Ruckus Wireless™ ZoneDirector™ Version 9.9

Release Notes

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About This Release

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Introduction

This document provides release information on ZoneDirector release 9.9, including new features, enhancements, known issues, caveats, workarounds, upgrade details and interoperability information for version 9.9.

NOTE: Beginning with this release, the *ZoneFlex Release Notes* (which previously included ZoneDirector, FlexMaster and ZoneFlex Access Points) are now divided into three separate Release Notes documents. This document covers ZoneDirector only. For FlexMaster and Access Point release information, please refer to their respective separate *Release Notes* documents.

NOTE: By downloading this software and subsequently upgrading the ZoneDirector and/or the AP to version 9.9, 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 Country Codes

Refer to the Ruckus Wireless Price List for available country certifications.

What's New in This Release

For a additional information on the new features that have been added in this release, see the *What's New in ZoneFlex 9.9* document, available from the Ruckus Wireless support website. Please refer to Release Notes for prior releases for information on previously documented caveats, limitations, enhancements and resolved issues. These documents can be found at: https://support.ruckuswireless.com/.

Supported Platforms and Upgrade Information

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Supported Platforms

ZoneDirector version **9.9.0.0.216** supports the following ZoneDirector models:

- ZoneDirector 1100
- ZoneDirector 1200
- ZoneDirector 3000
- ZoneDirector 5000

Access Points

ZoneDirector version **9.9.0.0.216** supports the following Access Point models:

- R300
- R500
- R600
- R700
- SC8800-S
- SC8800-S-AC
- T300
- T300e
- T301n
- T301s
- ZF7025
- ZF7055
- ZF7321
- ZF7341
- ZF7343
- ZF7352
- ZF7363

- ZF7372
- ZF7372-E
- ZF7441
- ZF7761-CM
- ZF7762
- ZF7762-AC
- ZF7762-S
- ZF7762-S-AC
- ZF7762-T
- ZF7781CM
- ZF7782
- ZF7782-E
- ZF7782-N
- ZF7782-S
- ZF7982

NOTE: ZoneFlex 7321-U, 7351 and 7962 APs are no longer supported as of this release, and cannot be upgraded to ZoneFlex version 9.9. ZoneFlex 7025 is no longer supported by the ZoneDirector 1100 controller. If you are using a ZoneDirector 1100 with ZoneFlex 7025 APs, please do not upgrade to 9.9.

Upgrading to This Version

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

Officially Supported 9.9 Upgrade Paths

The following ZoneDirector builds can be directly upgraded to ZoneDirector build 9.9.0.0.216:

- 9.7.0.0.220 (9.7 GA)
- 9.7.1.0.32 (9.7 MR 1)
- 9.7.2.0.9 (9.7 MR 2)
- 9.8.0.0.373 (9.8 GA)
- 9.8.1.0.99/101 (9.8 MR 1)
- 9.8.2.0.15 (9.8 MR 2)
- 9.9.0.0.205 (9.9 GA)
- 9.9.0.0.212 (9.9 GA refresh 1)

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

ZoneDirector 1100 Upgrade with Smart Redundancy

There is a known issue with upgrading two ZoneDirector 1100 controllers from 9.8 to the 9.9 build with Smart Redundancy enabled:

- Upgrade may fail if multiple web browser windows are open while upgrading.
- Upgrade may fail if memory usage is high.

To avoid this issue, use the following workarounds:

1. If Smart Redundancy is enabled, please make sure to disable it before upgrading.
2. Please make sure only one browser window is open while upgrading. (Supported web browsers: IE and Firefox).
3. Follow the prompt messages to upgrade ZD 1100.
4. After upgrading successfully, repeat these steps to upgrade the peer ZD 1100, and then enable Smart Redundancy if needed.

Enhancements and Resolved Issues

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

Enhancements

New ZoneDirector Model: ZoneDirector 1200

The ZoneDirector 1200 is a new enterprise-class WLAN controller for SMB markets that provides enhanced performance and scalability compared to the existing ZoneDirector 1100 model. The ZoneDirector 1200 is simple to install, configure and manage. Based on a dual-core Intel Atom processor and 2 GB RAM, the ZoneDirector 1200 supports up to 75 APs, 2,000 concurrent clients and 2,000 WLANs. It includes dual Gigabit Ethernet ports and an external power adapter in a similar fanless desktop form factor as the ZoneDirector 1100.

The following table summarizes the differences between ZoneDirector 1100 and the new ZoneDirector 1200:

Table 1. ZoneDirector 1100 vs. ZoneDirector 1200 comparison

Capacity	ZoneDirector 1100	ZoneDirector 1200
Max connected APs	50	75
Max AP records	300	450
Max AP images	20	200
Max associated clients	1,250	2,000
Max client records	2,500	4,000
Max WLANs	128	256
Max WLAN groups	128	256
Max AP groups	32	64
Max log entries	10,000	50,000

New AP Model Support: T300e

Version 9.9 provides support for a new outdoor 802.11ac AP. The T300e extends the T300 series outdoor dual-band 802.11ac product line with an external antenna option.

Secure Active Directory and LDAP Encryption

This feature provides TLS encryption for transmitting communications between the AD/LDAP client and server over insecure networks such as the Internet.

RADIUS over TLS (RadSec)

Allows RADIUS authentication and accounting data to be passed safely across insecure networks such as the Internet.

Ethernet Port Tunneling between AP and ZD

With this option enabled, traffic between Ethernet-connected AP clients can now be tunneled to ZoneDirector instead of bridged locally. Use cases include PoS (point of sales) clients and hotel room applications.

MCS Value and Data Rate per Client

ZoneDirector's Client Monitoring pages now provide additional information on wireless client connection status. MCS values and Data Rates are displayed on the individual client monitoring page, providing a convenient real-time view of the client's current connection status.

VLAN Pooling

Provides VLAN pools so that SSIDs with hundreds of clients can segment clients into separate VLANs, reducing performance degradation due to factors like broadcasts in a large subnet.

Smart Redundancy License Pools

With this release, two Smart Redundancy ZoneDirectors can share a pool of AP licenses so that two controllers with different license levels can be used in a Smart Redundancy configuration.

Support Entitlement

In ZoneFlex release 9.8, a notification service was implemented in ZoneDirector to verify if a support contract has been purchased for an individual ZoneDirector. The ZoneDirector will remotely connect to a Ruckus Entitlement Server and retrieve an "entitlement file" from Ruckus that provides current active/expired status of the ZoneDirector Support Contract. If the support entitlement is not found or expired a warning message will be presented to the user with instructions on how to resolve the issue.

In ZoneFlex release 9.9, this feature has been expanded such that if the support entitlement is not found or expired, ZD cannot be upgraded to either minor or major release. The on screen message provides instructions on how to obtain a support entitlement file to resolve this issue.

HTTPS Redirection Support

Allows end users to be easily redirected to the login page regardless if the request is an HTTP or HTTPS request. Applies to Web Auth, Guest Access and WISPr Hotspot WLANs.

SPoT (Location Based Services) Enhancements

Improves SPoT venue administration from the ZoneDirector web interface.

AP Over the Air Provisioning

Allows AP provisioning over the air. Uninitialized APs (in factory default state) will broadcast a “config-wlan” that can be used to provision the AP over the air using the SWIPE mobile app for AP provisioning for SCG control. Future apps will be developed for OTA provisioning of standalone and ZoneDirector-managed APs.

Reduced AP Image Size

Beginning in 2015, ZoneFlex AP SKUs with ordering number prefix 901- are now supplied with AP base image release 100.0 and later to support discovery with all Ruckus Wireless ZD, SCG, vSCG, and SZ controllers. Once an AP base image discovers and connects to the specific controller, the AP firmware is updated to a controller-compatible image to ensure simple reliable operations and to reduce AP image sizes for ZoneDirector-Managed APs. APs purchased for standalone operation will not include features that are only relevant to ZoneDirector-controlled operation (such as Smart Mesh), and APs purchased for ZoneDirector control will not include standalone features (such as router mode).

Beginning with this release, each AP firmware image is available in one of three image types:

- ZoneDirector managed AP image (for example, release 9.9)
- Standalone AP image (for example, release 100.0)
- SCG managed AP image (for example, realease 3.0)

Note that standalone APs can still be upgraded to ZoneDirector-controlled or SCG-controlled firmware by simply allowing them to discover a ZoneDirector or SCG on the network, after which the AP will automatically upgrade its firmware to the relevant controller-based AP firmware. However, once an AP has controller firmware installed, a factory reset will not revert the AP to standalone mode. Only upgrading to a standalone AP firmware and then performing a factory reset will revert the AP to standalone mode.

Mobile Friendly DPSK

Admins can now configure Dynamic PSKs to use a limited character set for ease of entry on mobile device keyboards.

LLDP

The Link Layer Discovery Protocol (LLDP) is a vendor-neutral Layer 2 protocol that allows a network device to advertise its identity and capabilities on the local network. This option is disabled by default. When enabled, the default transmit interval is set to 30 seconds. LLDP packets contain device identification information including Chassis ID, Port ID, Time to Live, System Name, System Description, System Capabilities and Port Description TLV (type/length/value) fields.

Application Recognition and Control Enhancements

This release provides enhancements to the Application Recognition and Control features introduced in 9.8. Enhancements include a new Top 10 clients by usage page (from the Wireless Clients page), applications to clients mapping (when hovering over a section of the Applications pie charts), top 10 clients pie chart, top 10 applications pie chart, top 10 SSIDs pie chart, top 10 APs table, etc.

Addition of CUID to DHCP Opt82 Sub-Options

This release adds support for the Chargeable User Identity (CUID) option in DHCP Option 82 sub-option 2.The CUID option allows Hotspot 2.0 operators to uniquely identify client devices that are using EAP-SIM and requesting IP addresses from a DHCP server.

SmartRoam+

SmartRoam improves roaming for iOS clients in high density environments by addressing the “sticky client” issue where iOS clients tend to remain connected to the AP they originally connected to even when there are better choices. This release improves on the SmartRoam feature introduced in ZoneFlex version 9.7, by adding implementations of the 802.11k and 802.11r specifications.

If the user moves far away from the initially connected AP, the AP will send a BSS Transmission message (part of 802.11v) to the client device. This triggers the client device to start the scanning process to find an AP that can provide better service. The client device scans the environment using the filtered AP neighbor list (part of 802.11k) provided by the original AP. The client device remains connected to the original AP while it is scanning the environment. After the client device chooses a specific AP to connect to, it uses 802.11r for faster transition by re-using previously-established 802.1x security keys.

Login Warning Message

Added the ability for admins to enable and customize a popup warning message that appears whenever a user logs into the ZoneDirector web UI or CLI.

Additional Country Code Support

Country code support for the following countries has been added in this release: Albania, Algeria, Armenia, Azerbaijan, Bangladesh, Belarus, Belize, Bolivia, Bosnia Herzegovina, Brunei Darussalam, Costa Rica, Dominican Republic, El Salvador, France_Res, Georgia, Guatemala, Honduras, Iran, Jamaica, Kazakhstan, North Korea, Korea Republic, Korea Republic2, Korea Republic3, Kuwait, Libya, Liechtenstein, Macau, Macedonia, Malta, Monaco, Morocco, Myanmar, Nepal, Netherlands-Antilles, Oman, Papua New Guinea, Panama, Paraguay, Peru, Puerto Rico, Syria, Trinidad & Tobago, Tunisia, Ukraine, United States (Public Safety), Uzbekistan, Venezuela, Yemen.

Please refer to the Ruckus Wireless Price List for available country certifications.

Resolved Issues

- Resolved an issue where HTTP and HTTPS redirection did not work for hotspot, guest, and captive portal users. Users saw either an empty page or a 404 Not Found error. This was caused by an internal issue related to the Smart Redundancy licensing feature, which was introduced in release 9.9. (ER-2050)
- Resolved an issue with FlexMaster number of AP licenses failing to sync properly due to the new Smart Redundancy license pooling feature in ZD 9.9. FM will now retrieve the on-box license number from the active ZD to match the number of AP licenses in FM. (ER-2080)
- Background Scanning is now enabled on the 5 GHz radio for all 802.11ac APs. Additionally, the following features that rely on Background Scanning are now also enabled on the 5 GHz radio:
  - WIDS/WIPS (Rogue detection on channels other than the service channel on the 5 GHz radio)
  - 802.11k
  - Channel Selection using Background Scanning
  - Neighbor List in AP monitoring pages

Resolved Issues between build 212 and 216

- Resolved an issue with Event-Timestamp missing in accounting-start messages. (ER-816)
- Resolved an issue that could cause ZoneDirector's ARP table to become filled when Web Auth is used. (ER-2106, ER-2146, ER-2137)
- Resolved an issue that could cause SCI to be unable to properly connect to a standalone ZD 9.9 when the "Banner" feature is enabled. (ER-2001)
- Resolved an issue that could cause ZoneDirector to hang for about an hour and cause complete network outage. (ID ER-1726)
- Resolved an issued that could result in different SNR values displayed between 7762 and 7982 APs on the 2.4 GHz radio. (ER-1801)
- Resolved an issue with R700 APs where some clients were unable to receive an IP address after repeated attempts. (ER-1966)
- Resolved an issue with R700 APs and ZD 1100 controllers where deleting a WLAN could cause connected users on other functional WLANs to be disconnected. (ER-1982)

Caveats, Limitations, and Known Issues

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

Ethernet Port Settings

ZoneDirector 1100 and ZoneFlex AP Ethernet ports can become disabled if half-duplex is forced on any port. (ID ER-1208, ER-1229)

This problem affects the following:

- ZoneDirector: ZD 1100
- APs: ZoneFlex 7341, 7343, 7363, 7761, and 7762

Workaround: Uplink switch ports must be set to 100Mbps auto-negotiation or 1000Mbps auto-negotiation.

Web Interface

- ZoneDirector release 9.9 supports the following Web browsers:
  - Firefox 31 and later
  - Internet Explorer 10, 11
  - Chrome 36 and later

SPoT Location Services

- If the venue FQDN information is entered incorrectly for the first SPoT venue, SPoT location services cannot be started for other venues. Workaround: Ensure that all SPoT Venue information is entered correctly. (ZF-9474)

IPv6

- ZoneDirector-controlled APs may fail to send DHCPv6 discovery messages after rejoining ZoneDirector, which could result in multiple APs being assigned the same IPv6 address. (ZF-9540)

VLAN Pooling

- VLAN Pooling is not supported for Hotspot 2.0 WLANs. (ZF-9431)

CLI

- Removing WLANs from a WLAN Group does not properly remove them from the 'wlanlist' as displayed in the CLI. (ZF-9466)

Client Isolation

- The Client Isolation IP spoof guard function does not properly drop all packets in certain scenarios. When isolated clients already have each other's IP addresses from ARP resolution and Client Isolation is enabled afterwards, they may still be able to communicate. (ZF-9516)

Spectrum Analysis

- Operator Admin roles are unable to use the Spectrum Analysis tool in the web UI but are allowed to do so using the ZD Remote iPad app. (ZF-9488)

Bonjour Gateway

- The number of ZoneDirector-site Bonjour Gateway rules that you can create can have a negative impact on memory and CPU resources, and has therefore been limited by model in this release. (ZF-9729, ZF-10280)
- Maximum Bonjour Gateway rules:
  - ZoneDirector 1100 (without Smart Redundancy): 64
  - ZoneDirector 1100 (with Smart Redundancy): 32
  - ZoneDirector 1200/3000/5000: 256
- If a user has created more than the max number of Bonjour Gateway rules in a previous release, all existing rules will be kept after upgrading to 9.9. Users can edit and delete the existing rules, but are not allowed to create new rules until the total number is lower than these maximums.

Guest Access

- Guest Access Restricted Subnet Access rules may become corrupt after upgrading from 9.7.1 to 9.9 when in dual-stack IPv4/IPv6 mode. (ZF-9938)

IPv6

- Under certain conditions, APs may fail to send a new DHCPv6 request message after reconnecting to a switch, which could result in two APs being assigned the same IPv6 address. (ZF-9540)

R500, R600, R700 and T300 Series APs

The following features are not included in this release:

- Airtime Fairness on 5 GHz radio
- Smart Mesh
- Spectrum Analysis on 5 GHz radio
- WLAN prioritization on 5 GHz radio
- Packet Capture on 5 GHz radio

General

- Mesh Mode displayed on the Currently Managed APs table differs from the output when exporting an AP list to a CSV file. (ID ZF-8163)
- Clients connected to AP Ethernet ports without 802.1X enabled are not displayed in wired client list. (ZF-9154)
- If DPSK and Role Based Access Controls are enabled for a WLAN, some clients may request an IP address twice on the first connection. (ZF-9695)
- Web interface uses English when "Danish" language is chosen. (ZF-9801)
- Hotspot clients may fail to be redirected to the user's intended URL after successful authentication in certain conditions. (ZF-9961)
- After upgrading from 9.7 to 9.9, some WLANs may become un-editable if Device Access Policy is enabled. (ZF-9971)
- The Shared Number of Generated Guest Passes may be displayed incorrectly after upgrading from a previous version. (ZF-8480)
- OurFi functionality is disabled due to new OurFi framework. (ZF-10393).

- The ZoneDirector web interface may be inaccessible using Safari browser when ZoneDirector is using IPv6 addressing. (ZF-5261)
- Clients may be unable to complete Guest Pass authentication after changing the management IP address. Workaround: Restart ZoneDirector after changing the management interface configuration. (ZF-10391)
- Chrome browser fails to redirect to the web authentication page to login for WISPr and Guest Access profiles for some specific websites. (ZF-10401)
- Updating the web portal logo on one Smart Redundancy ZoneDirector does not automatically update the peer ZoneDirector's web portal logo. (ZF-10377)
- SpeedFlex may fail to display the Downlink results after an AP SpeedFlex test. (ZF-10383)
- Creating an 802.1X EAP WLAN with encryption type "None" may cause some clients to be unable to connect. (ZF-10817)
- Disabling BTM (BSS transition management) on a WLAN is not persistent after AP reboots. (ZF-9633, ZF-10259)
- To improve the stability and performance of older AP models, Ruckus Wireless recommends limiting the maximum number of WLANs per AP radio of these APs to 16 WLANs.

  Ruckus Wireless also recommends limiting the maximum number of wireless clients associated with the APs listed below to 100 clients:

  - ZF7025
  - ZF7321
  - ZF7441
  - ZF7762, ZF7762-S, ZF7762-N, ZF7762-T, ZF7762-AC, ZF-7762-S-AC
  - ZF7761CM
  - ZF7962
  - ZF7362, ZF7343, ZF7341

Interoperability Information 5

ZoneDirector Controller and RuckOS Controller Interoperability

To ensure reliable network operations, it is recommended that ZoneDirector controllers and RuckOS controllers (SCG, vSCG, SZ, SAMs controllers) not be deployed on the same IP subnet or in such a way as the controllers share the same DHCP address scopes and domain name servers (DNS) as there may be limitations or restrictions in AP controller discovery capabilities. An effective network segmentation strategy should be developed when ZoneDirector and RuckOS controllers coexist in the same network.

Redeploying ZoneFlex APs with RuckOS Controllers

Note that a supported ZoneFlex AP configured to operate with ZoneDirector will require an upgrade to a compatible RuckOS controller approved software release prior to interoperating with a SmartCell Gateway, vSCG, SmartZone or SAMs controller. Once the AP firmware is updated, the AP will no longer be able to communicate with its old ZoneDirector controller. The AP must be reset to factory-default setting before attempting to configure the AP from the RuckOS controller.

NOTE: There are established ZoneDirector to RuckOS controller migration tools and procedures. Contact support.ruckuswireless.com for the latest available procedures and utilities.

ZoneFlex Release 9.9 and AP Standalone Mode and FlexMaster Managed Mode Operation

Starting January 1, 2015 the default image that ships from the factory on Ruckus access points (APs) will change from ZoneFlex Release 9.8.x to ZoneFlex Base Image Release 100.0.x. Most customers will not notice any difference in AP operation. The APs will continue to support standalone mode and FlexMaster managed mode operations and will automatically discover and connect to ZoneDirector or RuckOS controllers.

Beginning in ZoneFlex Release 9.9 and higher, the AP has a new behavior: once an AP connects to a controller the AP will no longer support standalone mode and FlexMaster managed mode operation after the controller completes the necessary AP firmware update during initialization.

An AP removed from a controller managed network may be restored to operate in standalone mode and FlexMaster managed mode operation by updating the AP firmware back to ZoneFlex Base Image Release 100.0.x or to a ZoneFlex-AP Release 9.8.x or lower.

These software images are available on the Ruckus support site, see support.ruckuswireless.com for more information.

AP Interoperability

APs with ordering number prefix 901- (example 901-T300-WW81), may now be supplied with an AP base image release 100.0. or higher.

The AP base image is optimized for controller-discovery compatibility to support all Ruckus Wireless controller products including ZoneDirector, SCG, vSCG, SmartZone and SAMS.

Once the AP discovers and joins a controller (for example ZoneDirector), the AP is updated to the compatible controller-specific AP firmware version. The updated AP firmware version becomes the factory-default image. The updated AP firmware version (for example ZoneFlex 9.9) will remain persistent on the AP after reset to factory defaults.

An AP configured with base image release 100.0 may be managed by the FlexMaster management tool or may be used in standalone controller-less operation if controller discovery is disabled on the AP web UI.

Client Interoperability

ZoneDirector and ZoneFlex APs use standard protocols to interoperate with third-party Wi-Fi devices. Ruckus Wireless 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
- Mac OS 10.8.3
- Mac OS 10.8.5
- Mac OS 10.9.3
- Mac OS 10.9.4

Smart Phone/Tablet OS:

- iOS (5.x, 6.x, 7.x, 8.0, 8.1)
- Android (4.0.3, 4.1.2, 4.2.2, 4.3, 4.4, 4.4.2, 4.4.4)
- Windows Phone 7.5, 8, 8.1
- BlackBerry OS 10.1.0.4633
- Kindle (7.4.2)

Officially Supported Browsers:

- Internet Explorer 10, 11
- Firefox 31 and later
- Chrome 36 and later

Not Officially Supported Browsers:

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

Zero-IT Compatibility with Client Devices

Table 2. 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 7.0.3	Y	Y	N(ZF-2888)	Y	Y	N(ZF-2888)
IOS 8.0	Y	Y	N(ZF-2888)	Y	Y	N(ZF-2888)
IOS 6.1.3	Y	Y	N(ZF-2888)	Y	Y	N(ZF-2888)
IOS 8.1	Y	Y	N(ZF-2888)	Y	Y	N(ZF-2888)
IOS 7.1	Y	Y	N(ZF-2888)	Y	Y	N(ZF-2888)
IOS 7.0.4	Y	Y	N(ZF-2888)	Y	Y	N(ZF-2888)
IOS 7.1.2	Y	Y	N(ZF-2888)	Y	Y	N(ZF-2888)
IOS 7.0	Y	Y	N(ZF-2888)	Y	Y	N(ZF-2888)
IOS 6.1.3	Y	Y	N(ZF-2888)	Y	Y	N(ZF-2888)
Mac OS 10.9.5	Y	Y	Y	Y	Y	N(ZF-4699)
Mac OS 10.10.1	Y	Y	Y	Y	Y	N(ZF-4699)
MAC OS 10.8.5	Y	Y	Y	Y	Y	N(ZF-4699)
MAC OS 10.9.4	Y	Y	Y	Y	Y	N(ZF-4699)
Mac OS 10.9.3	Y	Y	Y	Y	Y	N(ZF-4699)
Windows 8.1	Y	Y	Y	Y	Y	Y
Windows 7	Y	Y	Y	Y	Y	Y
Windows 8	Y	Y	Y	Y	Y	Y
Windows Phone 7.5	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)
Windows Phone 8	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)	N (ZF-3478)
BlackBerry OS 10	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)	N (ZF-6402)
Kindle 7.4.2	Y	Y	Y	Y	Y	Y
Android 4.2.2	Y	Y	Y	Y	Y	Y
Android 4.4.2	Y	Y	Y	Y	Y	Y
Android 4.3	Y	Y	Y	Y	Y	Y
Android 4.0.3	Y	Y	Y	Y	Y	Y

Table 2. Zero-IT Compatibility

	WPA2 WLAN			802.1x EAP (external Radius Server)		
Android 4.1.2	Y	Y	Y	Y	Y	Y
Android 4.4	Y	Y	Y	Y	Y	Y
Android 4.4.4	Y	Y	Y	Y	Y	Y
Chrome	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 Issues

- iOS clients not connecting to Zero-IT WLAN automatically. (ZF-2888)
- No Zero-IT support for Windows phone 8. (ZF-3478)
- Zero-IT Configuration Wizard is not able to install in Blackberry Z10 device. (ZF-6402)
- Mac OS 10.7 and 10.8 cannot automatically connect to 802.1x EAP WLAN after installing Zero-IT script. (ZF-4699)
- Zero-IT app is not working on Chrome book as prov.exe file type is not supported. (ZF-8076)
- Safari browser on iPhone 5, 5s, iPad2 (iOS 7, iOS 8) not redirecting to user's intended page after successful authentication (ZF-10177)

  Workaround: Clear cookies (Safari > Reset Safari), or try another browser.
- Mac OS 10.8.5 clients may be unable to connect to a WPA2-PSK WLAN when 802.11r is enabled. (ZF-10290)

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