How to Configure a SmartZone WLAN for Cloudpath

Technical Note

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Intended Audience

This document provides an overview of how to configure the Ruckus SmartZone controller with a WLAN that supports Cloudpath. Some knowledge of Wi-Fi and SmartZone and Cloudpath configuration is recommended.

Overview

This document provides a step-by-step guide to configuring a WLAN in the Ruckus SmartZone controllers for the Cloudpath Enrollment System. The reader is expected to be reasonably familiar with the Ruckus SmartZone platform as well as the Cloudpath ES.

There are four manifestations of the Ruckus SmartZone controller platform:

- Appliances: SmartZone SZ100, Smart Cell Gateway SCG 200
- Virtual: SmartZone – Essentials (vSZ-E), SmartZone – High Scale (vSZ-H)

The vSZ-E and the SZ100 are similar in their GUI. Likewise with the SCG 200 and vSZ-H. This guide therefore has two sets of instructions: one for each of these like GUI groups.

All of the steps and screenshots in this document are for SmartZone version 3.4.1.208.

Cloudpath Context

The Cloudpath client onboarding platform calls for two WLANs (SSIDs): Onboarding and Production. The first one is used for onboarding the clients. This is a Hotspot (WISPr) type SSID and it redirects clients to the Cloudpath Enrollment System (ES). After the client is authenticated, a certificate is downloaded and installed on the client. This certificate provides the client with access to the second secure SSID.

Requirements for this Document

In order to successfully follow the steps in this document, the following equipment (at a minimum) is required and assumed:

- Admin access to the SmartZone controller
- FQDN/IP Address of the Cloudpath Enrollment System
- RADIUS Shared Secret on Cloudpath
- WLAN Redirect URL on Cloudpath

Summary of Steps

The steps involved in configuring a WLAN for Cloudpath can be summarized as follows:

1. Obtain the FQDN/IP address
2. Obtain the RADIUS shared secret
3. Obtain the WLAN Redirect URL
4. Configure AAA Authentication Server
5. Create HotSpot service
6. Set up Walled Garden
7. Create Onboarding SSID
8. Create Secure, Production SSID

Ruckus Cloudpath Configuration Settings

In the Ruckus Cloudpath Enrollment System, login and make note of the following settings. You will need these parameter values when configuring any of the SmartZone controller platforms.

Step 1: Obtain the FQDN/IP Address

1. In Cloudpath ES, navigate to the Configuration menu.
2. Under Advanced, select RADIUS Server and record the FQDN or IP in the IP Address field.

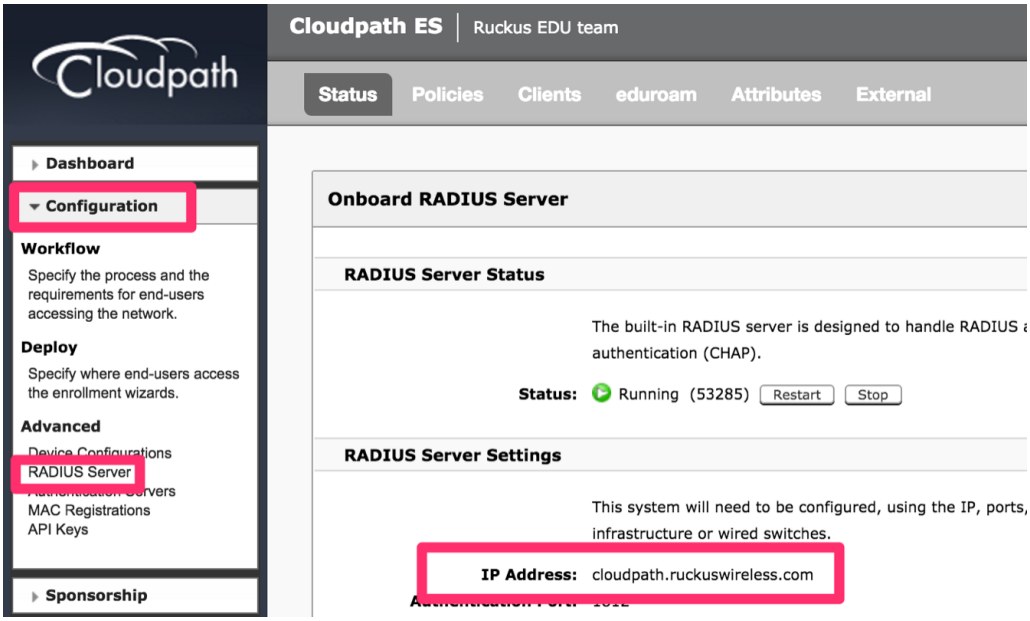

FIGURE 1: RADIUS FQDN/IP ADDRESS

Step 2: Obtain the RADIUS Shared Secret

1. In Cloudpath ES, navigate to the Configuration menu.
2. Under Advanced, select RADIUS Server and record the Shared Secret.

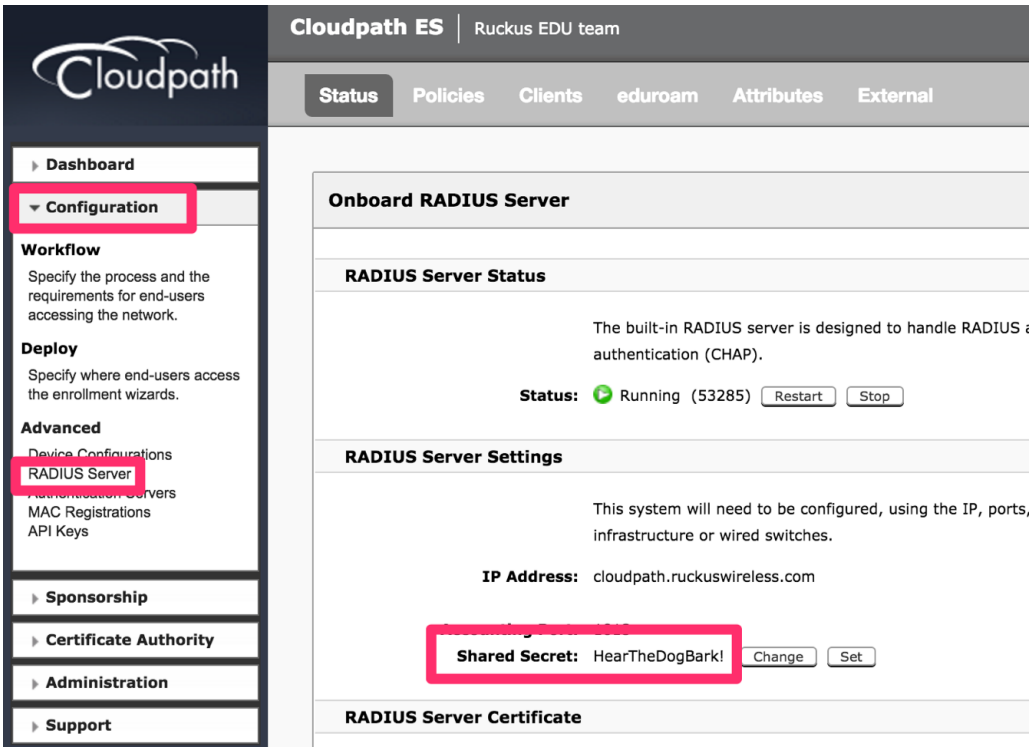

FIGURE 2: RADIUS SHARED SECRET

Step 3: Obtain the WLAN Redirect URL

1. In Cloudpath ES, navigate to the Configuration menu.
2. Under Deploy, record the WLAN Redirect URL.

HotSpot Redirect URL: Obtained from Cloudpath: Configure->Deploy on the Cloudpath Admin UI. See below

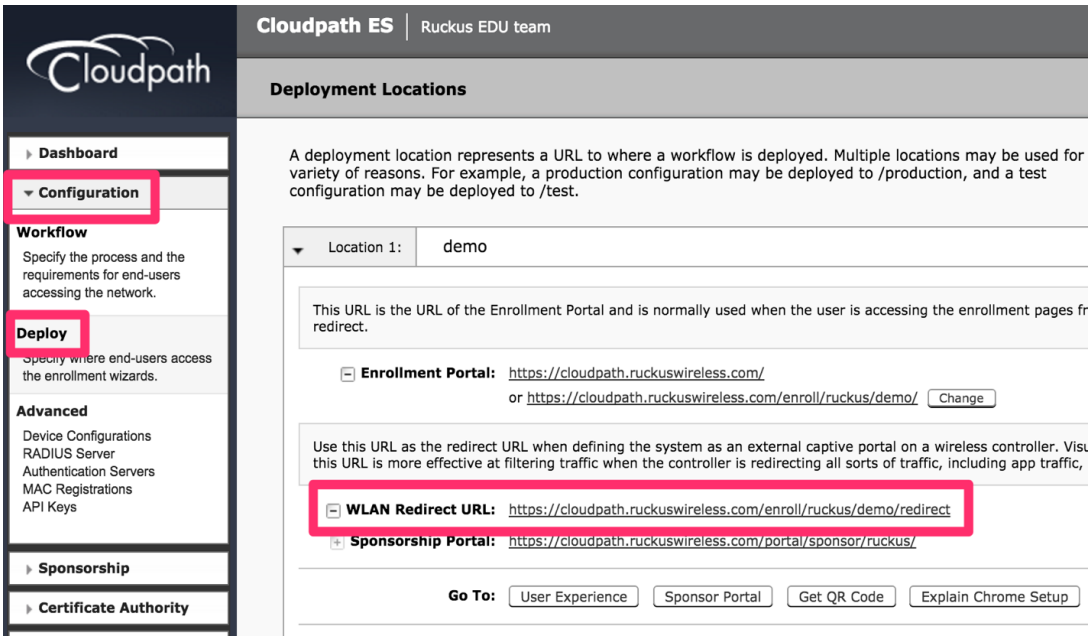

FIGURE 3: WLAN REDIRECT URL

Ruckus vSZ-E/SmartZone 100 Configuration Settings

For the vSZ-E or SmartZone 100 controller types, use steps 4a through 8a to finish the configuration.

Step 4a: Configure the Authentication Server

1. Login to the vSZ-E or SmartZone 100 interface with the admin account.
2. Navigate to the Configuration tab.
3. Select Wireless Network.
4. Under AAA Servers, select Proxy AAA.
5. Under Authentication Service, select Create New. Note that you will need the Shared Secret that was obtained from the Cloudpath Enrollment System.

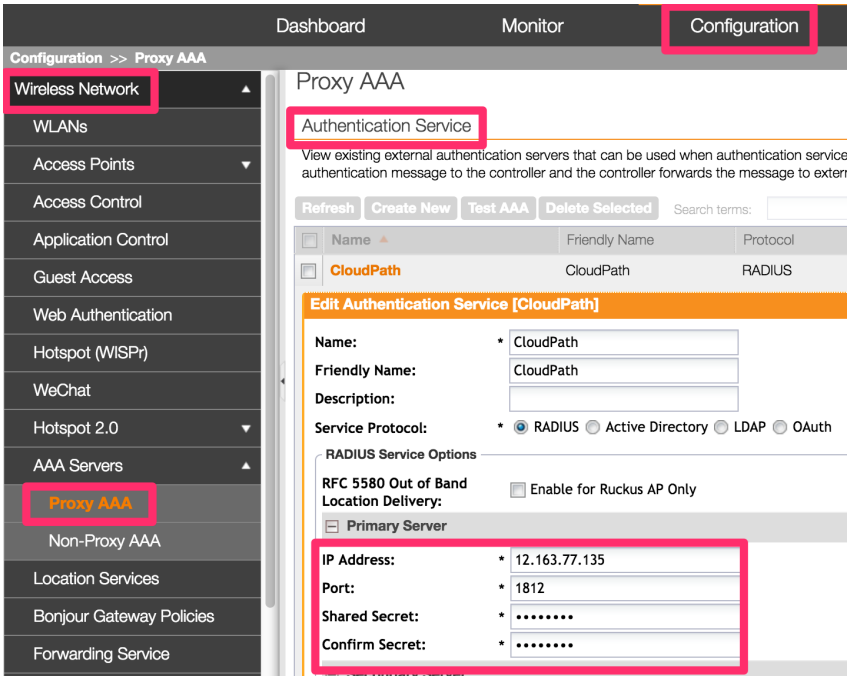

FIGURE 4: AUTHENTICATION SERVICE

Step 5a: Create a Hotspot (WISPr) Service

1. While still in the Configuration tab and the Wireless Network menu, select Hotspot (WISPr).
2. Click Create New. Note that you will need the Redirect URL that was obtained from the Cloudpath Enrollment System.

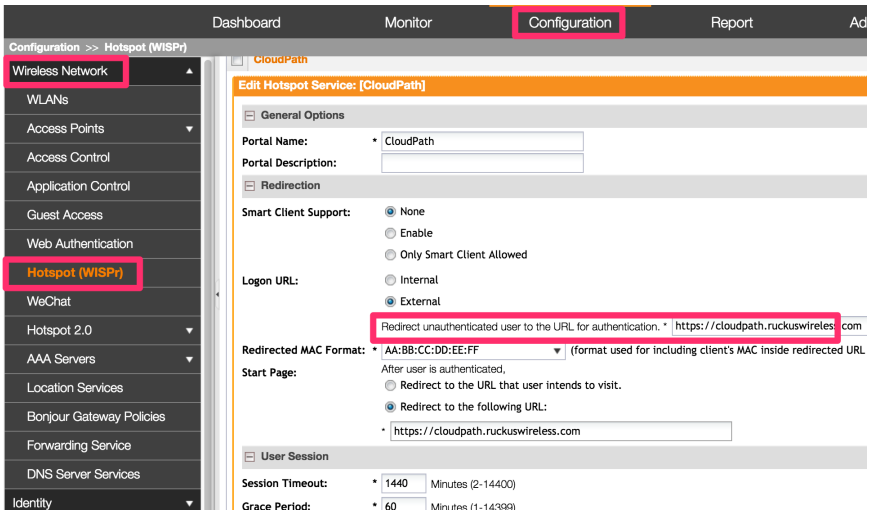

FIGURE 5: HOSTSPOT (WISPR) SERVICE

Step 6a: Create a Walled Garden

1. While still in the Configuration > Hotspot (WISPr) menu, select Walled Garden.
2. For the above-created Hotspot service, include the FQDN/IP address of the Cloudpath ES in the Walled Garden.
3. If OAuth is going to be used for Authentication, then allow access to Google, Facebook and LinkedIn as well.

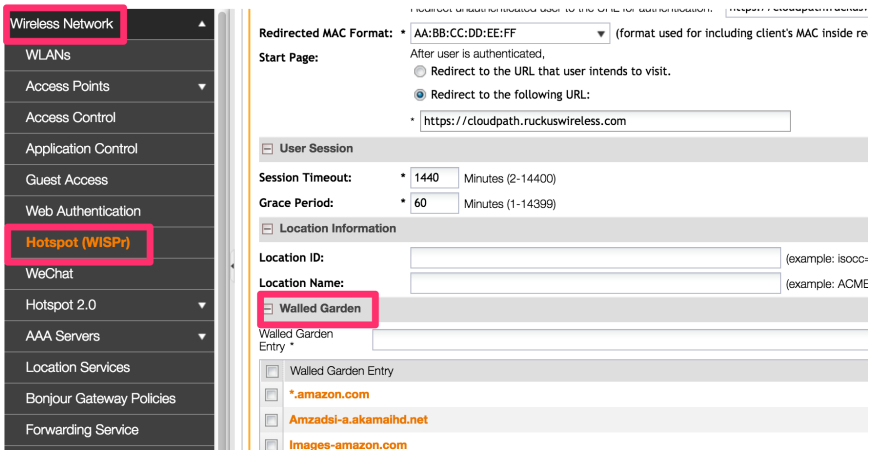

FIGURE 6: WALLED GARDEN CONFIGURATION

Step 7a: Create an Open SSID (for Onboarding)

1. Under the Configuration > Wireless Network menu, select WLANs.
2. Click Create New.
3. Create a WLAN with the following parameters:
    - Authentication Type: Hotspot (WISPr)
    - Authentication Option: Open
    - Encryption Option: Open
    - Hotspot (WISPr) Portal: Hotspot service created earlier
    - Authentication Server: Radius Server created earlier.

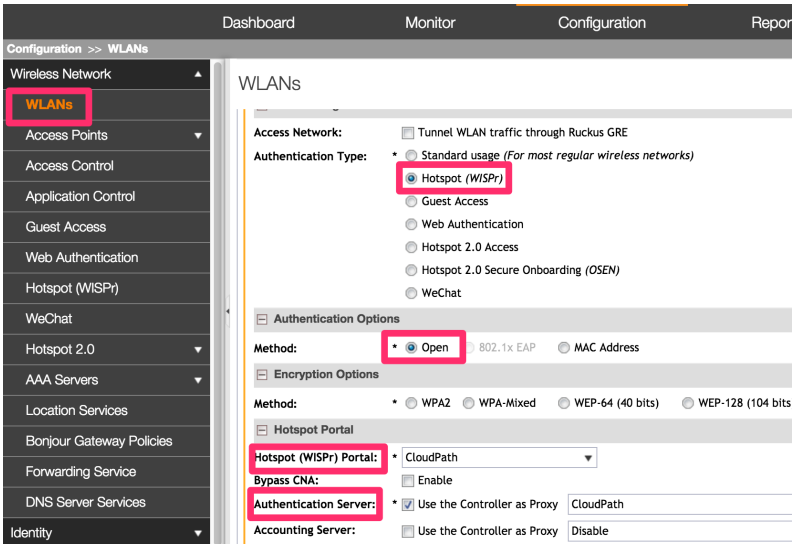

FIGURE 7: OPEN SSID CONFIGURATION

Step 8a: Create a Secure SSID

1. While still in the Configuration > Wireless Network> WLANs menu, click Create New.
2. Create a WLAN with following parameters:
    - Authentication Type: Standard Usage
    - Authentication Option: 802.1x EAP
    - Encryption Method: WPA2
    - Algorithm: AES
    - Authentication Server: Radius Server created earlier.

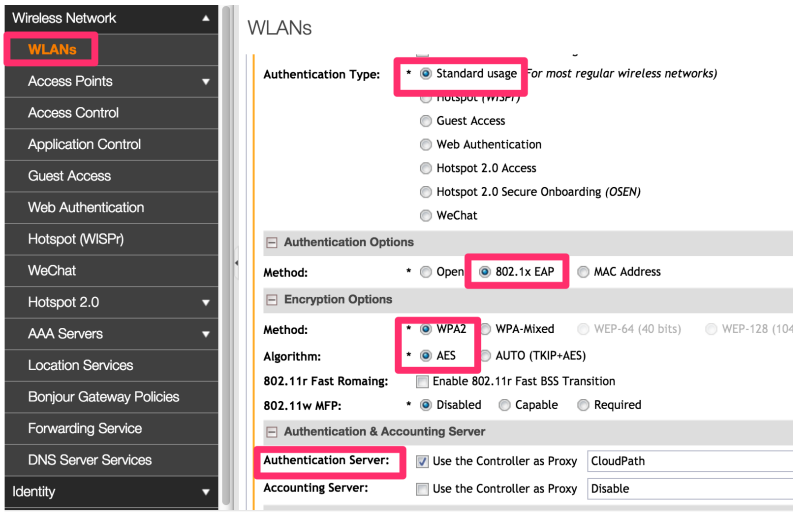

FIGURE 8: SECURE SSID CONFIGURATION

Ruckus vSZ-H/SCG 200 Configuration Settings

For the vSZ-H or SCG 200 controller types, use steps 4b through 9b to finish the configuration.

Step 4b: Configure the Authentication Server

1. Login to the vSZ-H or SCG 200 interface with the admin account.
2. Navigate to the Configuration tab.
3. Select Services & Profiles.
4. Under Services, select Authentication.
5. Under Authentication Services, select Create New. Note that you will need the FDCN/IP Address and Shared Secret that was obtained from the Cloudpath Enrollment System.

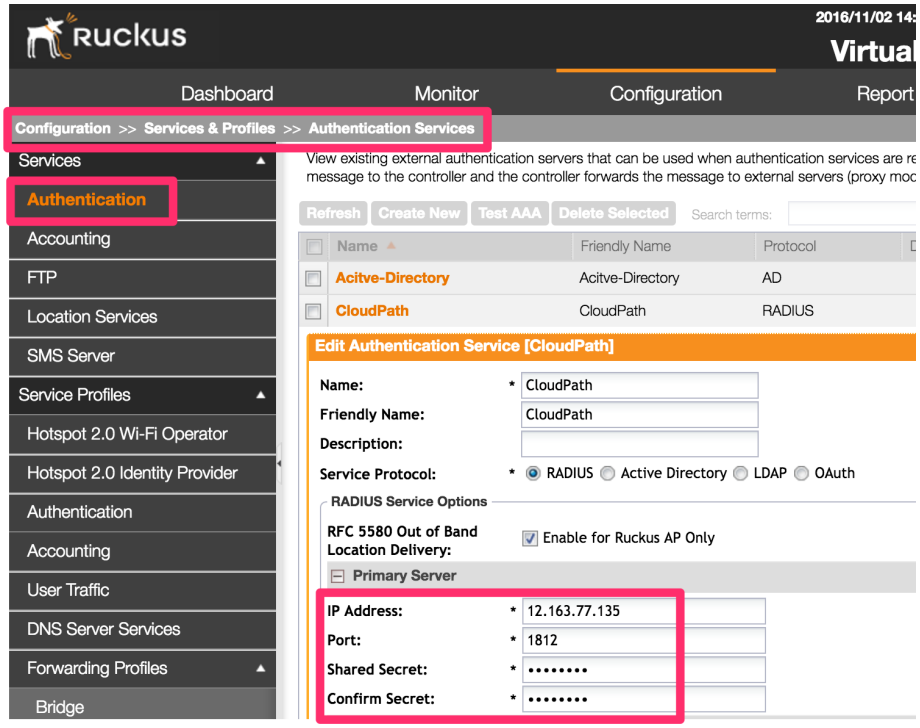

FIGURE 9: AUTHENTICATION SERVICE

Step 5b: Configure the Authentication Profile

1. While still in the Configuration tab and the Services & Profiles menu, select Service Profiles.
2. Under Service Profiles, select Authentication.
3. Specify the RADIUS AAA server created in step 5a.

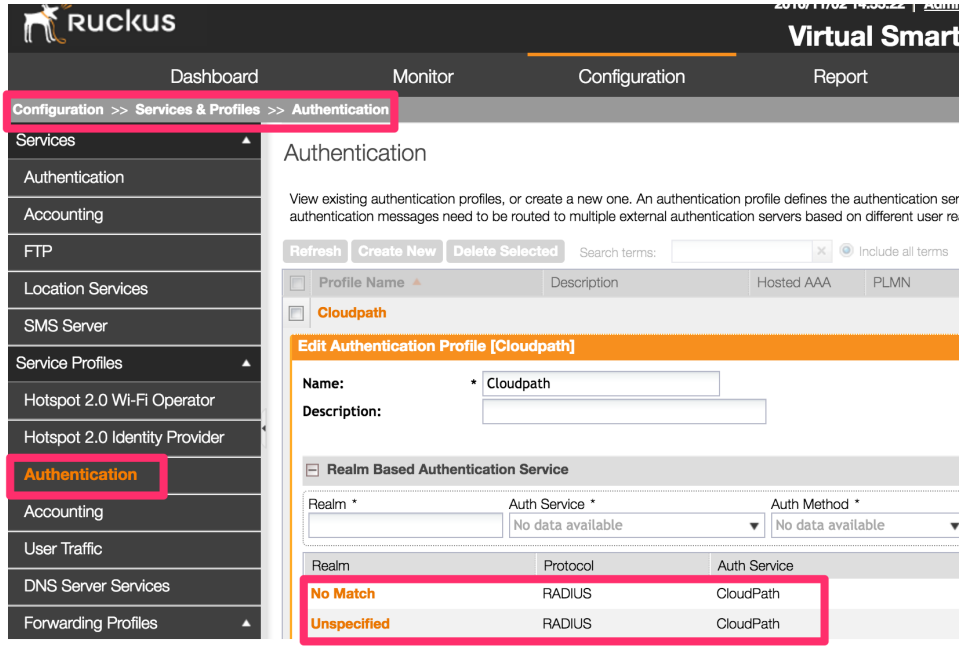

FIGURE 10: AUTHENTICATION PROFILE

Step 6b: Create a Hotspot (WISPr) Service

This is to be done for the AP Zone of interest. Configuration->AP Zones->Select Your Zone-> Hotspot (WISPr) service. The

1. Under the Configuration tab, select the appropriate AP Zone for your configuration.
2. Within your AP Zone, select the Hotspot (WISPr) menu.
3. Click Create New. Note that you will need the Redirect URL that was obtained from the Cloudpath Enrollment System.

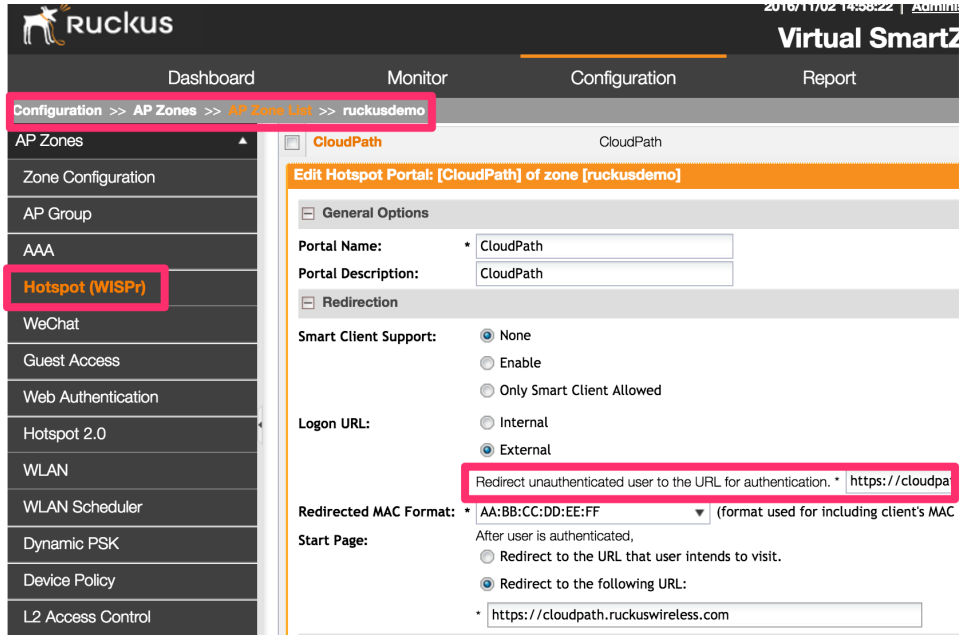

FIGURE 11: HOTSPOT (WISPR) SERVICE

Step 7b: Create a Walled Garden

1. While still in your AP Zone and the Hotspot (WISPr) menu, select Walled Garden.
2. For the above-created Hotspot service, include the FQDN/IP address of the Cloudpath ES in the Walled Garden.
3. If OAuth is going to be used for Authentication, then allow access to Google, Facebook and LinkedIn as well.

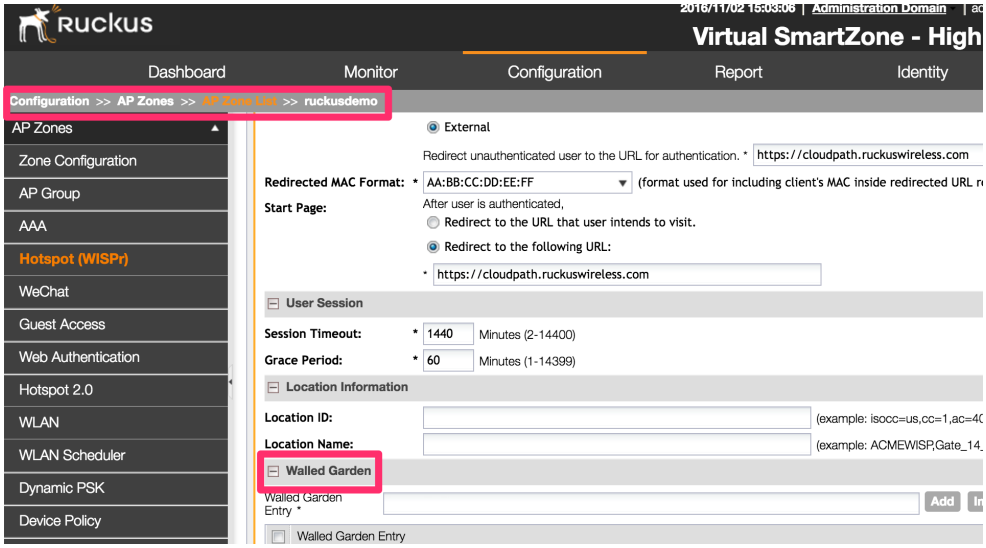

FIGURE 12: WALLED GARDEN CONFIGURATION

Step 8b: Create an Open SSID (for Onboarding)

1. While still in your AP Zone under the Configuration tab, select WLAN.
2. Click Create New.
3. Create a WLAN with the following parameters:
    - Authentication Type: Hotspot (WISPr)
    - Authentication Option: Open
    - Encryption Option: Open
    - Hotspot (WISPr) Portal: Hotspot service created earlier
    - Authentication Server: Radius Server created earlier.

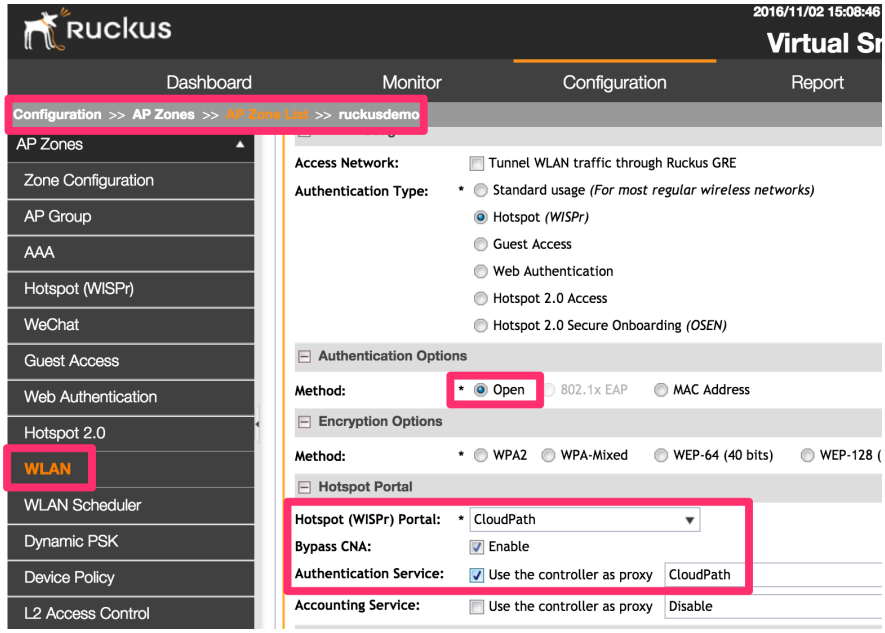

FIGURE 13: OPEN SSID CONFIGURATION

Step 9b: Create a Secure SSID

1. While still in the Configuration > Wireless Network> WLANs menu, click Create New.
2. Create a WLAN with following parameters:
    - Authentication Type: Standard Usage
    - Authentication Option: 802.1x EAP
    - Encryption Method: WPA2
    - Algorithm: AES
    - Authentication Server: Radius Server created earlier.

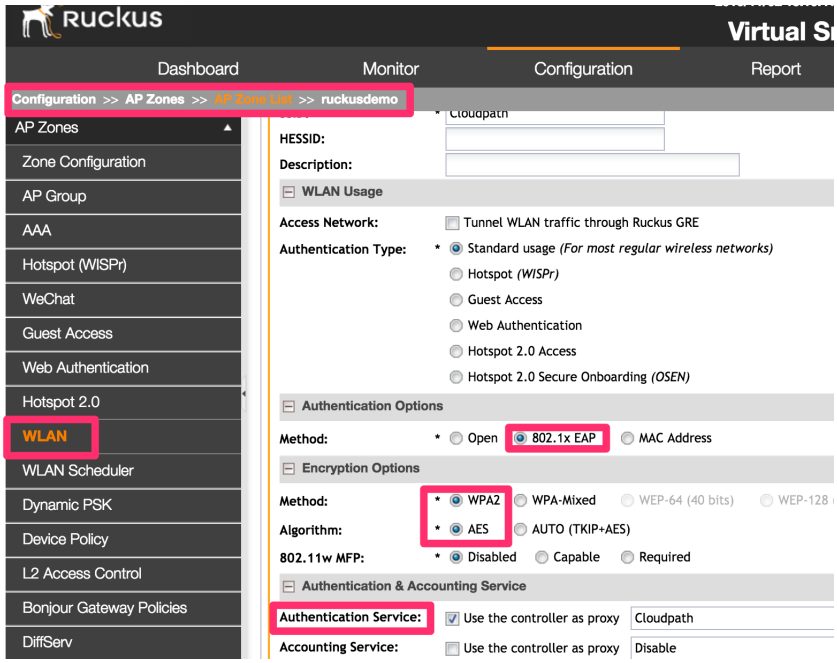

FIGURE 14: SECURE SSID CONFIGURATION

Summary

This document provided a step-by-step guide to configuring a WLAN in the Ruckus SmartZone controllers for the Cloudpath Enrollment System. The Cloudpath client onboarding platform calls for two WLANs (SSIDs): Onboarding and Production. The first one is used for onboarding the clients. This is a Hotspot (WISPr) type SSID and it redirects clients to the Cloudpath Enrollment System (ES). After the client is authenticated, a certificate is downloaded and installed on the client. This certificate provides the client with access to the second secure SSID.

About Ruckus

Headquartered in Sunnyvale, CA, Ruckus Wireless, Inc. is a global supplier of advanced wireless systems for the rapidly expanding mobile Internet infrastructure market. The company offers a wide range of indoor and outdoor "Smart Wi-Fi" products to mobile carriers, broadband service providers, and corporate enterprises, and has over 36,000 end-customers worldwide. Ruckus technology addresses Wi-Fi capacity and coverage challenges caused by the ever-increasing amount of traffic on wireless networks due to accelerated adoption of mobile devices such as smartphones and tablets. Ruckus invented and has patented state-of-the-art wireless voice, video, and data technology innovations, such as adaptive antenna arrays that extend signal range, increase client data rates, and avoid interference, providing consistent and reliable distribution of delay-sensitive multimedia content and services over standard 802.11 Wi-Fi. For more information, visit http://www.ruckuswireless.com.