
- **Node Type:** The type of node. There are two types of nodes, namely master and data nodes. One or more data nodes are required as the system scales and grows larger.
- **Node State:** The node state is green when in use and red when disconnected and not in use.

Update

The Update section contains the details of the current version of SCI that you are running and the latest version of SCI that is available (if any).

Figure 55: Status and Update screen



Diagnostics

The Diagnostics admin page provides links to external tools that can be used to troubleshoot issues in database storage and data transformation.

The following links to diagnostic tools are provided:

- **Data ingestion and ETL jobs:**The Spark Master UI provides details of workers, running applications, running drivers, completed applications and completed drivers.

For more details, see

<http://spark.apache.org/docs/latest/spark-standalone.html>

- **Data lake and raw data storage:**The HDFS or Hadoop system provides details of datanodes, datanode volume failures, snapshot summaries, startup progress, and utilities such as logs and browsing the file system.

For more details, see https://en.wikipedia.org/wiki/Apache_Hadoop

- **Data warehouse:**The Druid Coordinator or Console provides details of the data sources, cluster and indexing services.

For more details, see

<http://druid.io/docs/latest/design/coordinator.html>

Figure 56: Diagnostics

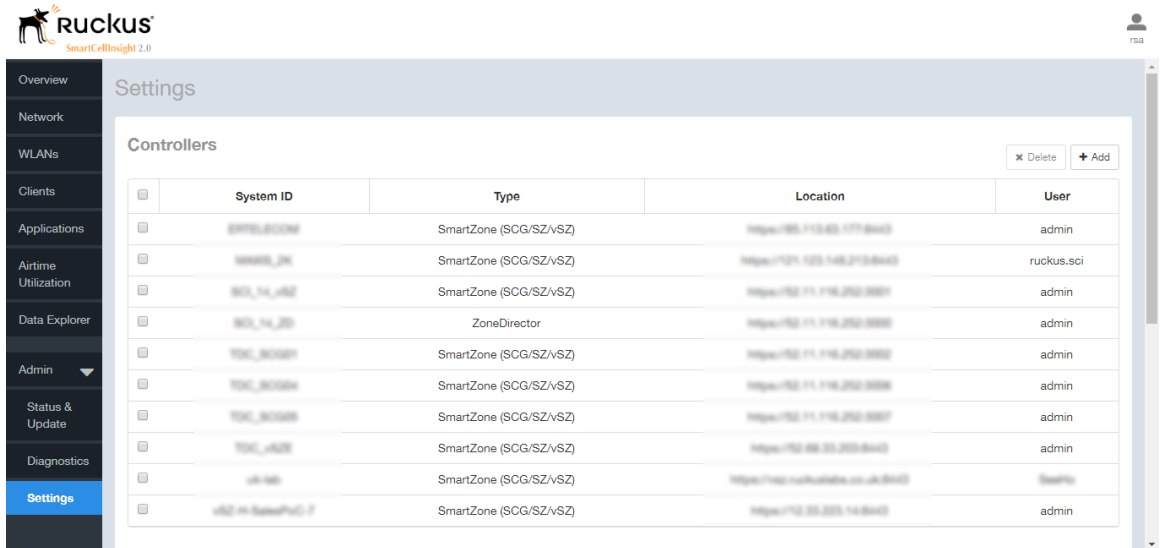


Settings Page

The Settings page allows you to add or delete controllers that report to SCI as data sources, and configure SMTP settings for email report delivery.

- [Adding a New Controller](#) on page 57
- [Deleting a Controller](#) on page 60
- [Configuring Outgoing Mail Server Settings](#) on page 60

Figure 57: SettingsPage



Adding a New Controller

Use the following procedure to add a controller to SCI as a data source.

1. Go to **Admin > Settings**.
2. Click the **Add** icon in the **Controllers** section, and enter the following information:
 - **System ID:** Enter a unique name for this controller on SCI.
 - **Type:** Select SmartZone (SCG/SZ/vSZ) or ZoneDirector.
 - **Location:** Enter IP address or host name, including "https://".
 - **Username:** Enter admin user name.
 - **Password:** Enter admin password.
3. Click **Create** to add the controller to the list of SCI data sources.

Figure 58: Click +Add button to add a new controller

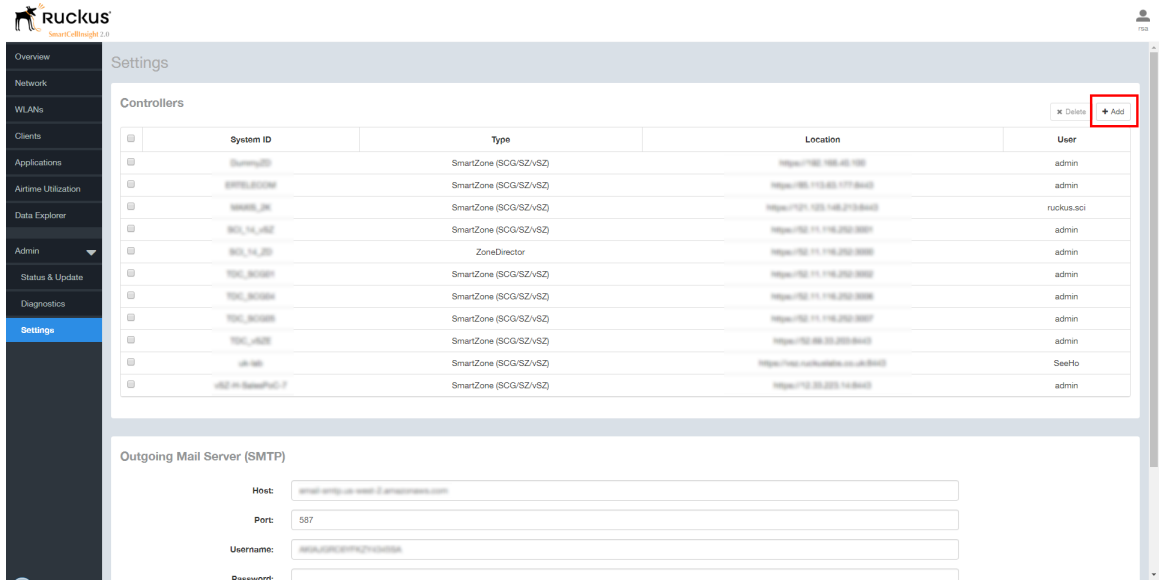
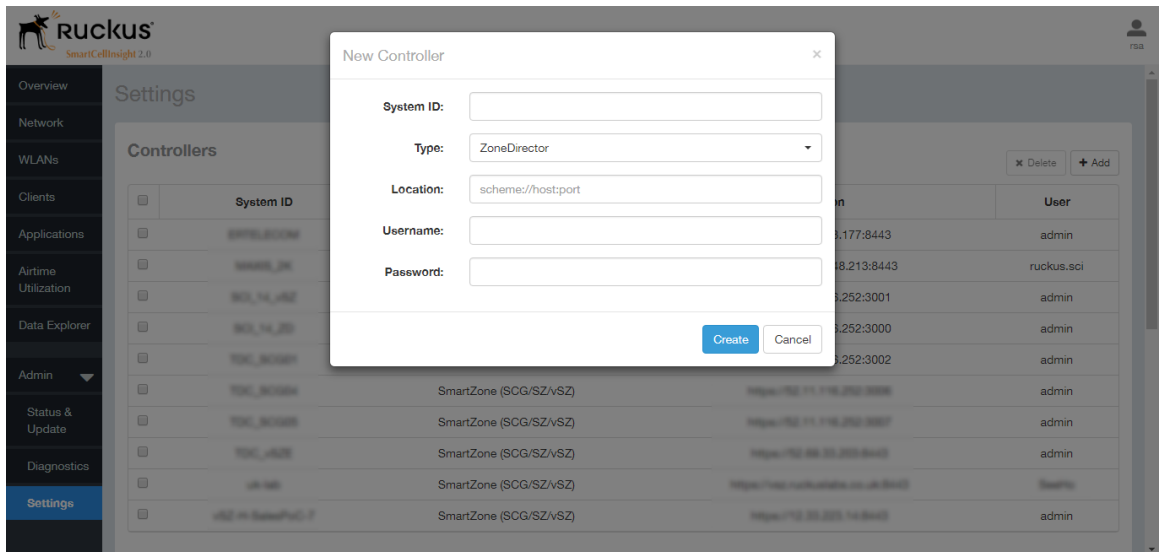


Figure 59: Adding a new controller as an SCI data source



Configuring Controllers from the Web UI

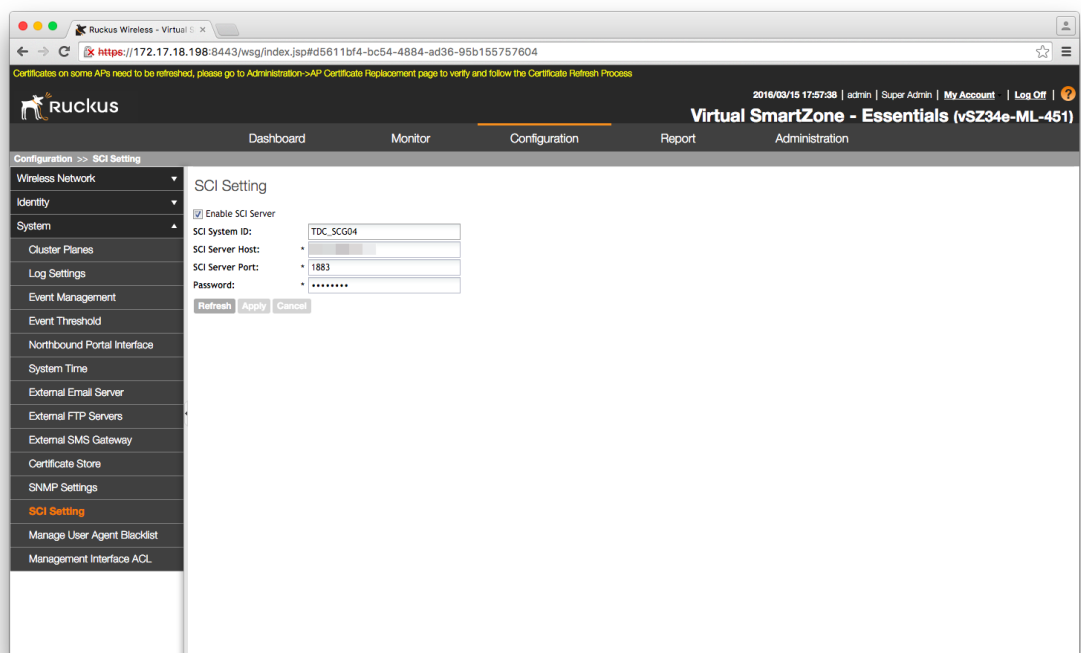
After a controller is added to the SCI cluster for monitoring, you must configure the SCI settings of the controller from the controller's web UI.

An example to manage the SCI settings for the Virtual SmartZone-Essentials (vSZ-E) controller, version 3.4, is shown. Follow these steps to modify the SCI settings from the vZS-E web UI:

1. In the vSZ-E web UI, click **Configuration > System > SCI Setting**.

The **SCI Setting** page appears.

Figure 60: SCI Settings page



2. Select the **Enable SCI Server** check-box.
3. Configure the following SCI settings:
 - SCI System ID: type the unique name that was given while adding the controller.
 - SCI Server Host: type the SCI IP address or the domain name
 - SCI Server Port: set to 1883
 - Password: enter the password to access the SCI server

You have completed configuring the SCI server settings on the controller.

NOTE The Master and Data node IP addresses must be *white-listed* on the controller for SCI to *pull* data from the controllers.

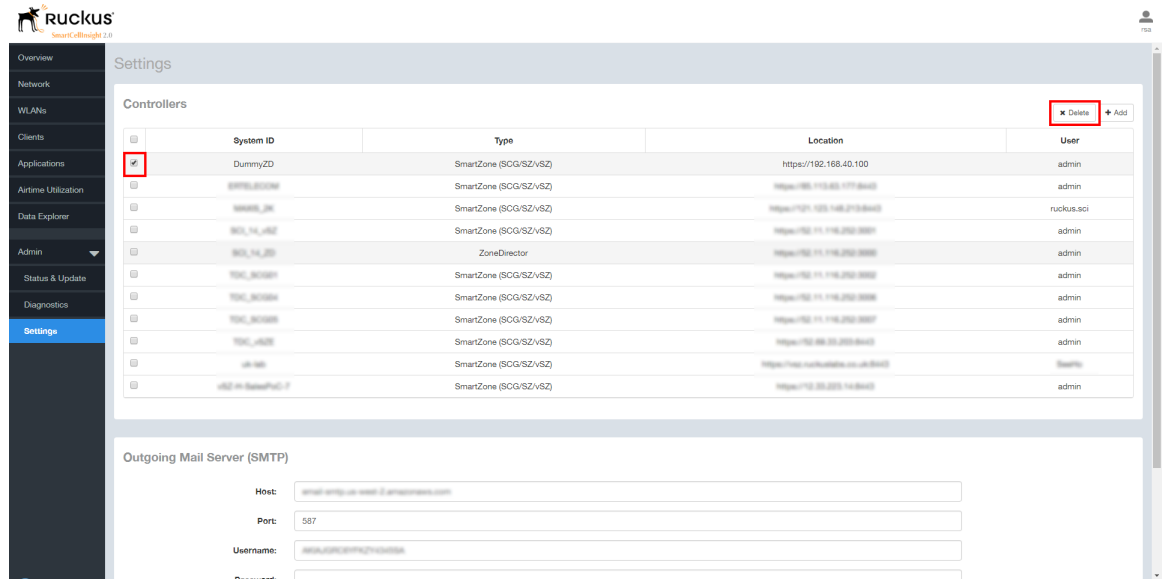
Deleting a Controller

You can delete a controller by selecting it from the Controllers list, and clicking the Delete button.

NOTE The delete operation is irreversible. However, the controller with the same details can be added again.

Deleting a controller does not remove its data from the reports. If you delete a controller, and then add it back using exactly the same System ID, SCI will resume collecting data and the new data can be viewed and analyzed in combination with existing data from before the controller was deleted/re-added.

Figure 61: Deleting a controller from the list of SCI data sources



Configuring Outgoing Mail Server Settings

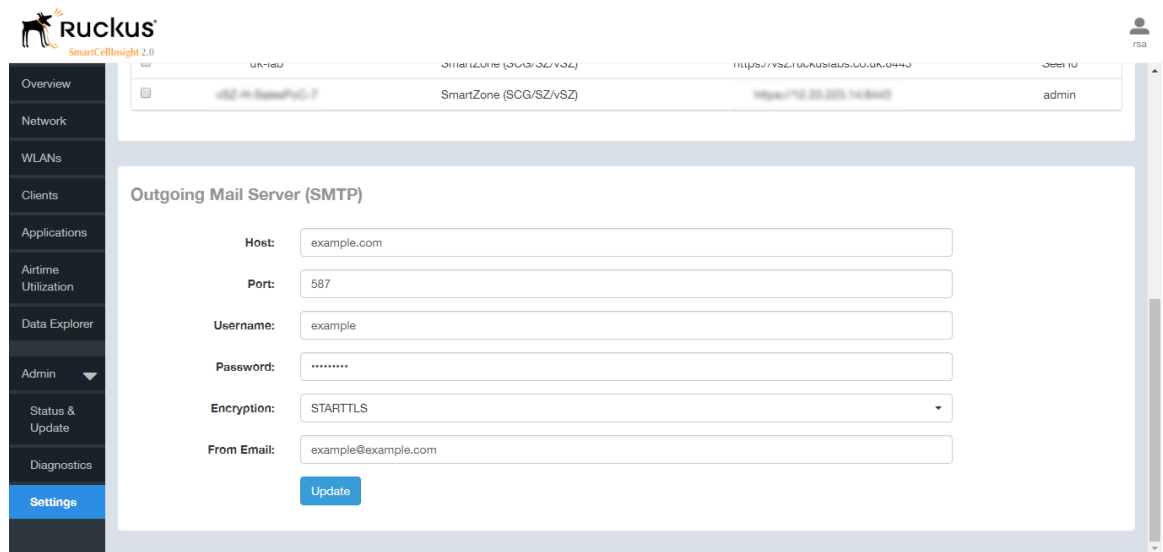
SNMP settings must be configured so that SCI can deliver scheduled reports by email.

1. Go to **Admin > Settings**.
2. Scroll down to the **Outgoing Mail Server (SMTP)** section.
3. Enter the following settings for your SMTP server:

- **Host:** Enter the SMTP host.
- **Port:** Enter the SMTP port number.
- **Username:** Enter user name.
- **Password:** Enter password.
- **Encryption:** Select STARTTLS, SSL-TLS or Disabled as the encryption method.
- **From Email:** Enter the email address that reports will be sent from.

4. Click **Update** to save your changes.

Figure 62: Configuring SMTP settings for email report delivery



License Page

SCI 2.0 supports a trial license which you can use to familiarize with the product, and also supports a permanent SCI license.

Trial License

SCI 2.0 is provided with a built-in trial license. You can upgrade to the SCI license before the trial period ends.

The trial license:

- Is valid only for 90 days.
- Does not limit the number of controllers or APs supported by SCI.
- Must be upgraded to a SCI license within the validity period of the trial license.
- Does not allow you to view reports after the validity period ends.

Using the API Explorer

SCI provides a rich set of APIs to access the various functionality provided by the core SCI engine.

You can view the available APIs at <https://<yourSCI IP address>/explorer>. For more details regarding the various APIs, please refer the SCI API guide, available from support.ruckuswireless.com



Copyright © 2016. Ruckus Wireless, Inc.
350 West Java Drive, Sunnyvale, CA

www.ruckuswireless.com