CONFIGURATION GUIDE

Cloudpath Enrollment System Integration with RUCKUS WLAN Controllers Configuration Guide, 5.9R4

Supporting Cloudpath Software Release 5.9R4

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Configuring the Ruckus Wireless Controllers

This section describes how to configure RUCKUS Virtual SmartZone, RUCKUS Unleashed, and RUCKUS ZoneDirector to integrate with the Cloudpath system. The information provided here is specific to integrating Cloudpath with one of these controllers. Consult your controller documentation for more information.

Configuring Virtual SmartZone

This section includes tables of configuration fields and values for setting up the Vitrual SmartZone (vSmartZone) Controller. For more information, such as how to navigate the vSmartZone UI, how to find more information about configuration fields, and to view screen shots of the vSmartZone UI, refer to the *RUCKUS SmartZone 300 and Virtual SmartZone-High Scale Administrator Guide*.

NOTE

For any configuration fields that are not described in the following sections, you can use their default values.

Setting up Cloudpath as an AAA RADIUS Authentication Server

TABLE 1 Fields/Values to Use for vSmartZone AAA Authentication Service

AAA Authentication Service Section in vSmartZone UI	Configuration Field and Corresponding Value
General Options	Name: Any descriptive name for the AAA authentication service
	Type: RADIUS
Primary Server	IP Address: The IP address of the Cloudpath Enrollment System.
	Port: 1812 is typically used and is the default.
	Shared Secret: This must match the shared secret for the Cloudpath ES onboard RADIUS server (**Configuration > RADIUS Server**).
	Confirm Secret: The shared secret (entered again).

Creating AAA RADIUS Accounting Server (Optional)

TABLE 2 Fields/Values to Use for SmartZone AAA Accounting Service

AAA Accounting Service Section in vSmartZone UI	Configuration Field and Corresponding Value
General Options	Name: Any descriptive name for the AAA accounting service
	Type: RADIUS ACCOUNTING
Primary Server	IP Address: The IP address of the Cloudpath Enrollment System.
	Port: 1813 is typically used and is the default.
	Shared Secret: This must match the shared secret for the Cloudpath ES onboard RADIUS server (**Configuration > RADIUS Server**).
	Confirm Secret: The shared secret (entered again).

Testing AAA Servers

To test the connection between the controller and the Cloudpath RADIUS server, RUCKUS strongly recommends testing the AAA server after you set it up. Refer to the instructions in the *RUCKUS SmartZone 300 and Virtual SmartZone-High Scale Administrator Guide*.

Creating a Hotspot (WISPr) Portal

TABLE 3 Fields/Values to Use for Creating a Hotspot (WISPr) Portal

Creating a Hotspot (WISPr) Portal section in vSmartZone UI	Configuration Field and Corresponding Value
General Options	Portal Name: Any descriptive name for the hotspot portal.
Redirection	Login URL: Select "External."
	Redirect unauthenticated user: The Cloudpath Enrollment Portal URL, which should be contained in the applicable workflow in the Cloudpath UI (**Configuration > Workflows**).
	Start Page: After user is authenticated,: Select "Redirect to the URL that the user intends to visit." This lets you set a different page where users will be redirected (for example, your company website). Enter a domain name or an IP address for the redirection.

Setting Up the Walled Garden

To add a walled garden configuration to your existing Hotspot Services, refer to the instructions in the *RUCKUS SmartZone 300 and Virtual SmartZone-High Scale Administrator Guide*.

Also, when configuring the walled garden, include the following steps:

1. Include the DNS or IP address of the Cloudpath system, then click **OK**
2. 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
   *.gvt1.com
   connectivitycheck.android.com
   connectivitiycheck.google.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.

3. 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
   *.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

TABLE 4 Fields/Values to Use for SmartZone Onboarding SSID

Creating a WLAN Configuration (for Onboarding SSID) section in vSmartZone UI	Configuration Field and Corresponding Value
General Options	Name: Name of the SSID
	SSID: Name of the WLAN
	Zone: Zone in which the WLAN will reside
	WLAN Group: Group in which the WLAN will reside
Authentication Options	Authentication Type: Hotspot (WISPr)
	Method: MAC Address
	MAC Authentication: Unchecked
	MAC Address Format: Recommended format is AA:BB:CC:DD:EE:FF
Encryption options	Method: None
Hotspot Portal	Hotspot (WISPr) Portal: Drop-down list to selet the already-created hotspot service.
	Bypass CNA: Enable
	Authentication Server: Drop-down list to select the Cloudpath RADIUS Authentication Server
	Accounting Server: Drop-down list to select the Cloudpath RADIUS Accounting Server

Configuring Unleashed

This section includes tables of configuration fields and values for setting up the RUCKUS Unleashed platform. For more information, such as how to navigate the Unleashed UI, how to find more information about configuration fields, and to view screen shots of the Unleashed UI, refer to the *RUCKUS Unleashed User Guide*.

NOTE
For any configuration fields that are not described in the following sections, you can use their default values.

Setting up Cloudpath as an AAA RADIUS Authentication Server

TABLE 5 Fields/Values to Use for Unleashed AAA Authentication Service

Configuration Field	Corresponding Value
Name	Name: Any descriptive name for the AAA authentication service
Type	RADIUS
Auth Method	PAP
IP Address	The IP address of the Cloudpath Enrollment System.
Port	1812 is typically used and is the default.

TABLE 5 Fields/Values to Use for Unleashed AAA Authentication Service (continued)

Configuration Field	Corresponding Value
Shared Secret	This must match the shared secret for the Cloudpath ES onboard RADIUS server (**Configuration > RADIUS Server**).
Confirm Secret	Confirm Secret: The shared secret (entered again).

Creating AAA Accounting Server (Optional)

TABLE 6 Fields/Values to Use for Unleashed AAA RADIUS Accounting Service

Configuration Field	Corresponding Value
Name	Name: Any descriptive name for the AAA accounting service
Type	RADIUS ACCOUNTING
IP Address	The IP address of the Cloudpath Enrollment System.
Port	1813 is typically used and is the default.
Shared Secret	This must match the shared secret for the Cloudpath ES onboard RADIUS server (**Configuration > RADIUS Server**).
Confirm Secret	Confirm Secret: The shared secret (entered again).

Testing AAA Servers

To test the connection between Unleashed and the Cloudpath RADIUS server, RUCKUS strongly recommends testing the AAA server after you set it up. Refer to the instructions in the *RUCKUS Unleashed User Guide*.

Creating a Hotspot (WISPr) Portal

TABLE 7 Fields/Values to Use for Creating a Hotspot (WISPr) Portal

Creating a Hotspot (WISPr) Portal Section in Unleashed UI	Configuration Field and Corresponding Value
General tab	Name: Any descriptive name for the hotspot portal.
Redirection (General tab)	Redirect unauthenticated user: The Cloudpath Enrollment Portal URL, which should be contained in the applicable workflow in the Cloudpath UI (**Configuration > Workflows**).
	Start Page: After user is authenticated,: Select "Redirect to the URL that the user intends to visit." This lets you set a different page where users will be redirected (for example, your company website). Enter a domain name or an IP address for the redirection.
Authentication/Accounting Servers (Authentication tab)	Authentication Server: Drop-down list to select the Cloudpath RADIUS Authentication Server. **NOTE** Enabling this option allows users with registered MAC addresses to be transparently authorized without having to log in. A user entry on the RADIUS server needs to be created using the client MAC address as both the user name and password. For the MAC address format, RUCKUS recommends using AA:BB:CC:DD:EE:FF.
Authentication/Accounting Servers (Authentication tab)	Accounting Server: Drop-down list to select the Cloudpath RADIUS Accounting Server (if applicable).

Setting Up the Walled Garden

To add a walled garden configuration, refer to the instructions in the *RUCKUS Unleashed User Guide*.

Also, when configuring the walled garden, include the following steps:

1. Include the DNS or IP address of the Cloudpath system, then click **OK**
2. 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
   *.gvt1.com
   connectivitycheck.android.com
   connectivitiycheck.google.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.

3. 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
   *.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

TABLE 8 Fields/Values to Use for Unleashed Onboarding SSID

Configuration Field	Corresponding Value
Name	Name of the SSID
Usage Type	Hotspot Service known as WISPr
Hotspot Services	Drop-down list to selet the already-created hotspot service

NOTE
RUCKUS recommends enabling the "Bypass Apple CNA" feature. For instructions, refer to the *RUCKUS Unleashed User Guide*.

Configuring ZoneDirector

This section includes tables of configuration fields and values for setting up the ZoneDirector Controller. For more information, such as how to navigate the ZoneDirector UI, how to find more information about configuration fields, and to view screen shots of the vSmartZone UI, refer to the *RUCKUS ZoneDirector User Guide*.

NOTE
For any configuration fields that are not described in the following sections, you can use their default values.

Setting up Cloudpath as an AAA RADIUS Authentication Server

TABLE 9 Fields/Values to Use for ZoneDirector AAA Authentication Service

Configuration Field	Corresponding Value
Name	Name: Any descriptive name for the AAA authentication service
Type	RADIUS
Auth Method	PAP
IP Address	The IP address of the Cloudpath Enrollment System.
Port	1812 is typically used and is the default.
Shared Secret	This must match the shared secret for the Cloudpath ES onboard RADIUS server (**Configuration > RADIUS Server**).
Confirm Secret	Confirm Secret: The shared secret (entered again).

Creating AAA RADIUS Accounting Server (Optional)

TABLE 10 Fields/Values to Use for ZoneDirector AAA Accounting Service

Configuration Field	Corresponding Value
Name	Name: Any descriptive name for the AAA accounting service
Type	RADIUS ACCOUNTUING
Auth Method	PAP
IP Address	The IP address of the Cloudpath Enrollment System.
Port	1813 is typically used and is the default.
Shared Secret	This must match the shared secret for the Cloudpath ES onboard RADIUS server (**Configuration > RADIUS Server**).
Confirm Secret	Confirm Secret: The shared secret (entered again).

Testing AAA Servers

To test the connection between the controller and the Cloudpath RADIUS server, RUCKUS strongly recommends testing the AAA server after you set it up. Refer to the instructions in the *RUCKUS ZoneDirector User Guide*.

Creating a Hotspot (WISPr) Portal

TABLE 11 Fields/Values to Use for Creating a Hotspot (WISPr) Portal

Creating a Hotspot (WISPr) Portal section in ZoneDirector UI	Configuration Field and Corresponding Value
Top portion of configuration fields area	Name: Any descriptive name for the hotspot portal.
Redirection	Login URL: Select "External."
	Login Page Redirect unauthenticated user: The Cloudpath Enrollment Portal URL, which should be contained in the applicable workflow in the Cloudpath UI (**Configuration > Workflows**).
	Start Page After user is authenticated,: Select "Redirect to the URL that the user intends to visit." This lets you set a different page where users will be redirected (for example, your company website). Enter a domain name or an IP address for the redirection.
Authentication/Accounting Servers (Authentication tab)	Authentication Server: Drop-down list to select the Cloudpath RADIUS Authentication Server. **NOTE** Enabling this option allows users with registered MAC addresses to be transparently authorized without having to log in. A user entry on the RADIUS server needs to be created using the client MAC address as both the user name and password. For the MAC address format, RUCKUS recommends using AA:BB:CC:DD:EE:FF.
Authentication/Accounting Servers (Authentication tab)	Accounting Server: Drop-down list to select the Cloudpath RADIUS Accounting Server (if applicable).

Setting Up the Walled Garden

To add a walled garden configuration to your existing Hotspot Services, refer to the instructions in the *RUCKUS ZoneDirector User Guide*.

Also, when configuring the walled garden, include the following steps:

1. Include the DNS or IP address of the Cloudpath system, then click **OK**
2. 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
*.gvt1.com
connectivitycheck.android.com
connectivitiycheck.google.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.

3. 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
*.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

TABLE 12 Fields/Values to Use for ZoneDirector Onboarding SSID

Creating a WLAN Configuration (for Onboarding SSID) section in ZoneDirector UI	Configuration Field and Corresponding Value
General Options	Name/ESSID: Name of the SSID
	Zone: Zone in which the WLAN will reside
WLAN Usages	Type: Hotspot (WISPr)
Authentication Options	Method: Open
Encryption Options	Method: None
Options	Hotspot Services Drop-down list to selet the already-created hotspot service.

NOTE
RUCKUS recommends enabling the "Bypass Apple CNA" feature. For instructions, refer to the *RUCKUS ZoneDirector User Guide*.

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 1 Configure Secure SSID on the ZoneDirector controller

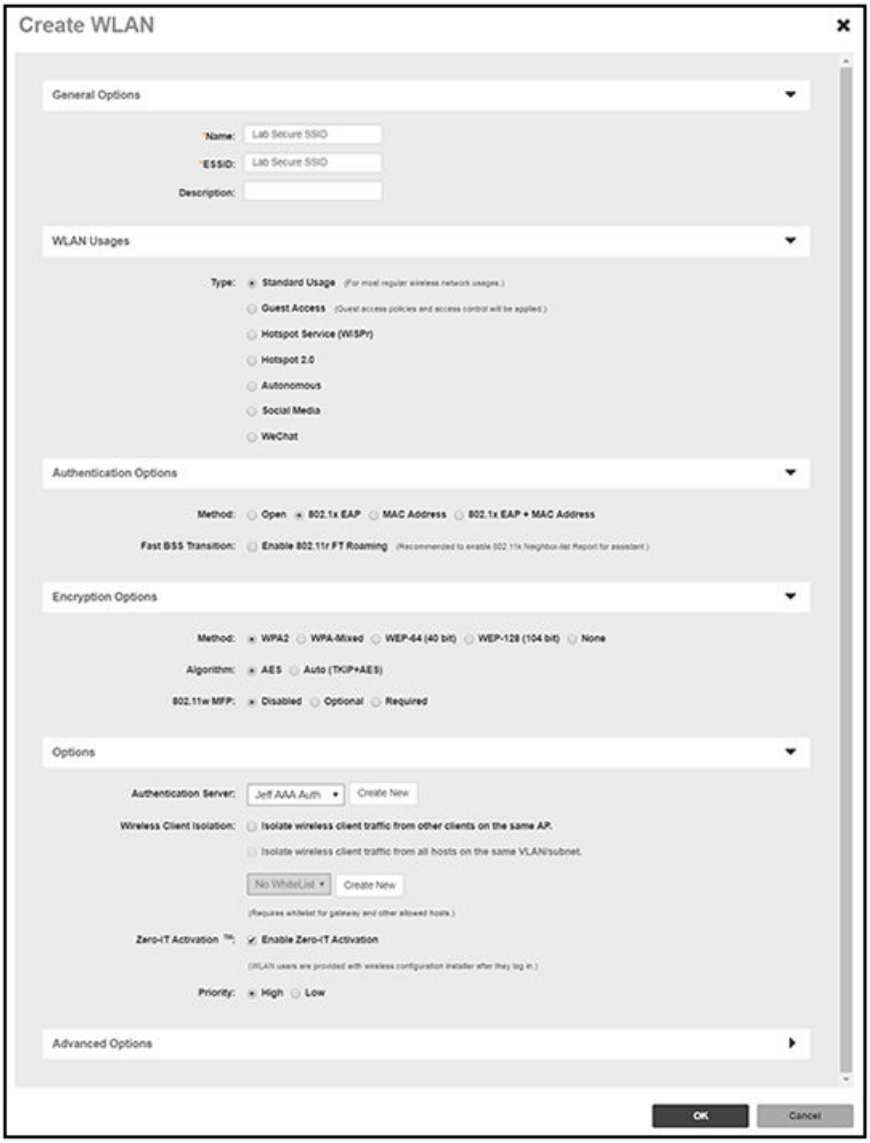


FIGURE 2 Select RADIUS Accounting Server on ZoneDirector

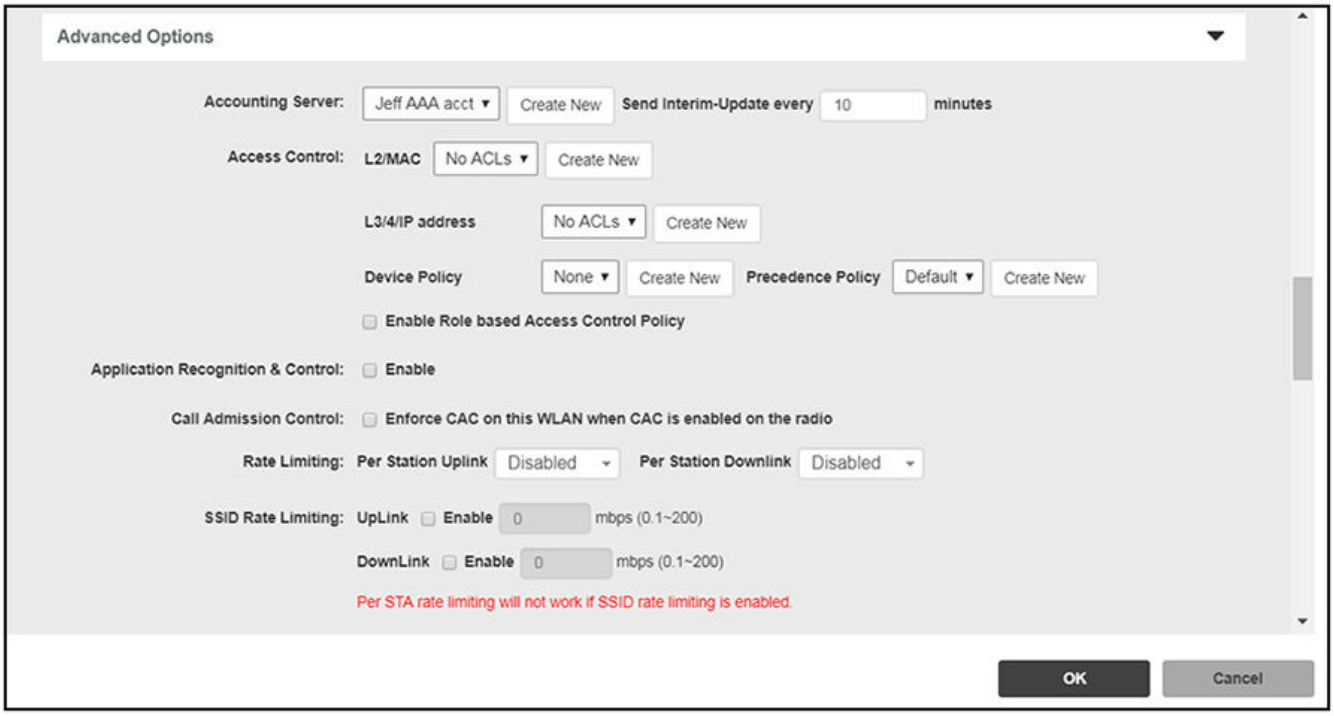


FIGURE 3 Configure Secure SSID on the SmartZone controller

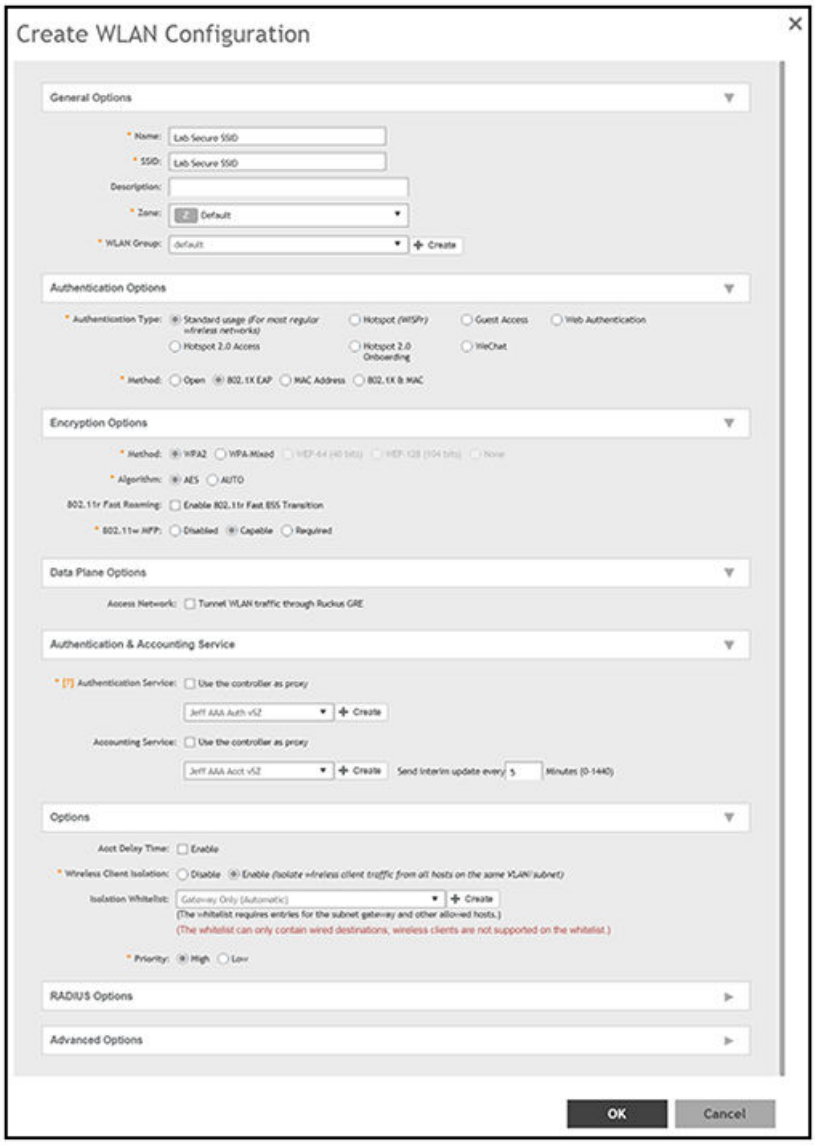
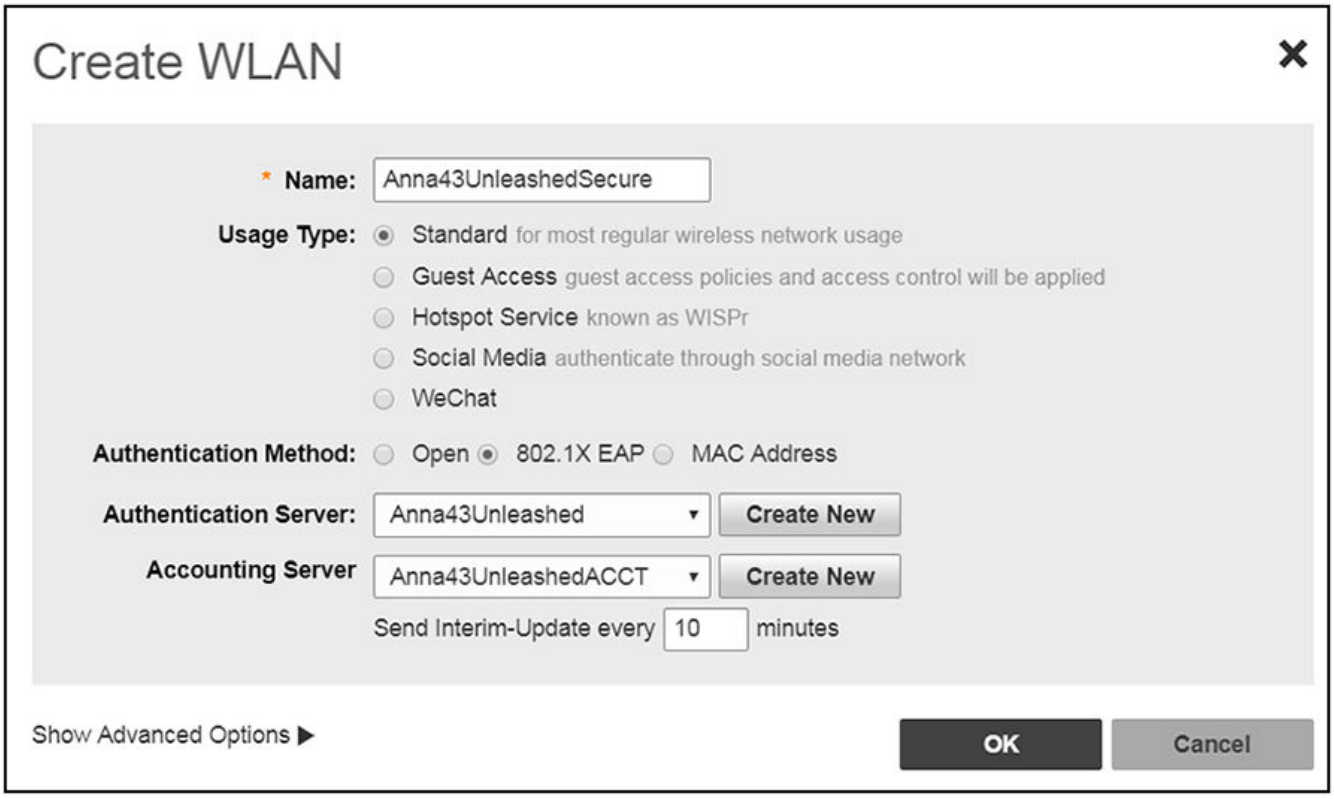


FIGURE 4 Configure Secure SSID on the Unleashed controller



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.

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