Ruckus Wireless™ SmartCell Insight™ Version 2.3

Release Notes

Contents

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SCI Introduction

This document provides release information on SmartCell Insight (SCI) Release 2.3.

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.

NOTE: Refer to the previous release notes for previously documented enhancements, resolved issues, caveats and limitations.

Additional documentation on SCI 2.3, including the SCI Installation Guide, and SCI User Guide can be found at: `https://support.ruckuswireless.com/`

Upgrading To This Version

The following is the required information to upgrade to this release.

Upgrade from SCI version 2.x to 2.3: If SCI version 2.x is connected to the Internet navigate to **Admin** >**Status & Update** to upgrade to SCI version 2.3.

Table 1: Upgrade Information

Release	Previous versions supported for upgrade to this release	Notes
2.3.0	Previous versions of 2.x (except SCI 2.0.0)	Connection to the Internet is mandatory. Navigate to **Admin** > **Status & Update** to upgrade to this release.
	SCI 2.2.0	Can be upgraded using *U-pack* without Internet connection
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 10
2.2.0	Previous versions of 2.x (except 2.0.0)	Connection to the Internet is mandatory.
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 10
2.1.1	Previous versions of 2.x (except 2.0.0)	Connection to the Internet is mandatory.
2.1.0	2.0.1	Connection to the Internet is mandatory.
2.0.1		Connection to the Internet is mandatory.
2.0.0		Connection to the Internet is mandatory.

Supported Controller and AP Firmware Builds

This section lists the controller and AP firmware builds supported by SCI in this release.

SCI supports the following controller and AP firmware builds in this release. If you are running a build not included in this list, please update your controller/AP firmware to a supported build before connecting to SCI as a data source.

ZoneDirector

- ZD branch 9.5.3.0, build 45 and above
- All ZD branches starting from 9.7.0.0 and above

SmartZone (SmartZone and SmartCell Gateway)

NOTE: As of release 3.1.1, all Ruckus controller products previously called "RuckOS" is now called "SmartZone" controllers. Therefore, the following applies to existing RuckOS products, which is called "SmartZone" (SmartZone 100, SmartCell Gateway 200 and Virtual SmartZone).

- SmartZone branch 2.1.1.0, build 126 and above
- SmartZone branch 2.1.2.0, build 96 and above
- SmartZone branch 2.1.3.0, build 20 and above
- All SmartZone branches starting 2.5.0.0 and above

SmartZone Access Points

- SZ AP FW branch 2.1.1.0, build 106 and above
- SmartZone branch 2.1.1.0, build 106 and above
- SmartZone branch 2.1.2.0, build 110 and above
- SmartZone branch 2.1.3.0, build 10 and above
- All SmartZone Access Point branches starting 2.5.0.0 and above

New Features and Enhancements

2

This section lists the new features and enhancements in this release.

New Features

- You can now view the last SCG controller connection and uptime status by navigating to **Admin** > **Settings** > **Controllers** page.

- The system now has a validation to check the connectivity of the controller when adding the controller.

- The system now supports GCE image.

- No support license check for upgrading to a new version of SCI.

- The system now checks the SMTP status from the user interface.

- Introduced **Events** data cube to view information on events.

- Added *Traffic Rate* information to the **Network** report.

- The following new measures have been added to **Data Explorer**.

  - Unique Client Count for Clients and Sessions data cubes
  - Hostname Count for Clients and Sessions data cubes
  - AP Count for all data cubes
  - Username Count for Clients and Sessions data cubes

Enhancements

- Dimensions are now consistent among data sources. Uses the same naming conventions for the same columns.

- *Location* and *Backup* location in the controller setup is now changed to *URL* and *Backup URL* respectively.

- Moved Druid indexing log to */tmp/druid-indexing-logs* where the log files will be cleaned up periodically.

- Restricted *Docker Daemon docker0* bridge subnet to avoid clashes with customer subnet, which has similar IP addresses.

- AP counts are seen as actuals.

- Added automated scripts to simplify the migration process from SCI 1.4 to SCI 2.x.

- Upgraded Hadoop to 2.7.3.

- Upgraded Druid to 0.9.2-rc.2

- Upgraded Consul to 0.7.0

- Upgraded PostgresSQL to 9.5.4

Resolved Issues

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

- Resolved an issue where migration of configuration table failed because PostgreSQL was not ready (since version 2.0).

- Resolved an issue where changing of password was redirected to the login page when the current password was wrong (since version 2.2).

- Resolved an issue where setup sometimes failed due to undefined method node name for *nil:NilClass* (since version 2.1).

- Resolved an issue by fixing XML parsing errors of string being found instead of Unix time (since version 2.0).

- Resolved an issue by fixing parsing errors where download of JSON from SmartZone failed due to unexpected *no session* (since version 2.0).

- Resolved an issue where setup used to hang when setting up data node with the wrong master node password (since version 2.1).

- Resolved an issue where the migration task created multiple JSON files in the path */tmp/json-aggregator/* (since version 2.2).

- Resovled an issue where duplicate values were seen in the report table (since v2.0.0).

- Resolved an issue where receiving GPB data failed when it gets published to SCI after a gap of more than 48 hours (since v2.0.0).

- Resolved an issue by removing the Arcfour stream cipher from SSH server configuration (security bug since 2.0). [RSA-1956]

- Resolved an issue where login to SCI failed when data was first ingested (since v2.0.0).

- Resolved an issue where the airtime utilization showed a value greater than 100% in ZD. This is fixed in ZD release 9.12.1 and above.

- Resolved an issue of incorrect number formatting from ZD.

Caveats, Limitations and Known Issues

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

Airtime Utilization Statistics from ZoneDirector

- All versions of ZD below 9.12.1 have a known issue whereby the airtime utilization percentages can be above 100%.

  Workaround Ruckus Wireless recommends that you update ZD to version 9.12.1 or later to resolve this issue.

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 2.3 will not be loaded when a schedule is selected.

Migration from SCI 1.x

This section describes how you migrate existing data from SCI 1.x to SCI 2.3

As SCI 2.3 is built on a different software stack from SCI 1.x series, if there is a need to migrate existing data from SCI 1.x to SCI 2.3, a full migration of raw data files with complete re-aggregation of data sources is required. However, do note that data migration is not necessary for the upgrade from SCI 1.x to SCI 2.3. Before you start migration, ensure that you have the following pre-requisites and setup.

NOTE: **This self-service migration feature has been tested to the best of our ability. However, we may not have covered all cases since it is highly dependent on the environment and SCI 1.x setup . If you have issues during migration, do contact Ruckus Wireless Support at https://support.ruckuswireless.com/contact-us.**

NOTE: **The migration process can take several hours per month of data, based on data volume and time span**.

NOTE: **Migration of data from SCI 1.4 is currently supported only for Smart Zone(SZ) data**.

Prerequisites

Before you start migration, ensure that you have the following prerequisites

1. SCI 1.4 is installed. Earlier versions of SCI 1.x should first be upgraded to SCI 1.4 before starting the migration process.
2. SCI 2.3 is installed.
3. SCI 2.3 requires a higher storage capacity - 4 times higher than the raw data in SCI 1.x version in order to be fault tolerant. Adequate storage requirements are necessary before you begin migration.
4. **Optional**: You can add more data nodes to the SCI 2.3 cluster if you want the migration to be faster.

NOTE:

- Application report is not supported in SCI 1.x version.
- Migration of ZoneDirector data is not supported.
- Migration can only be performed for one system at a time.
- Time required for migration is dependent on the number of controllers, number of APs, number of days of data to be migrated, and the server resources allocated to the migration cluster.

Migration Procedure

Follow the steps below to successfully migrate from SCI 1.x to SCI 2.3.

1. Download the file *migrate.tar.gz* from the support website
   `https://support.ruckuswireless.com/`. Copy the tar file to SCI 2.3 VM and run the
   following command.

   ```
   tar xvzf migrate.tar.gz
   ```

   This command will create the following scripts in the current directory.

   1. step-1-tar.sh
   2. step-2-scp.sh
   3. step-3-list.sh
   4. step-4-migrate.sh

2. Copy the script *step-1-tar.sh* to the SCI 1.4 VM.
3. On **SCI 1.4 VM** run the following command to prepare the system data for migration.

   ```
   sudo sh step-1-tar.sh <SCI1.4-System-Name>
   ```

   This command generates the following tar file, which contains the data for the system in a
   compressed format.

   ```
   /opt/ruckuswireless/sci/sci1data.tar
   ```

4. On SCI 2.3 VM, run the following command to copy the file from SCI 1.4 VM. If you are
   prompted for a username and password, do provide the credentials for SCI 1.4 login.

   ```
   sudo sh step-2-scp.sh <SCI 1.4 -Hostname>
   ```

5. On SCI 2.3 VM, use the following command to list the dates for which data is available.

   ```
   sudo sh step-3-list.sh <SCI1-System-Name>
   ```

6. On completion of the above step, all the dates for which data is available for migration from
   SCI 1.4, is listed in the file *storage/rsa-master/logs/migration/dates.txt* in the form of a data
   directory URL.

   Optional: If you wish to migrate data only for a select period, delete the lines from this file for
   dates which do not have to be migrated. For example, if the system has data from 2014 to
   2016 and only 2016 data is required, then all the lines containing */2014/* and */2015/* should
   be deleted from the file.

   NOTE: If you already have a running instance of SCI 2.x, which is collecting data for the
   system, do delete the overlapping dates from the *dates.txt* file before proceeding with the
   migration. Otherwise, there will be duplicated data for the overlapping period.

7. Once the *dates.txt* is ready, start the migration process by running the following command on SCI 2.3 VM

```
sudo sh step-4-migrate.sh <SCI 2.3-System-Name>
```

Monitor the Migration Process

To monitor the progress of the migration job, view the log file **/storage/rsa-master/logs/migration/spark.stdout**. Detailed spark logs are available at **https://< SCI 2.3 VM IP:58080/** and indexing logs at **https://< SCI 2.3 VM IP>:58090**

The migration process can take several hours per month of data, based on data volume and time span.

To verify that the migration has completed successfully, review the following:

- The last line of the log file (**/storage/rsa-master/logs/migration/spark.stdout**) should read as **Completed Migration**.
- Indexing logs have no entries in **Running Tasks**
- Data is available in SCI 2.3 reports.