Avaya Identity Engines Integration with WLAN 9100 Series

Release 9.0.1 and WLAN 9100 7.0
NN47280-503
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Contents

Chapter 1: New in this release

Avaya Identity Engines Integration with WLAN 9100 Series, NN47280–503 is a new document created to support the following product releases:

- Avaya Identity Engines Release 9.0.1
- Avaya Identity Engines Release 8.0.2
- Avaya WLAN 9100 Series Release 7.0

Chapter 2: Introduction

Avaya Identity Engines Integration, NN47280–503 explains how to add a device (for example, a WLAN 9100 Series wireless access point) to Identity Engines to act as an authenticator. An authenticator is a device (switch, wireless access point, or VPN gateway) that allows users and devices to connect to your network. The Identity Engines Ignition Server manages access control and provisioning for wireless access points (WAP) when the WAPs are configured as authenticators in Ignition Server.

This guide is written for network administrators using the Avaya Identity Engines Ignition Server. As an administrator, you are responsible for configuring and maintaining the users, devices, objects, policies, and configurations that Identity Engines Ignition Server uses to secure and control access to your networks and other resources. You must be familiar with network terminology, have experience setting up and maintaining networks, and understand their security implementations.

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What is Avaya Identity Engines Ignition Server?

Avaya Identity Engines Ignition Server is an 802.1X-capable RADIUS authentication server and TACACS+ server that grants or denies users access to your network based on your policies. Use the Ignition Server to create a single set of policies that control access for all the ways users connect: through wired, wireless, or VPN. Ignition Server stores access policies, and user accounts remain in your traditional user store(s), such as such as Microsoft Active Directory, Open LDAP, Novell eDirectory, RSA Authentciation Server, and others..

Ignition Server includes an easy-to-configure policy engine that lets you make network access decisions based on the user's identity, account details and group memberships, location of the login attempt, time of day, and other pieces of information. For example, an Ignition Server policy can grant users access based on their identity, their point of access (which network switch or WAP they are connecting through), and their laptop security state (ensuring their laptop is a company-owned laptop as recorded in the corporate Active Directory store and ensuring it has up-to-date antivirus profiles installed).

Ignition Server abilities to check whether the user's workstation has passed MAC authentication, Windows machine authentication, and/or a security posture check are key features that set it apart

from other network access control tools. Ignition Server lets you combine many policy elements to enforce a single rule, such as how to authenticate the user with PEAP/MSCHAPv2, check that their device has been authenticated, and if those are successful, assign the user to the appropriate VLAN based on their role. Ignition Server also authenticates devices. You can configure Ignition Server to offer a bypass of 802.1X authentication for older devices on your network that cannot perform an 802.1X authentication by using the Ignition Access Portal.

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Key characteristics of Ignition Server

The following are the most important, distinct characteristics of Ignition Server:

- **Non-intrusive, out-of-band:** Ignition Server is an out-of-band access control solution and thus easier to install and to scale up than an inline solution. “Out-of-band” means that only the client’s *network sign-on transaction* travels through Ignition Server. After it is signed on, the client’s network traffic travels its usual path.
- **Standards-oriented:** Since Ignition Server is a standards-compliant RADIUS server, it interacts with and can control nearly *every* type of network endpoint: wired switches, wireless access points, and VPN concentrators.
- **Consolidated AAA platform:**Ignition Server handles the three A’s: authentication, authorization and accounting. Ignition Server works with your existing authentication servers (SecurID, Active Directory, and so on) to authenticate the connecting user or device; it uses its policy engine and provisioning framework to authorize the user/device, and it maintains accounting records (audit log) of these connection events in a number of formats.
- **Scales up well:** One Ignition Server serves as the AAA/RADIUS server for *many* network-edge devices: wired, wireless, and VPN.
- **Multiple directory support:** No duplication of user accounts is required. Ignition Server authenticates users and devices against your existing data store that holds those accounts. Ignition Server retrieves information about the user and/or device from many different types and instances of directories: Active Directory, Novell eDirectory, SunONE LDAP, Oracle OID, LDAP, the Ignition Server-local internal store, and others.
- **Split authentication/lookup:** Ignition Server can be configured to authenticate the user against one service and retrieve his or her account details from a separate service for authorization. For example, you can authenticate using RSA SecurID and look up the user account from an LDAP service.
- **Very flexible policy engine:** Ignition Server lets the network administrator use a wide range of criteria including user attributes, device attributes, access type, location, date/time, and others, to make precise, targeted access decisions.
- **Guest access:** A suite of supporting tools lets the network administrator safely and efficiently grant guests access to the network. Avaya Ignition Server Guest Manager delegates the

administrative task of adding temporary users and importing groups of temporary users, and it can allow self provisioning, if so configured.

- **Role-based networking** (also called role-based access control): The user's role or group affiliation recorded in the directory determines what networks and resources he or she can access.
- **High Availability:** You can deploy two Ignition Servers as a linked pair that offers a highly available RADIUS service.

Related Links

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What are Avaya WLAN 9100 Series Wireless Access Points?

The Avaya 9100 Series Wireless Access Points (WAPs) are designed to provide distributed intelligence, integrated switching capacity, application-level intelligence, increased bandwidth, and smaller size. The radios support IEEE802.11 ac, a, b, g, and n clients, and feature the capacity and performance needed to replace switched Ethernet to the desktop.

The Wireless Access Point is a high capacity, multi-mode device. Its distributed intelligence eliminates the use of separate controllers and their accompanying bottlenecks.

The Avaya 9100 Series Wireless Access Points are Wi-Fi® compliant and simultaneously support 802.11ac (on .11ac models), 802.11a, 802.11b, 802.11g, and 802.11n clients. The multi-state design allows you to assign radios to 2.4 GHz and 5 GHz bands (or both) in any desired arrangement. Integrated switching and active enterprise class features such as VLAN support and multiple SSID capability enable robust network compatibility and a high level of scalability and system control.

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Training

Ongoing product training is available. For more information or to register, you can access the Web site at http://avaya-learning.com/.

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About this task

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Procedure

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  - Enter a key word or key words in the Search Channel to search for a specific product or topic.
  - Scroll down Playlists, and click the name of a topic to see the available list of videos posted on the site.

    Note:

    Videos are not available for all products.

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Visit the Avaya Support website at http://support.avaya.com for the most up-to-date documentation, product notices, and knowledge articles. You can also search for release notes, downloads, and resolutions to issues. Use the online service request system to create a service request. Chat with live agents to get answers to questions, or request an agent to connect you to a support team if an issue requires additional expertise.

Related Links

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Chapter 3: Licensing

The Identity Engines Ignition Server has three types of base licenses.

Base license type	Number of supported authenticators
LITE	5
SMALL	20
LARGE	Unrestricted

Identity Engines provides special treatment to the Avaya WLAN 9100 from a licensing perspective. Fifteen WLAN 9100 APs are considered 1 standard authenticator.

The Identity Engines licensing support for WLAN 9100 is delivered in two phases:

- Long term solution
- Intermediate term solution

Long Term Solution

The long term solution will be delivered through an upcoming future release of Identity Engines that will incorporate out of the box licensing, device template and RADIUS attribute support for the WLAN 9100.

- Out-of-the-box support WLAN 9100
- Pre-configured Identity Engines with Avaya WLAN as a new vendor with supported VSAs by the WAP 9100
- Pre-configured Identity Engines with WLAN 9100 Device Template
- Pre-configured Identity Engines with Outbound Attributes supported by the WAP 9100
- Identity Engines built-in logic for considering 15 x WAP 9100 APs = 1 x Standard Authenticator

Intermediate Term Solution

The intermediate term solution is based on the following process:

- Customer purchase Identity Engines based on 15 x WAP 9100 APs = 1 x IDE Authenticator
- Customer or partner should continue to follow the standard process of requesting licenses for Identity Engines by sending an email to datalicensing@avaya.com. The E-mail request must note that the deployment includes Avaya WLAN 9100 APs so that the appropriate licenses will be provided
- Customer or partner will be provided with temporary long term Identity Engines licenses that will accommodate the number of Avaya WLAN 9100 APs being deployed

- When the release of Identity Engines which incorporates the built-in licensing logic is available, the temporary licenses will be replaced with appropriate permanent licenses
- Questions or concerns should be directed to datalicensing@avaya.com

Chapter 4: Ignition Server configuration for WLAN 9100 Series APs

Each WLAN 9100 Series Access Point (AP) must be configured to point to Identity Engines as its RADIUS Server.

The following configuration must be performed on the Ignition Server:

- Configure a Vendor Type. See Configuring Vendor Type on page 13.
- Configure a Device Template. See Configuring the Device Template on page 16.
- Configuring the Outbound Values. See Configuring the Outbound Values on page 17.
- Add the APs to Ignition Server as Authenticators. See Adding APs to Ignition Server as Authenticators on page 19.

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Configuring the Device Template on page 16
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Configuring APs as Authenticators in bulk on page 21

Configuring Vendor Avaya WLAN

About this task

Configure the WLAN 9100 Series Vendor Type in Ignition Server.

Note:

This procedure only needs to be performed once for the WLAN 9100 Series APs.

Procedure

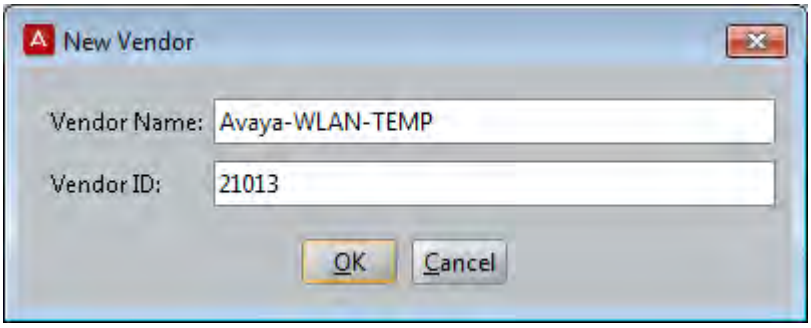
1. In the Ignition Server navigation pane, expand **Site Configuration**, expand **Provisioning**, and click **Vendors/VSAs**.

   The **Vendors** window displays.

2. At the top of the Vendors list, click **Actions**, and select **New Vendor** from the drop-down list.

   The **New Vendor** window displays.

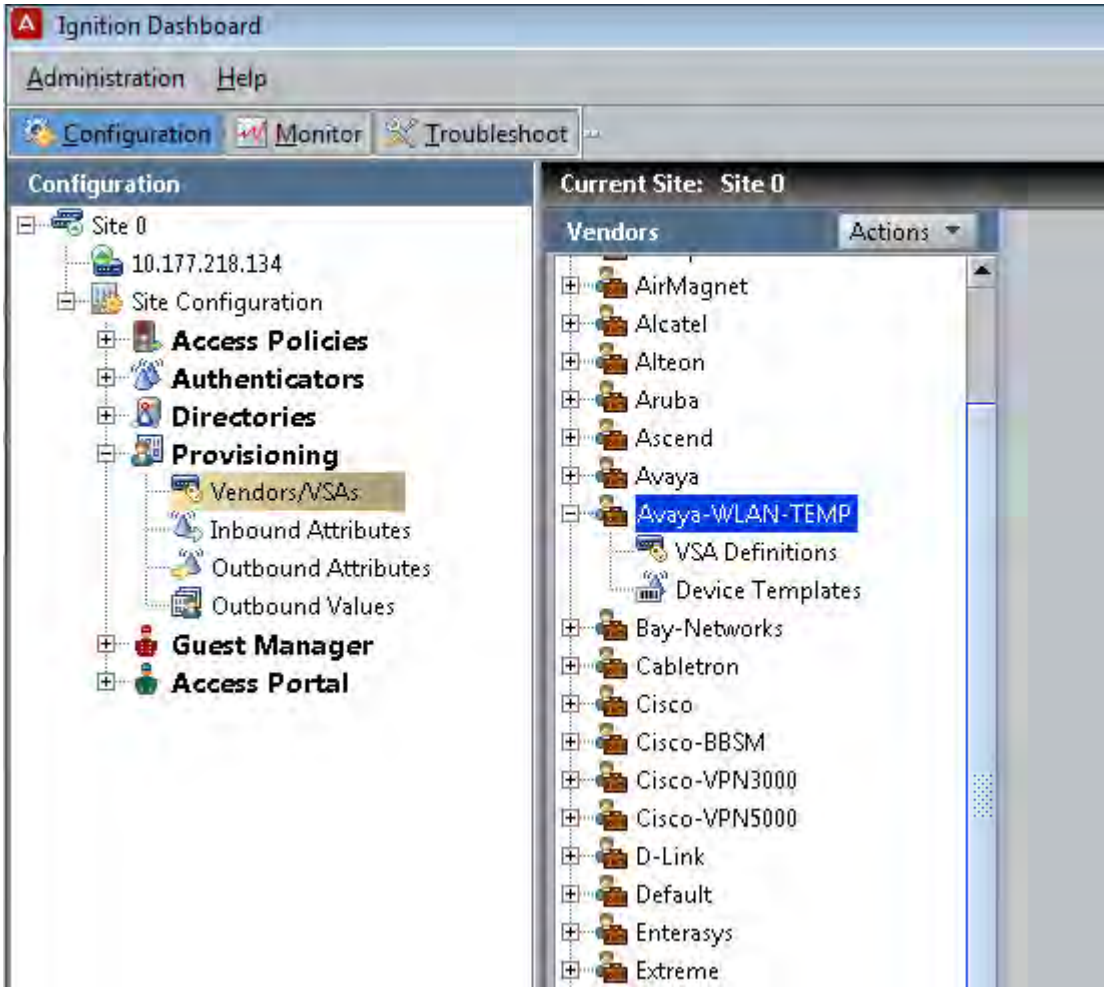
3. In the **Vendor Name** field, type the name `Avaya-WLAN-TEMP`.
4. In the **Vendor ID** field, type `21013`.



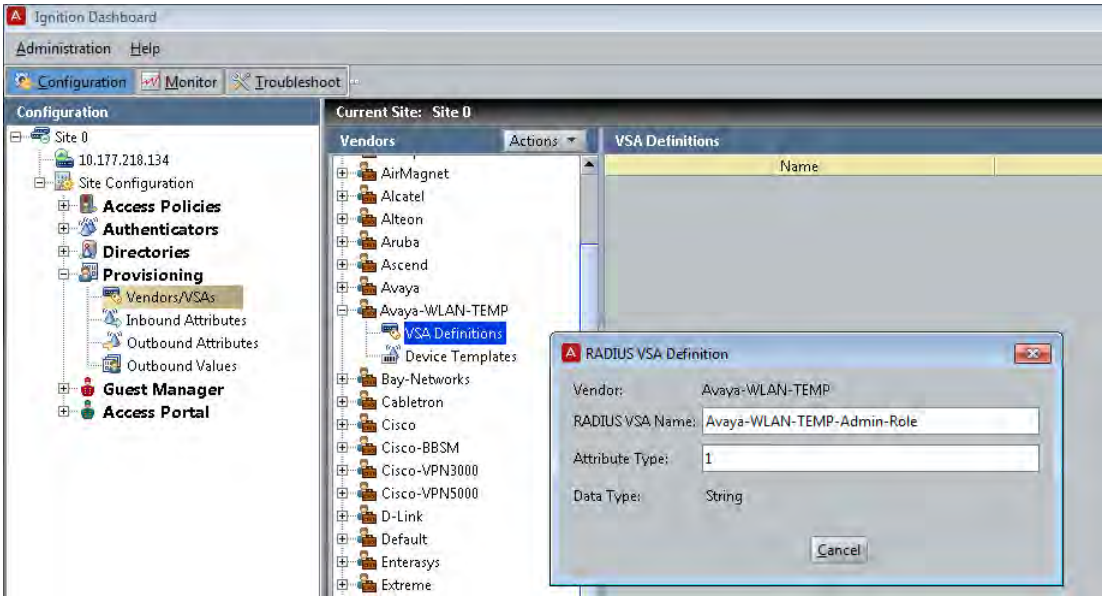
5. Click **OK**.

   The Vendor Type **Avaya-WLAN-TEMP** is created and added to the Vendors list.

6. In the Vendors window, expand **Avaya-WLAN-TEMP** and click **VSA Definitions**.

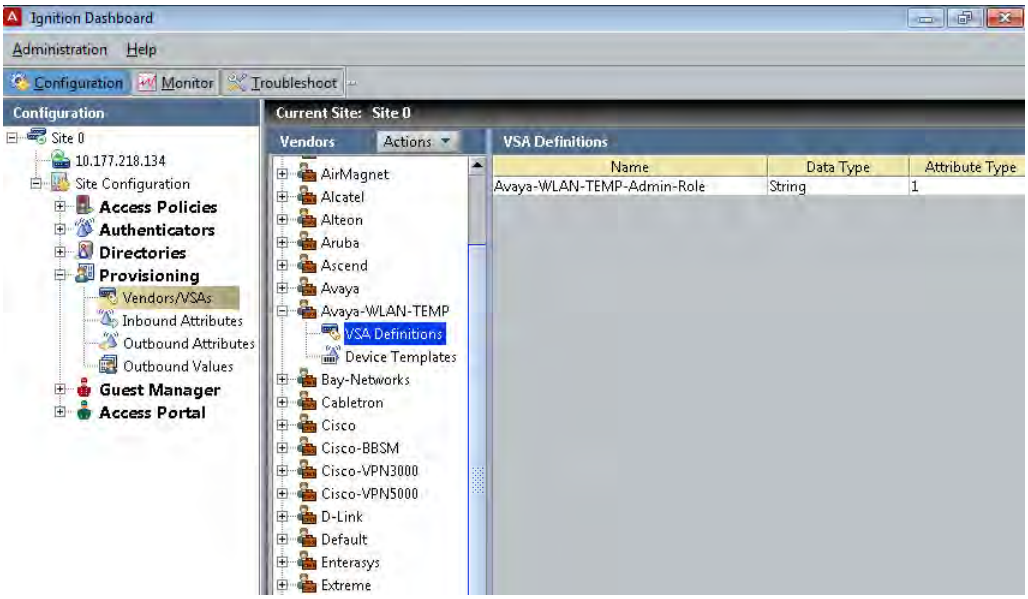


The **VSA Definitions** window displays.



7. Click New..... .

   The **RADIUS VSA Definition** window displays.



8. In the **RADIUS VSA Name** field, type `Avaya-WLAN-TEMP-Admin-Role`.
9. In the **Attribute Type** field, type `1`.
10. From the **Data Type** drop-down list, select **string**.
11. Click **OK**.

Related Links

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Configuring the Device Template

About this task

Configure the Device Template for the WLAN 9100 Series AP Vendor Type.

Note:

This procedure only needs to be performed once for the WLAN 9100 Series APs.

Procedure

1. In the **Vendors** window, expand **Avaya-WLAN-TEMP** and click **Device Templates**.

   The **Device Templates** window displays.

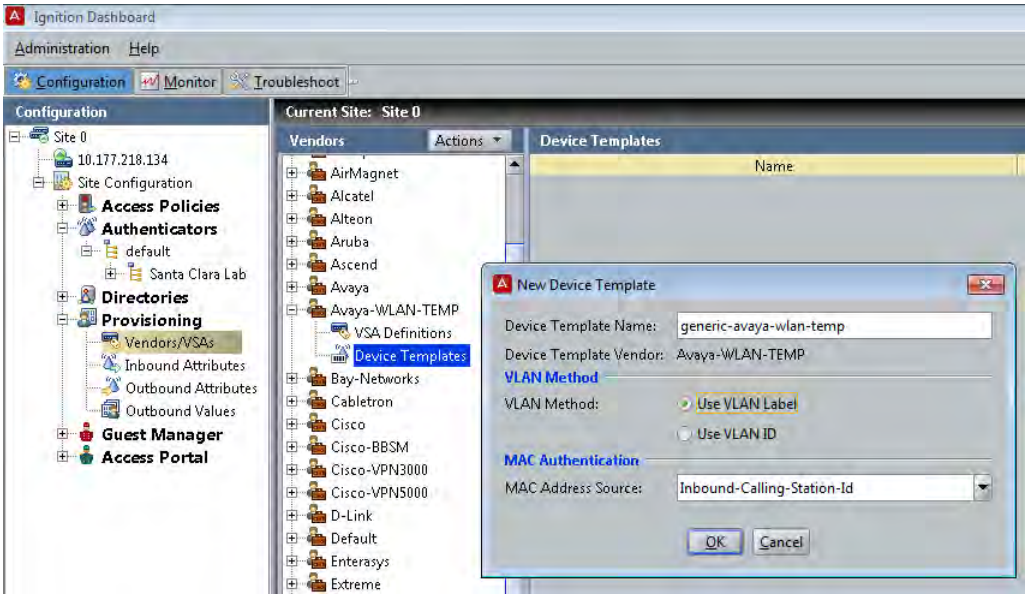
2. Click **New.....**.

   The **New Device Template** window displays.

3. In the **Device Template Name** field, type `generic-avaya-wlan-temp`.

4. Under **VLAN Method**, select **Use VLAN ID**.

5. In the **MAC Address Source** drop-down list, select **Inbound-Calling-Station-Id**.



6. Click **OK.**

   The **Edit Device Template** window displays.

7. Click **Done**.

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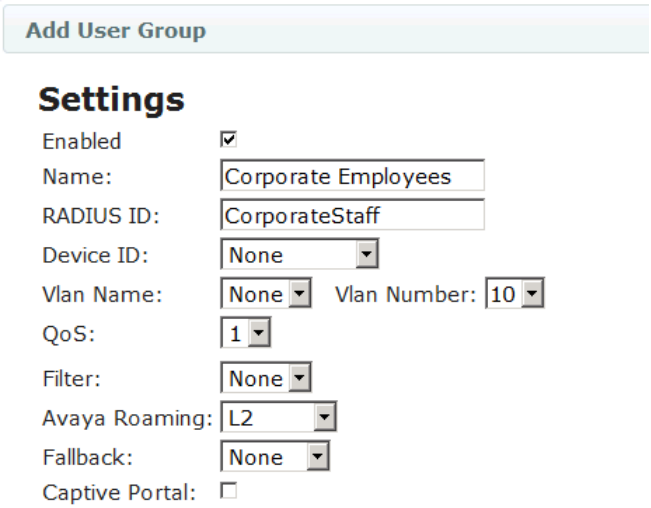
Configuring the Outbound Values

In this section three examples are given which illustrate how to configure the Outbound Values for Avaya WLAN 9100.

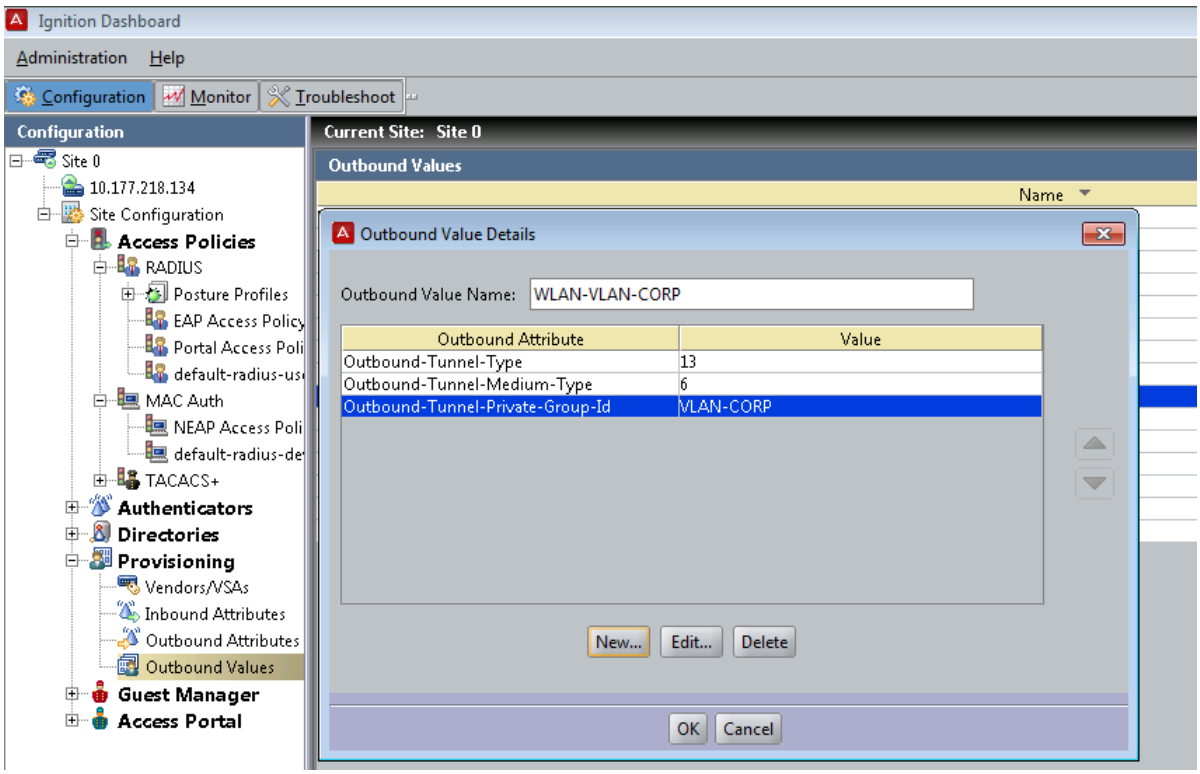
Outbound Value 1

Outbound Value that instructs the WAP 9100 to assign the user that is being authenticated to a specific WLAN 9100 Group. The string value of the standard RADIUS Outbound Attribute Outbound-Filter-Id must match exactly the string entered in the WAP 9100 field RADIUS ID for a Group in a Profile.



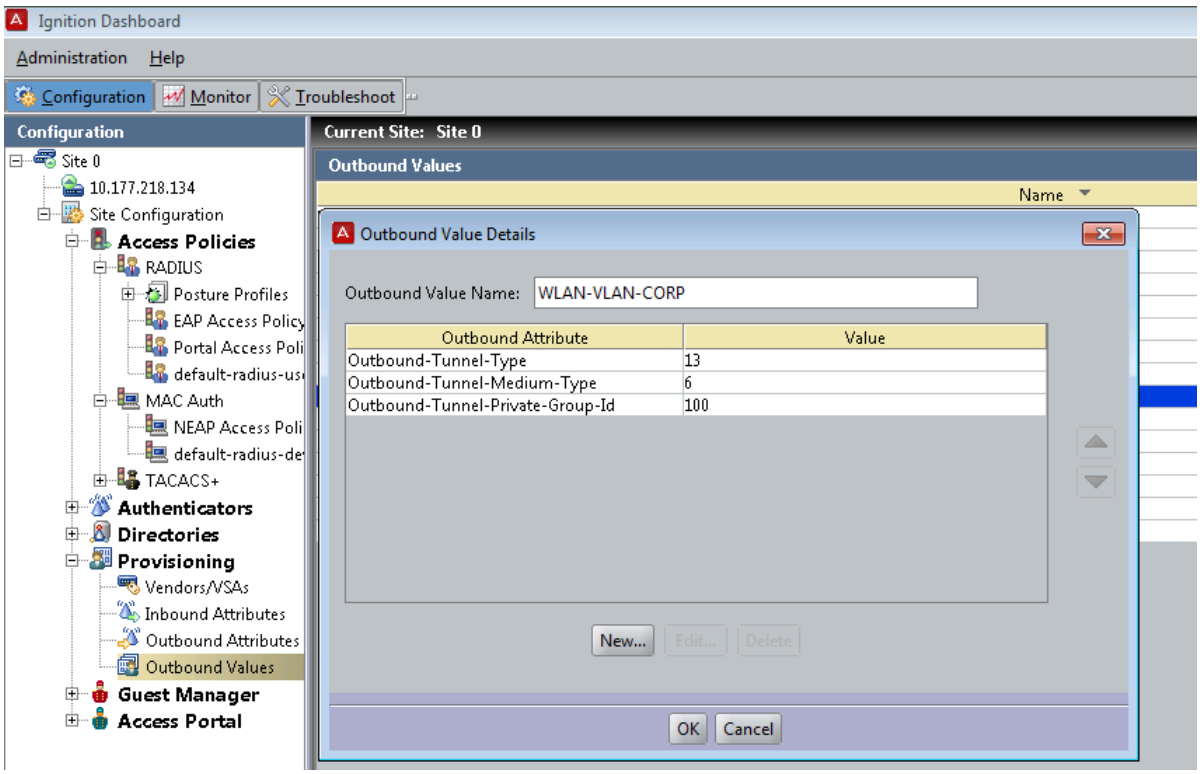
Outbound Value 2

Outbound Value that instructs the WAP9100 to assign the user that is being authenticated to a specific WLAN 9100 VLAN Label (aka VLAN Name)



Outbound Value 3

Outbound Value that instructs the WAP9100 to assign the user that is being authenticated to a specific WLAN 9100 VLAN ID (aka VLAN Number)



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Adding the APs to Ignition Server as Authenticators

Before you begin

Obtain the following information:

- Container name (if required)
- IP addresses of the APs
- RADIUS Shared Secret password

About this task

The WLAN 9100 Series Access Points (APs) must point to Identity Engines as the RADIUS Server. Follow this procedure to add APs to Identity Engines Ignition Server as Authenticators.

Follow this procedure to create an AP Container (if not already created) and add an AP to the Container.

Procedure

1. In Ignition Server's navigation pane, expand **Site Configuration > Authenticators > default > your_network_name**.
2. Check to see if a Container has been created for the APs.

If there is no Container, you must create one.

- In the navigation pane, right-click **default** and click **Add Container**.

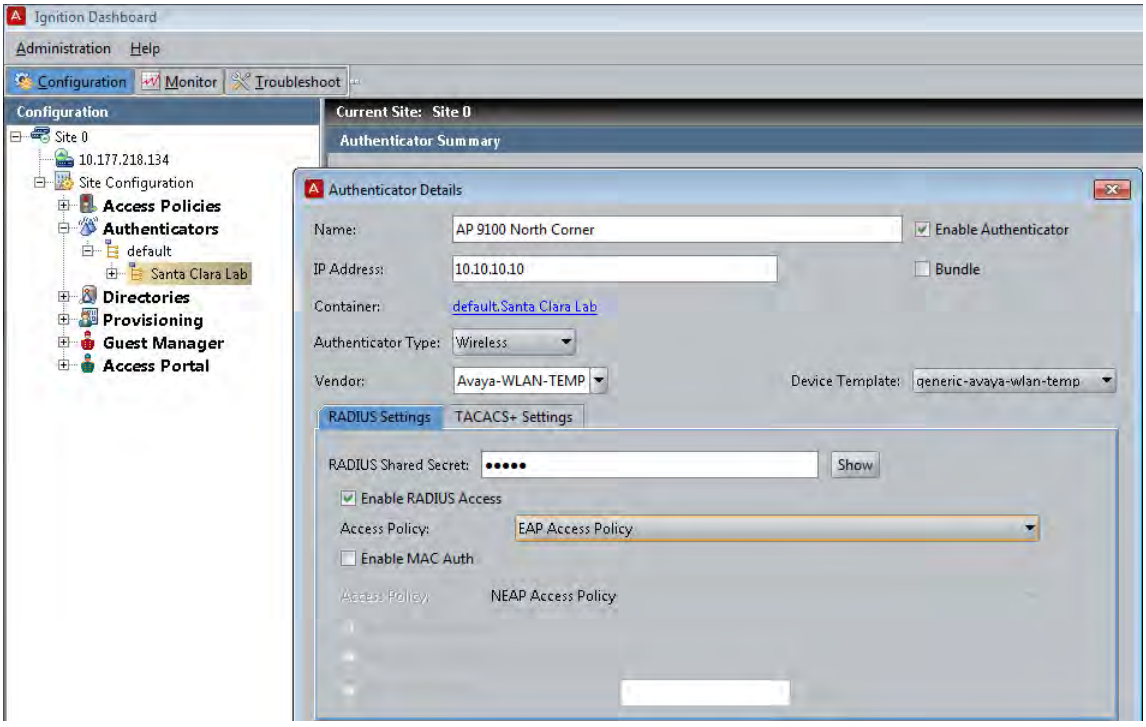
  The **Add Container** window displays.

- Enter the Container name (for example, Building 8) and click **OK**.

3. In the navigation pane, click the Container for the APs.

   The **Authenticator Summary** window displays.

4. Enter a name for the AP; for example, *AP 9100 North Corner*.
5. Enter the AP's IP address.
6. From the **Vendor** drop-down list, select **Avaya-WLAN-TEMP**.
7. From the **Device Template** drop-down list, select the appropriate template created in Configuring the Device Template on page 16.
8. In the **RADIUS Shared Secret** field, enter the password.



9. Click OK.

   The AP is displayed in the **Authenticator Summary** window.

10. To add another AP as an Authenticator, click **New.....** in the Authenticator Summary window, and repeat Step 4 to Step 8.

Related Links

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Configuring APs as Authenticators in bulk

If you need to create multiple AP authenticators, you can create them in bulk by importing the authenticator information in a specified comma-separated values (CSV) format.

For information, see the section “**Importing authenticators**” in *Administering Avaya Identity Engines Ignition Server, NN47280-600*.

Related Links

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