Technical Note

Migration from Zone Director to RUCKUS Cloud

July 2022

Table of Contents

Intended Audience

This document provides the steps to migrate Zone Director managed Access Points to RUCKUS Cloud. Some knowledge of network infrastructure such as DHCP, DNS, Firewall is recommended.

Zone Director 1200 is going End of Life and will no longer be available for purchase. Existing customers are recommended to migrate to other RUCKUS platforms like SmartZone and Cloud.

Reference: ZD_1200 EOL

For more information on how to configure Ruckus Networks products, please refer to the appropriate user guide available on the Ruckus Networks support site https://support.ruckuswireless.com/

Overview

This document describes how to migrate Access points from Zone Director (ZD 1200) to RUCKUS Cloud (RC) directly from the ZD dashboard. There is also an alternative method to use an external tool for bulk migration from older ZD versions.

System Requirements

1. Zone Director (ZD1200) firmware version: 10.4 or later
2. RUCKUS Cloud version: 21.12.11
3. List of APs eligible for migration. Refer link for updated list
4. Zone Director and APs have IP connectivity with support for the following protocols: HTTPS (port 443), SSH (port 22)
5. Verify the Access Point cert status before starting the migration process. Please refer the KBA on Ruckus Support site for procedure to update the cert
6. To enable AP to Cloud connectivity, configure firewall with the below settings. Refer RUCKUS Cloud user guide for detailed firewall requirements.

Allowed URLs	IP Ranges	Protocols and Ports
https://ap-registrar.ruckuswireless.com https://sw-registrar.ruckuswireless.com http://ocsp.comodoca.com http://ocsp.entrust.net https://ruckus.cloud (US) https://eu.ruckus.cloud (Europe) https://asia.ruckus.cloud (APAC)	34.66.162.64 - 34.66.162.95 34.89.230.64 - 34.89.230.95 34.92.234.64 - 34.92.234.95 34.66.194.64 - 34.66.194.95	TCP 443 (HTTPS) - AP discovery and connection to cloud TCP 22 (SSH) – Bi-directional persistent connection to cloud for configuration change and firmware update UDP 123 (NTP) – Network time protocol TCP 8090, 8099 - Guest/WiSPr/Open WLAN that allows clients to connect to internet TCP 8100, 8111 - Allow clients to browse using proxy user endpoint

Migration Steps

RUCKUS Zone Director has the option to initiate the migration process right from the dashboard and requires only IP connectivity as mentioned in the previous section. The APs have the option to begin the discovery process to join a different controller platform in the same network or in the cloud. The pre-provisioning is different for SZ and Cloud. Configuration migration to RUCKUS Cloud is not available currently. The steps below describe the process to migrate to Cloud.

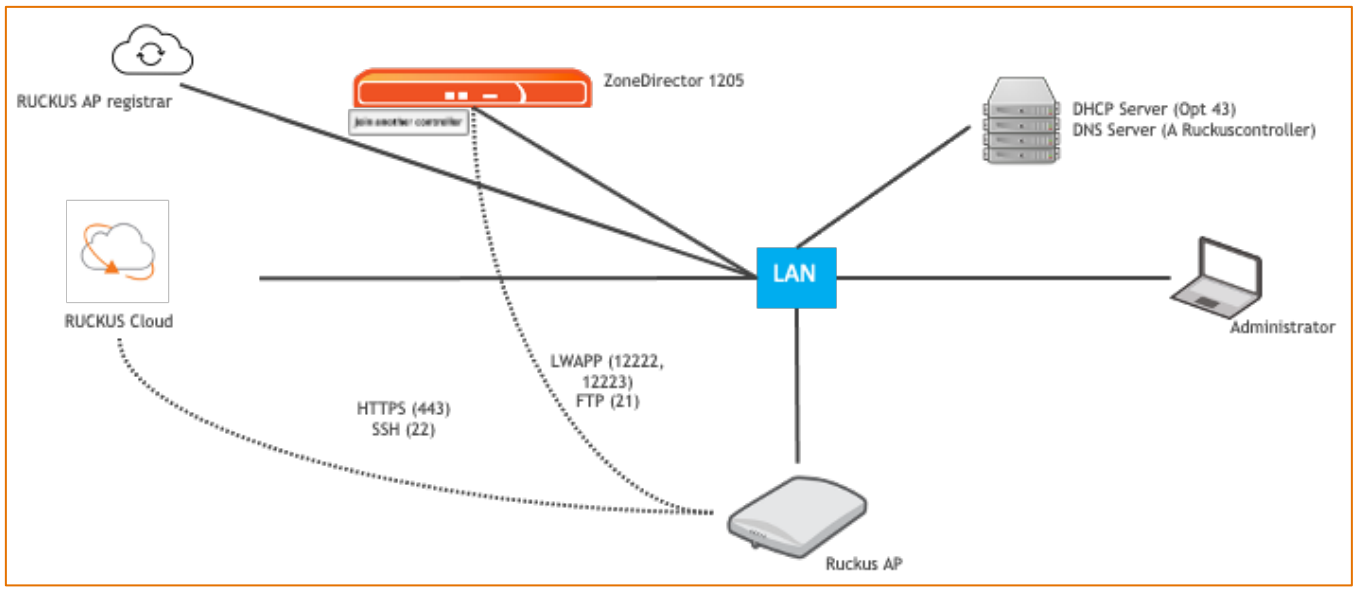
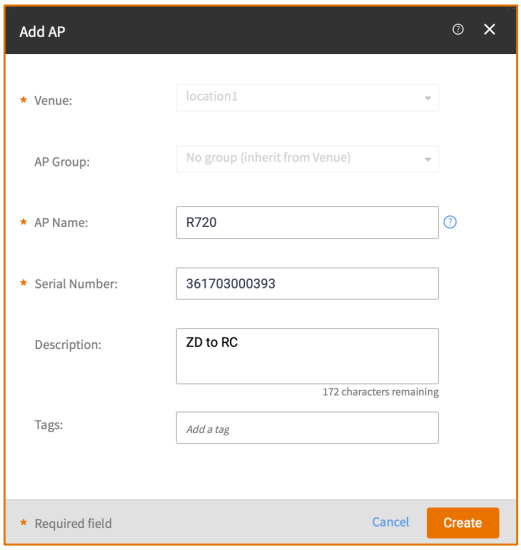
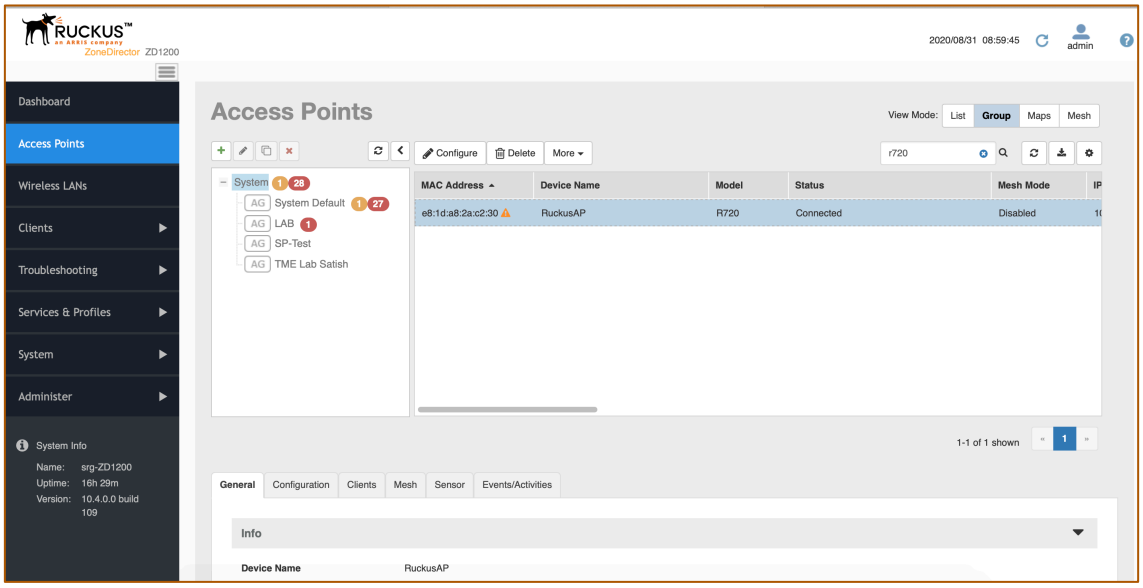


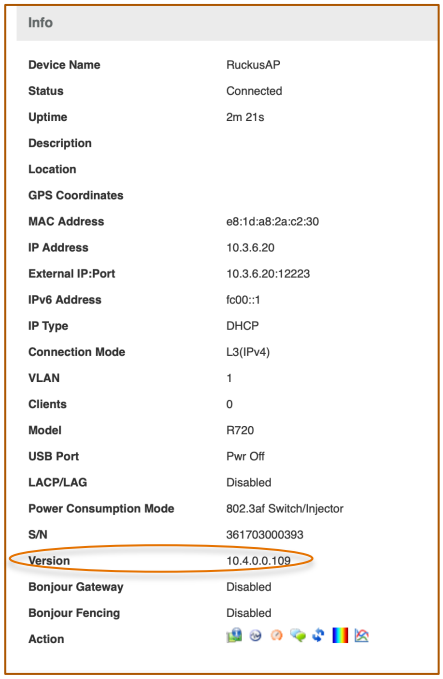
Figure 1 Join Another Controller - Migration Process

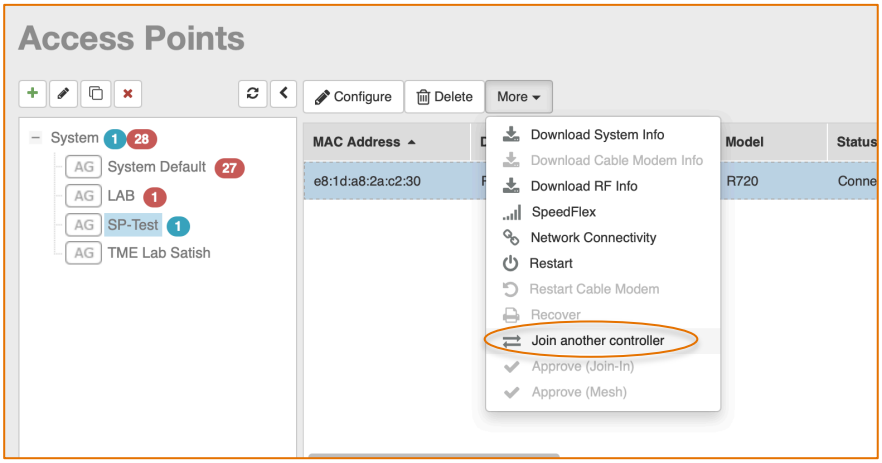
1. Begin the migration step first at RUCKUS Cloud. Add the Serial Numbers of all the APs ready for migration, individually or using the Import csv option

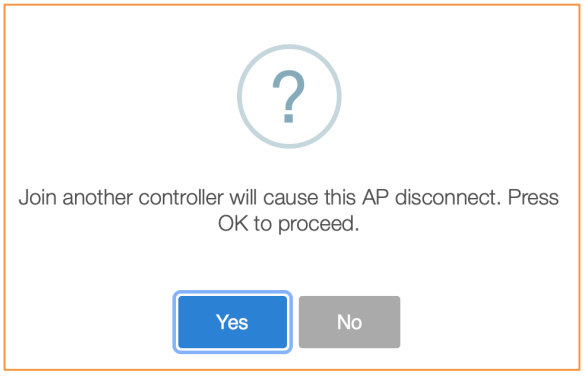


2. In Zone Director select the AP for migration. Click More and select Join another controller.

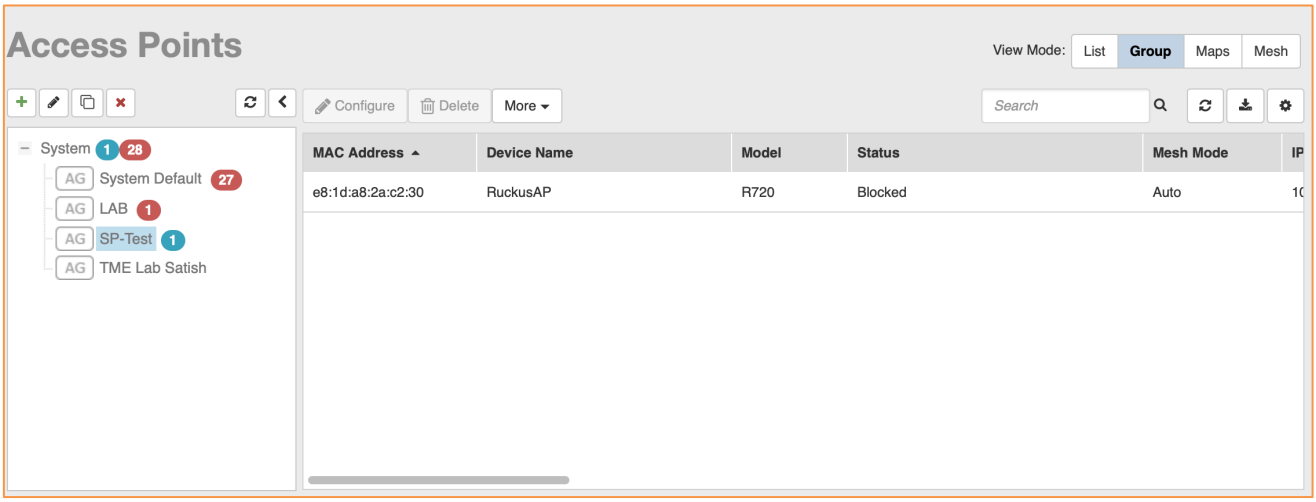




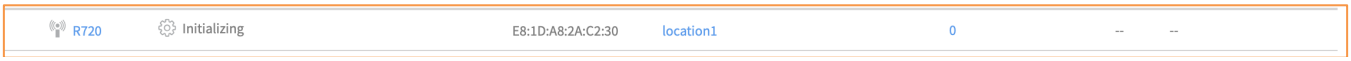


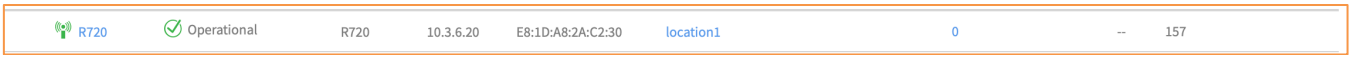


3. The AP status on ZD changes to Blocked, delete the AP from ZD and AP begins cloud discovery process

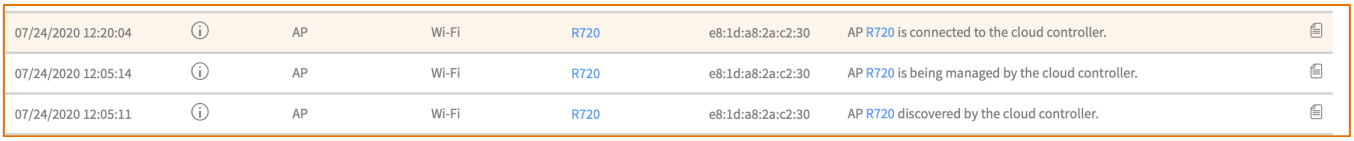


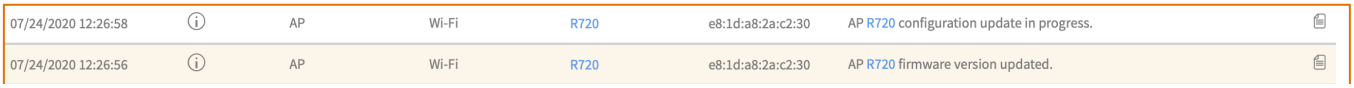
4. The AP starts initializing on the cloud. Wait for the process to complete in 15-20 mins. The status of the AP changes to Operational.





5. Monitor the Events tab for progress





Troubleshooting

- Make sure the AP is receiving IP address from a DHCP server, not static
- Firewall ports are open for cloud communication (80,443)
- DNS to resolve IP addresses for cloud connectivity based on region

Alternate Migration procedure

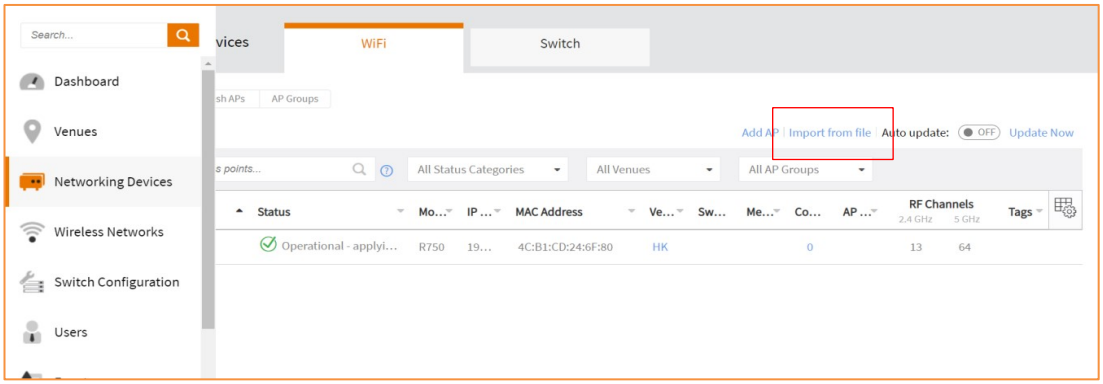
To perform a zero-touch migration of a large deployment APs from EOL Zone Director software, please leverage “Crossbreeder” tool created by Andrea Coppini. This is a tool external to RUCKUS, so Ruckus TAC is not involved with the support.

Tool can be found here for download:

https://www.linkedin.com/pulse/kennel-andrea-coppini

https://github.com/andreacoppini/crossbreeder

1. Create CSV files for upload
   - Please note down the IP address and serial numbers for all the APs that need to be migrated.
   - Create CSV files one with each, from the templates in RUCKUS Cloud and Crossbreeder tool.

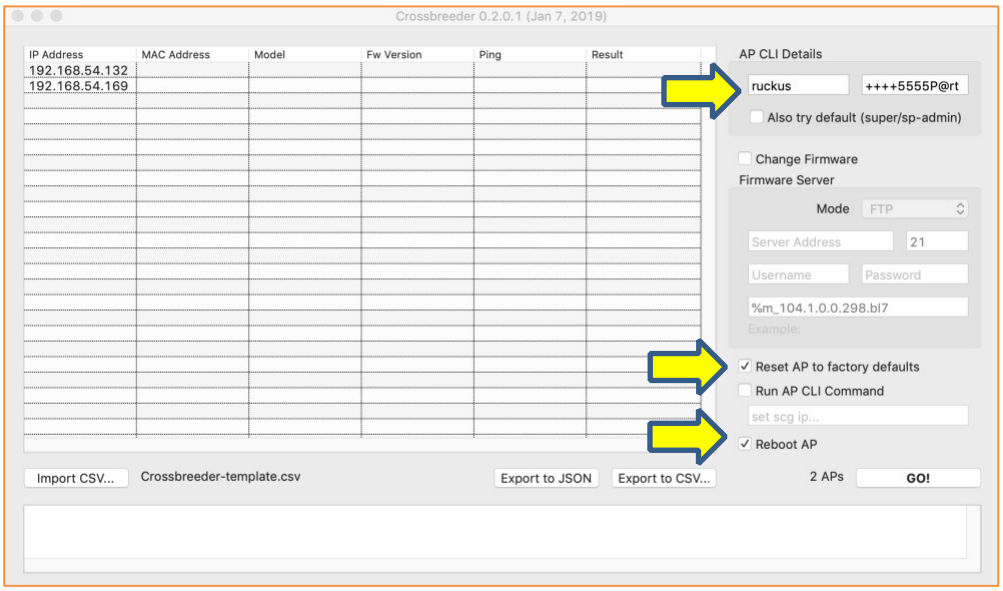


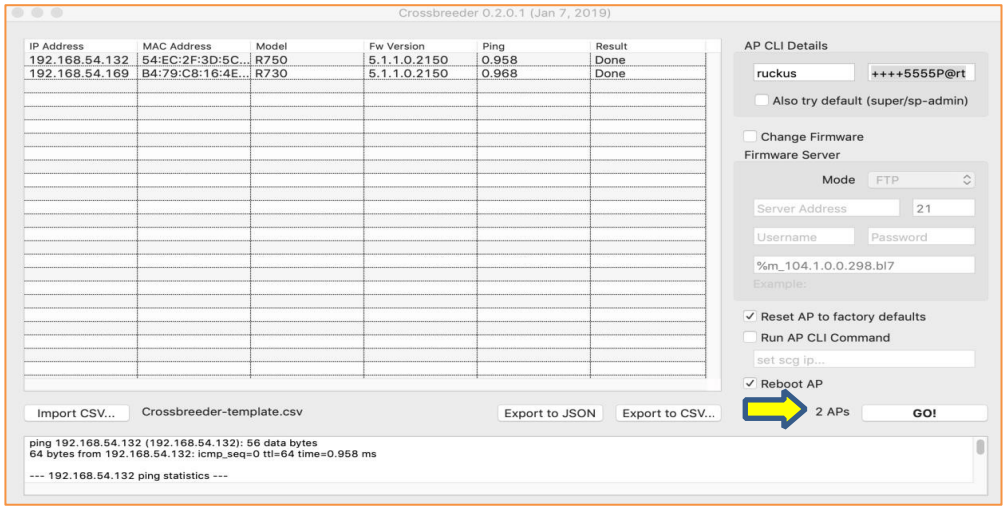
2. Bulk Import APs into RUCKUS Cloud
   - In RUCKUS Cloud dashboard, APs tab, Click APs > Import from file > Download template (csv file)
   - Sample template shows several fields where AP data can be added (first 4 are required): AP Name, Description, Venue, Serial Number, AP Group, Tags, Failure Reason
   - Make use of the S/Ns noted in previous step #1.
   - Import updated file(s) into RUCKUS Cloud.
   - Click APs > Import from file > [drag-drop updated template file into window] > Import.
   - Report page will show the number of APs imported successfully (or errors encountered). Imported serial numbers should show on the APs tab and Status/Model/IP Address will be updated once the AP connects to RUCKUS Cloud.
   - Fill in fields in the template (up to 50 APs at a time).

AP Name	Description	Venue	Serial Number	AP Group	Tags
R750-CF	CF-R750-imp	Hill Educatio	331902004257	HILL-Test	
R730-CF	CF-R730-imp	Hill Educatio	381809015516	HILL-Test	

3. Run Crossbreeder tool. Click on the main window to download template.

- Template is a basic CSV, just one column “IP” with a list of IP addresses. Use the IP addresses noted in step #1.
- Click Import CSV to load IP addresses into Crossbreeder.
- Add AP Username and AP Password (same as Zone Director credential)
- Tick Reset AP to factory defaults and Reboot AP check box. Click GO! when ready to factory default APs. This will reboot the APs (disruptive to users). AP status in Result column should show “Done”.
- APs should reboot in a few seconds.



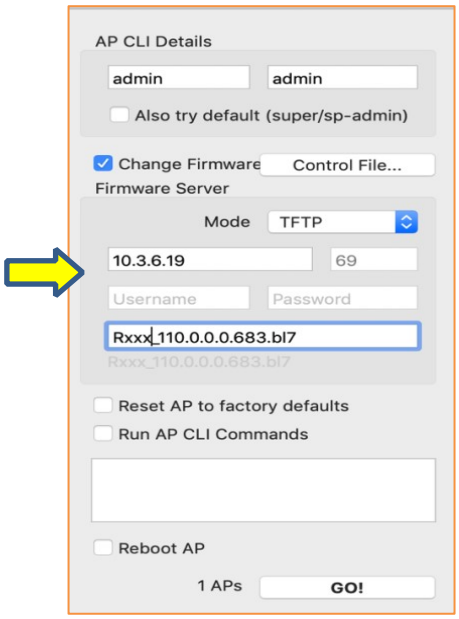


4. Meanwhile, disable Auto Approval of APs and delete them from ZD dashboard to avoid AP reconnecting back to ZD.

5. AP migration from ZD to RUCKUS Cloud is not direct and requires a firmware update for each AP going through the process.

6. On the Crossbreeder tool, click Change Firmware and select mode (TFTP used here as example)

- Setup your TFTP server in your laptop
- Enter Server details (IP address) and the file name of the firmware
- Download the latest SoloAP image of each AP model from RUCKUS Support Site
- Enter this file name in full or use identifier expressions to use multiple image files as below



7. Please do not combine change firmware step with other steps. Run it separate from the reset/reboot.

8. Wait to finish Steps #1 - #4 before changing the firmware. The actual execution of these steps on the AP is slower than how quickly the script can issue the commands. Please do the steps one by one.

9. After upgrade, the APs reboot and will check to see if they are registered on RUCKUS Cloud on startup. The APs should start to appear in the RUCKUS Cloud interface in a few minutes.

10. Full RUCKUS Cloud operation (which includes cloud discovery, applying configuration and operating AP) may take up to 30 minutes, depending on AP quantity and network bandwidth. The AP will go through several reboot cycles (at least 2).

11. General timing / status info:

- AP Status will turn Green (Operational – applying firmware) on RUCKUS Cloud after factory default, AP reboot 1.
- AP reboot 2 will occur in a couple of mins after. Status still Operational – applying firmware. CTL LED will be blinking.
- The above step may repeat itself.
- AP should be fully operational when CTL LED is solid green.

Summary

The migration of APs from ZD to Cloud is very straightforward and can be done form the ZD dashboard. The process requires network connectivity between the APs and Cloud to establish the tunnel and complete the migration. ZD 1200 is at EOL, and customers will no longer be able to buy the product. All software support will continue for a period of 1 year. For more information please refer the ZD1200_EOL document.

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