Ruckus ZoneDirector 10.2.1 Refresh 3 Release Notes

Supporting ZoneDirector 10.2.1 Refresh 3

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Contents

About This Release

This document provides release information on ZoneDirector release 10.2, including new features, enhancements, known issues, caveats, workarounds, upgrade details and interoperability information for version 10.2.

> **NOTE**
> By downloading this software and subsequently upgrading the ZoneDirector and/or the AP to version 10.2, please be advised that:
>
> - The ZoneDirector will periodically connect to Ruckus and Ruckus will collect the ZoneDirector serial number, software version and build number. Ruckus will transmit a file back to the ZoneDirector and this will be used to display the current status of the ZoneDirector Support Contract.
> - The AP may send a query to Ruckus containing the AP's serial number. The purpose is to enable your AP to autonomously connect with a wireless LAN controller operated by your choice of cloud service provider. Ruckus may transmit back to the AP, the Fully Qualified Domain Name (FQDN) or IP address of the controller that the AP will subsequently attempt to join.
>
> 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 Platforms and Upgrade Information

Supported Platforms

ZoneDirector version **10.2.1.0.147** supports the following ZoneDirector models:

- ZoneDirector 1200
- ZoneDirector 3000

ZoneDirector version **10.2.1.0.147** supports the following Ruckus Access Point models:

Indoor AP	Outdoor AP
C110	T300
E510	T300e
H320	T301n
H510	T301s
R310	T310c
R320	T310d
R500	T310n
R510	T310s
R600	T610
R610	T610s
R700	T710
R710	T710s
R720	

NOTE
The following APs have been discontinued as of this release, and cannot be upgraded to 10.2 or later. If you have any of these APs on your ZoneDirector-managed network, do *not* upgrade ZoneDirector to this release. ZoneDirector will be unable to manage them.

- 7055
- 7352
- 7372
- 7372-E
- 7982
- 7781-CM
- 7782
- 7782-E
- 7782-N
- 7782-S
- H500
- R300

Upgrading to This Version

This section lists important notes on upgrading ZoneDirector to this version.

Officially Supported 10.2.1 Upgrade Paths

The following ZoneDirector release builds can be directly upgraded to this release:

- 10.0.0.0.1424 (10.0 GA)
- 10.0.0.0.1449 (10.0 Patch 1)
- 10.0.1.0.17 (10.0 MR1)
- 10.0.1.0.35 (10.0 MR1 Refresh 1)
- 10.0.1.0.44 (10.0 MR1 Refresh 2)
- 10.0.1.0.61 (10.0 MR1 Refresh 3)
- 10.0.1.0.83 (10.0 MR1 Refresh 4)
- 10.0.1.0.88 (10.0 MR1 Refresh 5)
- 10.1.0.0.1515 (10.1 GA)
- 10.1.1.0.26 (10.1 MR1)
- 10.1.1.0.35 (10.1 MR1 Refresh 1)
- 10.1.1.0.42 (10.1 MR1 Refresh 2)
- 10.1.1.0.55 (10.1 MR1 Refresh 3)
- 10.1.1.0.62 (10.1 MR1 Refresh 4)
- 10.1.1.0.79 (10.1 MR1 Refresh 5)
- 10.1.2.0.120 (10.1 MR2)
- 10.1.2.0.210 (10.1 MR2 Refresh 1)

- 10.1.2.0.251 (10.1 MR2 Refresh 2)
- 10.1.2.0.270 (10.1 MR2 Refresh3)
- 10.2.0.0.189 (10.2 GA)
- 10.2.1.0.75 (10.2 MR1)
- 10.2.1.0.79 (10.2 MR1 Patch1)
- 10.2.1.0.129 (10.2 MR1 Refresh 1)
- 10.2.1.0.135 (10.2 MR1 Refresh 2)

  NOTE
  R730 is not supported in this release and cannot be upgraded to 10.2.1. If you have R730 APs connected to ZoneDirector, upgrading to this release will cause these APs to stop functioning.

If you are running an earlier version, you must upgrade ZoneDirector to one of the above builds before upgrading to this release.

If you do not have a valid Support Entitlement contract, you will be unable to upgrade ZoneDirector to this release. See the *Administer > Support* page for information on Support Entitlement activation.

Enhancements and Resolved Issues

This section lists new features and enhancements that have been added in this release, and any customer-reported issues from previous releases that have been resolved in this release.

Enhancements

This section lists the enhancements and new features that have been added in this release.

- New AP Support: R320

  The R320 is an entry-level 2x2:2 802.11ac Wave 2 indoor AP designed for medium-density enterprise deployments. It features one GbE port, dual 2.4/5 GHz radios, BeamFlex support, 802.3af/at PoE support and a small form factor for flexible installation.

- LACP Support on R720

  Link Aggregation can be used to bond multiple Gigabit Ethernet links into a single, high capacity logical link. The R720 supports LACP (Link Aggregation Control Protocol) as defined in the 802.1ax (formerly 802.3ad) standard, allowing the bonding of its two Gigabit Ethernet ports to form a single 2Gbps link.

Resolved Issues in Build 147

- Resolved an issue where ZoneDirector would not report session data by default when "management by SmartCell Insight" was enabled. [ER-7762]
- Resolved a ZoneDirector memory leak issue. [ER-7475]
- Resolved an issue that could cause failure to configure an AP via the web interface. [ER-7834]
- Resolved an issue that could cause failure to configure an NTP server when the server name contains dashes. [ER-7843]
- Resolved an issue where CLI commands would not work properly for configuring auto channel selection algorithms. [ER-7846]

Resolved Issues in Build 135

- Resolved an issue that could cause APs to unexpectedly reboot with reason "reset button". [ER-7419]
- Added an AP CLI command to permanently save the debug level of APMGR on AP. [ZF-20919]
- Enhanced the debug log for the background scanning based auto channel selection algorithm and changed the default age-out value of Neighbor APs. [ZF-20924]
- Enhanced the debug log output for the backgrounding scanning based auto channel selection algorithm and made it configurable to save in ZoneDirector locally, remote syslog server, or both. [ZF-20925],

Resolved Issues in Build 129

- Resolved an issue where the AP CLI command "get scanresults" did not work properly. [ER-7630]
- Enhanced the Background scanning auto channel selection algorithm. [ER-7327, ZF-20709]
- Resolved an issue related to TCP SACK Panic - Kernel Vulnerability CVE-2019-11477, CVE-2019-11478 and CVE-2019-11479. [AP-11589]

  For information on security incidents and responses, see https:// www.ruckuswireless.com/security.
- Resolved an issue where channels 100-140 were unavailable in India country code. [ER-7515]
- Resolved an issue where UNII-3 channels were unavailable for R310/R510/R710 in UK country code. [ER-7563]
- Resolved an issue where guest pass generation did not work properly for newly created WLANs. [ER-7487]
- Resolved an issue where UNII-3 channels were unavailable for outdoor APs in Russia country code. [ER-7223]
- Resolved an issue where the start/end time of DST Daylight Saving Time was incorrect for GMT0 time zone. [ER-7446]
- Resolved an issue where the authentication portal page would continue to be displayed for MacOS clients even after guest authentication was complete. [ER-7392]
- Resolved an issue where BSS minrate and management rate settings would not be applie when the UI language was set to Dutch. [ER-7411]
- Resolved an issue where APs might fail to receive WLAN settings from ZoneDirector after failover in high density environments. [ER-7307]
- Removed unnecessary space character in the wireless client roam out event messages. [ER-7332]
- Resolved an issue where the "Remarks" column did not display correctly in the "Generated Guest Pass" web page. [ER-7257]
- Resolved an AP issue with Singapore country code where DFS channels were not listed in the supported channel list for certain AP models. [ER-7247]
- Resolved a kernel panic issue on APs located in high density environments when associated wireless clients were frequently roaming in and out of range. [ER-6689]
- Resolved an issue where rogue device reporting would not work properly when the SSID name was configured as a non-English name. [ER-6248]
- Resolved an issue on 11ac Wave 1 APs where unsupported data rates were used to send the first data packet to a wireless client over the 5 GHz radio. [ER-7018]
- Resolved an issue where the incorrect redirection URL was sent for guest authentication by ZoneDirector if the "domain" field was not set in the uploaded certificate. [ER-7156]
- Resolved an issue where the R700 APs rebooted on detection of target failure. [ER-7073]
- Resolved an issue where stations could not reach the redirect portal page for guest WLANs with tunnel mode enabled. [ER-7093]

- Resolved an issue on R310 APs where the 5G radio would not function properly in 20 MHz channelization mode. [ER-6969]
- Resolved an issue where Force DHCP feature did not work properly after client roaming or reconnect. [ER-7579]
- Resolved an issue where multicast traffic unexpectedly dropped for wireless clients associated with Open/None WLANs with tunnel mode enabled. [ER-7291]
- Resolved an issue on R720 APs where wireless clients could experience low uplink throughput if they had previously associated to a WLAN with rate limiting enabled on the same R720 AP. [ER-6567, ER-6576, ER-6830]
- Unified the CLI/web UI configuration settings for directed threshold. [ER-7600]

Resolved Issues in Build 75

- Resolved an issue with incorrect IP addresses being displayed on the "Wireless Client" page for connected clients. [ER-6968]
- Resolved an issue where customizing the "Terms of Use" field with non-ASCII characters would fail for Guest Access. [ER-7006]
- Resolved an issue where SNMP walk results on node "ruckusZDWLANStaSignalStrength" were inaccurate and renamed the node name from the previous name "ruckusZDWLANStaAvgRSSI" to "ruckusZDWLANStaAvgSNR". [ER-6943]
- Resolved an issue where users attempting to authenticate to a Hotspot WLAN 10 times within 5 minutes would be unexpectedly blocked by ZoneDirector. [ER-6978]
- Resolved an issue on R720 APs where wireless clients could experience low uplink throughput if they had previously associated to a WLAN with rate limiting enabled on the same R720 AP. [ER-6567, ER-6576, ER-6830]
- Added an AP CLI command to allow configurable Multicast Airtime in percentage where the default value is 25%. [ER-6606]
- Resolved an issue where the following special characters would be disallowed when used in WPA2-PSK passphrases: "`",";", "%", "$", "&&", "||"). [ER-6875]
- Added an AP CLI command to allow configurable mcast-q-limit where the default value is 4. [ER-6517]

Caveats, Limitations and Known Issues

- When creating a new AP group, model-specific settings are inherited from the system default group, but they are not shown properly on the web interface. [ZF-20775]

Client Interoperability

ZoneDirector and Ruckus APs use standard protocols to interoperate with third-party Wi-Fi devices. Ruckus qualifies its functionality on the most common clients.

The following client operating systems and browsers have been tested for compatibility with this release (for specific OS and browser limitations, including compatibility with Zero-IT, see subsequent sections below).

PC OS

- Windows 7
- Windows 8

- Windows 8.1
- Windows 10
- Mac OS 10.9.5
- Mac OS 10.10
- Mac OS 10.11
- Mac OS 10.12
- Mac OS 10.13

Smartphone/Tablet OS

- iOS (6.1, 7.0, 7.1, 8.1, 8.4, 9.2, 9.3,10.0,10.2,10.3,11.1/2/3/4,12.0)
- Android (4.1.2, 4.2.2, 4.3, 4.4.2, 4.4.4, 5.0.1, 5.0.2, 5.1, 6.0, 7.0, 7.1.1, 8.0)
- Windows Phone (7, 8, 8.1, 10)
- BlackBerry OS (10, 10.3.2) not supported with Zero-IT
- Chrome OS (47.0, 49.0) not Supported with Zero-IT

Officially Supported Browsers

- Internet Explorer 10, 11
- Firefox 34 and later
- Chrome 39 and later

Not Officially Supported Browsers

Safari, Dolphin, Opera Mini, Android Default, BlackBerry Default, etc.

Zero-IT Compatibility with Client Devices

TABLE 1 Zero-IT Compatibility

	WPA2 WLAN			802.1x EAP (external Radius Server)		
OS	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
iOS 6.x	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)
iOS 7.x	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)
iOS 8.0	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)
iOS 8.0.2	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)
iOS 8.1	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)
iOS 9.0	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)
iOS 10 .0	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)
iOS 10 .2	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)
iOS 10 .3	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)
iOS 11.x	Y (ZF-19663)	Y (ZF-19663)	N (ZF-2888)	Y (ZF-19663)	Y (ZF-19663)	N (ZF-2888)
iOS 12.0	Y	Y	N (ZF-2888)	Y	Y	N (ZF-2888)

TABLE 1 Zero-IT Compatibility (continued)

MAC OS 10.8.5	Y	Y	Y	Y	Y	N (ZF-4699)
Mac OS 10.9.3	Y	Y	Y	Y	Y	N (ZF-4699)
MAC OS 10.9.4	Y	Y	Y	Y	Y	N (ZF-4699)
Mac OS 10.9.5	Y	Y	Y	Y	Y	N (ZF-4699)
Mac OS 10.10	Y	Y	Y	Y	Y	N (ZF-4699)
Mac OS 10.11	Y	Y	Y	Y	Y	N (ZF-4699)
Mac OS 10.12	Y	Y	Y	Y	Y	N (ZF-4699)
Mac OS 10.13	Y	Y	Y	Y	Y	N (ZF-4699)
Windows 7	Y	Y	Y	Y	Y	Y
Windows 8	Y	Y	Y	Y	Y	Y
Windows 8.1	Y	Y	Y	Y	Y	Y
Windows 10	Y	Y	Y	Y	Y	Y
Windows Phone 8	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)
Windows Phone 8.1	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)
BlackBerry OS 10.1	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)
BlackBerry OS 10.3	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)
Kindle 7.4.9	Y	Y	Y	Y	Y	Y
Android 4.0.4	Y	Y	Y	Y	Y	Y
Android 4.1.2	Y	Y	Y	Y	Y	Y
Android 4.4.4	Y	Y	Y	Y	Y	Y
Android 5.0	Y	Y	Y	Y	Y	Y
Android 6.0	Y (ZF-19664)	Y	Y	Y (ZF-19664)	Y	Y
Android 7.0	Y (ZF-19664)	Y	Y	Y (ZF-19664)	Y	Y
Android 7.1.1	Y (ZF-19664)	Y	Y	Y (ZF-19664)	Y	Y
Android 8.0	Y (ZF-19664)	Y	Y	Y (ZF-19664)	Y	Y
Chrome OS	N (ZF-8076)	N (ZF-8076)	N (ZF-8076)	N (ZF-8076)	N (ZF-8076)	N (ZF-8076)

- Step 1: Download Zero-IT file
- Step 2: Install Zero-IT script
- Step 3: Automatically connect to the appropriate SSID

Client Interoperability Known Issues

- Zero-IT is not supported on Windows Phone 7/8/8.1 devices. [ZF-3478]
- Zero-IT is not supported on Blackberry OS devices. [ZF-6402]
- Zero-IT is not supported on Chrome OS devices. [ZF-8076]
- iOS clients cannot connect to the Zero-IT WLAN automatically. Users must reconnect to the target WLAN after installing the Zero-IT configuration file. [ZF-2888]
- Mac OS 10.7 and 10.8 cannot automatically connect to an 802.1x EAP WLAN after installing Zero-IT script. [ZF-4699]

- In some situations, Chromebook clients can take up to 10-50 seconds to resume sending traffic after a channel change. [ZF-14883]