

# RUCKUS SmartCell Insight Release Notes, 5.5.5

**Supporting SmartCell Insight 5.5.5**

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# Contents

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- SCI Introduction..... 4**
- New in This Release..... 4**
  - New Features..... 4
  - Changed Behavior..... 5
- Hardware and Software Support..... 5**
  - Compatibility Matrix..... 5
  - Supported Firmware..... 6
- Known Issues..... 6**
  - ZoneDirector..... 6
  - Saved Filters in Schedules..... 7
  - Hadoop Distributed File System (HDFS)..... 7
- Resolved Issues..... 7**

# SCI Introduction

The document provides release information on SmartCell Insight (SCI).

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.

This document provides release information about the SCI features with notes on known issues, caveats, and workarounds.

Additional documentation on SCI can be found at: <https://support.ruckuswireless.com/products/54-smartcell-insight-sci#documents>

The SCI manuals that can be found there are:

- SCI User Guide
- SCI Installation Guide
- SCI API User Guide
- SCI Upgrade Guide

# New in This Release

## New Features

This section lists the new features in this release.

- System Improvements:
  - Micro batch ingestion of RecvGPB messages from SZ
  - Improved system monitoring, resiliency and stability
  - Improved horizontal scaling and streamlined ETL pipeline
  - Improved data partitioning for efficient utilization CPU and RAM
  - Dynamic resource allocation
  - Database reliability is improved after upgrading to Imply 3.1.13
- New KPIs (dimensions and measures) are added:
  - New dimension **Device Type** introduced in Client data cube
  - AP Tx Power in Network data cube
  - Channel Bandwidth in Client data cube
  - Tx Avg Retry Rate and AP Resource metric measures in Airtime Utilization data cube
  - AP Client Latency to Network data cube
  - New AP wired client data cube
  - Total Session Count measure is included for Session data cubes
- Notifications and Licensing:
  - License Utilization Over Time graph is included in the Controllers Inventory report
  - Notifications section displays granular information about Alarms and Events triggered in the network to assess and take necessary actions for issues encountered

## Changed Behavior

This section lists the changed behaviors in this release.

- The following data source names have changed from:
  - AP Radio to AP Airtime and Hardware
  - AP Wired Client to AP Wired Device
  - Clients to Client Info and Statistics
  - Events to AP Events
  - Network to AP info and Statistics
  - Rogue APs to AP Rogues
  - Sessions to Client Sessions
  - Wi-Fi Calling to AP Wi-Fi Calling
- AP inventory mapping in the hierarchy is now done every 24 hours instead of 15min earlier so that the AP hierarchy is update to date at all times even if the there is a delay from controller to send configuration messages to SCI.
- SCI provides a license leeway of upto 10% of the total active APs or 500 APs; which ever is lower within the network environment. Users will not be able to login to SCI and view data if this limit (10% of APs or 500 APs) is breached.

For more information, refer to the SCI User Guide.

# Hardware and Software Support

## Compatibility Matrix

The following is the compatibility matrix between SCI and the SmartZone and ZoneDirector controllers.

**TABLE 1** Compatibility Matrix

SCI Release	SmartZone (controller) Release		ZoneDirector (controller) Release
Version	Version 3.4 or lower	Version 3.5 or higher	<ul style="list-style-type: none"> <li>• Branch 9.5.3.0, build 45 and above</li> <li>• All branches starting from 9.7.0.0 and above</li> </ul>
1.x	Yes	No	Yes
2.x (Up to 2.4)	Yes	No	Yes
2.5 and above	Yes	Yes	Yes

If you have a ZoneDirector 9.13 or lower version, the only option available to bring data into SCI is the polling mechanism, meaning that once the ZoneDirector is added to SCI, SCI regularly polls the ZoneDirector for data.

If you have Zone Director version 9.13 - MR1 or higher, version, you can choose the polling option or the ZoneDirector push mechanism, meaning that ZoneDirector will push data to the SCI.

Ensure that you use only one of the methods (poll or push) to avoid duplicate data. The ZoneDirector "push" model usually does not require firewall changes, whereas the "pull" model may need firewall changes.

**NOTE**

SCI 5.5.3 is not recommended for deployments having only ZoneDirector controllers.

## Known Issues

Supported Firmware

## Supported Firmware

This release is compatible with the following Controller firmware:

- ZoneDirector release 9.5.3 build 45 and above, 9.7 and above (ZD1100, 1200, 3k, 5k).
- SmartZone 2.5 and above (SZ100, SZ200, vSZ)
- SmartZone managed ICX Switches in SZ 5.1.1 and above.

## Known Issues

This section lists the caveats, limitations and known issues in this release, along with workarounds if applicable.

- In the **Admin > Settings** page, though search by filter operations are successfully, the results are overwritten after any of the check-boxes are selected.
- SCI APIs will not be backward compatible beginning with SCI 5.3 and going forward.
- When an AP migrates from one controller to another controller, SCI counts the AP twice. Also, if a controller is removed, all APs that were previously associated with this controller are shown as "unknown" in SCI. (ER-6877)
- rxFail\_r sometimes has large negative values.
- Channel 0 may incorrectly get displayed in SmartZone versions earlier than SZ 3.2.
- When you upgrade to SCI 3.5 or later, the anomaly list in the Overview page is removed. It becomes available and operates normally starting at 3 a.m. UTC the following day.
- Scheduled reports will be sent out one hour after the scheduled time, even if no data exists.
- CSV export from the Data Explorer (data cubes as well as dashboard CSV downloads) will always export in UTC.
- For raw data export, selection of local time zone for querying data is supported, but the exported data will be in UTC. For example, if you specify time range for export as 11-11-2017 13:00 PST to 11-11-2017 14:00 PST, the data exported will be for this time range, but the timestamps in the exported data will be in UTC, which means that the timestamps will show values between 11-11-2017 21:00 UTC and 11-11-2017 22:00 UTC.
- If you first installed this SCI instance at version SCI 2.0 or SCI 2.0.1, please run the following command (**exactly** as shown below, including the back-tick marks) on that instance to receive an accurate display of the Custom Dashboards, even if you periodically updated this instance to later versions of SCI 2. x:  

```
`docker-compose up -d --remove-orphans`
```
- Data migration in SCI clusters is not supported.
- SCI 5.5.3 would not work for ZoneDirectors out of the box; that is, if ZoneDirector devices are deployed with a self signed certificate and if it is configured in pull mode.

## ZoneDirector

- Migration of ZoneDirector data is not supported.
- Airtime utilization: All versions of ZD below 9.12.1 have a known issue whereby the airtime utilization percentages can be above 100%.  
**Workaround:** Ruckus recommends that you update ZD to version 9.12.1 or later to resolve this issue.
- ZoneDirector PushXML supports up to 200 ZoneDirector controllers.
- ZoneDirector Push XML is supported only by ZD 9.13-MR1 and above and ZD10-MR1 and above.
- In SCI, there is no application data pertaining to the ZoneDirector.

## Saved Filters in Schedules

- Selecting a schedule loads the saved filters, but does not preserve the currently selected filters.
- Saved filters created prior to version 2.4 will not be loaded when a schedule is selected.

## Hadoop Distributed File System (HDFS)

- HDFS replication factor of existing files is not changed to 2 (remains at 3).

## Resolved Issues

This section lists previously known issues that have been resolved in this release.

- Fixed the issue in which data for a day was dropping when the weekly druid compaction was completed (RSA-5734)
- The data receiver on SCI that receives data from the SmartZone controller would earlier buffer data for 5 min and then write to deep storage. Now, the buffer time is increased to 1 minute for better performance and stability, therefore **receiveGPB** will buffer every minute and write to the deep storage (RSA-5589)
- Fixed the need to set the name of ZoneDirector systems to the system name (RSA-5537)
- Fixed the issue where the druid coordinator was not loading segments issues (RSA-5400)
- Fixed DHCP/Buffer Overrun vulnerability in dhcpcd and dhclient (RSA-5422)
- Fixed the issue when archive jobs failed for missing folders (RSA-5200)
- Fixed the issues leading to loss of segments due to delay in execution of the scheduler triggering delayed compaction (RSA-5201)
- Resolved the issue leading to low average ping latency (RSA-4091)
- Fixed the issue where rogue information filtered by the rogue policy in the SmartZone controller was not displayed (RSA-4642)
- Fixed the authentication issue where the "secure" attribute was missing for session cookies (RSA-5555)
- Fixed the issue where data which was older than two days was dropped and not ingested into SCI when SCI receives delayed data from the SmartZone controller (RSA-5653)
- Fixed the issues where daily Active Directory jobs were running for over 90 minutes causing deletion of subsequent waiting jobs (RSA-5460)

