

Ruckus IoT 1.2 MR1 Release Notes

Supporting IoT Controller Release 1.2

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Overview

This document provides release information about Ruckus IoT Suite 1.2 MR1, 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:

1. 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.
2. 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.
3. Ruckus SmartZone Controller—existing WLAN controller, which provides basic networking information for both the WLAN and the IoT access network.
4. 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-1.2 Suite provides the following update:

- Zigbee 3.0 is now supported.
- Implementation of Standard Zigbee clusters to support a wide variety of Zigbee Devices.
- BLE beaconing functionality supports a wide variety of iBeacon and Eddystone tags.
- Support in additional AP Models R610, R710, R720 E510, and T610.

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: 3.6.1.2.12538
- Control plane software version in the WLAN Controller: 3.6.1.2.12501
- AP firmware version in the WLAN Controller: 3.6.1.2.12538

RIoT:

- Ruckus IoT Controller version: 1.2.0.0.24
- 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
- Safari: supported

Fixed Issues:

The following issues are fixed for this release:

TABLE 1 Fixed Issues

Key	Summary
IOTE-19	GE switch shows On/Off Light, and Lock capabilities.
IOTE-18	Capabilities fail to show sometimes for YRD210 lock, GE switch on onboarding, and on RIoT reboot.
IOTC-2174	After pan-id conflict, the new pan-id is not stored in the rpm key and as a result after rebooting an AP the stack comes up with an old pan-id.
IOTE-17	Onboarding Osram Smart+ Model AC03845" or "Osram Lightify AA69697 causes IoT Devices Page to appear empty.
IOTC-2040	Beacon_path message queue gets stuck in the value (22429 or 89%) and as a consequence the new/old requests are not processed causing all the AP's to be in the offline mode.

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-2024 - Iris device will not get on-boarded.
- IOTC-2110 - Downgrade of AP from 1.2 to 1.1/1.0 in ZigBee mode will cause dongle not to work.

Workaround – Remove end-devices, switch the mode to BLE and downgrade, then switch the mode back and re-commission devices.

- IOTC-2114 - ZigBee Bulb on power cycle or rejoin to network will come up with factory values.

Workaround – Re-apply the settings from the UI.

- IOTC-2188 - Active operation of several clients of the order of 10 or more, or a sustained traffic of 200+ control packets per second in Zigbee mode, may cause the traffic to stop in an AP in some scenarios.

Workaround – Restart IoT process.

- 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-716 - source of truth for vlan conflicts with option 43.

Workaround – use IoT controller to configure VLAN ID and option 43 to configure IoT controller IP in the AP.

- IOTC-893 - There is no full support for the Internet Explorer.

Workaround – use a browser from the list of components.

- IOTC-1926 - DB backup/restore does not work from 1.0 or 1.1 to 1.2.

Workaround – none (not supported).

- IOTC-2117 - All measurement values of Zigbee Devices will be shown as decimal without units.
- IOTC-2118 - After stopping scan start scan will not be shown in the UI.

Workaround – Click on the refresh button next to the bulk apply.

- IOTC-2129 - GRE tunneling of traffic between AP and IoT controller is not supported.

Workaround – Use on-premises deployment model with the IoT controller.

- 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 and reboot the IoT controller.

- IOTC-2192 - Sometimes the reported attribute name value appears as NA - this means the value is not available or not supported.

Best Practices

1. Stop scan and Remove devices (UI->IoT Devices->select all devices connected to the particular AP->select remove from drop-down->apply) before doing mode change or dongle swap.

2. Both RIoT and vSZ/AP need to be upgraded to their release versions of 1.2 together and upgrade only from the release versions of 1.1, or with vSZ/AP from 3.6.1.0 is supported.

3. Time and Timezone should be properly set in RIoT.

4. 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
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
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		
Pixel	Beacon	BLE	TrackR		



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