

Cloudpath Enrollment System Integration with Ruckus WLAN Controllers Configuration Guide, 5.4

Supporting Cloudpath Software Release 5.4

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Configuring the Ruckus Wireless Controllers

This document describes how to configure the Ruckus ZoneDirector, SmartZone, and Unleashed controllers to integrate with the Cloudpath system, and includes the following steps:

- Set up Cloudpath as an AAA Authentication Server
- Create AAA Accounting Server (Optional)
- Create Hotspot Services
- Set Up the Walled Garden
- Create the Onboarding SSID
- Create the Secure SSID

NOTE

The screen shots and corresponding instructions in this manual are based on the following Ruckus Controller versions:

- ZoneDirector 10.1.1
- Virtual SmartZone 3.6.0 (High Scale)
- Unleashed 200.6

If you are using different versions of any controller, please consult your controller documentation because you may encounter some differences in the user interface.

Setting up Cloudpath as an AAA Authentication Server

Create an AAA authentication server for the Cloudpath onboard RADIUS server. The following images show this configuration on the Ruckus ZoneDirector, SmartZone, and Unleashed controllers.

On ZoneDirector, go to Services & Profiles > AAA Servers. On SmartZone, go to Services & Profiles > Authentication. On Unleashed, go to Admin & Services > Services > AAA Servers > Authentication Servers.

FIGURE 1 Create AAA Authentication Server on ZoneDirector

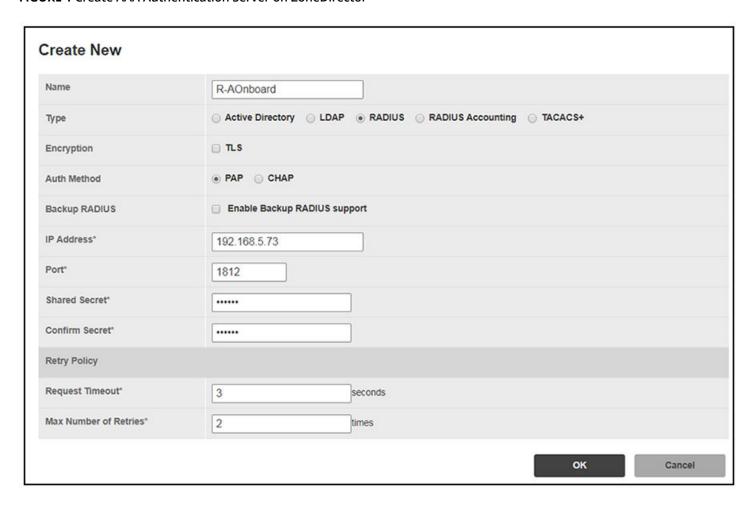


FIGURE 2 Create AAA Authentication Server on SmartZone

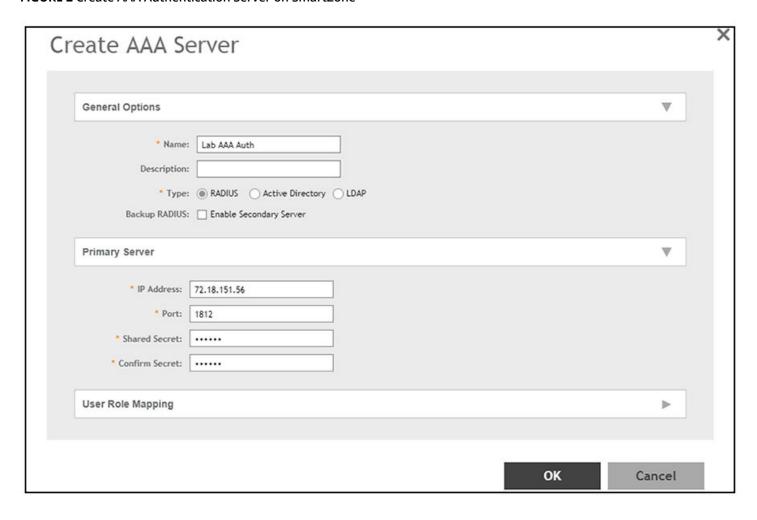
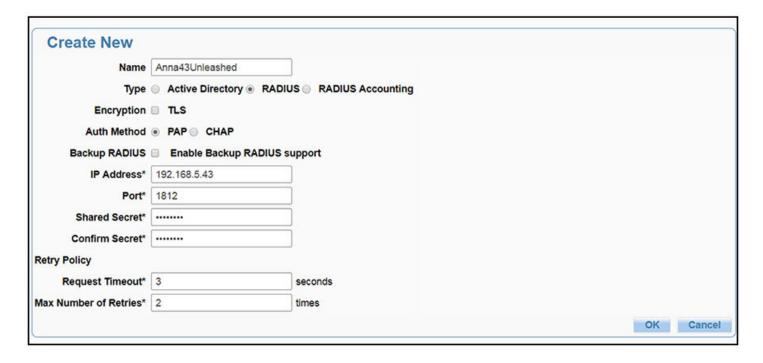


FIGURE 3 Create AAA Authentication Server on Unleashed



Enter the following values for the **Authentication** Server:

- 1. Name
- 2. Type = RADIUS
- 3. Auth Method (not applicable for SmartZone) = PAP
- 4. IP address = The IP address of the Cloudpath ES.
- 5. Port = 1812
- Shared Secret = This must match the shared secret for the Cloudpath ES onboard RADIUS server. (Configuration > RADIUS Server).
- 7. Leave the default values for the remaining fields.

Creating AAA Accounting Server (Optional)

Use the same process to create the AAA Accounting Server.

NOTE

To navigate to the correct screen on Ruckus SmartZone, go to Services & Profiles > Accounting.

Enter the following values for the **Accounting** Server:

- 1. Name
- 2. Type = RADIUS ACCOUNTING.
- 3. IP address = The IP address of the Cloudpath ES.

4. Port = 1813

NOTE

The Authentication server uses port 1812. The Accounting server uses port 1813.

- Shared Secret = This must match the shared secret for the Cloudpath ES onboard RADIUS server. (Configuration > RADIUS Server)
- 6. Leave the default values for the remaining fields.

Running Authentication Test

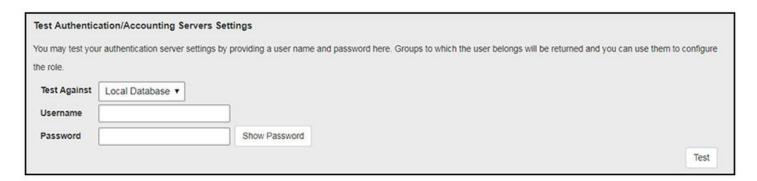
You can test the connection between the controller and the Cloudpath ES RADIUS server.

Follow the instructions for the applicable controller. For the possible results, see Possible Results from Authentication Test.

ZoneDirector

At the bottom of the AAA server page, there is a section called "Test Authentication/Accounting Servers Settings." The Test Against field should be Local Database, as shown below. Enter a test User Name and Password, then click the **Test** button.

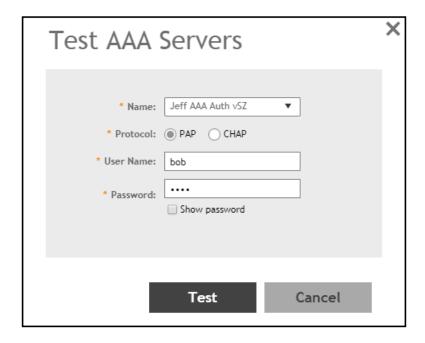
FIGURE 4 Authentication Test on ZoneDirector



SmartZone

When you save a configuration for an AAA Authentication server in SmartZone, you can click the **Test AAA** tab at the top of the screen, select the server from the drop-down list, enter your credentials, then click the **Test** button.

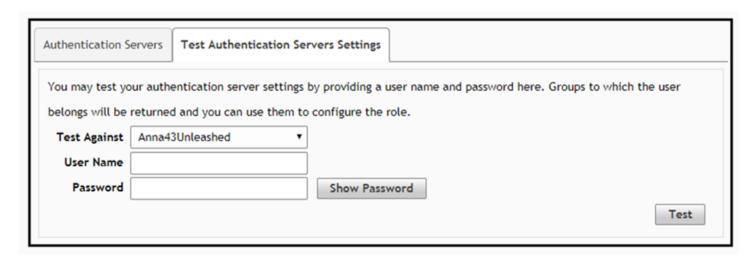
FIGURE 5 Authentication Test on SmartZone



Unleashed

Enter the test credentials on the Test Authentication Servers Settings tab, then click the Test button.

FIGURE 6 Authentication Test on Unleashed



Possible Results from Authentication Test

If you run the authentication test, you receive one of these responses:

- Failed! Connection timed out
- Failed! Invalid username and password

Authentication Failed

The only one of these responses that means that connectivity was established is:

Failed! Invalid username or password

Creating Hotspot Services

You can configure the Hotspot Service on the ZoneDirector, SmartZone, or Unleashed controllers.

Navigate to: For ZoneDirector, go to Services & Profiles > Hotspot Services. For SmartZone, go to Services & Profiles > Hotspots & Portals > Hotspot WISPr. For Unleashed, go to Admin & Services > Services > Hotspot Services, then use both the General tab and the Authentication tab, as instructed later in this section.

2. Name the Hotspot Service.

FIGURE 7 Create Hotspot Service on ZoneDirector



FIGURE 8 Create Hotspot WISPr on SmartZone

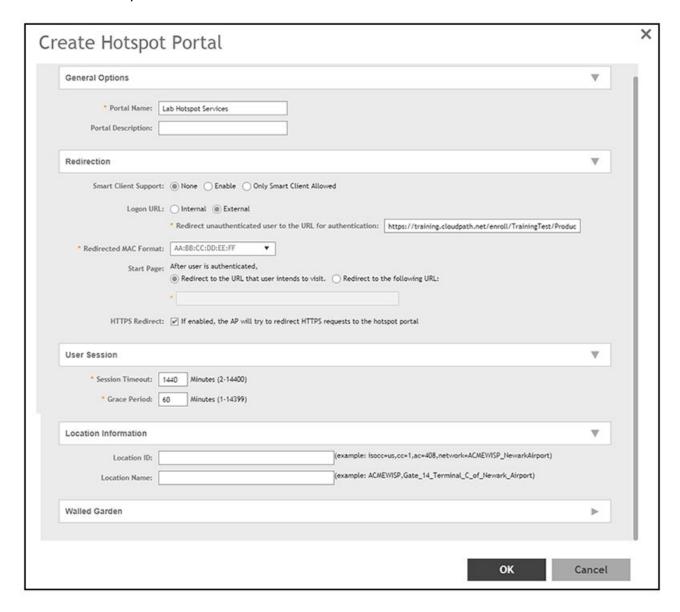
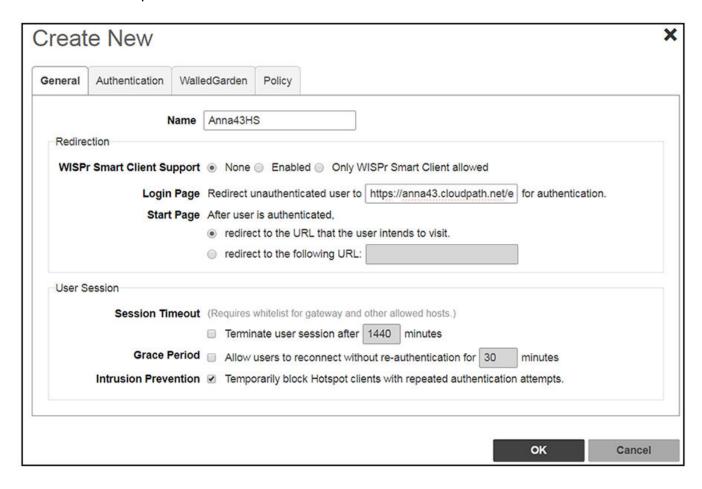


FIGURE 9 Create Hotspot Service on Unleashed - General Tab



General Authentication WalledGarden Policy Authentication/Accounting Servers **Authentication Server** Anna43Unleashed Create New Enable MAC authentication bypass(no redirection). Use device MAC address as authentication password. Use as authentication password. MAC Address AA:BB:CC:DD:EE:FF **Format Accounting Server** Anna43UnleashedACCT Create New • Send Interim-Update every minutes Wireless Client Isolation Isolate wireless client traffic from other clients on the same AP. Isolate wireless client traffic from all hosts on the same VLAN/subnet. No WhiteList **Create New** (Requires whitelist for gateway and other allowed hosts.) Location Information Location ID (e.g. isocc=us,cc=1,ac=408,network=ACMEWISP_NewarkAirport) **Location Name** (e.g. ACMEWISP, Gate_14_Terminal_C_of_Newark_Airport)

FIGURE 10 Create Hotspot Service on Unleashed - Authentication Tab

- 3. Point the unauthenticated user to the **Cloudpath Enrollment Portal URL**, which can be found on the **Cloudpath Admin UI Configuration** > **Workflows** page, in the **Workflows** table.
- 4. Check Redirect to the URL that the user intends to visit.
- 5. Select the **Cloudpath RADIUS Authentication Server**. Applicable only for ZoneDirector and Unleashed (**Authentication** tab) in this screen.
- 6. Select **Enable MAC authentication bypass (no redirection)**. Applicable only for ZoneDirector and Unleashed (**Authentication** tab) in this screen. Selecting this field allows users with registered MAC addresses to be transparently authorized without having to log in.
- 7. For MAC Address Format (which appears when you select **Enable MAC authentication bypass (no redirection)** in the preceding step, it is recommended that you select the following option from the drop-down list: AA:BB:CC:DD:EE:FF
- 8. Select the **Cloudpath RADIUS Accounting Server**. Applicable only for ZoneDirector and Unleashed (**Authentication** tab).
- 9. Leave the defaults for the remaining settings. Click **OK**.

OK

Cancel

Setting Up the Walled Garden

Perform the following steps to add a walled garden configuration to your existing Hotspot Services configuration:

1. Navigate to: For ZoneDirector, go to Services & Profiles > Hotspot Services. For SmartZone, go to Services & Profiles > Hotspots & Portals > Hotspot WISPr. For Unleashed, go to Admin & Services > Services > Hotspot Services.

 For ZoneDirector and SmartZone, use the edit function on the existing Hotspot Services configuration, then scroll to the Walled Garden section and expand this section. For Unleashed, click the WalledGarden on the existing Hotspot Services configuration.

FIGURE 11 Walled Garden Configuration for ZoneDirector

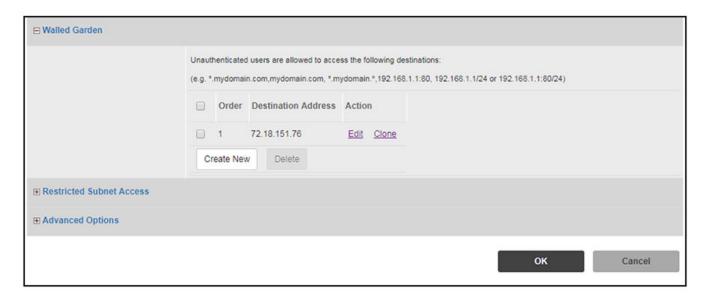


FIGURE 12 Walled Garden Configuration for SmartZone

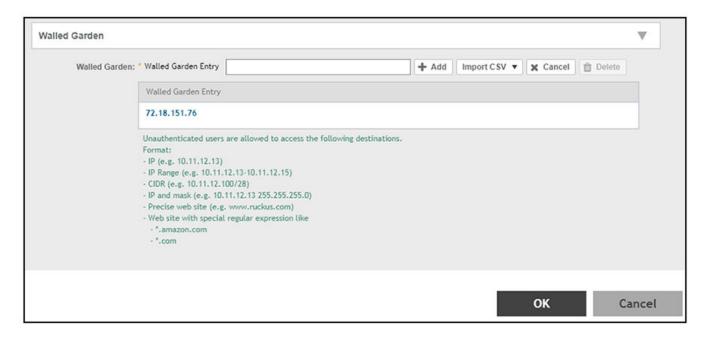


FIGURE 13 Walled Garden Configuration for Unleashed



- 3. Include the DNS or IP address of the Cloudpath system, then click **OK**.
- 4. Optionally, there are some domains that you can add to the walled garden on all controllers to:
 - Prevent the Apple CNA mini-browser from appearing on Apple devices.
 - Avoid being blocked or slowed when attempting to download the Cloudpath wizard.

NOTE

There will still be about a 15-to-20-second delay when the full application is 33 percent complete (about 40 MB) in its download.

The recommended destinations to add for the walled garden are:

```
*.ggpht.com
*.play.googleapis.com
*.googleapis.com
*.play.google.com
android.clients.google.com
*.gvtl.com
connectivitycheck.android.com
connectivitiycheck.google.com
*.gstatic.com
*.gstatic.com
*.clients3.google.com
*.thawte.com
```

NOTE

The *thawte.com destination is the OCSP URL of the SSL certificate of the Cloudpath server. This URL can be found by clicking the *lock* icon in your web browser and viewing the details of your certificate.

- 5. If you are still experiencing issues, you can try adding the following destinations to the walled garden:
 - *.clients.google.com
 *.l.google.com

 - *.googleusercontent.com
 - \star .appengine.google.com
 - *.cloud.google.com
 - *.android.com
 - *.cloudfront.net
 - *.akamaihd.net

172.217.0.0/16

216.58.0.0/16

Creating the Onboarding SSID

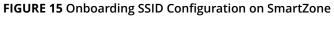
To configure the onboarding SSID, navigate to: For ZoneDirector and SmartZone, go to the Wireless LANS section of the controller UI; for Unleashed, go to **Wifi Networks** to create the WLAN.

1. Name the SSID.

2. Type=Hotspot Service (WISPr).

FIGURE 14 Onboarding SSID Configuration on ZoneDirector





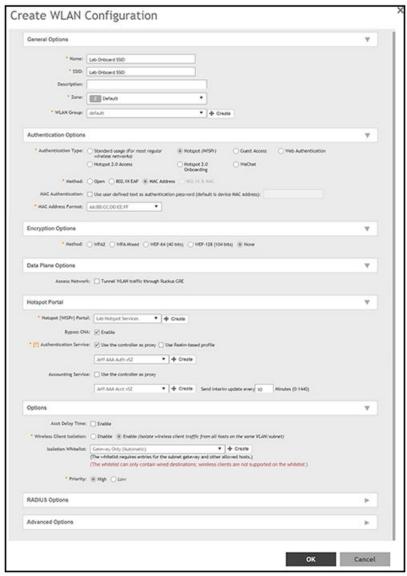
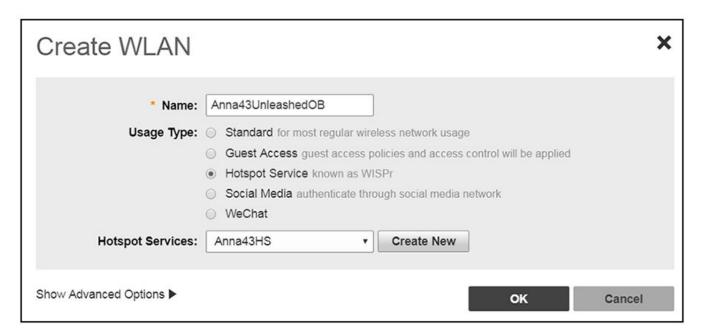


FIGURE 16 Onboarding SSID Configuration for Unleashed



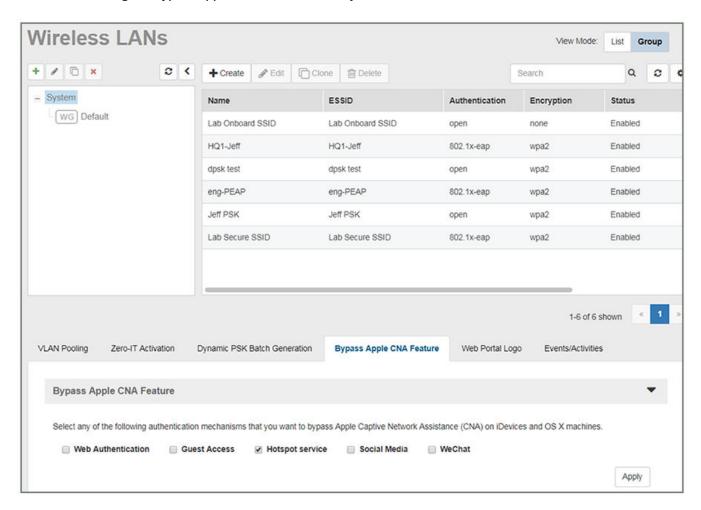
- 3. Authentication Options Method=Open for ZoneDirector, MAC Address for SmartZone. (Not applicable for Unleashed.)
- 4. The checkbox next to MAC Authentication (SmartZone only) called "Use user defined text as authentication password (default is device MAC address):" can be left unchecked.
- 5. The MAC Address Format (SmartZone only) recommended selection is: AA:BB:CC:DD:EE:FF. This is the default for most RADIUS servers.
- 6. Encryption Options Method=None (ZoneDirector and SmartZone).
- 7. Select the Hotspot Service from the drop-down list that you should already have created in a previous step procedure.
- 8. Enable the **Bypass CNA** feature as follows, depending on the controller:
 - For SmartZone: Check the box to enable "Bypass CNA," as shown in Figure 15.
 - For ZoneDirector, after you finish configuring the onboarding SSID, refer to Figure 17 on page 22.
 - For Unleashed, after you finish configuring the onboarding SSID, refer to Figure 19 on page 23.
- 9. Select the Cloudpath RADIUS Authentication Server (SmartZone only).
- 10. Select the Cloudpath RADIUS Accounting Server (SmartZone only).
- 11. Leave the defaults for the remaining settings and click **OK** (or **Apply**).

Enabling Bypass CNA on ZoneDirector

It is recommended to enable the "Bypass Apple CNA Feature," which you can do globally for wireless LANs in ZoneDirector.

1. In the Wireless LANs main screen, click on **Bypass Apple CNA Feature**, as shown in the following figure:

FIGURE 17 Enabling the Bypass Apple CNA Feature Globally on ZoneDirector



- 2. In the "Bypass Apple CNA Feature" area of the screen, check the "Hotspot service" box.
- 3. Click **Apply** to enable the "Bypass Apple CNA Feature" globally on all Wireless LANs that are configured as type "Hotspot Service (WISPr)."

Enabling Bypass CNA on Unleashed

It is recommended to enable the "Bypass Apple CNA Feature," which you can do globally for wireless LANs in Unleashed.

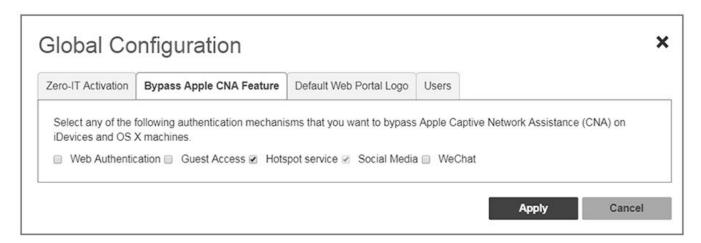
1. In the WiFi Networks main screen (see figure below), click **Edit**.

FIGURE 18 Clicking the Edit Button Brings you to Global Configuration



2. In the Global Configuration screen that pops up, click **Bypass Apple CNA Feature**.

FIGURE 19 Enabling the Bypass Apple CNA Feature Globally on Unleashed



- 3. In the "Bypass Apple CNA Feature" area of the screen, check the "Hotspot service" box.
- 4. Click **Apply** to enable the "Bypass Apple CNA Feature" globally on all Wireless LANs that are configured as type "Hotspot Service (WISPr)."

Creating the Secure SSID

To configure the onboarding SSID, navigate to: For ZoneDirector and SmartZone, go to the Wireless LANS section of the controller UI; for Unleashed, go to **Wifi Networks** to create the WLAN.

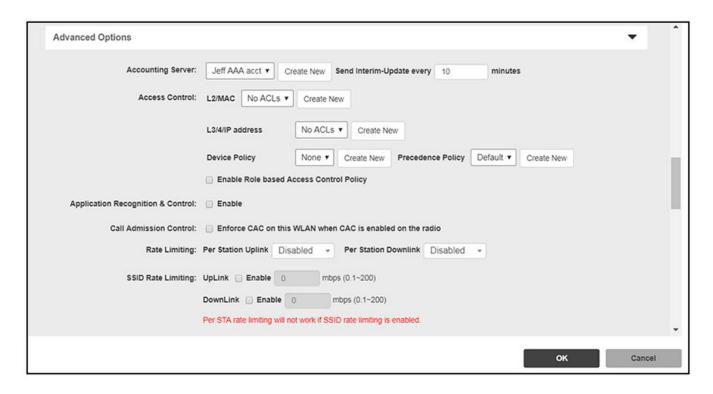
- 1. Name the SSID.
- 2. Type=Standard Usage.
- 3. Authentication Option Method=802.1x EAP.
- 4. Encryption Option Method=WPA2 (not applicable for Unleashed once the 802.1x EAP authentication option method is selected).
- 5. Encryption Option Algorithm=AES (not applicable for Unleashed once the 802.1x EAP authentication option method is selected).
- 6. Select the Cloudpath RADIUS authentication server.
- 7. Select the Cloudpath RADIUS accounting server (required only if you are using Cloudpath onboard RADIUS Accounting and Connection Tracking). **Note**: For ZoneDirector, you need to expand the Advanced Options section of the screen to locate the drop-down selection for the accounting server.

8. Leave the defaults for the remaining settings and click **OK**.

FIGURE 20 Configure Secure SSID on the ZoneDirector controller



FIGURE 21 Select RADIUS Accounting Server on ZoneDirector



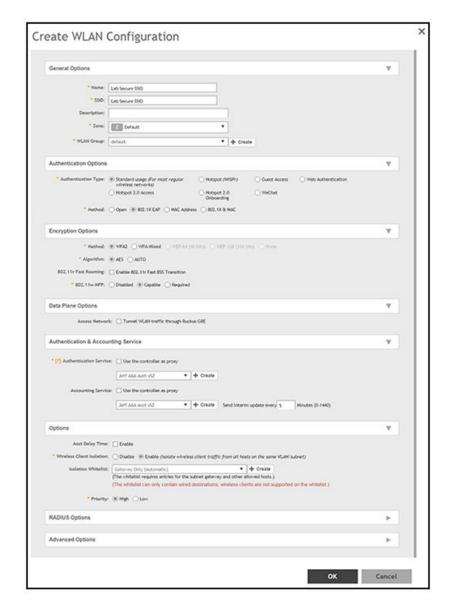
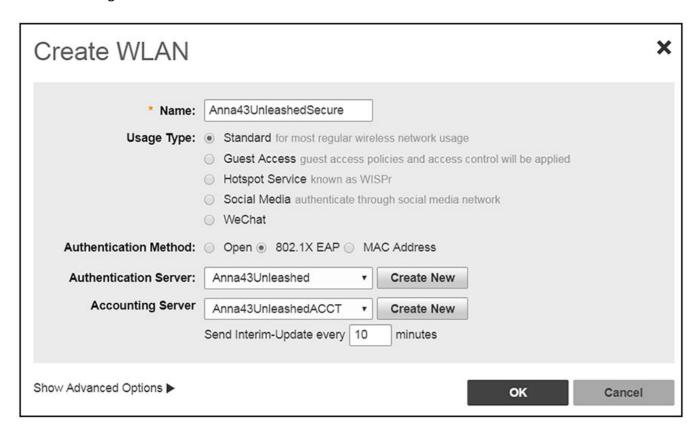


FIGURE 22 Configure Secure SSID on the SmartZone controller

FIGURE 23 Configure Secure SSID on the Unleashed controller



The SSIDs are now configured on the wireless LAN controller. When the user connects to the onboarding (open) SSID they are redirected to the Cloudpath web page. When the user successfully completes the enrollment process, they are migrated to the secure SSID.

