



RELEASE NOTES

Ruckus Wireless™ SmartCell Insight™ Release Notes

Supporting SmartCell Insight™ 3.5.0

Copyright Notice and Proprietary Information

Copyright 2017 Brocade Communications Systems, 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 or as expressly provided by under license from Brocade.

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. BROCADE and RUCKUS WIRELESS, INC. AND THEIR 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. BROCADE and RUCKUS RESERVE THE RIGHT TO MAKE CHANGES OR UPDATES TO THE MATERIAL AT ANY TIME.

Limitation of Liability

IN NO EVENT SHALL BROCADE or 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 in other countries. Brocade, the B-wing symbol, MyBrocade, and ICX are trademarks of Brocade Communications Systems, Inc. in the United States and in other countries. Other trademarks may belong to third parties.

Contents

| | |
|---|----------|
| SCI Introduction..... | 4 |
| Compatibility Matrix..... | 4 |
| Upgrading To This Version..... | 4 |
| Supported Controller and AP Firmware Builds..... | 5 |
| New Features and Enhancements..... | 6 |
| Resolved Issues..... | 7 |
| Caveats, Limitations and Known Issues..... | 7 |
| ZoneDirector..... | 7 |
| Saved Filters in Schedules..... | 7 |
| Hadoop Distributed File System (HDFS)..... | 7 |
| Migration from SCI 1.x..... | 8 |
| Prerequisites..... | 8 |
| Migration Procedure..... | 8 |
| Monitor the Migration Process..... | 9 |

SCI Introduction

This document provides release information on SmartCell Insight (SCI) Release 3.5.0.

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 3.5.0, 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 3.5.0: If SCI version 2.x is connected to the Internet, navigate to **Admin > Status & Update** to upgrade to SCI version 3.5.0.

NOTE

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`
```

TABLE 2 Upgrade Information

| Release | Previous versions supported for upgrade to this release | Notes |
|---------|---|--|
| 3.5.0 | 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 8 |
| 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. |

TABLE 2 Upgrade Information (continued)

| Release | Previous versions supported for upgrade to this release | Notes |
|---------|---|--|
| | 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 8 |
| 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 8 |
| 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 8 |
| 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 8 |
| 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 8 |
| 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 8 |
| 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 8 |
| 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 8 |
| 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
- 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

- KRACK vulnerability check. A banner is displayed on the SCI that you can click on to find out the KRACK-vulnerability status of all your access points. For details, refer to the Overview and Access Points chapters of the SCI user guide.
- Data Explorer enhancements for this release include the following:
 - Custom dashboards. You can create dashboards from any combination of data cubes, filters, dimensions and measures you are interested in, and you can save these dashboards for use at any time.
 - Scheduler has been added for Data Explorer custom dashboards.
 - PDF and CSV output has been added for generating reports in Data Explorer.
 - Raw-data export can be performed in the SCI VM command line interface.

NOTE

For more information, refer to the Data Explorer chapter of the SCI user guide.

- Interactive anomaly-detection charts have replaced static charts. For more information, refer to the Overview and Access Point Details chapters of the SCI user guide.
- Events from ZoneDirector have been added.

Enhancements

- Hadoop Distributed File System (HDFS) data is automatically re-balanced when you add a node to your system.
- Validate that RTU and Capacity licenses are available, and check whether the uploading date has expired.

Resolved Issues

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

- ZoneDirector configured to push data to SCI but configured as "ZoneDirector (Poll, all ZD versions)" resulted in duplicate data.
- Unable to view complete SSID dropdown when the list is too long has been fixed.
- TLSV1.0 Clickjacking Path Based Vulnerability is fixed.

Caveats, Limitations and Known Issues

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

- When you upgrade to SCI 3.5, 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`
```

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 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).

Migration from SCI 1.x

This section describes how you migrate existing data from SCI 1.x to SCI 3.5.0.

As SCI 3.5.0 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 3.5.0, 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 3.5.0. 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 3.5.0 is installed.
3. SCI 3.5.0 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 3.5.0 instance in the **Admin > Settings** section. Ensure that the system name in SCI 3.5.0 matches the name of the system that is being migrated.
5. **Optional:** You can add more data nodes to the SCI 3.5.0 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 3.5.0.

1. Download the file *migrate.tar.gz* from the support website <https://support.ruckuswireless.com/>. Copy the tar file to SCI 3.5.0 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 3.5.0 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 3.5.0 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 3.5.0 VM

```
sudo sh step-4-migrate.sh <SCI 3.5.0-System-Name>
```

NOTE

Ensure that the system name in SCI 3.5.0 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 3.5.0 VM IP:58080/> and indexing logs at <https://< SCI 3.5.0 VM IP>:58090>

Migration from SCI 1.x

Monitor the Migration Process

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 3.5.0 reports.



Copyright © 2006-2017. Ruckus Wireless, Inc.
350 West Java Dr. Sunnyvale, CA 94089. USA
www.ruckuswireless.com