



RELEASE NOTES

Ruckus Wireless™ SmartCell Insight™ Release Notes

Supporting SmartCell Insight™ 3.2.0

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SCI Introduction

This document provides release information on SmartCell Insight (SCI) Release 3.2.0.

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 3.2.0, including the SCI Installation Guide, and SCI User Guide, can be found at: <https://support.ruckuswireless.com/>

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"> Branch 9.5.3.0, build 45 and above All branches starting from 9.7.0.0 and above
1.x	Yes	No	Yes
2.x (Up to 2.4)	Yes	No	Yes
2.5 and above	Yes	Yes	Yes

Upgrading To This Version

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

Upgrade from SCI version 2.x to 3.2.0: If SCI version 2.x is connected to the Internet, navigate to **Admin > Status & Update** to upgrade to SCI version 3.2.0.

TABLE 2 Upgrade Information

Release	Previous versions supported for upgrade to this release	Notes
3.2.0	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 and above	Can be upgraded using U-pack without Internet connection
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 7
3.1.0	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 and above	Can be upgraded using U-pack without Internet connection
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 7
3.0.0	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 and above	Can be upgraded using U-pack without Internet connection
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 7

TABLE 2 Upgrade Information (continued)

Release	Previous versions supported for upgrade to this release	Notes
2.5.1	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 and above	Can be upgraded using U-pack without Internet connection
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 7
2.5.0	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 and above	Can be upgraded using U-pack without Internet connection
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 7
2.4.0	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 and above	Can be upgraded using <i>U-pack</i> without Internet connection
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 7
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 <i>U-pack</i> without Internet connection
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 7
2.2.0	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.
	1.4 (migration only)	Refer to Migration from SCI 1.x on page 7
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, 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

New Features and Enhancements

- 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

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

New Features

- ZoneDirector Push XML is supported for ZD 9.13-MR1 and above and ZD10-MR1 and above.
- Customized filters can be saved (called "Saved Filters") to be used repeatedly for standard reports.
- Roaming Session ID dimension and Roaming Session Count measure added to Clients and Sessions data sources in Data Explorer.
- Ability to specify duration for data retention. Minimum duration is 1 month, maximum is 60 months.
- Notifications are sent to the user (via web UI and email) for disk usage and ETL job-submission issues.
- Client Radio Mode dimension added to Clients and Sessions data sources in Data Explorer.
- SMTP configuration allows you to send a test email, and receive a reply, to ensure proper configuration.

Enhancements

- Upgraded Imply to 2.2.3.
- Upgraded to Node 8.
- Reduced HDFS replication factor to 2.
- Emails are sent to recipient when there is no data for a saved schedule.
- Upgraded Spark to 2.2.0.

Resolved Issues

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

- Resolved an issue where the Summary section of the Client Details Report failed when no data was present.
- Resolved an issue where the global filter did not close when the user clicked outside the filter setting.
- Resolved an issue where sections in the SCI that depended on last-bin data to be available for the selected time range did not display data.
- Resolved an issue where the URL for AP/Client Details reports did not change when the user clicked on schedules with a different AP/client.
- Resolved an issue where the serial number of a SmartZone Controller (for version prior to 3.4) was displaying as "Unknown."

- Resolved a memory leak issue on PhantomJS processes (ER-5705).
- Resolved an issue where adding a ZoneDirector 10 with RADIUS authentication was failing (ER-5667).

Caveats, Limitations and Known Issues

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

ZoneDirector

- 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 Wireless 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).
- HDFS data is not re-balanced when a new node is added.

Migration from SCI 1.x

This section describes how you migrate existing data from SCI 1.x to SCI 3.2.0.

As SCI 3.2.0 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 3.2.0, 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 3.2.0. 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 3.2.0 is installed.
3. SCI 3.2.0 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. The system for which migration is to be performed is added to the SCI 3.2.0 instance in the **Admin > Settings** section. Ensure that the system name in SCI 3.2.0 matches the name of the system that is being migrated.
5. **Optional:** You can add more data nodes to the SCI 3.2.0 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 3.2.0.

1. Download the file *migrate.tar.gz* from the support website <https://support.ruckuswireless.com/>. Copy the tar file to SCI 3.2.0 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*
 5. *step-5-cleanup.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 3.2.0 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 3.2.0 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 3.2.0 VM

```
sudo sh step-4-migrate.sh <SCI 3.2.0-System-Name>
```

NOTE

Ensure that the system name in SCI 3.2.0 matches the name of the system that is being migrated from version 1.4.

8. When the migration is complete, and you have verified that all data is in the new SCI, run the following step to clean up all temporary files created by the migration process.

```
sudo sh step-5-cleanup.sh
```

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 3.2.0 VM IP:58080/> and indexing logs at <https://< SCI 3.2.0 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 3.2.0 reports.



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