

# *Ruckus Wireless ZoneFlex 9.4 (FlexMaster, ZoneDirector and ZoneFlex Access Points) Release Notes*

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## **1 Introduction**

Ruckus Wireless ZoneDirector is a WLAN access point controller that is capable of operating at both Layer 2 and Layer 3. ZoneDirector 1100 supports up to 50 ZoneFlex access points (APs) and is developed specifically for small-to-medium enterprises (SMEs) and hotzone operators. ZoneDirector 3000 supports up to 500 ZoneFlex APs and is intended for larger enterprise environments.

ZoneDirector 5000 is a highly scalable controller platform designed for carrier-class and large enterprise deployments. It supports up to 1,000 ZoneFlex APs and up to 20,000 concurrent client connections.

FlexMaster is a centralized management system that can manage ZoneDirector devices, as well as standalone ZoneFlex APs and Bridges, on a global scale.

This document provides release information on FlexMaster, ZoneDirector, supported ZoneFlex platforms, known issues, caveats, workarounds, upgrades, and interoperability information for version 9.4.

## **2 What's New in This Release**

For a list of features that have been added in this release, visit:

<http://support.ruckuswireless.com/documents>

Please refer to Release Notes for prior releases for information on previously documented caveats, limitations, enhancements and resolved issues. Previous Release Notes can also be found at:

<http://support.ruckuswireless.com/documents>

### **3 Supported Platforms**

Release 9.4 supports the following platforms:

- FlexMaster 9.4.0.0.17 supports the ZoneDirector and ZoneFlex AP models listed below. FlexMaster also supports the MediaFlex product line (not included in Release 9.4).
- ZoneDirector 1100 version 9.4.0.0.110
- ZoneDirector 3000 version 9.4.0.0.110
- ZoneDirector 5000 version 9.4.0.0.110
- ZoneFlex 2741 802.11g Outdoor Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 2942 802.11g Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7025 802.11n Wired/Wireless Wall Switch build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7321 802.11n Smart Wi-Fi Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7341 2.4GHz 802.11n Smart Wi-Fi Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7343 2.4GHz 802.11n Smart Wi-Fi Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7363 Dual Band 802.11n Smart Wi-Fi Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7761-CM Dual Band 802.11n Outdoor Access Point with integrated Cable Modem build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7762 Dual-band 802.11n Outdoor Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7762-S Dual-band 802.11n Outdoor Access Point with Sector Antenna build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7762-T Dual-band 802.11n Outdoor Access Point with Omni Antenna build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7762-AC Dual-band 802.11n Outdoor Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7762-S-AC Dual-band 802.11n Outdoor Access Point with Sector Antenna build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7942 802.11n Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7962 Dual-band 802.11n Access Point build 9.4.0.0.110 (both main and backup)
- ZoneFlex 7982 Dual-band 802.11n Access Point build 9.4.0.0.110 (both main and backup)

## 4 Upgrading to This Version

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

### 4.1 ZoneDirector

**Note:** ZoneDirector 1100 cannot be upgraded from 9.1.1/9.1.2/9.1.11 (China version) to 9.4 directly. ZD1100 must first be upgraded to version 9.3 or later before upgrading to 9.4. (ID 24873, 24881, 25408, 25415, 25224, 25261, 26086)

#### 4.1.1 Official 9.4 upgrade path:

9.1.2.0.8 to 9.4.0.0.110 (exception: ZD1100; see note above)

9.11.0.0.38 to 9.4.0.0.110

9.3.0.0.87 to 9.4.0.0.110

9.3.1.0.30 to 9.4.0.0.110

9.3.2.0.3 to 9.4.0.0.110

If you are running an earlier version (including 9.1.0), you must first upgrade to 9.3 before attempting to upgrade to 9.4.

#### 4.1.2 Upgrade/downgrade from 9.3.0.5 to 9.4 is not supported.

#### 4.1.3 After upgrading to ZoneDirector version 9.4, clear the Web browser cache. This will ensure that the ZoneDirector Web interface shows all the changes and enhancements that were implemented in version 9.4.

#### 4.1.4 For ZoneDirector and ZoneDirector-managed APs running version 9.1.2 and earlier, once upgraded to 9.4, both should be in IPv4-only mode.

For APs running 9.3, they should be in dual-stack IPv4/IPv6 mode if in factory default state.

For ZoneDirector running 9.3, the Setup Wizard allows the user to select the IP mode if in factory default state.

### Upgrading with Chrome Browser

#### 4.1.5 ZoneDirector may fail to upgrade if the user clicks the “Choose File” button more than once using Google Chrome browser. (ID 26261)

Workaround: Use Firefox to upgrade to 9.4, or do not click the Choose File button more than once.

### Downgrading with Smart Redundancy

#### 4.1.6 APs may be unable to find ZoneDirector after downgrading from 9.4 to 9.3 if the APs are set to IPv6-only mode, ZoneDirectors are set to dual-stack IPv4/v6 and two ZoneDirectors are deployed in a Smart Redundancy configuration. (ID 25586)

Workaround: Set APs to dual-stack mode before performing the downgrade.

## **4.2 ZoneFlex Access Points**

- 4.2.1 Standalone ZoneFlex 2741, 2942, 7025, 7341, 7343, 7363, 7762, 7762-S, 7762-T, 7761-CM, 7762-AC, 7762-S-AC, 7942 and 7962 units running on version 9.3 and later can be upgraded to this version.
- 4.2.2 ZoneFlex 7321 and 7982 are not compatible with any version earlier than 9.4.

## **4.3 Changed Behavior**

Starting from 9.4, APs and ZoneDirectors will always communicate through Layer 3 (IP) tunnels and no longer through Layer 2 tunnels. Access Points must have routable IP addresses configured or assigned via DHCP for proper communication with ZoneDirector, software upgrades and feature operation.

## 5 Enhancements and Resolved Issues in This Release

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

### 5.1 FlexMaster

#### Enhancements

- 5.1.1 FTP report delivery
- 5.1.2 Automated report data export
- 5.1.3 Alarm management
- 5.1.4 SSID-based statistics, reports and graphs

### 5.2 ZoneDirector

#### Enhancements

- 5.2.1 New AP model support

Release 9.4 supports two new indoor Access Points: the ZoneFlex 7321 single band 802.11n Access Point and the 7982 dual band 802.11n Access Point.

<http://www.ruckuswireless.com/products/zoneflex-indoor>

- 5.2.2 Dynamic per-user rate limiting for 802.1X WLANs

Per-user rate limiting can now be enabled on WLANs that use 802.1X authentication. Administrators can control the upstream and downstream bandwidth rates on a user-by-user basis. When a user authenticates to the wireless network, if individual rate limits are defined in RADIUS, ZoneFlex APs will apply those limits to the specific user to control their upstream and downstream bandwidth. Along with per-WLAN rate limiting, dynamic, per-user rate limiting provides the network operator with more options to control network usage.

The following WLAN types can be configured with per-user rate limiting based on RADIUS attributes:

- 802.1X
- MAC Auth
- 802.1X+MAC Auth
- Web Auth
- WISPr Hotspot

- 5.2.3 Open/Secure DPSK for public users (Northbound Interface for Web Portal)

The Dynamic Pre-Shared Key feature can now be used with Open WLANs to enable security for public users. Previously, users needed to have a valid user account and needed to authenticate to the network in order to generate a DPSK. With this release, users need not authenticate to the network to acquire a DPSK.

Ruckus Zero-IT activation simplifies device provisioning by automatically configuring the wireless client with the dynamic key and other important wireless parameters. This simplified



client provisioning can now be used with Open WLANs (in addition to other WLAN types that do require authentication).

#### 5.2.4 RADIUS Class Attribute

ZoneDirector now recognizes “Class” attributes in RADIUS Access-Accept packets and will send them unmodified to the accounting server as part of the Accounting-Request packet if accounting is supported. This feature enhances accounting support for Hotspot and Web Auth WLANs.

#### 5.2.5 WIPS - Rogue Prevention

The Wireless Intrusion Prevention System protects wireless networks from rogue Access Points, SSID spoofing and MAC spoofing, and provides a simple interface for enabling rogue device prevention.

#### 5.2.6 WISPr Reply-Message Redirection

Hotspot WLANs can now be configured to provide a number of customizable reply messages upon authentication failure, in addition to redirecting the client to the login URL.

#### 5.2.7 SNMP enhancements

New SNMP enhancements allow admins to perform more extensive SNMP activities without impacting ZoneDirector CPU utilization.

#### 5.2.8 Client Fingerprinting (Obtaining station OS and Hostname via DHCP)

ZoneDirector can now attempt to retrieve client operating system and host name from DHCP if available, and display those values for easy device identification in the ZoneDirector Web interface. The “Enable Client Fingerprinting” check box (enabled by default) can be used to instruct ZoneDirector to replace MAC addresses with client host names when possible, and display OS and host name in client tables and reports, making client troubleshooting and identification easier.

#### 5.2.9 LWAPP Discovery Optimization

This enhancement improves the way in which APs discover ZoneDirector via L2 or L3 networks, simplifies troubleshooting of APs servicing tunnel mode WLANs, and improves discovery when IPv6 auto configuration is used. With this enhancement, APs will now attempt to discover ZoneDirector in the following order:

1. Pre-configuration
2. IPv4 sub-broadcast / IPv6 multicast
3. Last joined ZD
4. DHCP Option 43
5. DNS

Starting from version 9.4, APs and ZoneDirectors will always communicate through Layer 3 (IP) tunnels and no longer through Layer 2 tunnels. Access Points must have routable IP addresses configured or assigned via DHCP for proper communication with ZoneDirector, software upgrades and feature operation.

#### 5.2.10 Roaming, PMK Caching, Accounting Enhancements

New ZoneDirector CLI commands enable configuration of NAS-ID, PMK cache and accounting-interim-update messages for RADIUS accounting.

#### 5.2.11 Additional SNMP MIBs

Additional SNMP MIBs are available.

## **5.3 ZoneFlex Access Points**

### **Enhancements**

#### **5.3.1 New AP model support:**

Release 9.4 supports two new indoor Access Points: the ZoneFlex 7321 single band 802.11n Access Point and the 7982 dual band 802.11n Access Point.

#### **5.3.2 802.1X-based Dynamic VLAN support on standalone APs**

Dynamic VLAN assignment based on RADIUS attributes can now be used on standalone APs with 802.1X authentication WLANs. Different user types can associate to the same SSID, but they will be separated into different VLANs. When a user authenticates to a ZoneFlex standalone AP using 802.1X authentication, if RADIUS returns an individual VLAN ID for the user, the AP will assign the user to that VLAN, overriding the VLAN associated with the WLAN, if any.

#### **5.3.3 DFS support for new outdoor APs**

ZoneFlex 7762, 7762-S, 7762-AC and 7762-S-AC Access Points now support Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS) in the 5GHz bands in accordance with FCC CFR47 Part 15.407 section 15E, which mandate these operations when operating in the UNII bands 5250 to 5350 MHz and 5470 to 5725 MHz. DFS support provides additional channels to choose from and operate on.

## 6 Caveats, Limitations and Known Issues

This section lists the caveats, limitations, and known issues for FlexMaster, ZoneDirector and ZoneFlex Access Points in this version.

### 6.1 FlexMaster

#### Installation, Backup and Restore

6.1.1 Ruckus Wireless recommends installing FlexMaster on a Red Hat Enterprise 5.x 64-bit server (required).

6.1.2 Minimum hardware requirements: Core 2 Duo CPU, 8GB RAM.

| Managed Population                  | Min RAM | Min CPU                                                 |
|-------------------------------------|---------|---------------------------------------------------------|
| <b>ZoneDirector-Controlled APs</b>  |         |                                                         |
| Up to 1,000 ZD managed APs          | 8G      | 2.0G Quad core Intel (Xeon E5606 equivalent or above)   |
| Up to 5,000 ZD managed APs          | 16G     | 2.5G Six core (Intel Xeon X5670 equivalent or above)    |
| Up to 10,000 ZD managed APs         | 32G     | 2* 2.5G Six core (Intel Xeon X5670 equivalent or above) |
| <b>Standalone APs: (http/https)</b> |         |                                                         |
| Less than 1,000 standalone APs      | 8G      | 2.5G Six core (Intel Xeon X5670 equivalent or above)    |
| Up to 2,000 standalone APs          | 32G     | 2* 2.5G Six core (Intel Xeon X5670 equivalent or above) |

6.1.3 In order for a CPE device to connect to FlexMaster, the image must be TR069 supported.

6.1.4 New FlexMaster upgrade procedure:

Beginning with this release, FlexMaster upgrade files are delivered in .tar format to improve upgrade process control. The new upgrade script and patch files are contained in this tarball.

Please refer to following steps for the new upgrade procedure:

1. Upload the patch file (e.g. 9.4.0.0.17.patch.tar) to the FM server.
2. Copy the patch file (e.g. 9.4.0.0.17.patch.tar) to the FM folder (e.g. /opt/FlexMaster/):  
`cp 9.4.0.0.17.patch.tar /opt/FlexMaster/`
3. Untar the patch file with following command:  
`tar -vxf 9.4.0.0.17.patch.tar`
4. Make sure the \*.patch (9.4.0.0.17.patch) file has been extract from the tar file and upgrade the FM with following command:  
`./upgrade.sh 9.4.0.0.17`

#### Licenses and License Upgrading

6.1.5 The default installation provides 100 licenses. If the number of licenses is exceeded, a "license exceeded" notification will be displayed on the Dashboard and the License of Administrator section.

6.1.6 ZoneDirector AP licenses consume FlexMaster Server licenses on a one-to-one basis upon successful registration with FlexMaster. For example, a ZD3500 (ZoneDirector 3000 licensed for 500 APs) occupies 500 licenses even if there are not 500 APs managed by ZoneDirector.

6.1.7 If two ZoneDirectors are deployed in a Smart Redundancy configuration and registered with FlexMaster, the standby ZoneDirector will occupy one license. However, the FlexMaster Web UI displays the standby ZD license count as zero.

## **Web Interface**

- 6.1.8 FlexMaster release 9.4 supports the following Web browsers:
- Firefox 3.0 and later
  - Internet Explorer 7 and later
  - Chrome 5.0 and later
- 6.1.9 FlexMaster does not support Internet Explorer 6.0. Some Web interface elements may not display correctly in this browser. Safari browser is also not fully supported with this release.
- 6.1.10 Information displayed in the ZoneDirector Device View of the Dashboard is based on the database which is updated from ZoneDirector and it is the same as the linked report.
- 6.1.11 Graphs displayed on the Dashboard are based on database information received from ZoneDirector and are refreshed once per hour.
- 6.1.12 Device display for ZoneFlex 7341 in Firmware Upgrade section does not display correctly. (ID 21555, 19488)
- 6.1.13 Exporting an AP template AJAX file from the Configure > AP Template page will fail if using Chrome browser. (ID 26426)
- 6.1.14 Client user names do not display correctly in the Client Association report when the client is connected to a Guest Access WLAN. (ID 26485)
- 6.1.15 When a new AP group is created from the ZoneDirector Web interface with no member APs, the new group is not shown immediately in the ZoneDirector Overview. (ID ZF-68)

## **FlexMaster URL**

- 6.1.16 If the FlexMaster URL is configured via DHCP option 43, it will be overwritten if the user activates the FM URL via FM template.

## **User Security**

- 6.1.17 FlexMaster allows multiple login sessions using the same user account simultaneously.
- 6.1.18 Session timeout usually occurs automatically after five minutes of inactivity. The exception is when the Dashboard page is open. There is no session timeout for the Dashboard page.
- 6.1.19 Some FlexMaster Web pages contain AJAX elements that periodically query the server and refresh the page. If the user remains on one of these pages, the HTTP session will not timeout.
- 6.1.20 The session timeout will be disabled whenever the operator turns on the 'Alarm Light' setting.

## **Device View**

- 6.1.21 Any parameters changed via CPE Web interface do not automatically update to FlexMaster in real time. These changes will be updated in the FlexMaster interface when the user clicks on the particular device's "Device View."
- 6.1.22 Ruckus recommends confirming the "Success" message at the top-right of the Status Area after each task before continuing to the next step.
- 6.1.23 VLAN settings in FlexMaster Device View are virtually created before any interface joins.

## **Network Environment**

- 6.1.24 FlexMaster cannot wake up a device through a NAT device using TCP or UDP protocol. The only way to communicate with the CPE is to wait until the next periodic inform interval as configured on the CPE. At that time, the CPE will send out an inform packet to FlexMaster via

HTTP/HTTPS. The minimum periodic inform interval is 1 minute; maximum is 4 weeks.

- 6.1.25 Port forwarding in FlexMaster is designed for users to configure port mapping for different ZoneDirectors when the ZoneDirectors are located behind NAT.

## **SpeedFlex**

- 6.1.26 SpeedFlex is not supported in a NAT topology.
- 6.1.27 SpeedFlex cannot be run on wireless clients associated to standalone APs.
- 6.1.28 Multi-hop SpeedFlex tests are not fully supported. FlexMaster may return inaccurate or incomplete results when a multi-hop SpeedFlex test is run on APs in a mesh. (ID 22105, 21554, 20997)

## **Other Caveats and Limitations**

- 6.1.29 Importing a VeriSign certificate requires restarting the FlexMaster process manually after import.
- 6.1.30 Current FlexMaster release only supports one SMTP server but multiple email addresses.
- 6.1.31 Parameters changed in templates cannot be applied to restart configuration upgrade tasks.
- 6.1.32 Automatic reports scheduled for days that don't exist in a month will be sent out at the end of the month (e.g., if scheduled for 31st of each month, reports will be sent on the last day of the month for months without 31 days).
- 6.1.33 VLAN IDs settings are virtually displayed in Device View before any Ethernet or Wireless interface has joined.
- 6.1.34 Provisioning tasks on ZoneFlex 7731 Wireless Bridge will not complete if the bridge is switched from near-end to far-end without reboot.
- 6.1.35 Using a template to change the SSID or encryption settings on a ZoneFlex 7731 Wireless Bridge will cause a disconnection in the bridge link.
- 6.1.36 The ZoneFlex 7731 provisioning template will fail if the country code and channel width are set using the same template.
- 6.1.37 ZoneDirector backup configuration files cannot be deleted after use in a Configure Task.
- 6.1.38 AP's down time statistics may be incorrect if the AP's inform interval is set to more than 1 hour in a two-tier environment.
- 6.1.39 "# of Child APs" may display incorrect statistics when there are multi-hop APs.
- 6.1.40 "Association - Connected Clients" report may not display client "on/off time" statistics due to system performance limitations.
- 6.1.41 When exporting to an XLS file, the maximum number of rows that FlexMaster supports is 65,536. If the number of rows in an exported file exceeds this limit, excess rows will be deleted from the exported XLS file.
- 6.1.42 Exporting multiple tables to XLS files within a short period of time is not supported. Depending on the size of the XLS file, admins may need to wait several seconds before initiating another export task.
- 6.1.43 FlexMaster supports maximum 1,000 pages in the pull-down menu at once. To show additional pages, click the "next page" icon.
- 6.1.44 The Dashboard "Most Recent Events" table automatically refreshes every 15 seconds. This auto-refresh can be paused by clicking the "10 more records" or "show all" icon.
- 6.1.45 AP Ping Test is disabled by default.

- 6.1.46 When configuring 802.1X settings on a standalone AP via template, users should first configure the 802.1X parameters on both the “VLAN & LAN Port Settings” and the “802.1X Settings” tabs, and apply them to the AP together.
- 6.1.47 When ZoneDirector or standalone APs are connected to FlexMaster via IPv6, the “External IP” indicators will display blank.
- 6.1.48 FlexMaster processes the Capacity/SLA/Troubleshooting report data at the beginning of each hour. If the procedure has not yet been completed, FlexMaster will not be able to display the data (the graph and report will be blank) until the procedure completes. This process may take up to several minutes depending on the number of APs and clients managed.
- 6.1.49 Whenever a deleted ZoneDirector re-registers with FM, some duplicate records are created in table “ap\_statistic” and “hotzone\_associate\_xxx”. (ID 22651)
- 6.1.50 The “Most Recent Events – All Standalone APs” table on the Dashboard does not display the event completely. (ID 22006)
- 6.1.51 Mesh Report incorrectly displays ZoneDirector devices with mesh disabled, as well as those with mesh enabled. (ID 21437)
- 6.1.52 AP Uptime/Downtime statistics will be incorrect when AP disconnects and reconnects multiple times within one hour. (ID 23356)
- 6.1.53 The AP detailed information text box does align properly in Google Maps using IE browser. (ID 21436)
- 6.1.54 When a client connects and disconnects multiple times within one hour, FlexMaster will only count traffic during the last connect session, and all client traffic during the previous session will be lost (ID 22991, 22865)
- 6.1.55 The ZoneFlex 7731 Backhaul Throughput graph displays inconsistent information from that displayed on the 7731's Web interface. (ID 22967)
- 6.1.56 Performing an upgrade procedure from CLI sometimes requires entering the command twice. (ID 23548, 24261, 24625)
- 6.1.57 Graphs exported to PDF may display Tx/Rx statistics inconsistent with what is displayed on the Web interface. (ID 23572)
- 6.1.58 Email alarms are not delivered during ZoneDirector-controlled AP reboot or heartbeat lost. (ID 21549)
- 6.1.59 Client Associate Time report may display 100% uptime for clients connected to ZoneDirector-controlled APs despite some down time during a one hour period. (ID 22953)
- 6.1.60 Audit log messages may be truncated. (ID 21526)
- 6.1.61 Number of associated clients in exported PDF contains an extra decimal place. (ID 21556, 19973)
- 6.1.62 FlexMaster notification area may fail to alert users when number of licenses is exceeded. (ID 21551, 16870)
- 6.1.63 Standalone AP client numbers are inconsistent between the Dashboard ‘Client Association Activity’ graph and ‘Client Association’ report. (ID 24489)
- 6.1.64 FlexMaster retrieves statistics from ZoneDirector on an hourly basis, and may be incorrect if ZoneDirector disconnects from FlexMaster on the hour and then reconnects. (ID 24542, 24468)
- 6.1.65 AP/Client traffic Tx/Rx is incorrect when the ‘display period’ is ‘date range’ or ‘7 days’ (ID 24495)
- 6.1.66 Restarting FlexMaster may cause occasional loss of data in the Connectivity graph. (ID 24231)

- 6.1.67 The dashboard Client OS Information graph only counts clients associated to ZoneDirectors running firmware version 9.4.
- 6.1.68 'Client OS'/'HostName'/'Manufacturer' information is not updated immediately after upgrading to 9.4. It will be updated after the client disconnects and re-associates.
- 6.1.69 FlexMaster reports an error when a user attempts to set the GPS Coordinates via Inventory > Manage ZD Views/Manage AP Views > Set tags. (ID 26272)
- 6.1.70 Enabling the Include Table Header Settings option will cause FlexMaster to fail to send out the Bridge AP's scheduled report. (ID 26248)
- 6.1.71 FlexMaster does not allow users to log in using Internet Explorer 7 via HTTPS. (ID 25939)
- 6.1.72 'AP lost connection' alarms remain uncleared after an AP switches between different ZoneDirectors or changes from ZD-controlled to standalone status. (ID 24888)
- 6.1.73 Restarting a ZoneFlex 7731 wireless bridge may intermittently cause inaccuracies in the Backhaul Link Uptime Report. (ID 24739)
- 6.1.74 Unauthorized clients displayed in the Capacity/SLA/Troubleshooting graphs are not displayed in the table view. (ID 24639)
- 6.1.75 Unauthorized clients are improperly displayed as associated in the SSID associated activity report. (ID 24624)
- 6.1.76 Opening a Map View map in a new window displays incorrectly when using IE9. (ID 26276)
- 6.1.77 Configuring a ZoneFlex 7321 via template does not allow switching the AP between 2.4GHz and 5GHz mode. (ID 26405)  
Workaround: Configure 2.4 or 5GHz mode via Device View instead.

## 6.2 ZoneDirector

### ZoneDirector 1000

Release 9.4 does not support ZoneDirector 1000. ZD1000 has been discontinued as of this release, and is not upgradeable to this version. For more information, refer to the ZD1000 End of Life Notification available from <http://support.ruckuswireless.com/products/32-end-of-life>.

### General

- 6.2.1 Mesh APs may enter sole-run state every few hours when AP and ZoneDirector exchange LWAPP encryption keys. (ID 24119)
- 6.2.2 AP does not send igmp-query when Management VLAN is enabled. (ID 26278)
- 6.2.3 Certain specific Windows Phone 7 smartphones may be unable to associate to an Open WLAN (found on HTC Radar). (ID 25658)
- 6.2.4 ZoneFlex 7363 set to US country code under ZoneDirector control may incorrectly allow use of DFS channels even though "Optimize for Compatibility" is selected. (ID 23806)
- 6.2.5 When Wireless Client Isolation is enabled, clients connected to different WLANs on the same AP, or connected to the same WLAN on different APs may still be able to ping each other. (ID 25180)
- 6.2.6 If ZoneDirector is located behind a NAT device and signed certificates are used with portal authentication, a static entry must be added to the DNS server to resolve ZoneDirector's private IP address to its FQDN. Otherwise, client browsers may enter an infinite redirect loop and be

unable to reach the login page. Before the signed certificate gets added the client gets redirected to the IP address of the ZD instead of the FQDN. (ID ER-130, ER-106)

## Web Interface

6.2.7 ZoneDirector release 9.4 supports the following Web browsers:

- Firefox 3.0 and later
- Internet Explorer 7 and 8
- Chrome 5.0 and later

**Note:** Internet Explorer 9 is currently not supported in version 9.4 (ID 23688, 25008). The workaround is to run IE 9 in “Compatibility Mode” by enabling **Tools > Compatibility View** in the browser.

## Dynamic VLAN

6.2.8 Dynamic VLAN does not work with 802.1X open-none WLANs. (ID 24947)

6.2.9 If Dynamic VLAN is enabled and a VLAN ID is set to a number outside the valid range (1-4094) in the “Tunnel-PVT-Group-ID” attribute on the RADIUS server, ZoneDirector may incorrectly accept the invalid VLAN value. (ID 23752)

6.2.10 The Monitor > Generated PSKs/Certs page incorrectly displays the VLAN of DPSKs as “0” when the Dynamic VLAN ID field is left blank in the DPSK Batch Generation section. (ID 23753).

## LWAPP Discovery Optimization

6.2.11 With this release, ZoneDirector no longer discovers APs via Layer 2 LWAPP discovery; instead, the Layer 3 subnet-broadcast/FF0e::18C multicast address is used. Therefore, the AP must have an IP address before it can join a ZoneDirector. If a DHCP server is available, the AP will get an IP address automatically through DHCP. In a network without a DHCP server, APs can be configured with a static IP address via CLI using the following command:

```
set ip_addr ip_mask x.x.x.x y.y.y.y.y (where x is IP address and y is netmask)
```

## Northbound Interface

6.2.12 Enabling Northbound Interface via CLI command does not work after upgrading from a previous release. (ID 25337)

Workaround: If Northbound Interface is to be used, enable it through the Web interface rather than CLI. Alternatively, factory reset the ZoneDirector after upgrading to 9.4 before enabling Northbound Interface.

## SNMP

6.2.13 Channel change SNMP traps are not reported when ChannelFly initiates the channel change. (ID 26036)

## Smart Redundancy

6.2.14 Smart Redundancy ZoneDirectors may become unstable if IP addresses are assigned by DHCP and the lease time is very short. (ID 26229)

Workaround: Use fixed IP addresses, or set the DHCP lease time to 3 months or more.



## **Hotspot Walled Garden**

- 6.2.15 ZoneDirector allows a maximum of 35 walled garden rules to be created for a Hotspot service. However, if a walled garden rule specifies a domain that is resolved to multiple IP addresses (yahoo.com, for example), the AP may run out of space in its walled garden policy table and clients may be unable to access some allowed domains. (ID 24996)

## **SpeedFlex**

- 6.2.16 SpeedFlex reports incorrect upload speed on Windows notebooks with Intel 6300 wireless NIC. (ID 26300)

## **6.3 ZoneFlex Access Points**

### **General**

- 6.3.1 AP runs out of memory for page allocation failure or kernel panic if 255 clients are allowed to connect to the 5GHz radio simultaneously. (ID 25624)
- 6.3.2 AP does not send accounting stop message when a Hotspot client disconnects from the wireless network. (ID 25536)
- 6.3.3 Some associated stations' IP addresses may be displayed incorrectly on the AP Web interface when 255 clients are connected and the Web page is refreshed quickly. (ID 25680)

### **ZoneFlex 7982**

- 6.3.4 ZoneFlex 7982 on rare occasion may fail to auto-negotiate to 1000Base-T full-duplex and operates at 10/100Base-T full-duplex. (ID 26478)
- Workaround: power cycle the AP or unplug/re-plug the data cable to reinitiate auto-negotiation.

### **ZoneFlex 7321**

- 6.3.5 ZoneFlex 7321 supports 2.4GHz radio only in this initial release. 5GHz radio support will be added in a later release.
- 6.3.6 Some clients may encounter difficulty connecting to WEP WLANs served by ZoneDirector-controlled ZoneFlex 7321 APs. (ID 25181)

### **Local Subnet**

- 6.3.7 Wireless stations connected to an AP with a local subnet configured on the AP are unable to reach the AP's WAN address if the AP gets the same subnet IP address from an external DHCP server. (ID 24604)
- 6.3.8 When more than one local subnet is configured and subnet 1 is configured with VLAN 1, the CLI does not display the IP address of br1. (ID 25598)
- Workaround: Update subnet 1 or reboot the AP.
- Workaround 2: Do not configure more than one subnet per standalone AP.

## 6.4 Interoperability Information

### Interoperability with PoE Switches

6.4.1 ZoneFlex APs support standard Power-over-Ethernet (802.3af). The following PoE switches were tested with ZoneFlex 2942, 2741, 7343, 7363, 7942, and 7962 APs:

- Ruckus ZoneSwitch 4124 and 4224
- Linksys 2008MP
- Linksys SRW 224P
- NetGear FS726TP
- SMC | SMCGS8P-SMART 8P+1SFP
- HP ProCurve-24 2610
- HP ProCurve 2520-8-PoE
- BayStack 470
- D-Link DES-1228P
- TrendNet TPE-S88

### Client Interoperability

6.4.2 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 have been tested for compatibility with this release:

- PC OS:
  - Windows XP Pro
  - Windows XP pro SP2
  - Windows XP Pro SP3
  - Windows 7 Ultimate
  - Windows 7 Home
  - Windows 7 Pro
  - Mac OS 10.6.8
- Smart Phone/Tablet OS:
  - IOS (4.3.3, 5.0.1, 5.1.1)
  - Android (2.1/2.2/2.3/2.3.3/3.0/3.1/3.2/4.0)
  - Windows Phone (WP7, WP7.5)
  - Blackberry OS 5.0