

Special ZoneFlex 9.7.1 Upgrade Instructions for the ZD1100

Please read the 9.7.1 Release notes which can be found at:

<https://support.ruckuswireless.com/documents/427-zoneflex-9-7-1-mr-9-7-mr1-release-notes>

It is important to carefully read the following before proceeding with the upgrade.

We have received field reports of occasional problems occurring during software upgrades on the ZoneDirector ZD1100 series. While Ruckus continues to investigate a complete resolution to the issue, we have identified two workarounds depending on the system configuration.

The issues reported occur only during upgrade and do not affect the normal operation of the device.

Best Practice Guidelines (all scenarios)

- Make sure you create a current backup (name the backup with the version of software you are currently running – this will make restoring easier).
- Perform the upgrade during a scheduled maintenance window to ensure minimal disruption to production networks.
- The **Local Upgrade** option (first downloading the software to your local computer) is recommended. The URL for the actual software is at **the end of this document. Please read and follow the rest of this document before upgrading.** If you have any questions or concerns, please [open a case with our support department](#) at <https://support.ruckuswireless.com/problems> (login access with a valid support contract is required).

For standalone ZoneDirector 1100's (not using Smart Redundancy)

- 1) Download 9.7.1.0.17 (see link at bottom of this document) and save to your local computer.
- 2) Log in to the ZoneDirector with Administrator level account
- 3) Go to Administer > Upgrade.
- 4) Under the Software Upgrade section, click Browse. The Browse dialog box appears.
- 5) Browse to the location where you saved the upgrade package, and then click Open.
- 6) When the upgrade file name appears in the text field, the Browse button becomes the Upgrade button.
- 7) Click Upgrade.
- 8) ZoneDirector will automatically log you out of the Web interface, run the upgrade, and then restart itself. When the upgrade process is complete, the

Status LED on ZoneDirector is steadily lit green. You may now log back into the Web interface as Administrator.

- 9) **Symptom:** During the upgrade, the device may appear un-responsive after the system restart. LED's are off. **Workaround:**
- a. **If, after waiting at least 25minutes the ZoneDirector has still not redirected you to the login page, check the Status LED on the front of the unit. If the Status LED is green click on the link on the upgrade page. which will take you to the log in page.**
 - **Congratulations you are finished with the upgrade procedure!**
 - b. **If the Status LED is off, red or flashing red power-cycle the unit by unplugging the power adaptor from the rear of the unit. Wait 10 seconds, then plug it back in. The ZoneDirector will boot, but will NOT be upgraded.**
 - **Go back and perform the upgrade once more.** The ZoneDirector should reset as normal, and when it finishes will be running the 9.7.1 software. If not, contact Ruckus technical support.

For ZoneDirectors in a Smart Redundancy Configuration

Summary: This upgrade procedure will be performed by first breaking the Smart Redundancy configuration and **configuring** each ZoneDirector into standalone mode. Before doing that, the AP's will be **configured to connect to the ZoneDirectors independently.**

IMPORTANT: Failure to follow this procedure could result in having to replace (RMA) one of the ZoneDirectors. It is critical that the 9.7.1 upgrade only be performed when the ZoneDirectors are in standalone mode. If N+1 Redundancy has been previously configured contact Ruckus Technical Support.

Pre-condition: Two ZD1100 forming a Smart Redundancy pair. In this document, the Active ZD is called ZD1, standby ZD is called ZD2. APs are joined to ZD1. The ZD release could be 9.5.1.0.50 or higher. The procedure to upgrade is:

- 1) Uncheck the first box marked "Automatically approve all join requests" This ensures that those installations with multiple ZoneDirectors installed will not have APs joining the wrong ZoneDirector.
- 2) In ZD1, configure the primary and secondary Zone Director fields with their respective IP addresses. This can be done via the ZD GUI. Click on the "Configure" tab on the top of the page. Click on Access point on the left side of the window. Scroll down to "Access Point Policies".

Access Point Policies

Approval Automatically approve all join requests from APs. (To enhance wireless security, deactivate this option. This means you must manually "allow" each newly discovered AP.)

Limited ZD Discovery Only connect to the following ZoneDirector:

- Configure Primary and Secondary ZD Settings to AP:
 - Primary ZoneDirector Addr*
 - Secondary ZoneDirector Addr
 - Prefer Primary ZD
 - Keep AP's Primary and Secondary ZD Settings

Management VLAN Keep AP's setting VLAN ID

Load Balancing Disable Enable (Balances the number of clients across adjacent APs.)

Max Clients For Radio B/G, For Radio N. (To guarantee wireless connection to all clients, you can limit the number of clients that each radio will manage.)

LWAPP message MTU (To limit the maximum transmission unit size between ZoneDirector and AP)

Your changes have been saved.

- 3) Click the "Apply" button on the far right. You should see a message "your changes have been saved". To verify the changes were implemented, SSH into the ZD Command Line Interface and follow this example.

```

192.168.0.21 - PuTTY
login as: admin

Please login: admin
Password:
Welcome to the Ruckus Wireless ZoneDirector 1100 Command Line Interface
ruckus> en
ruckus# debug
ruckus(debug)# remote_ap_cli -A "get director ip"
---- Command 'rkscli -c "get director ip "' executed at 74:91:1a:29:15:00
----- ZoneDirector Info -----
Primary Controller   : 192.168.0.21
Secondary Controller : 192.168.0.22
DHCP Opt43 Code     : 3

The information of the most recent Zone Director:
[1] 192.168.0.21

AP is under management of ZoneDirector: 192.168.0.21 / :: / 8c:0c:90:3f:a0:b4,
Currently AP is in state: RUN
OK
---- Command 'rkscli -c "get director ip "' executed at c0:8a:de:26:3d:30
----- ZoneDirector Info -----
Primary Controller   : 192.168.0.21
Secondary Controller : 192.168.0.22
DHCP Opt43 Code     : 3

The information of the most recent Zone Director:
[1] 192.168.0.21
[2] 172.16.1.39

AP is under management of ZoneDirector: 192.168.0.21 / :: / 8c:0c:90:3f:a0:b4,
Currently AP is in state: RUN
OK
---- Command 'rkscli -c "get director ip "' executed at 04:4f:aa:2a:7a:c0
----- ZoneDirector Info -----
Primary Controller   : 192.168.0.21
Secondary Controller : 192.168.0.22
DHCP Opt43 Code     : 3

The information of the most recent Zone Director:
[1] 192.168.0.21

AP is under management of ZoneDirector: 192.168.0.21 / :: / 8c:0c:90:3f:a0:b4,
Currently AP is in state: RUN
OK
---- Command Execution Summary:
      success: 3
      failure: 0
      total: 3
remote_ap_cli -A "get director ip"
ruckus(debug)#
  
```

- 4) Enter the command `remote_ap_cli -A "reboot"`.
- 5) This will reboot the AP's which will allow the previous command to execute. Wait a couple of minutes and then Go to "Monitor/ Access Points to verify the AP's have rejoined the ZD.
- 6) Remove Smart Redundancy configuration on ZD1 and ZD2 from the ZD UI. Go to Configure/System by unchecking the box labeled "Enable Smart Redundancy" and then hitting the Apply button on the far right.

Smart Redundancy

Enable Smart Redundancy to ensure continued operation of your network in the event of a ZoneDirector failure or power loss. If the active ZoneDirector loses connection, the standby ZoneDirector will automatically take over.

Enable Smart Redundancy

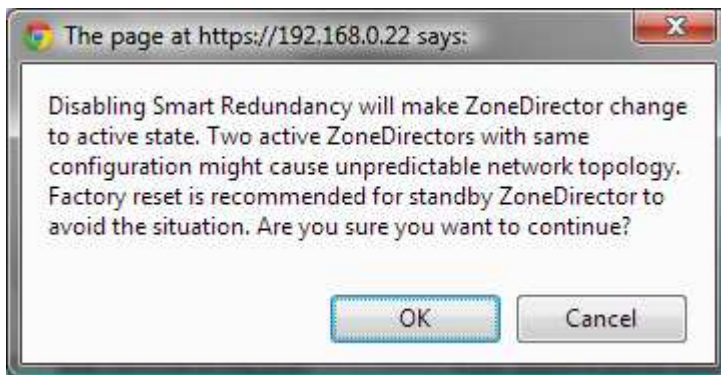
Local Device IP Address 192.168.0.22

Peer Device IP Address*

Shared Secret*

Management IP Address 192.168.0.23 (Configured in [Management Interface])

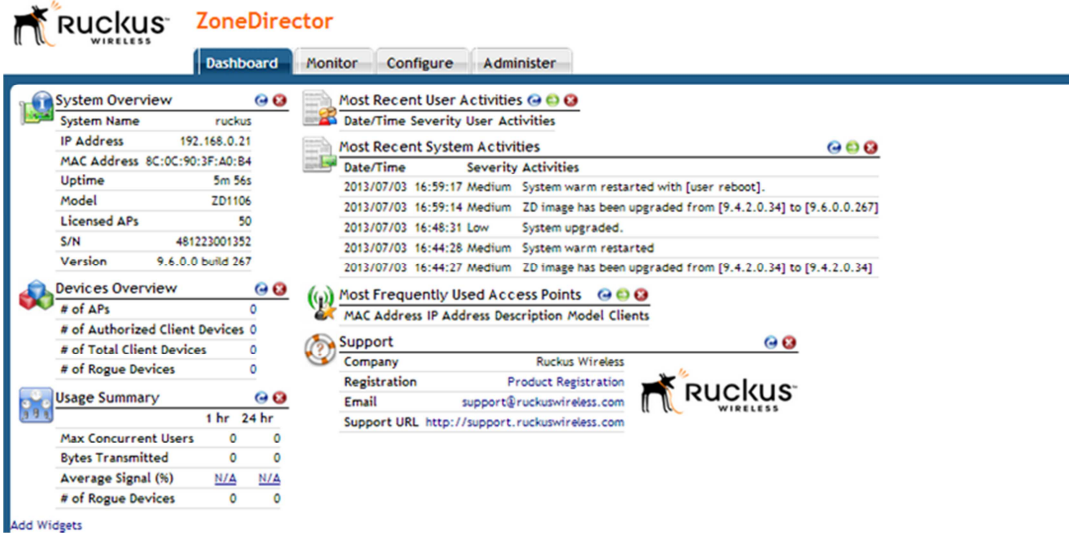
- 7) You will get a message that looks like this, click OK.



- 8) Both ZDs will become active. Connected APs will remain connected to ZD1.
- 9) Follow the above (standalone) procedure to upgrade standalone ZD2 from an earlier release to the 9.7.1 release. The versions that the ZD2 can upgrade from to 9.7.1.0.17 are 9.5.1.0.50 and higher.

NOTE: If you are running a different version, upgrade to one of the above versions first. Refer to the Release Notes for proper upgrade paths for any given release.

- 10) ZD2 will restart after the upgrade process has completed.
- 11) Verify that ZD2 is running 9.7.1 by going to the ZD UI dashboard and checking the firmware version under system overview.

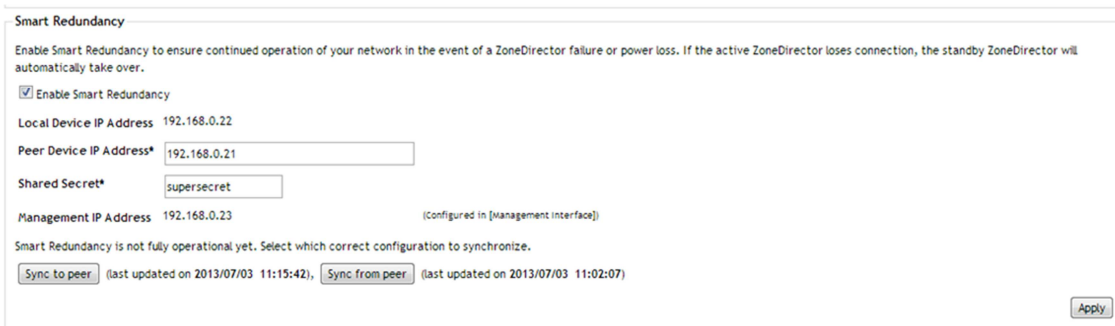


The screenshot shows the Ruckus ZoneDirector web interface. The top navigation bar includes 'Dashboard', 'Monitor', 'Configure', and 'Administer'. The main content area is divided into several sections:

- System Overview:** Displays system information for 'ruckus', including IP Address (192.168.0.21), MAC Address (8C:0C:90:3F:A0:B4), Uptime (5m 56s), Model (ZD1106), Licensed APs (50), S/N (481223001352), and Version (9.6.0.0 build 267).
- Devs Overview:** Shows counts for # of APs (0), # of Authorized Client Devices (0), # of Total Client Devices (0), and # of Rogue Devices (0).
- Usage Summary:** A table showing usage metrics for 1 hr and 24 hr.

	1 hr	24 hr
Max Concurrent Users	0	0
Bytes Transmitted	0	0
Average Signal (%)	N/A	N/A
# of Rogue Devices	0	0
- Most Recent User Activities:** A table with columns for Date/Time, Severity, and User Activities.
- Most Recent System Activities:** A table with columns for Date/Time, Severity, and System Activities. Recent entries include system warm restarts and firmware upgrades.
- Most Frequently Used Access Points:** A table with columns for MAC Address, IP Address, Description, Model, and Clients.
- Support:** Provides contact information for Ruckus Wireless, including registration, email (support@ruckuswireless.com), and support URL (http://support.ruckuswireless.com).

- 12) After ZD2 is successfully upgraded to 9.7.1, perform the same upgrade process on ZD1.
- 13) ZD1 will restart after the upgrade has completed.
- 14) At this point, all APs joined to ZD1 will lose their connection (heartbeat) to ZD1. APs will then discover ZD2 and AP firmware will be upgraded to the same version as ZD2. After the APs execute automatic configuration download from ZD2, APs will join ZD2 successfully.
- 15) Verify both ZD1 and ZD2 are upgraded to the same 9.7.1 release. See step 11 above.
- 16) Verify all AP's have successfully joined to ZD2.
- 17) Re-configure Smart Redundancy on ZD1 and ZD2.
- 18) Configure/System -> enable smart redundancy -> start with ZD1, then ZD2, then match the super secret. The order of configuration is not critical and you can change it later when the shared secret is entered on the second device. Click on the apply button on the bottom right.



The screenshot shows the 'Smart Redundancy' configuration page. It includes the following fields and options:

- Enable Smart Redundancy:** A checked checkbox.
- Local Device IP Address:** 192.168.0.22
- Peer Device IP Address*:** 192.168.0.21
- Shared Secret*:** supersecret
- Management IP Address:** 192.168.0.23 (Configured in [Management Interface])
- Smart Redundancy is not fully operational yet. Select which correct configuration to synchronize.**
 - Sync to peer:** (last updated on 2013/07/03 11:15:42)
 - Sync from peer:** (last updated on 2013/07/03 11:02:07)
- Apply:** Button at the bottom right.

- 19) Click the "sync to peer" button to Sync up ZD configuration. The two ZD's will form a Smart Redundancy on release 9.7.1.
- 20) Back up the config of the primary zd by going to Administer/Backup and then click on the "Back Up" button. A file will be generated. Save this file in a safe spot in case you might need it one day.

21) APs will join the active ZD to complete ZD1100 upgrade and the Smart Redundancy pairing is complete.

The link to download the 9.7.1 Firmware:

<https://support.ruckuswireless.com/software/523-zd1100-9-7-1-0-17-mr-software-release>

If you experience a problem while trying to download the firmware, please copy and paste this URL into your browser. You may need to confirm that the URL in the browser is actually as indicated.