Ruckus ZoneDirector Release Notes

Supporting ZoneDirector 10.1.1 Refresh 5

Contents

About This Release

This document provides release information on ZoneDirector release 10.1.1, including new features, enhancements, known issues, caveats, workarounds, upgrade details and interoperability information for version 10.1.1.

> **NOTE**
> By downloading this software and subsequently upgrading the ZoneDirector and/or the AP to version 10.1.1, 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 **10.1.1.0.79** supports the following ZoneDirector models:

- ZoneDirector 1200
- ZoneDirector 3000

> **NOTE**
> ZoneDirector 5000 is discontinued as of release 10.1, and cannot be upgraded to version 10.1 or later.

Access Points

ZoneDirector version **10.1.1.0.79** supports the following Access Point models:

C110	E510*
H320	H500
H510	R300
R310	R500
R510	R600
R610	R700
R710	R720
T300	T300e
T301n	T301s
T310d	T310c*
T310n*	T310s*

T610	T610s
T710	T710s
ZF7055	ZF7352
ZF7372	ZF7372-E
ZF7781CM	ZF7782
ZF7782-E	ZF7782-N
ZF7782-S	ZF7982

NOTE
This release adds support for new APs: T310c, T310n, T310s, E510.

Upgrading to This Version

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

Officially Supported Upgrade Paths

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

- 9.13.0.0.232 (9.13 GA)
- 9.13.1.0.11 (9.13 MR1)
- 9.13.1.0.26 (9.13 MR1 Refresh)
- 9.13.2.0.33 (9.13 MR2)
- 9.13.3.0.22 (9.13 MR3)
- 9.13.3.0.41 (9.13 MR3 Refresh)
- 9.13.3.0.106 (9.13 MR3 Refresh 2)
- 9.13.3.0.121 (9.13 MR3 Refresh 3)
- 9.13.3.0.133 (9.13 MR3 Refresh 4)
- 9.13.3.0.145 (9.13 MR3 Refresh 5)
- 9.13.3.0.157 (9.13 MR3 Refresh 6)
- 9.13.3.0.164 (9.13 MR3 Refresh 7)
- 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)
- 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)
- 10.1.0.0.1515 (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)

If you are running an earlier version, you must upgrade 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 and New Features

This section lists the new features and enhancements in this release.

New Access Points

- Native support for new Ruckus Access Points: T310c, T310n, T310s, E510

  This release adds native support for T310c/n/s and E510 (in addition to T310d, which was supported in release 10.1).

- New AP: T310 Series

  The T310 series (T310c, T310d, T310n, T310s) is a new outdoor dual-band 802.11ac Wave 2 AP designed for flexible installation in a wide variety of outdoor environments. The T310d has an omni antenna, an extended temperature range (-40C to 65C), one 10/100/1000 Ethernet port that supports 802.3af PoE in, optional DC power input, and a USB port for IoT devices, such as a BLE or Zigbee dongle, Z-Wave, etc.

  The T310c has an omni antenna, with narrower operating temperature range, and no USB port or DC power supply.

  The T310s is the sector antenna variant of the T310 series, and the T310n is the narrow sector antenna variant.

- New AP: E510

  The E510 is a modular outdoor AP designed for installation in scenarios where the Wi-Fi intelligence and the antenna modules must be physically separated, such as light poles, light fixtures, street furniture, railway carriages and track side installations.

2014/53/EU (RED) Compliance

With this release, Ruckus Access Points are in compliance with the new European Radio Equipment Directive (EU directive 2014/53/EU). Do refer to the Declaration of Conformity insert in the AP box for more information.

Resolved Issues in Build 79

- 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 an issue where the "Remarks" column did not display correctly in the "Generated Guest Pass" web page. [ER-7257]
- 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 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 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 AP issue related to DFS for CAC waiting and Radar detection reporting. [ER-6437]
- Resolved an issue on R310 APs where the 5G radio would not function properly in 20 MHz channelization mode. [ER-6969]
- Resolved an AP issue with Vietnam country code where DFS channels were not listed in the supported channel list. [ER-7268]

Resolved Issues in Build 62

- 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]
- Resolved a Japanese language UI typo in the Bonjour service description text. [ER-6797]
- Enhanced GUI performance when accessing Access Point list and Dashboard web pages. [ER-6858]
- Resolved an issue where the following special characters would be disallowed when used in WPA2-PSK passphrases: "`",";", "%", "$", "&&", "||"). [ER-6875]
- 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 Issues in Build 55

- Resolved a performance issue on 11ac wave 2 APs caused by beacon drifting. [ER-6425]
- Resolved an issue where sqlited daemon on ZoneDirector would not function properly under certain conditions. [ER-6706]
- Resolved an issue where ZF7782-E AP would fail to join ZoneDirector. [ER-6690]
- Resolved an issue where ZoneDirector would fail to update GPS data received from outdoor APs on GUI. [ER-6439]
- Resolved a target fail detected issue on APs. [ER-6665]

Resolved Issues in Build 42

- Resolved an issue where dips would happen intermittently on *Client Trend* and *Application Traffic* graphs. **[ER-6420]**
- Resolved an issue where client fingerprinting would not properly identify clients running Ubuntu version 17. **[ER-6325]**
- Resolved an issue where SCI would intermittently fail to receive statistics data from an active ZoneDirector with Smart Redundancy enabled. **[ER-6476]**

Resolved Issues in Build 35

- Resolved an issue where client fingerprinting would fail to properly identify clients running Windows 10 version 1803. [ER-6414]

- Resolved an issue where changes to AP Ethernet port settings in the system default AP group would be lost when another AP's port settings were changed. [ER-6373]
- Resolved an issue where LDAP authentication would fail if the user name included extended ASCII characters. [ER-6372]

Resolved Issues in Build 10.1.1.0.26

- Resolved an issue where the AP Neighbor List would not be displayed on AP monitoring pages when mesh was disabled. [ER-6017]
- Resolved an issue where traffic counters would receive incorrect accumulation data in accounting packets. [ER-6042]
- Resolved a "Terms of Use" issue where clients would not be properly prompted to accept the terms of use on the Guest Access portal page when the authentication setting was configured as "No authentication" in the Guest Access profile. [ER-6194]
- Resolved an issue where users could not search clients by IP address on the ZoneDirector Clients monitoring page. [ER-6068]
- Resolved an issue where SNMP walk results on nodes "ruckusZDWLANRxByteRate" and "ruckusZDWLANTxByteRate" were always zero. [ER-6152]
- Resolved an issue where ZoneDirector would fail to apply WLAN configuration settings to an AP when packet loss occurred as the AP was joining. [ER-6022]
- Resolved an issue where a false alarm 'failure' message would appear on the web interface when the SMS message was actually sent successfully. [ER-6044]
- Resolved an issue with incomplete translations of self-service guest login screen content into non-English languages. [ER-6107]
- Resolved an incompatibility issue with custom SMS servers that would return an error when trying to test the connection from ZoneDirector to the SMS server in "GET method" mode. [ER-6180]
- Resolved an issue where the Zero-IT file could not be downloaded from ZoneDirector via URL https://ZD IP(domain)/user/ user_extern_prov.jsp [ER-6063]
- Resolved an issue where ZoneDirector would not send a new syslog message when a station rejoins with the same IP address. [ER-6049]
- Resolved an issue where protocol and device types were incorrect in Ekahau tag frames. [ER-6139]
- Resolved an issue where ZoneDirector would fail to forward tunneled packets if the 802.1p value was set as a non-zero value. [ER-6150]
- Resolved an issue where the Apple auto pop-up browser might not show up after association to a Social Media WLAN. [ER-6086]
- Resolved a target fail detected issue on 11ac Wave 2 APs when MU-MIMO is enabled. [ER-6214]
- Removed the extraneous line "signal" from the wireless client detail page. [ER-6151]
- Resolved an issue where clicking one of the health status filters on the Dashboard would not properly redirect to the filtered list of clients/APs according to the health status level. [ER-6149]
- Resolved an issue where Rogue Device reporting would not work properly when the SSID was configured with a non-English WLAN name. [ER-6248]
- Resolved a display issue on the "All Events and Activities" page where the text alignment was wrong when the UI language was other than English. [ER-6284]
- Resolved an issue where guest pass emails would be sent with the default text (in English) for self-service guest passes, even when the text was changed on "customize the email content". [ER-6142]

- Resolved an issue where Radius Authentication with TLS encryption enabled would fail due to ZoneDirector using the default certificate instead of newly imported certificate. [ER-6316]
- Resolved an issue where the AeroScout RFID tag detection would not function properly on 11ac Wave 2 APs. [ER-5935]
- Resolved an issue where the ARP packets for internal communication between AP and CM modules could leak out to the cable network. [ER-5985]

Caveats, Limitations and Known Issues

This section lists the caveats, limitations and known issues in this release.

- TLSv1.0 has been disabled in this release due to security concerns, and ZoneDirector now supports only TLSv1.1 and v1.2. Browsers that do not support the newer protocols will be unable to access the ZoneDirector web interface or portal pages for WISPr, Guest Access, Web Auth and Social Media authentication. For information on security incidents and responses, see *https://www.ruckuswireless.com/security*. [ZF-18082, ER-6315]
- Clients connected to a Facebook Wi-Fi WLAN may be allowed to pass HTTPs traffic while not yet authenticated. [ER-3813]
- Macbook clients may fail to be redirected to the captive portal page due to an issue with the Apple Captive Network Assistant (CNA) feature. [ZF-19195]

  Workaround: Close the CNA success window, and then reconnect to the WLAN.
- Huawei Honor 8 phones may fail to authenticate to an AAA server via Web Auth when using Chrome browser due to a compatibility issue with Chrome version 65+ and HTTPS redirection. [ZF-19339]
- Windows 10 clients may fail to be properly redirected under Hotspot (WISPr) WLAN when using Chrome version 65+ and HTTPS redirection. [ZF-19359]

  Workaround: Use HTTP redirection rather than HTTPS to trigger WISPr (Hotspot) authentication.
- Apple iOS and Mac clients fail to authenticate to an 802.1X WLAN when 802.11w MFP is enabled and set to Required. [ZF-19239]
- When a user clicks "Use Wi-Fi Code" on the Facebook login portal, the client may fail to be redirected properly due to an Apple CNA issue. [ZF-19156]

  Workaround: Enable Bypass Apple CNA Feature for the Social Media WLAN.
- Apple clients running iOS version 11.4.1 fail to download the Zero-IT profile when selecting "Register Device" from the onboarding portal. [ZF-19663]

  Workaround: Upgrade devices to iOS 12+ or enable the "Bypass Apple CNA Feature" in WLAN settings.
- iOS clients running iOS version 11.4 are unable to redirect properly to a WeChat WLAN due to the Apple CNA feature. [ZF-19361]

  Workaround: Upgrade clients to iOS 12+ or enable the "Bypass Apple CNA Feature" in WLAN settings.
- Sony Z5 clients fail to roam properly when 802.11r Fast Roaming is enabled, due to a client limitation. [ZF-19502]
- The Apple Captive Network Assistant may prevent iOS clients from being properly redirected if captive.apple.com is unreachable, displaying an error message and forcing the user to reconnect to the WLAN. [ZF-19363]

  Workaround: Enable "Bypass Apple CNA Feature" in WLAN settings.
- iOS clients are unable to access WeChat WLANs due to the Apple CNA feature. [ZF-19362]

  Workaround: Enable "Bypass Apple CNA Feature" in WLAN settings.
- Android clients fail to be redirected when accessing a Google Media login WLAN using the default Android browser or other embedded browsers. [ZF-19352]

- Due to a limitation in the Intel Wi-Fi management software (Intel PROSet Wi-Fi Connection Utility) in Windows 7, Zero-IT profiles are not saved properly when there is more than one Zero-IT profile. [ZF-19299]

  Workaround: Select "Use Windows to Manage Wi-Fi" in the Intel PROSet settings to retain all saved Zero-IT profiles.

- Android devices fail to redirect to to the Zero-IT activation login portal when using Chrome v67. [ZF-19360]

  Workaround: Import a trusted SSL certificate to ZoneDirector.

- Microsoft Social Media login WLAN users are redirected back to the login page after authenticating to a Microsoft WLAN using Chrome browser v67+. [ZF-19267]

  Workaround: Import a trusted SSL certificate to ZoneDirector.

- Client Fingerprinting fails to properly identify the OS type for clients including Bose wireless speakers and Nest cameras. [ZF-19481]
- Apple Macbook clients fail to download the Zero-IT profile due to an Apple CNA issue. [ZF-19504]
- Host name is not properly displayed in client fingerprinting for Nokia Android 8.1 devices. [ZF-19471]
- User can not download Zero-IT profile for some Android clients via automatic browser redirection using the Onboarding Portal. [ZF-19664]
- Latest version iOS clients can not successfully download the Zero-IT profile via mini-browser. [ZF-19049]

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

OS	WPA2 WLAN			802.1x EAP (external Radius Server)		
	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)
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)

TABLE 1 Zero-IT Compatibility (continued)

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]