

Ruckus IoT 1.3 Release Notes

Supporting IoT Controller Release 1.3

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Overview

This document provides release information about Ruckus IoT Suite 1.3 a versatile system for managing IoT devices. The Ruckus IoT Suite is a collection of network hardware and software infrastructure components used to create an IoT access network that is comprised of four elements:

- Ruckus IoT-ready Access Points (APs)— in addition to the wall-mount H510, the ceiling-mount R510, and the outdoor model T310, as of this release the following additional AP models are now IoT-ready: the ceiling-mount R610, R710, and R720, as well as the the outdoor models E510, and T610.
- Ruckus IoT Modules—A NEW device that attaches to a Ruckus IoT-ready AP and supports standards such as Bluetooth Low Energy (BLE), Zigbee, LoRa and more. Our first IoT Module, the I100, will support BLE or Zigbee within the same enclosure.
- Ruckus SmartZone Controller—existing WLAN controller, which provides basic networking information for both the WLAN and the IoT access network.
- Ruckus IoT Controller—A NEW virtual controller, deployed in tandem with a Ruckus SmartZone Controller, that performs connectivity, device, and security management functions behind the scenes for non-WiFi devices. Our IoT Controller also facilitates cross-solution endpoint communication and provides APIs for northbound integration with IoT cloud services.

This document provides a list of the release components, their versions, a link to documentation, as well as caveats, limitations, and known issues in this release.

Features

Ruckus IoT-1.3 Suite provides the following update:

- Zigbee 3.0 Security Enablement.
- IoT Controller Redundancy N+1 support (1+1 mode).
- Wider support of Standard Zigbee Clusters.
- Access Point country-code based power settings.
- New and rich dashboard (widget dashboard).
- Ruckus Partner Connector Program Introduction.

Hardware and Software Compatibility

This release is compatible with the following controller and access point hardware and software.

Compatible Hardware:

- H510 Access Point (H510)
- R510 Access Point (R510)
- R610 Access Point (R610)
- R710 Access Point (R710)
- R720 Access Point (R720)
- T310 Access Point (T310)
- E510 Access Point (E510)
- T610 Access Point (T610)
- I100 IoT Module (I100)

Compatible Software:

- Virtual SmartZone High Scale (vSZ-H)
- Virtual SmartZone Essentials (vSZ-E)
- SmartZone 100 (sz-100)
- Ruckus IoT Controller (RIoT)

Release Information

This section lists the version of each component in this release.

vSCG (vSZ-H and vSZ-E), and SZ-100:

- WLAN Controller version: 3.6.1.2.13022
- Control plane software version in the WLAN Controller: 3.6.1.2.13001
- AP firmware version in the WLAN Controller: 3.6.1.2.13022

RIoT:

- Ruckus IoT Controller version: 1.3.0.0.14
- VMWare ESXi version: 5.5 and later
- VMWare VM Player version: 12 and later
- Oracle VirtualBox version: 5.1.20 and later
- Google Chrome version: 61 and later
- Mozilla Firefox version: 56 and later

Fixed Issues:

The following issues are fixed for this release:

TABLE 1 Fixed Issues

Key	Summary
IOTE-35	Support to configure Static IP address from Ruckus IoT Controller CLI.
IOTE-24	Fix to show IoT AP VLAN IP on IoT Controller.
IOTE-23	Support of configuring NTP Server on Ruckus IoT Controller CLI and UI.
IOTE-22	Fix to display onboarded IoT Devices RSSI value in REST API and UI
IOTE-16	Fix to display Assa Abloy (and other supported devices) LQI value in REST API and UI.

Caveats, Limitations, and Known Issues

The following are the caveats, limitations and known issues.

Component: IoT feature in Access Point with IoT Module I100

- IOTC-1806 - vriot-ops: Changing the lat/long in the VSZ is not applied immediately unless we restart the IOT process.
Workaround – restart the IoT service for the AP from IoT controller after changing the lat/long.
- IOTC-2434 - Some Zigbee Devices does not report the current value of the attributes.
Workaround – Try to manually query from the UI. Not guaranteed to work as it is device specific.
- IOTC-2399 - At times AP can go offline on IoT Controller and will not connect back.
Workaround – Restart IoT Service from AP RKSCLI (set iotg-enable 0 and set iotg-enable 1)
- IOTE-20 - Some Heimann end-devices (motion sensor, door/window sensor, and smoke detector, which are not in the supported list) have a connectivity issue.
- IOTC-2191 - By the nature of Zigbee if routing configuration changes under some specific gateway reconfiguration situations this may lead to connectivity issues with devices.
Workaround – Either do a manual operation on the end device or power-cycle it.

Component: Ruckus IoT Controller

- IOTC-2238 - When IoT module is swapped/removed, the IoT AP and Devices will still show online.
Workaround – none
- IOTC-2450 - At times N+1 Fallback from ActiveSlave to Master is not successful.
Workaround – If Master and Slave are showing as ActiveMaster and ActiveSlave respectively and virtual IP is owned by ActiveSlave, then reboot ActiveMaster.
- IOTC-2451 - Pre approved devices (before onboarding) are wrongly classified in the Device Last Seen widget (Dashboard)
Workaround – none
- IOTC-2181 - IoT controller traffic arriving in excess of 400 packets per second may cause IoT controller to go to a hanged state.
Workaround – Reduce traffic (or) Increase vCPU and reboot the IoT controller.

Limitations

- N+1 can be disabled (from Master) even when Slave is not reachable. When Slave comes back online, need to delete and create a new Slave controller.

- N+1 Auto Fallback is not supported (If Master is back online, Slave will run as Active Slave)
- Database backup and restore is not supported across major releases.

Best Practices

- Both RIoT and vSZ/AP need to be upgraded to their release versions of 1.3 together and upgrade only from the release versions of 1.2, or with vSZ/AP from 3.6.1.0 is supported.
- Time and Timezone should be properly set in Ruckus IoT Controller.
- N+1 works on Virtual IP mode. For successful failover AP MQTT Broker should be configured for Virtual IP.
- N+1 Configuration Sync happens every 5 minutes. If a configuration change and failover happened within the 5 minutes window, new configuration will be lost.
- In N+1 mode make sure Master and Slave have the same admin credentials (password).
- For information on clusters, refer to this externally available Zigbee Alliance Zigbee Cluster Library 6 document at <http://www.zigbee.org/~zigbeeor/wp-content/uploads/2014/10/07-5123-06-zigbee-cluster-library-specification.pdf>.

Supported Devices

This section documents the supported IoT end devices. Multiple other devices may work with this release but they have not been validated.

Device	Type	Mode	Manufacturer	Basic Name	Basic Model
Vingcard Signature	Lock	Zigbee	Assa-Abloy	AA_LOCK	
Vingcard Essence	Lock	Zigbee	Assa-Abloy	AA_LOCK	
Yale YRD220/240 TSDB Display Lock	Lock	Zigbee	Assa-Abloy	Yale	YRD220/240 TSDB
Yale YRD210 Push Button Lock	Lock	Zigbee	Assa-Abloy	Yale	YRD210 Push
Smartcode 916	Lock	Zigbee	Kwikset	Kwikset	SMARTCODE_DEADBOLT_10T
Smartcode 910 (450201)	Lock	Zigbee	Kwikset	Kwikset	
Lightify (RGB) Model 73674	Bulb	Zigbee	Osram	OSRAM	LIGHTIFY A19 RGBW
Lightify Model 73693	Bulb	Zigbee	Osram	OSRAM	LIGHTIFY A19 Tunable White45856
Lightify Model 73824	Bulb	Zigbee	Osram	OSRAM	
Element Color Plus	Bulb	Zigbee	Sengled	sengled	E11-N1EA
Bulb - LED	Bulb	Zigbee	Sengled	sengled	Z01-A19NAE26
E11-G13	Bulb	Zigbee	Sengled	sengled	E11-G13
Lux	Bulb	Zigbee	Philips	Philips	LWB004
SLV E27 Lamp Valetto (Zigbee 3.0)	Bulb	Zigbee 3.0	SLV		
GE Smart Dimmer	Switch	Zigbee	GE	Jasco Products	45857
GE Smart Switch	Switch	Zigbee	GE	Jasco Products	45856
Smart Plug	Plug	Zigbee	Centralite	Centralite	4257050-ZHAC
Zen Thermostat	Thermostat	Zigbee	Zen Within	Zen Within	Zen-01
ZBALRM	Alarm	Zigbee	Smartenit		Model #1021 A
Temp, Humidity Sensor	Sensor	Zigbee	Heiman	HEIMAN	HT-N
Gas detector	Sensor	Zigbee	Heiman	HEIMAN	GASSensor-N
Contact Sensor/Door Sensor	Sensor	Zigbee	Centralite	Centralite	3300-G
3-Series Motion Sensor	Sensor	Zigbee	Centralite	Centralite	3305-G
Temperature Sensor	Sensor	Zigbee	Centralite	Centralite	3310-G
Revogi Lamp	Bulb	BLE	Revogi	Revogi	
Panic Button	Beacon	BLE	TraknProtect		
Tray Beacon	Beacon	BLE	TraknProtect		
Asset Beacon	Beacon	BLE	TraknProtect		
Card Beacon	Beacon	BLE	TraknProtect		
Card Tag	Beacon	BLE	Kontakt.io		CT18-3
Beacon Pro	Beacon	BLE	Kontakt.io		BP16-3
Asset Tag	Beacon	BLE	Kontakt.io		S18-3
Bravo	Beacon	BLE	TrackR		

Supported Devices

Device	Type	Mode	Manufacturer	Basic Name	Basic Model
Pixel	Beacon	BLE	TrackR		



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