



Ruckus Wireless™ ZoneFlex™ Access Point Version 104.0

Release Notes

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About This Document

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These release notes describe the new features available in version 104.0 of the Ruckus Wireless ZoneFlex base image access points (APs).

This document includes enhancements and resolved issues, known issues, caveats, workarounds, upgrade and interoperability information.

By downloading this software and subsequently upgrading Ruckus Wireless APs to base image 100.0.0 and later, please be advised that:

- The AP may send a query to Ruckus containing the AP's serial number. This allows your AP to autonomously connect with a wireless LAN controller operated by your choice of cloud service provider. Ruckus may transmit the Fully Qualified Domain Name (FQDN) or IP address of the controller that the AP will subsequently attempt to join back to the AP.
- Please be advised that this information may be transferred and stored outside of your country of residence where data protection standards may be different.

Supported Devices, Services and Firmware

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ZoneFlex standalone AP image version **104.0.0.0.1347** supports the following Ruckus Wireless AP models.

Access Point Models

- H500
- H510 (*build 1350)
- R300
- R310
- R500
- R510
- R600
- R700
- R710
- T300
- T300e
- T301n
- T301s
- T710
- T710s
- ZF7055
- ZF7352
- ZF7372
- ZF7372-E
- ZF7781-CM
- ZF7782
- ZF7782-E

- ZF7782-N
- ZF7782-S
- ZF7982

NOTE The build number for the H510 AP is **104.0.0.0.1350**.

EoS (End of Sale) APs

The following AP models have reached end-of-sale (EoS) status and, therefore, are no longer supported in this release and cannot be upgraded to this release:

- 7321
- 7321-U
- 7441
- 7761-CM
- 7762 series
- 7363
- 7343
- 7341
- sc8800-S
- sc8800-S-AC

Enhancements and Resolved Issues

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This section lists enhancements that have been added and issues from previous versions that have been resolved in this version.

- [New Access Points](#)
- [Enhancements](#)

New Access Points

- New Access Point: H510

The ZoneFlex H510 is a Wave 2 802.11ac (MU-MIMO-capable) Wi-Fi access point with integrated switch in a wall-plate form factor. Equipped with four Ethernet ports for in-room access, the ZoneFlex H510 can be used to connect a range of wired network devices such as IPTV set top boxes, IP telephones, or networked minibars while simultaneously providing dual band 802.11ac wireless LAN coverage. The H510 is the 11ac Wave 2 successor to the H500.

- New Access Point: R510

The ZoneFlex R510 brings cutting edge 802.11ac Wave 2 to the mid-tier segment. It improves aggregate network throughput and benefits both Wave 2 & non-Wave 2 clients. It combines Ruckus patented technologies and best-in-class design with the next generation of 802.11ac features to deliver outstanding Wi-Fi performance and reliability. It future proofs the customer for emerging Internet of Things (IoT) technologies.

- New Access Point: T710 (and T710s)

The ZoneFlex T710 is a carrier grade dual-band concurrent 802.11ac Wave 2 outdoor access point with 4x4: 4 spatial streams, dual GbE ports and an SFP fiber interface. The T710 supports PoE in, PoE out, Ethernet port aggregation, and hot-swappable SFP fiber optic module.

The ZoneFlex T710s is the 120 degree Sector Antenna variant of the T710. It includes all of the same features as the T710 omni AP.

Enhancements

- ISLAND SSID Change [AP-2728]

The behavior of the initial “Island SSID” that is broadcast when an AP starts up in factory default state, and does not discover a ZD or SZ controller on the network, has changed. With this release, the Island SSID can be used for initial AP configuration by entering the AP’s serial number as the PSK when connecting to the Island SSID.

This change makes it easier to configure an already installed AP in the field with the controller IP addresses for controller discovery.

- IPv6 Discovery Changes

Beginning with this release, standalone ZoneFlex APs support DHCPv6 discovery using DHCPv6 option 17 and option 52.

For SmartZone controllers, IPv6 discovery is now the preferred method.

- SmartZone Discovery Changes

SmartZone controllers running version 2.5 and later include an LWAPP2SCG utility for migrating Ruckus APs to SmartZone control. Ruckus APs running version 104.0 and later can discover SmartZone controllers without the need to enable the LWAPP2SCG service on the controller and open ports 12223 and 21 on any firewalls or NAT devices between the controller and the APs.

NOTE: Some older APs may not be able to discover an SZ controller using this new discovery process. If you encounter this issue, you have two options:

- First upgrade the AP to base image 104 or later.
 - Enable LWAPP2SCG service on the SZ, and open ports 12223 and 21(if needed).
- Beginning with this release, if multiple SZ and ZD controllers exist on the network, the AP will attempt to associate with an SZ controller first before associating with a ZD controller. If it does not discover an SZ controller, it will begin searching for a ZD controller after a pause of about 30 seconds.
 - AP Image Signing
Improves security by requiring verification of AP firmware images to ensure the file has not been modified and that the source code executed by the system is authentic code provided by Ruckus Wireless.

- Cloud Controller Discovery Changes

Beginning with this release, 11ac APs with the 104.0 and later image will have the ability to discover a remote/cloud controller using secure HTTPS to query the AP Registrar. If found, the AP 104 image will utilize secure mechanisms (e.g. SSH port 22 and HTTPS port 443) to communicate with the remote vSZ / Cloud controller to connect and download firmware.

Note the following AP Registrar information:

- The AP will probe the AP Registrar more often in the first 14 days after initial power-up and after that, less frequently.
- Once the AP finds a controller (ZD, SZ, Cloud), it will no longer look for the AP Registrar.

Caveats, Limitations and Known Issues

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This section lists the caveats, limitations, and known issues for ZoneFlex Access Points in this version. Please also refer to previous Release Notes documents for previously documented caveats and limitations.

SSL Certificate Changes

Beginning in November 2016, the existing default SSL device certificate on Ruckus APs will expire. Ruckus has been rolling out replacement certificates on APs since 2015. Build 104 makes the new replacement certificate the default SSL device certificate.

All APs shipped from Ruckus with release 104 and later will have the new replacement certificates for SSL authentication with SmartZone controllers.

Due to this change, APs with release 104 may not be able to join some older versions of SZ software. To address this limitation, the SZ has to be upgraded to 3.1.2 or later.

The certificate expiry will require all APs to have the new replacement certificates loaded and made default to be able to join SZ with certificate check beyond November 2016. If, after November 2016, the AP is not able to join SZ, please contact Ruckus Support for assistance.

General

- Before you convert a solo R510 AP to a controller-managed AP, make sure you disable lwapp2scg on the SZ controller. Otherwise, the AP may be unable to join the controller successfully via IPv6 discovery. [SCG-52226]
- Some older APs (for example, R300, 7982) may fail to join an SZ controller running 2.5.1 after upgrading the APs to standalone AP version 104.0. [ZF-15618]

WORKAROUND: Upgrade the controller to version 3.1.2 or later. If you cannot upgrade the SZ controller to 3.1.2 or later, you can downgrade the APs to any pre-104.0 standalone AP firmware prior to attempting to join the controller.

- Changing the channelization from 80MHz to 20MHz with clients connected may cause the clients to become unable to pass traffic, due to failure to update ARP tables after a channelization change. [SCG-50854]

WORKAROUND: Disconnect any connected clients before changing the channelization from 80MHz to 20MHz, and then reconnect after the change is effective.

- R500 APs may experience an issue where the following error message appears continuously in AP logs: "HIFSend Failed status:-12, HTCIssuePackets, failed pkt:0x8ad15288 status:-12:.". [SCG-50738]

WORKAROUND: Reboot the AP if you encounter this issue. This issue has no known negative impact, however if it occurs, it can make the log files difficult to read.

- 11ac APs do not honor the idle timeout setting as received in the RADIUS access accept message. [SCG-48133]
- T710 SFP EPON/GPON fiber module model name information is not displayed on the web interface. [SCG-49330]
- No Syslog message is sent for 802.3af PoE mode change. [ZF-13160]
- The R710 AP continues to request 25W power from the PoE switch even when the AP is configured to 802.3af mode. [ZF-14489]

Workaround: Disable LLDP Power-Via-MDI TLV on the PoE switch (this is only necessary if you wish to force the AP into 802.3af PoE mode on an 802.3at PoE+ switch for power budgeting reasons). On some switches, you may need to reset the AP connected Ethernet port/s to force the switch to renegotiate the new power level.

- The R710 can be powered by an 802.3at-compliant (25.5W) Power over Ethernet (PoE) switch or PoE injector -- or -- an 802.3af-compliant PoE switch or PoE injector.

Note that the AP can operate off of 802.3af power, but the feature set is reduced, as follows:

- The USB port is disabled
- The non-PoE (eth1) Ethernet port is disabled
- The 2.4 GHz radio is reduced to two transmit streams (2x4 MIMO) with aggregate transmit power up to 22dBm (subject to country limits).
- If using a PoE switch to supply power to the T710, the PoE switch must be capable of supporting a PoE+ (802.3at) powered device. It is recommended to reserve 30W for the T710 on the switch, to account for inefficiencies and losses.

Failure to ensure a PoE+ (802.3at) supply to the access point may result in unpredictable operation of the access point. Additionally, if using a PoE switch, the T710's PoE OUT port cannot be used to power additional devices.

- The T710 does NOT support 802.3af PoE power. Power must be supplied using either the Ruckus supplied PoE injector, or an 802.3at PoE switch/injector, or AC power.
- If using the PoE OUT port on the T710, it is MANDATORY to use the custom Ruckus supplied 60W PoE injector (part #902-0180-XX00), or to use AC power.

SmartZone Discovery

ZoneFlex AP Release 104 allows the AP to connect to a SmartZone controller without the lwapp2scg utility being enabled on the controller.

Important Notice About Build 1306

AP's with standalone image 104.0.0.0.1306 will fail to connect to a SmartZone controller which has the lwapp2scg utility enabled. If the SmartZone controller has lwapp2scg enabled, it will update firmware on the AP, then the AP will fail to join the controller until a factory reset is performed on the AP.

Unlike prior standalone AP software, release 104.x allows the AP to connect to a SmartZone controller without the lwapp2scg utility being enabled on the controller. A bug was introduced with this change, whereby residual configuration in the AP causes it to fail to join the controller after the controller pushes a controller-based image to the AP. A factory reset of the AP clears this residual configuration and allows the AP to join the controller.

- Affected APs: R510
- Version: 104.0.0.0.1306

WORKAROUND: SmartZone customers should disable the lwapp2scg utility on their controller before adding affected APs to their network.

If you have received APs with this build, refer to the Ruckus Field Advisory Number 20160817-01 for instructions on disabling the lwapp2scg service prior to allowing these APs to join.

The Field Advisory can be found at: <https://support.ruckuswireless.com/documents/1126-field-advisory-number-20160817-01-r510-104-0-0-0-1306-smart-zone-discovery-issue>.



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