Administering Avaya Identity Engines Ignition Access Portal

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Contents

Chapter 1: Introduction

Purpose

The *Avaya Identity Engines Ignition Access Portal Administration* guide explains how to install and configure the Avaya Identity Engines Ignition Access Portal. This guide also explains how to configure the Ignition Server and Identity Engines Ignition Client for Accessing Secure Enterprise (CASE) to work with Access Portal. This guide is written for network administrators who need to install and configure Access Portal.

Related resources

Documentation

See the following related documents.

Title	Purpose	Document number
Avaya Identity Engines Ignition Server Getting Started	Installation and simple configuration	NN47280–300
Administering Avaya Identity Engines Ignition Server	All configuration options	NN47280–600
Avaya Identity Engines Ignition Guest Manager Configuration	Installation, configuration, and management	NN47280–501
Configuring and Managing Avaya Identity Engines Single-Sign-On	Configuration, management, and deployment	NN47280–502
Avaya Identity Engines Ignition CASE Administration	Installation, configuration, and deployment	NN47280–603
Avaya Identity Engines Ignition Analytics	Installation, configuration, and maintenance	NN47280–601
Avaya Identity Engines Ignition Server Release Notes	Reference	NN47280–400

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About this task

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Procedure

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- To find the Avaya Mentor videos on YouTube, go to www.youtube.com/AvayaMentor and perform one of the following actions:
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Procedure

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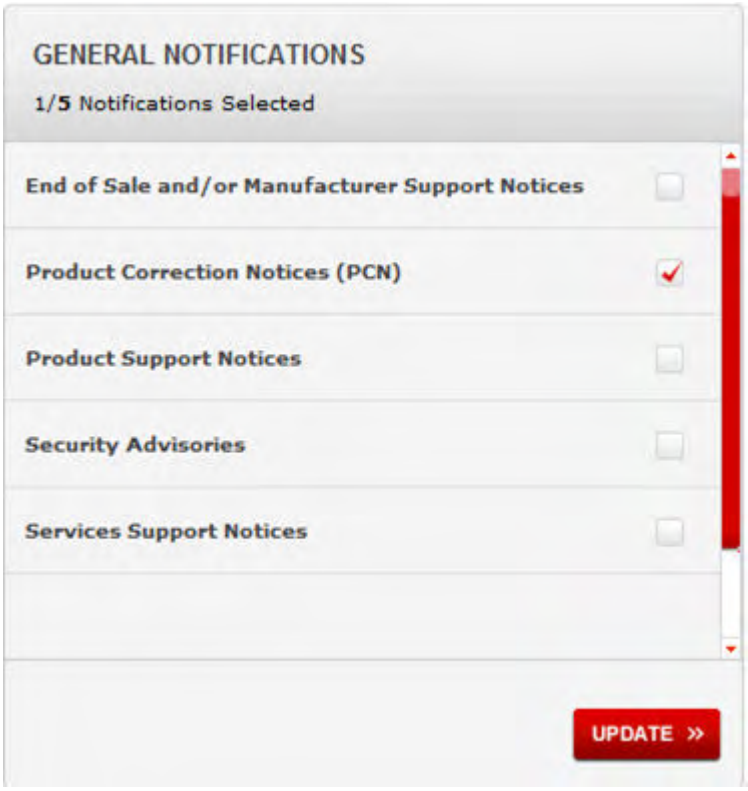

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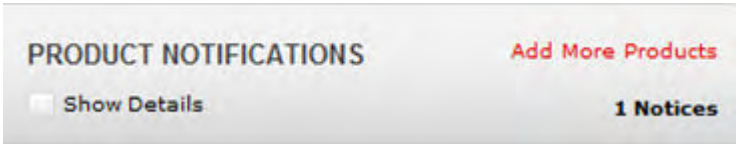

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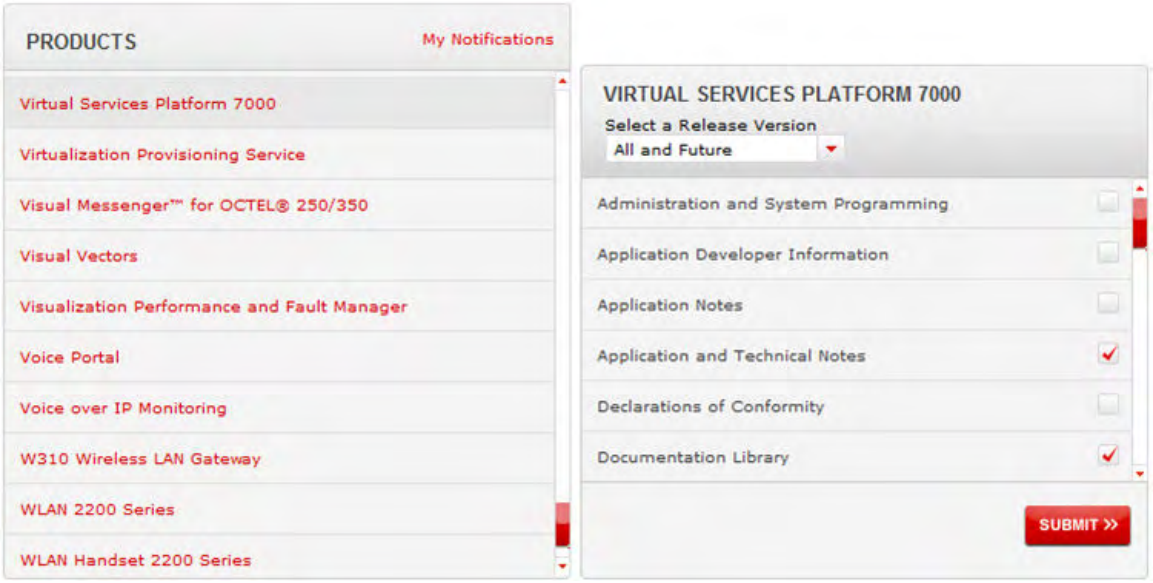

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Procedure

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4. Enter a search word or phrase.
5. Select any of the following to narrow your search:
   - Whole Words Only
   - Case-Sensitive
   - Include Bookmarks

- Include Comments

6. Click **Search**.

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Chapter 2: New in this release

The following sections detail what is new in *Avaya Identity Engines Ignition Access Portal Administration* Release 9.2.1.

Related links

Features on page 12

Features

See the following sections for information about feature changes:

Release 9.2.1

Social Media Login

This release of Ignition Access Portal introduces a key new feature *Social Media Login*. Social Media Login feature allows you to login to Access Portal, using your 3rd party social media credentials such as Facebook, Google, and LinkedIn. You will be presented with a regular login page on Ignition Access Portal. The page will include links to the social media providers you have enabled in Ignition Access Portal. When you clicks on a provider such as Google, you will be redirected to that provider and asked for your Google credentials. Upon entering your credentials, and, depending on the provider, approved the details you are requesting, you will be redirected back to the Ignition Access Portal page with user profile information and token ID. Ignition Access Portal authenticates your token ID, and retrieve user information. Functionally, Guest Manager APIs are invoked to create a guest user in the Ignition Server using this information. On successful user creation, Access Portal authenticates user against Ignition Server and you are automatically logged onto the network.

The solution currently supports configuring Facebook, Google, and LinkedIn as the social authentication providers. Instructions are provided for the necessary configuration on the provider end and in this guide.

For more detailed information on enabling and configuring Social Media Login, see Enabling Social Media Login on page 52 and Configuring the Social Media Login on page 93.

Release 9.2

- **External Captive Portal for WLAN 9100**- Unlike the traditional operation of the Access Portal, when the External Captive Portal is enabled, following authentication and authorization, the wireless client traffic will flow inline through the WLAN 9100 as opposed to inline through the Access Portal.
  - Highly customizable login page

- Highly customizable success page
- Fingerprinting of wireless client
- Fingerprinting over L2 or L3 network
- Once Ignition Access Portal can serve multiple WLAN 9100 APs
- Multiple different External Captive Portals zones may be configured on the Access Portal

This new feature provides new BYOD onboarding capabilities to accommodate customer deployment, IT experience and user experience needs. For more information, see Configuring the external captive portal on page 87.

- **Support Lightspeed Web-Filter Integration**- Many organizations, in particular education institutions, deploy security gateways for Web filtering in order to protect their students and users. This release of Ignition Access Portal supports integration of Web Filter by Lightspeed Systems.
  - You now have the option to configure and send RADIUS accounting records to a server other than the Ignition Server used for authentication and authorization.
  - This feature allows to enable RADIUS accounting and configure a primary and a secondary RADIUS accounting server, so that you can receive these accounting packets. For more information, see Configuring the Appliance Access Portal Settings on page 43.
  - In addition, by default, the traffic going through OUT interface of the Access Portal is NATed and any system will see the OUT interface IP and not the client IP. You can change the configuration by disabling NAT rule in Access portal. This feature allows Lightspeed security gateway to see the individual IP addresses of the network (client), by changing the configuration in **Firewall** > **NAT** > **Outbound tab**. For more information, see Configuring Network Address Translation (NAT) on page 57.
- **User-defined VSAs**- The current release introduces two new users defined VSAs:
  - *Avaya-Access-Portal-Custom-VSA1* of type string.
  - *Avaya-Access-Portal-Custom-VSA2* of type string.

  Use a text editor or HTML editor to create customized user-visible input fields, to capture the user input and populate one or the two VSAs and then pass the value(s) to the Ignition Server Access Policy for evaluation. For more information, see Creating Customized User-Visible Pages on page 52.
- **Support Scheduled Backup**- This release of Ignition Access Portal introduces the ability to configure and schedule backups to run once, daily, weekly, or monthly using **Scheduled Export** tab. You can also perform Backup on-demand basis. For more information on schedule backups, see Scheduling a Backup on page 63.
- **DHCP on OUT Interface (Demo Only)** - Ignition Access Portal supports multi-IN and multi-OUT interfaces. This requires that static IPs to be configured on the IN and OUT interfaces. However at times for testing and demo, there may be a need to have DHCP on the OUT interface. This release of the Access Portal provides ability to enable DHCP on the OUT interface for demo or lab deployment only. For more information on DHCP on OUT Interface, see Setting up the DHCP on OUT Interface (Demo Only) on page 40.

Important:

This feature is intended for use only in lab or demo environments. This feature is NOT supported in production live deployment.

Chapter 3: Avaya Identity Engines Ignition Access Portal

Avaya Identity Engines Ignition Access Portal is a virtual machine-based captive portal and firewall distribution that controls the access of client devices to the network. Access Portal blocks all traffic from client devices and allows network access only after successful authentication. Access Portal allows guests with non-802.1X compatible equipment to authenticate and connect to the network in your organization.

Access Portal does not require client-side software on the connecting user's PC. Like the sign-on portals that provide guest wireless access in many hotels, Access Portal uses the user's browser to prompt for and collect the user's credentials. This allows Access Portal to provide controlled network access to client devices that are incompatible with the 802.1X protocol or not configured to use it.

Access Portal also provides Device Profiling. Device Profiling works on a Device Fingerprint which is a compact summary of software and hardware settings collected from a client device. In the Avaya Identity Engines Ignition Server environment, Device Profiling is used as an automated way to register the devices with the Identity Engines Internal Store.

It is important to note that the Access Portal does not eliminate the need for customers to deploy an enterprise grade firewall.

Related links

[How Access Portal works](#) on page 15
[Access Portal administrator tasks](#) on page 17

How Access Portal works

Users connected to a network where Access Portal is deployed must view and interact with the Access Portal login page before access to the network is granted. Upon successful authentication, Access Portal optionally works with the Client for Accessing Secure Enterprise (CASE) application, the Ignition Server, and your network equipment to establish an appropriate network session for the user.

For example, Access Portal may host the Ignition Client for Accessing Secure Enterprise (CASE) application. On successful authentication, Access Portal can download the CASE application to the user's machine and the CASE application can configure the machine to use 802.1X for wired and/or wireless access. Then the user can directly connect to the network by authenticating with the

Ignition Server. If the device is not capable of using 802.1X, Access Portal can provide in-line access to the network.

Related links

How a guest user logs in on page 16

How a guest user logs in

Important:

Access Portal does not support proxy settings on the accessing client device. To allow Access Portal to capture HTTP requests from a client device, you must either remove the proxy settings from the client browser, or choose the "**auto detect proxy setting for this network**" setting on the browser. If a proxy is configured, Access Portal is not able to direct HTTP requests to the Access Portal login page.

At runtime, Access Portal authentication works as follows:

Procedure

1. The guest receives a temporary user name and password from the reception desk personnel. Typically, the receptionist uses Ignition Guest Manager to create the user account. Alternatively, the guest can create their own guest account using the self-service option of the Ignition Guest Manager, and receive the account access code through SMS or email on their mobile device.
2. The guest connects their laptop or other device to the network. For example, a guest with a laptop might launch the wireless network client software (the supplicant software) on their laptop and connect to the guest wireless network. In this example, the guest network identify itself with the SSID, `Guest`. This is a wide-open, guest-authentication SSID.
3. On the access point, the SSID, Guest, is associated with a restricted reach, authentication VLAN. For example, you might define a VLAN – VLAN 200 – on the Avaya ERS 4800 switch. VLAN 200 is a local-access-only VLAN used only during the authentication process. The wired switch and wireless access point are trunked together using 802.1Q trunking.
4. The laptop's supplicant requests an IP address through DHCP.
5. The Avaya Access Portal handles the DHCP request and issues the laptop an address. The laptop is now on the authentication VLAN (in this example, VLAN 200).
6. The guest user opens a browser on their laptop. The Access Portal forces a redirect of the browser's web traffic, causing the browser to display the login page you defined as the Access Portal login page.
7. The user enters their temporary user name and password, and the Access Portal authenticates the user through the Ignition Server using RADIUS:
    a. If the CASE application is also deployed on the portal, then after successful authentication, the CASE application runs on the guest's machine and configures it to use 802.1X for authenticating to the network. If the CASE application is successful in

doing this, the guest's laptop is switched to a compliant VLAN and all the network access is independent of the portal.

b. If the authentication succeeds but there is no CASE application on the portal, the Access Portal tunnels the guest's network session to the Internet. Note that the Access Portal remains in-line in this case; that is, all traffic to and from the client travels through the Access Portal.

c. If the authentication fails, the browser displays a failure notice and the laptop remains on VLAN 200, which provides no connection or limited connection to the corporate network or the Internet, depending on the configured settings in the Access Portal.

Access Portal administrator tasks

As the Avaya Identity Engines Ignition Server administrator, you can:

- Install Access Portal
- Configure Access Portal
- Perform Access Portal maintenance tasks
- Configure the Ignition Server to work with Access Portal
- Configure and test user access
- Configure the CASE application to work with Access Portal

Chapter 4: Installing Avaya Identity Engines Ignition Access Portal

This chapter describes how to install Avaya Identity Engines Ignition Access Portal. You install Access Portal as a virtual appliance on a VMware ESXi (5.1 and up) server. After you import the Access Portal virtual appliance, the virtual appliance becomes an Access Portal.

This chapter also explains how to backup, restore, and upgrade Access Portal.

Related links

Access Portal components on page 18
Network configuration for Access Portal-based authentication on page 19
Installing the Access Portal virtual machine on page 20
Configuring the Access Portal virtual machine on page 27
Backing up and Restoring Access Portal on page 61
Upgrading Access Portal on page 64

Access Portal components

The following components are required to deploy Access Portal-based authentication with Ignition Server:

- Ignition Server
- Access Portal (VMware ESXi (5.1 and up) server)
- CASE application (optional)
- Ignition Guest Manager account creation tool (optional but highly recommended)
- Existing authenticators (switches and wireless access points)
- Existing Enterprise class firewall

Related links

VMware ESXi server requirements on page 19

VMware ESXi server requirements

Hardware platforms supported by VMware's ESXi server (version 5.1 and up) are required. See HTTP://WWW.VMWARE.COM/ for a list of supported hardware platforms for ESXi.

See the *Avaya Identity Engines Release Notes* for each specific release for information about release-specific Access Portal VM minimum system requirements (memory, CPU, disk space, interfaces).

Installation on a VMware ESXi server is done using an OVA file that already incorporates the OS FreeBSD.

Warning:

Avaya provides the Ignition Access Portal as a Virtual Appliance. Do not install or configure any other software on the VM shipped by Avaya.

- Avaya does not support the installation of any VMware specific, FreeBSD specific, or any third-party vendor package or RPM on its VM, other than what Avaya ships as a package, image, or OVA.
- Do not install or uninstall any software components unless Avaya specifically provides the software and/or instructs you to do so. Do not modify the configuration or the properties of any software components of the VMs (including VMware Tools) unless Avaya documentation and/or personnel specifically instructs you to do so. Avaya does not support any deviation from these guidelines.
- Avaya determines which VMware Tools to install and configure. When required, Avaya provides these tools as part of the installation package. Avaya provides these tools because VMware Tools configures the kernel and network settings and unless Avaya tests and approves these tools, Avaya cannot guarantee that the VM will work after the tool is installed and configured.

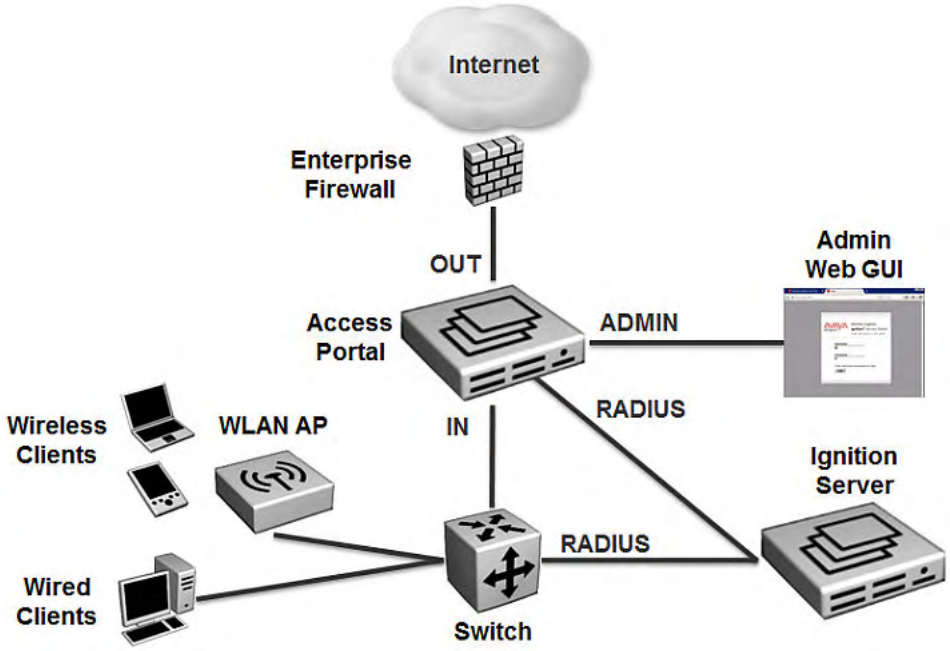
Turn off automatic VMware Tools updates if you have enabled them.

Network configuration for Access Portal-based authentication

Access Portal has three out-of-the-box network interfaces:

- **ADMIN** - The ADMIN interface provides connectivity to the portal to perform administrative tasks.
- **IN** - The IN interface provides connectivity to the client network. This is the guest or unauthenticated client VLAN / network.
- **OUT** - The OUT interface provides connectivity to the Enterprise network / Internet.

Note that you can add additional IN and OUT interfaces as required when you configure your Access Portal. The following diagram shows a network configuration with the out-of-the-box configuration.

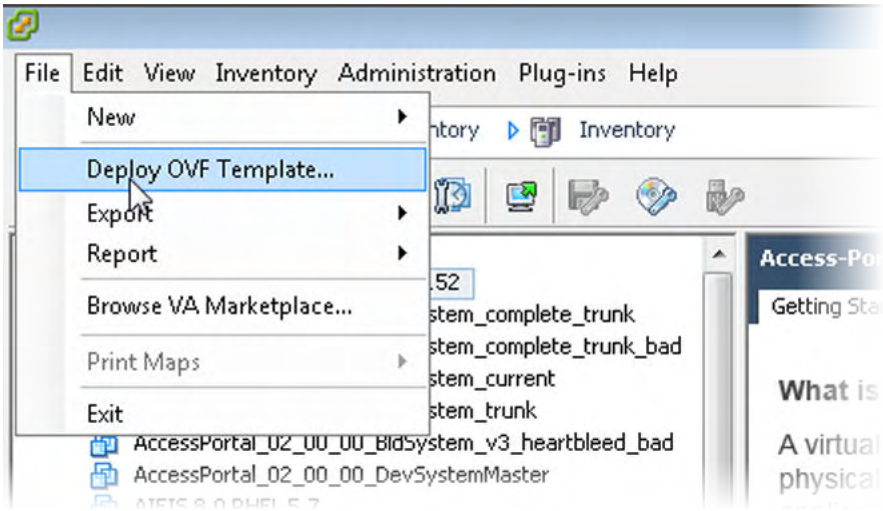


Installing the Access Portal virtual machine

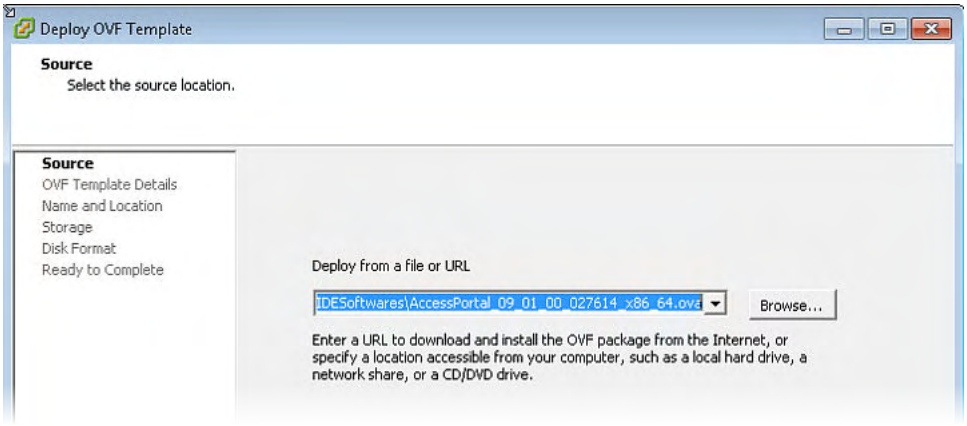
The Access Portal OVA file incorporates an OVF file. Avaya recommends that you use the VMware vSphere Client to deploy the VM into your system.

Procedure

1. Start the VMware vSphere Client and log in to the ESXi Server on which you want to install the Access Portal.
2. Click **File** > **Deploy OVF Template**.

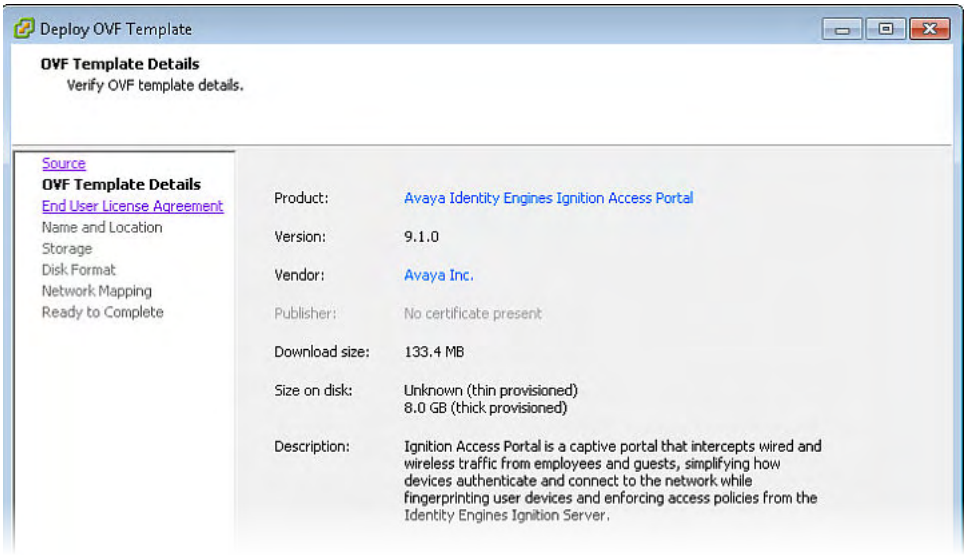


3. The **Source** screen displays. Select the location from which you want to import the Access Portal virtual appliance.

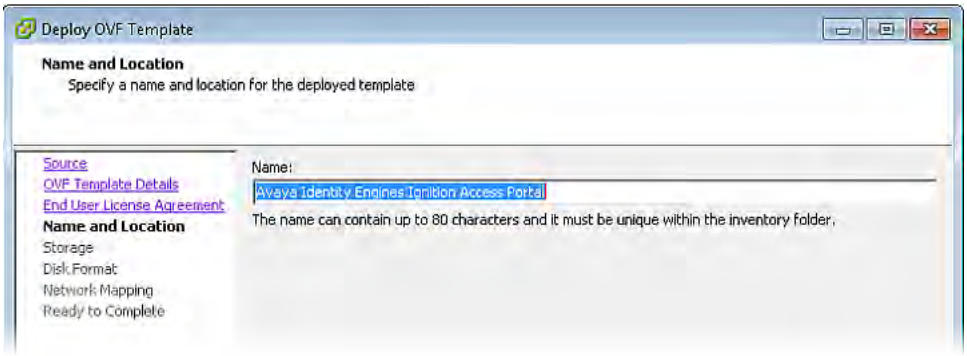


4. Click **Next**.

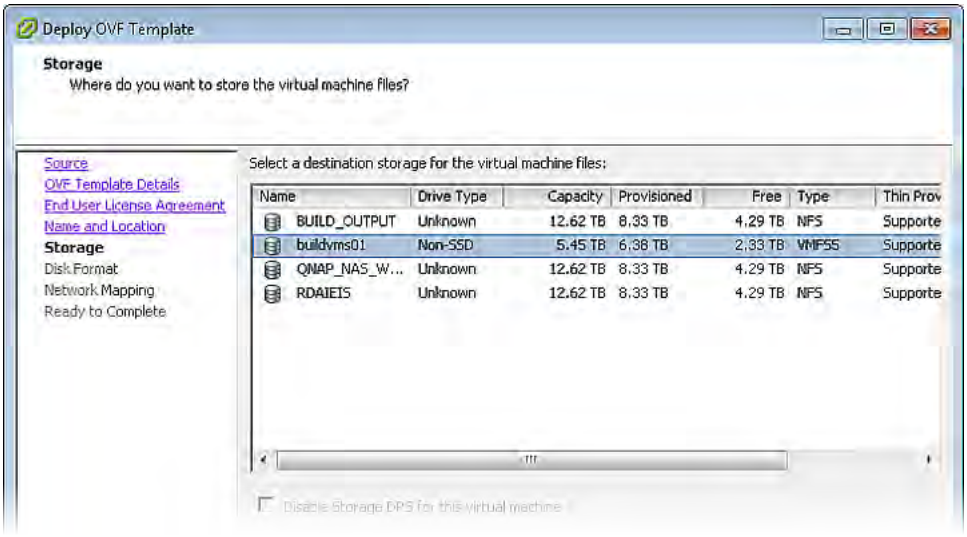
   In the **OVF Template Details** screen, review your settings. Click **Back** to make changes, or click **Next** to continue.



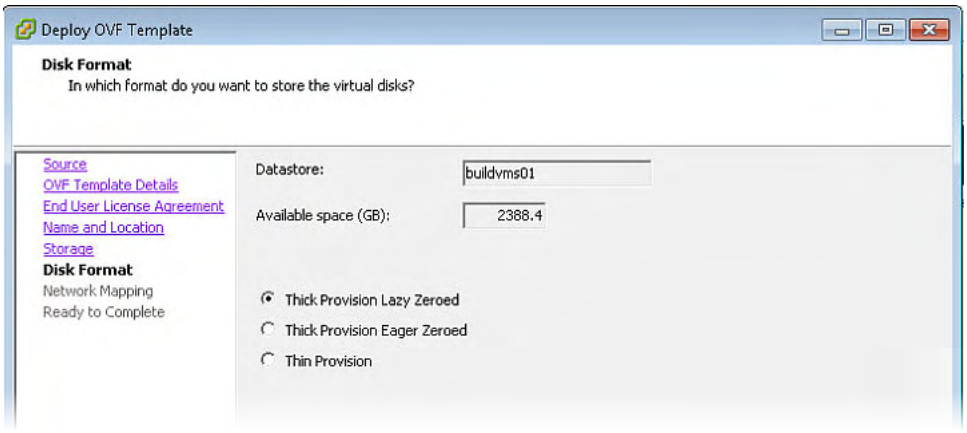
5. The **End User License Agreement** screen displays. Click **Accept** to accept the license and click **Next**.
6. The **Name and Location** screen displays. Either accept the default name or choose to rename the virtual machine. Click **Next**.



7. The **Datastore** screen displays. Select the location where you want to store the files for the virtual appliance and click **Next**.



8. The **Disk Format** screen displays. Select a format in which to store the virtual machine's virtual disks and click **Next**.



9. The **Network Mapping** screen displays. Associate the Access Portal NICs (ADMIN, IN, OUT) to the correct VM Network, based on your site configuration.

   Note:

   Access Portal auto-configures itself to map ADMIN to em0, IN to em1, and OUT to em2, irrespective of how the ADMIN, IN, and OUT interfaces are mapped to VM Networks on the ESXi server. The Access Portal association of ADMIN, IN, and OUT is binding in Access Portal and will always be there. Changing the ADMIN, IN, and OUT mapping to ESXi server network mapping while deploying portal OVF does not affect the mapping done in Access Portal.

   - **ADMIN**: This network is for administrative purposes. This network provides web access for administrating Access Portal and SSH access to the Access Portal console if needed. This network also provides connectivity to other servers such as the Ignition server or an external DHCP server if you are using one. Map the Access Portal ADMIN interface to the

VM network in your inventory designated for administrative purposes. In the following example, the Access Portal ADMIN interface is mapped to the Service network.

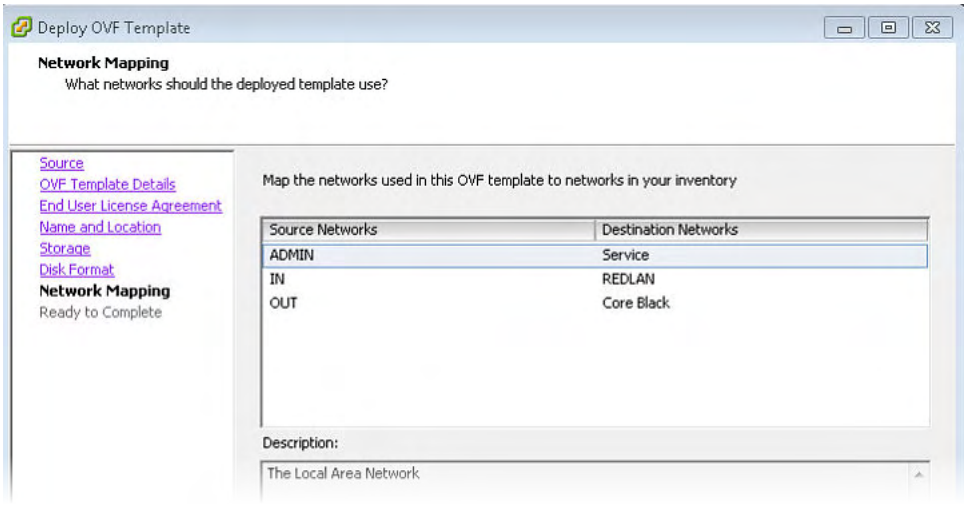
- **IN**: This is the network where client machines are present whose access to OUT network needs to be controlled by the portal. Map the Access Portal IN interface to the VM network in your inventory that provides connectivity to the client network. In the following example, the Access Portal IN interface is mapped to the REDLAN network.
- **OUT**: This network provides access to the Internet. Map the Access Portal OUT interface to the VM network in your inventory that provides access to the Internet. In the following example, the Access Portal OUT interface is mapped to the Core Black network.

  Note:

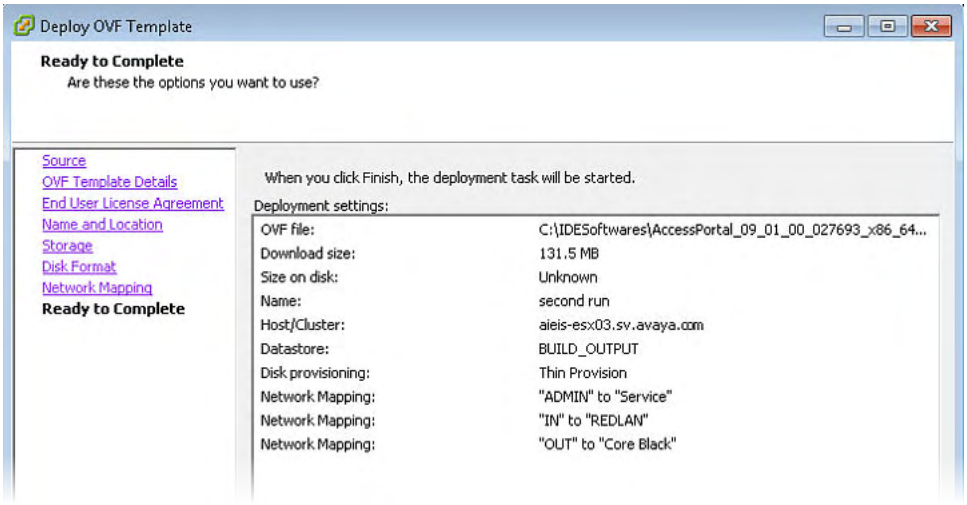
  If your ESXi server only has 2 physical NICS, you can map the Access Portal logical OUT and ADMIN interfaces to the same physical NIC. However, you must map the Access Portal IN interface to its own separate NIC.

  Avaya recommends configuring Access Portal ADMIN interface and OUT interface on separate physical interfaces. However, you can still map them to the same physical interface, but they must be on different VLANs. You must make sure that the physical interface connecting on vSphere and the switch for VLAN configuration is appropriate.

- Click **Next.**



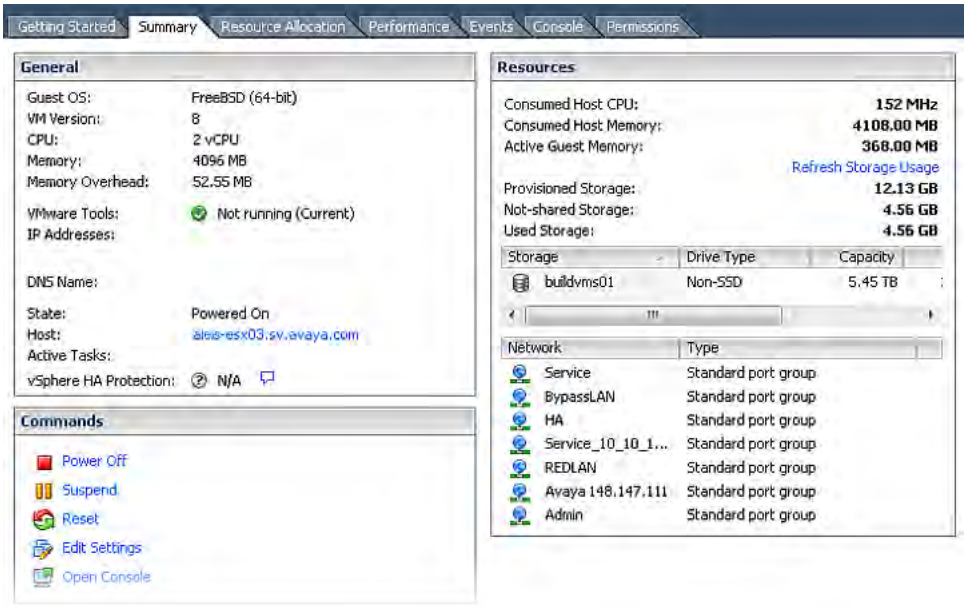
10. On the **Ready to Complete** screen, review your settings. Use the **Back** button to make any changes or click **Finish** to start the import.



The Import now starts. When the import completes, a **Summary** window displays.

Note:

VMware Tools may show as not installed. This is a known VMware issue where VMware Tools may not be detected correctly on certain hardware. However, this does not interfere with the functioning of the tools—it is a display issue only.



You are now ready to boot the Access Portal for the first time.

Related links

[Preventing automatic VMware Tools updates](#) on page 26
[Checking the VMware Tools status (ESXi 5.1 and up)](#) on page 26

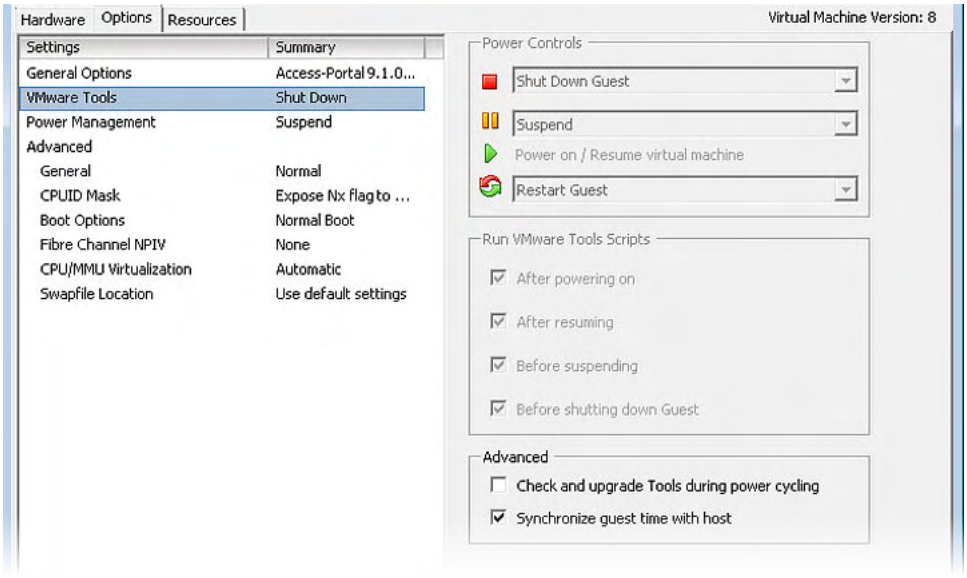
Preventing automatic VMware Tools updates

Avaya recommends that you prevent automatic VMware Tool updates and use only the tools that are delivered bundled with the installation package.

To prevent automatic VMware Tools updates:

Procedure

1. Use the vSphere client to log in to the ESXi Server.
2. Go to **Getting Started** > **Edit Virtual Machine Settings** > **Options** > **VMware Tools** > **Advanced**, and ensure the **Check and upgrade Tools during power cycling** check box is not selected. This is the supported setting.
3. Click **OK**.



Checking the VMware Tools status (ESXi 5.1 and up)

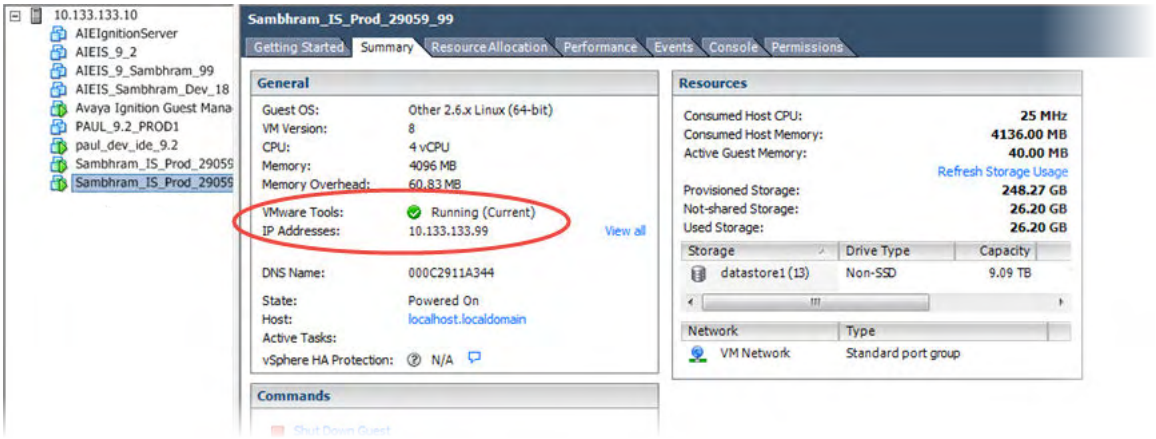
The **Summary** tab of the VM describes the VMware Tools status.

To check the VMware Tools status on an ESXi (5.1 and up) server:

Procedure

1. Use the vSphere client to log in to the ESXi Server.
2. Go to the **Summary** tab.

   After a fresh install, the VMware Tools status displays as “VMware Tools: Running (Current)”.



Note:

VMware Tools may show as not installed. This is a known VMware issue where VMware Tools may not be detected correctly on certain hardware. However, this does not interfere with the functioning of the tools—it is a display issue only.

Configuring the Access Portal virtual machine

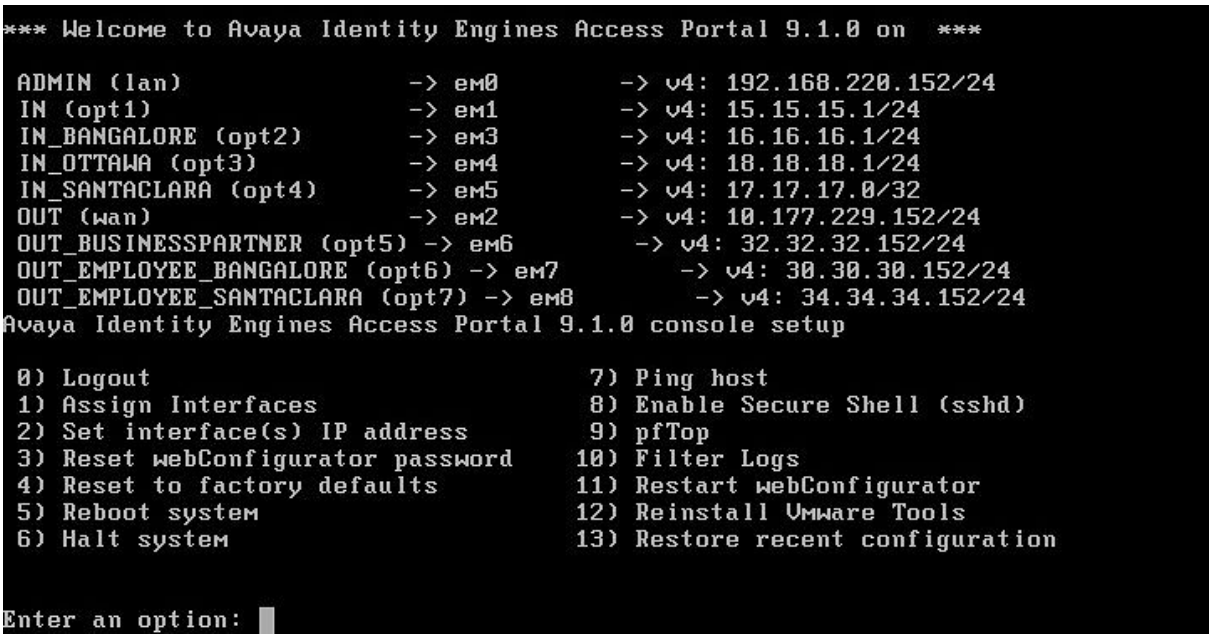
After the import completes, you need to verify and adjust some of the VM settings.

Procedure

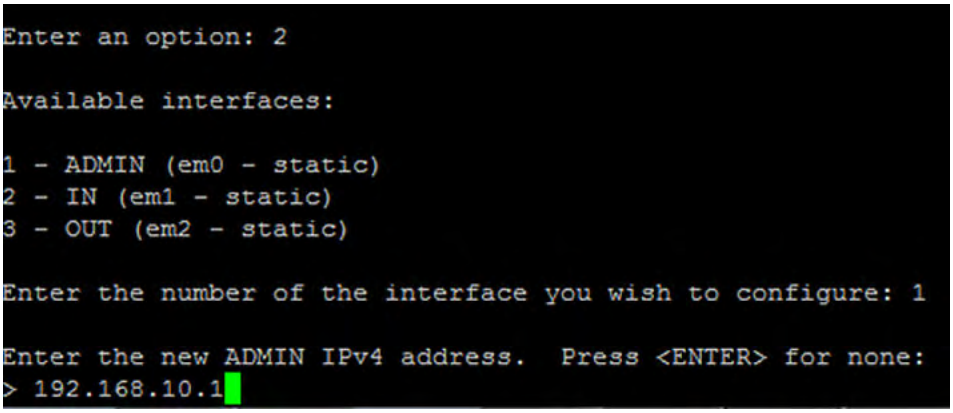
1. Boot the Access portal.

   The Access Portal console displays the interface assignments.

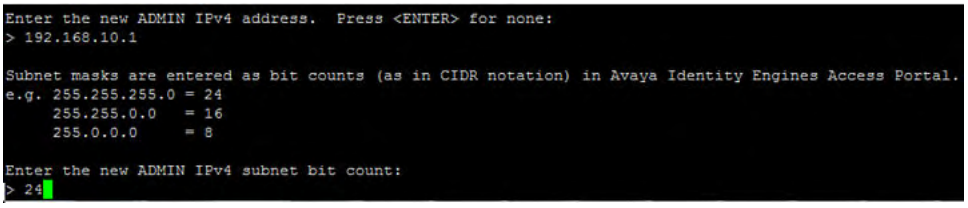
2. From the Access Portal console menu, enter `2`.



3. From the Access Portal console menu, enter `1` to choose the ADMIN interface, enter the `ADMIN IP address`, and press Enter.



4. Enter the `subnet mask` of the ADMIN IP address and press Enter.

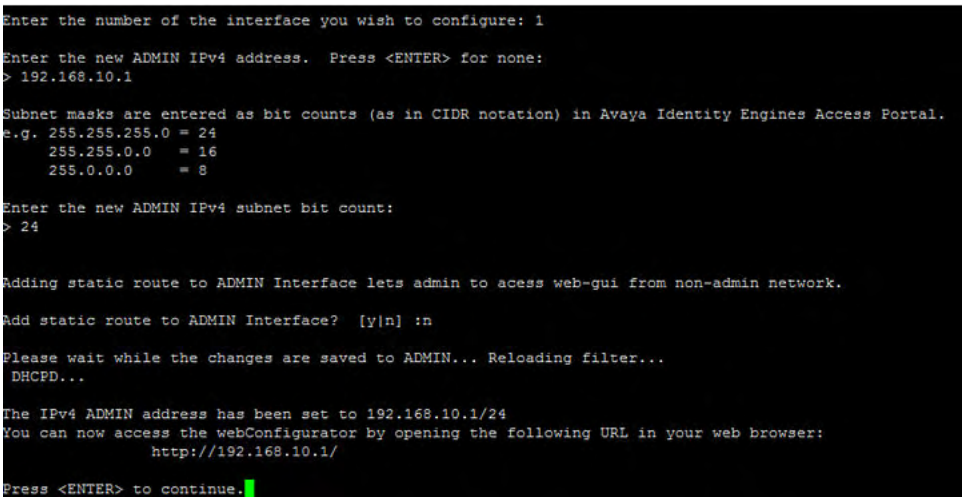


The Access Portal console displays the following prompt: `Add static route to ADMIN Interface?[y:n]?`

5. Do one of the following:
   - (Recommended) If you have another machine available on your ADMIN network that can be used to connect to the Access Portal Administration Web UI, skip Step 7 on page 29through Step 10 on page 30.
   - (Not recommended) If you do not have another machine available on your ADMIN network that can be used to connect to the Access Portal Administration Web UI, skip Step 6 on page 29.
6. Complete this step only if you have another machine available on your ADMIN network that can be used to connect to the Access Portal Administration Web UI.

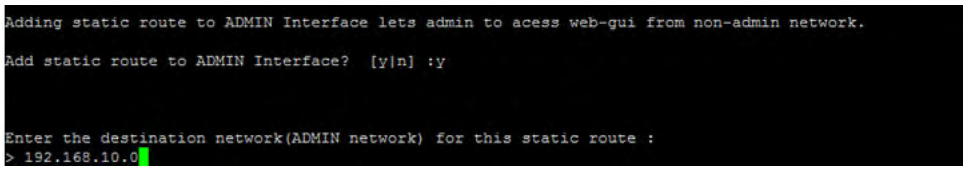
   Enter `n` and press Enter.

   The Access Portal console displays the following message: `The IPv4 ADMIN address has been set to <ADMIN IP/mask>`.

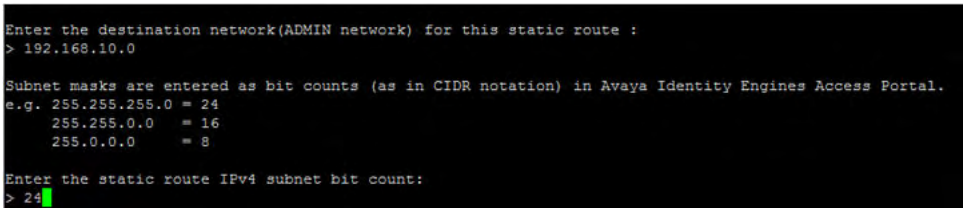


   Skip to Step 11 on page 30.
7. Complete steps 7 through 10 only if you do not have another machine available on your ADMIN network that can be used to connect to the Access Portal Administration Web UI.

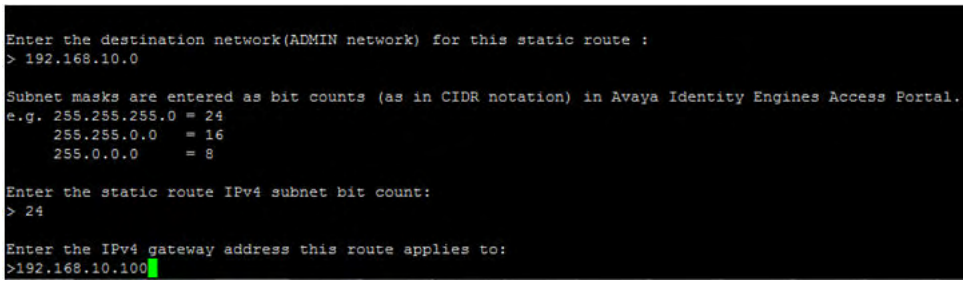
   Enter `y` and press Enter.
8. Enter the destination network (ADMIN network) for this static route.



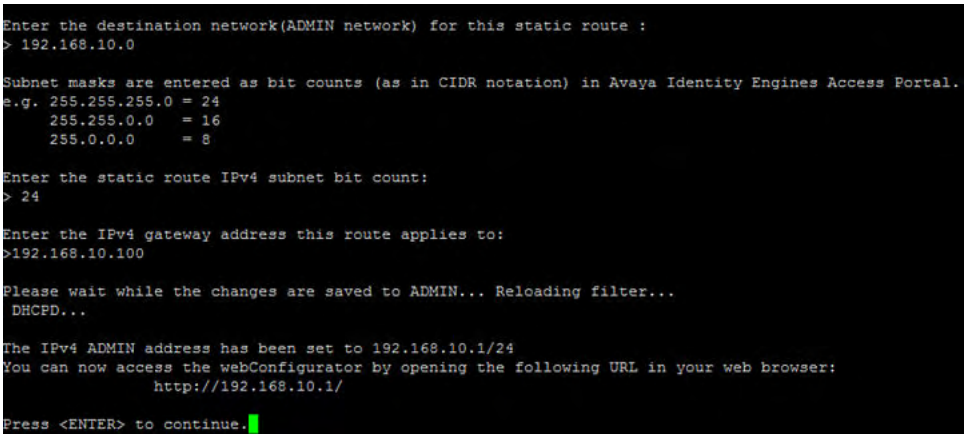
9. Enter the static route IPv4 subnet bit count.



10. Enter the IPv4 gateway address this route applies to and press Enter.



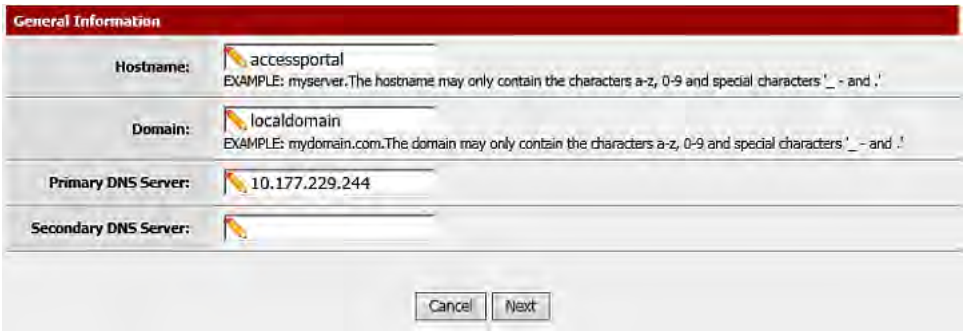
The Access Portal console displays the following message: `The IPv4 ADMIN address has been set to <ADMIN IP/mask>`.



11. Access the Access Portal Administration Web UI by opening the following URL in your web browser: `http://<ADMIN IP>`.

    The default credentials are username: `admin` and Password: `admin`.

    A wizard launches the first time you access the Access Portal Administration Web UI, and displays the General Information page.



12. On the General Information page, do the following:
    - In the **Hostname** field, enter host name of the Access Portal.
    - In the **Domain** field, enter the network domain that the Access Portal serves.
    - In the **Primary DNS Server** field, enter the IP address of the primary DNS server.
    - In the **Secondary DNS Server** field, enter the IP address of the secondary DNS server.
    - Click **Next**.

    The Time Server Information page displays.

13. On the Time Server Information page, do the following:
    - In the **Time Sync** field, do one of the following:
      - leave the default value of **Hypervisor Sync**. Note that Access Portal sets the clock forward for Hypervisor Sync—but not back. If the hypervisor time lags behind the virtual machine time, you must reboot the virtual machine to synchronize the time. If the hypervisor time is ahead of the virtual machine time, no reboot is necessary.
      - to synchronize with a time server, click **NTP Sync** from the drop-down list.
    - If you chose NTP Synch, in the **Time server hostname** field, enter the fully qualified name of your NTP server. This must be the same NTP server that your Ignition Server appliance uses.
    - From the **Timezone** drop-down list, select your time zone.
    - Click **Next**.

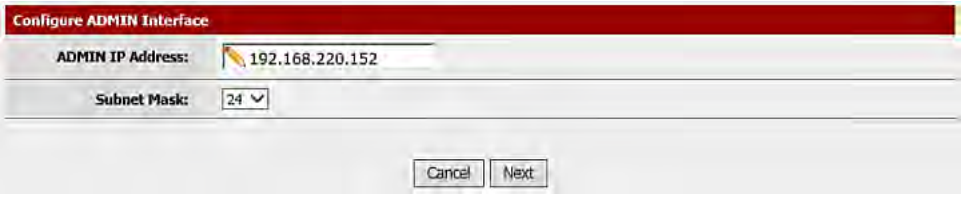
    The OUT interface information page displays.

14. On the OUT interface information page, do the following:
    - Leave the **Selected Type** value as **Static**.

      Note that the OUT interface now requires a Static IP address, unlike previous versions, because of the multiple OUT interface capabilities.

      Also note that at least one OUT interface must have access to DNS in order to be able to capture clients.
    - The **MAC Address** field is usually left blank. To modify (“spoof”) the MAC address of the OUT interface, enter a MAC address in the following format xx:xx:xx:xx:xx:xx. This may be required with some cable connections.
    - In the **IP Address** field, assign an IP address to the port. Configure the subnet mask in the adjacent drop-down list. Choose the subnet mask, expressed as a bit count.
    - In the **Gateway** field, enter the IP address of the default gateway for the firewall.
    - Click **Next**.

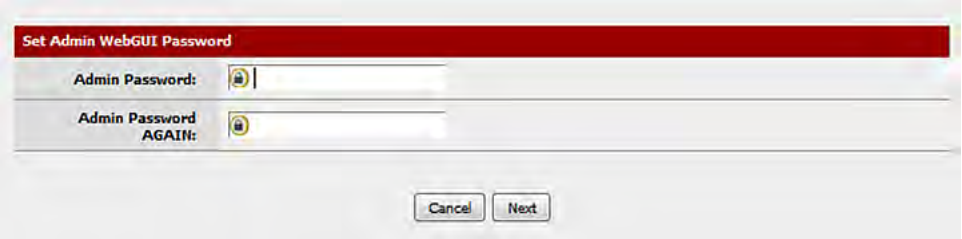
    The ADMIN interface information page displays.



15. On the ADMIN interface information page, do the following:
    - In the **ADMIN IP Address** field, enter the new IP address.

- From the **Subnet Mask** drop-down list, select the subnet mask, expressed as a bit count.
- Click **Next**.

The Admin Password page displays. This password is used to access the Web GUI and SSH services, if enabled.



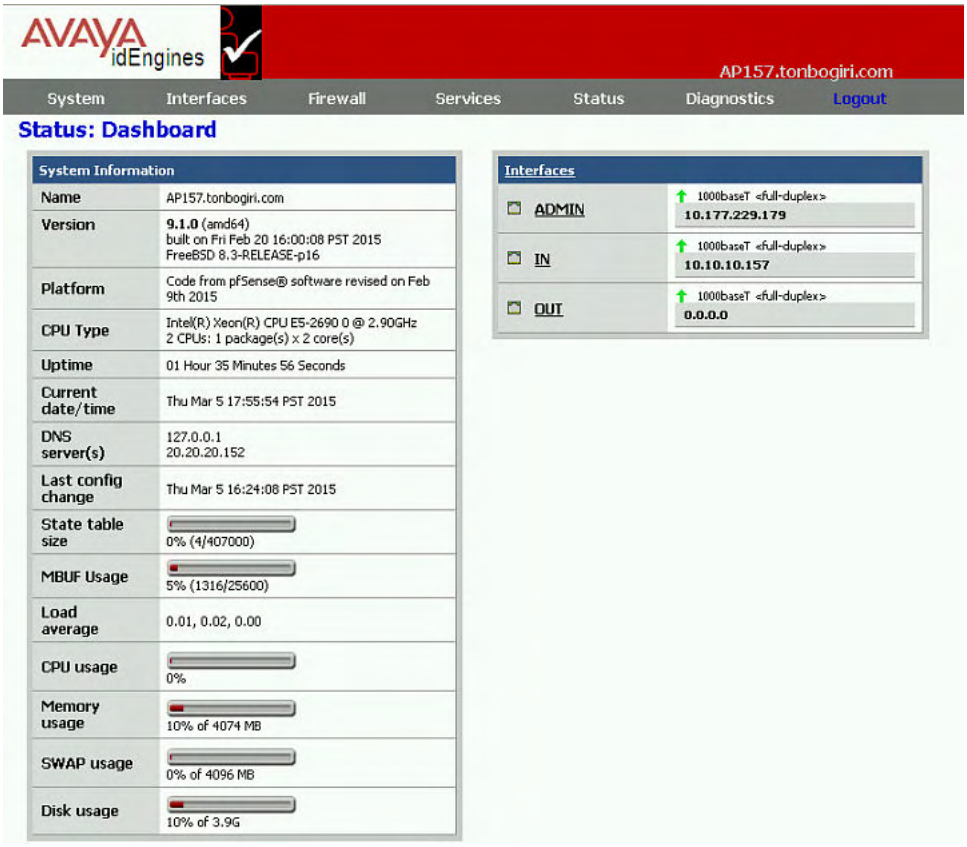
16. (Optional) On the Admin Password page, do the following:
    - In the **Admin Password** field, enter the new password.
    - In the **Admin Password AGAIN** field, enter the new password again.
    - Click **Next**.
17. Click **Reload** to load the new settings.

    If you changed the password, Access Portal prompts you to log in again.

    After you click the Avaya icon, or wait for the page to refresh, the System Overview page displays.

    You can now access the following Access Portal Administration Web UI main menu headings for further configuration:

    - System
    - Interfaces
    - Firewall
    - Services
    - Status
    - Diagnostics



Related links

[Setting up the Access Portal IN port](#) on page 34
[Adding multiple IN and OUT interfaces](#) on page 35
[Setting up the DHCP on OUT Interface (Demo Only)](#) on page 40
[Setting up the Access Portal DNS forwarder](#) on page 41
[Configuring the Access Portal DHCP settings](#) on page 41
[Configuring the Captive Portal settings](#) on page 43
[Configuring Network Address Translation (NAT)](#) on page 57
[Configuring Access Groups](#) on page 58
[Providing access to servers or other computers from a client machine](#) on page 60

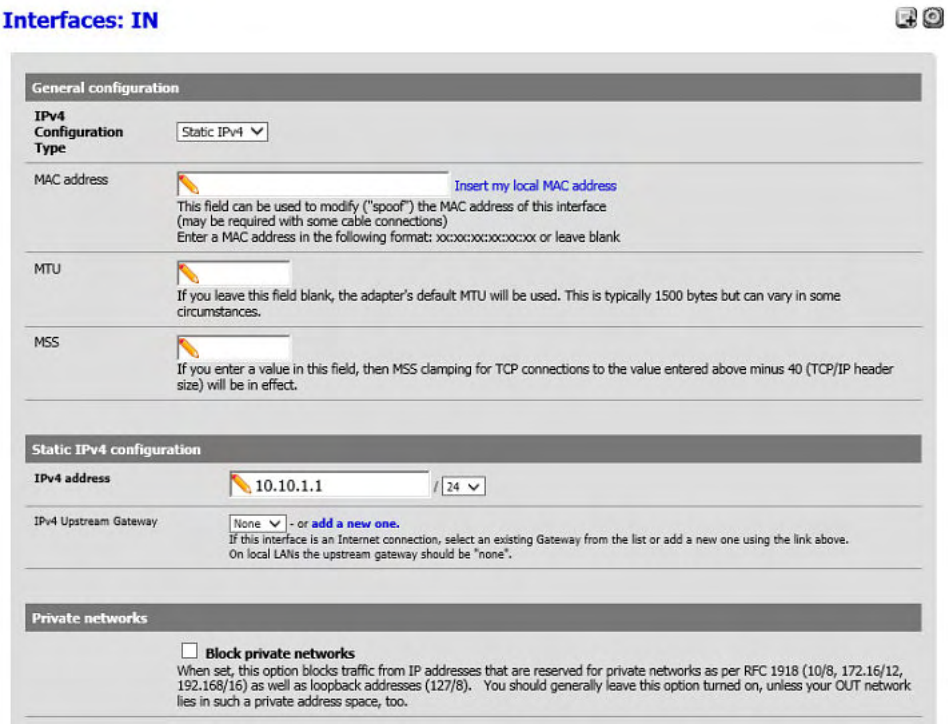
Setting up the Access Portal IN port

The IN port of the Access Portal is the entry point by which guests enter your authentication VLAN. You configure the guest-accessible switches in your organization so that when a client attempts to connect to the network and fails (the 802.1X authentication attempt fails), the switch places his or her session on a restricted-reach VLAN that includes the Access Portal IN port. For VLAN configuration details, see [Configuring VLANs on the wired switch](#) on page 82.

To configure the IN port, use the following procedure.

Procedure

1. On the main Access Portal Administration Web UI page, click **Interfaces** > **IN**.
2. In the **IPv4 address** field, enter the IP address of the IN interface.
3. From the adjacent drop-down list, click the subnet mask of the IN interface.
4. Click **Save**.



Adding multiple IN and OUT interfaces

Beginning with Release 9.1, Access Portal allows you to add multiple IN and OUT interfaces. In addition to the three network adapters required for the three out-of-the-box ADMIN, IN, and OUT interfaces, you can add additional adapters to your virtual machine, and then assign them as additional IN or OUT interfaces. The Access Portal can have only one ADMIN interface. Use the following procedure to add additional adapters, assign them as IN or OUT interfaces, and then enable the new interfaces.

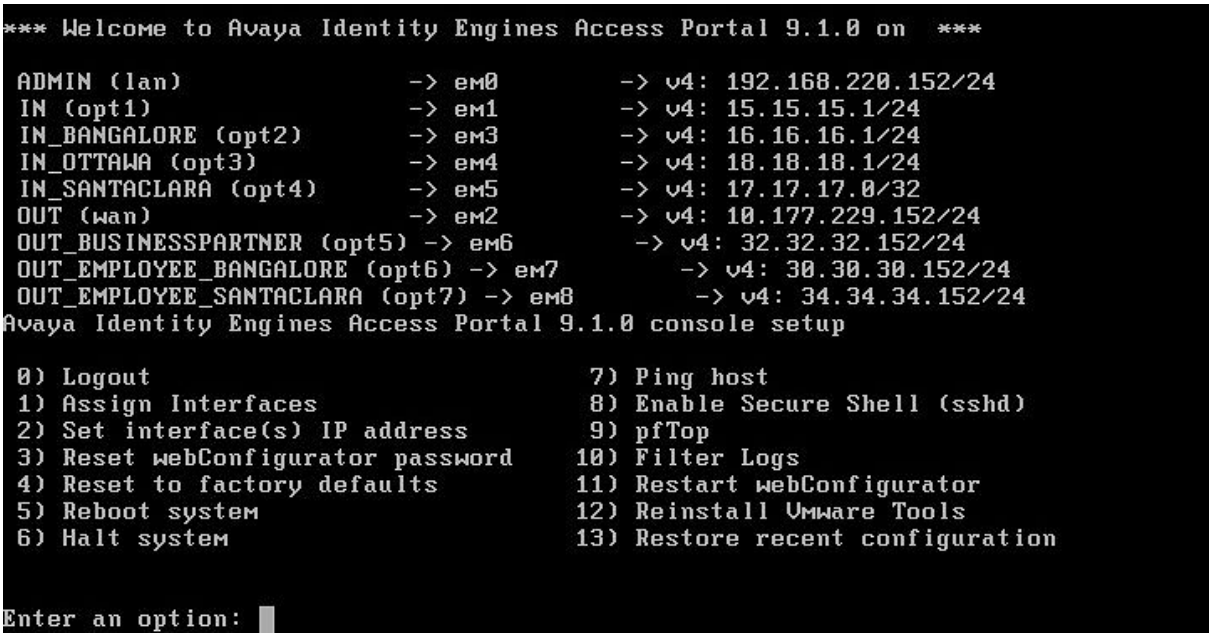
Important:

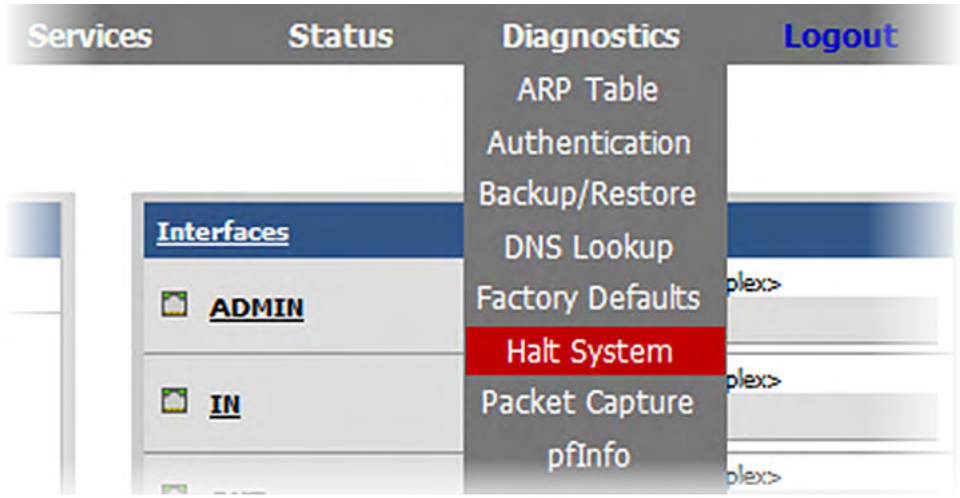
It is important to ensure that you make the correct assignments between Ethernet adapters and interfaces, and between Ethernet adapters and port groups. Additionally, ensure that the network port assigned has a one-to-one mapping with the interface.

Although it is possible to assign interfaces using the Access Portal console CLI, it is not recommended. Use the Access Portal Administration Web UI to assign adapters to interfaces.

Procedure

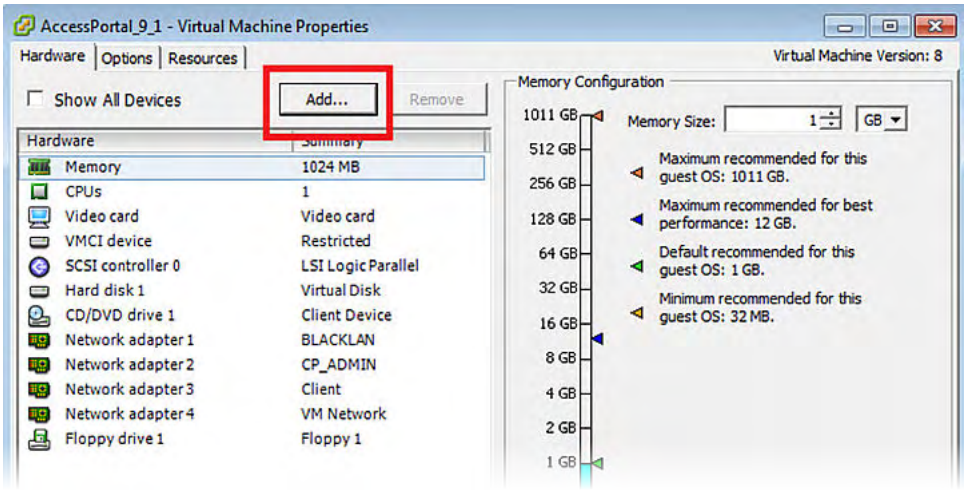
1. Do one of the following to halt the system:
   - Open the Access Portal console CLI, and enter `6`.
   - On the main Access Portal Administration Web UI page, click **Diagnostics** > **Halt System**.





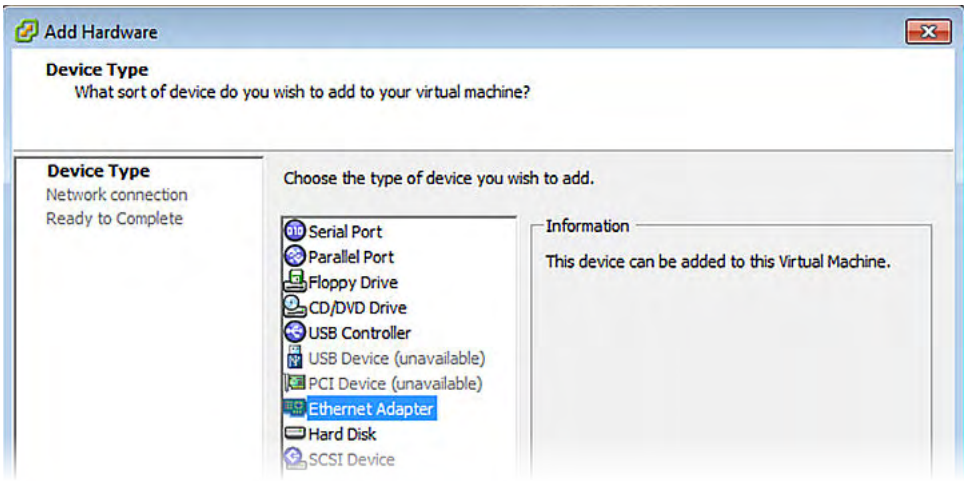
2. In the VMware vSphere Client, right-click the virtual machine name and click **Edit Settings**.

   The Virtual Machine Properties page displays.



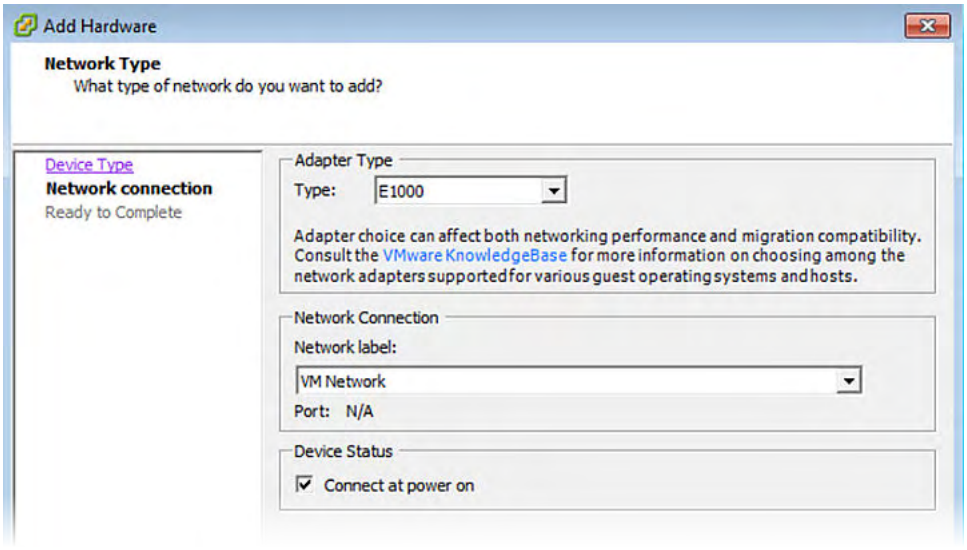
3. On the Virtual Machine Properties page, click **Add**.

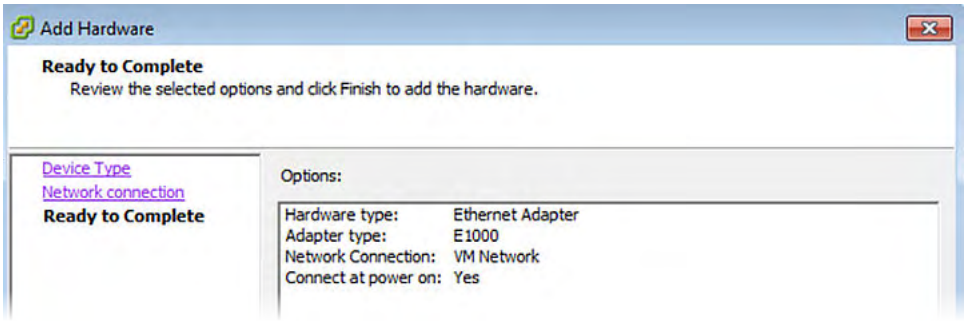
   The Add Hardware page displays.



4. In the **Device Type** area, click **Ethernet Adapter**, and click **Next**.

5. Leave the **Adapter Type** as the default value of E1000, select the appropriate network in the **Network Label** field, select the **Connect at power on checkbox**, and click **Next**.





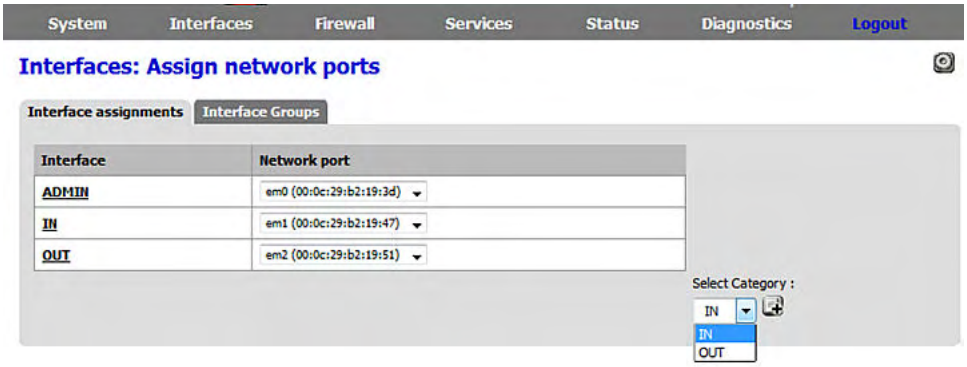
6. Verify the settings and click **Finish**.
7. Repeat Step 4 on page 37 through Step 7 on page 38 for each adapter you want to add.
8. After all adapters have been added, power on the virtual machine and wait for it to boot completely.

   You must now assign the newly added adapters as interfaces to your Access Portal.

   Although it is possible to assign interfaces using the Access Portal console CLI, it is not recommended. Use the Access Portal Administration Web UI to assign adapters to interfaces.
9. On the main Access Portal Administration Web UI page, click **Interfaces** > **(assign)**.

   The Interfaces: Assign network ports page displays.
10. Do one of the following:
    - To assign a newly added network adapter as an IN interface, click **IN** in the **Select Category** drop-down list, and then click the Add icon to the right of the drop-down list.

- To assign a newly added network adapter as an OUT interface, click **OUT** in the **Select Category** drop-down list, and then click the Add icon to the right of the drop-down list.

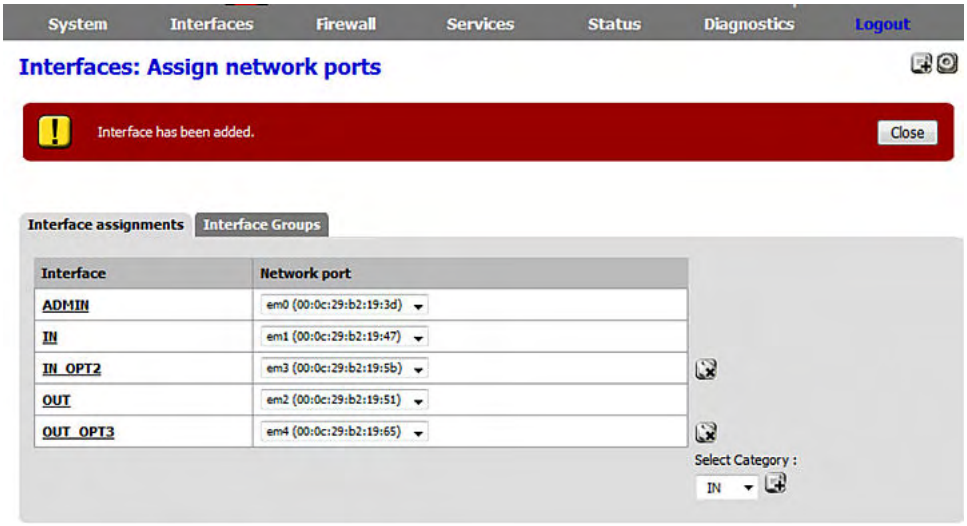


The page refreshes and displays the newly added interface in the **Interface Assignments** list.

11. Click the **Network Port** drop-down list for the new interface, and select the Ethernet adapter that you want to assign to this interface.

    Important:

    The three basic ADMIN, IN, and OUT interfaces are by default assigned to the “em0”, “em1”, and “em2” network ports. Do not change the default network port assignments for these three interfaces.



12. Click **Save**.

    The newly added interface is saved and is ready to be enabled.

13. To enable the newly added interface, on the main Access Portal Administration Web UI page, click **Interfaces**, and then click the name of the interface.

    The Interfaces: <interface name> page displays.

14. Do the following:
    - Ensure that the **Enable Interface** check box is selected.
    - In the **Description** field, enter a name for the interface.

      Important:

      The name for additional IN or OUT interfaces should start with the prefix “IN” or “OUT” respectively. For example, you could name additional IN interfaces “IN_Employee”, or “INGuest”, or conversely, you could name additional OUT interfaces “OUT_Employee”, or “OUTGuest”, and so on. This ensures that all interfaces are presented in a coherent manner for future administration and monitoring.
    - In the **IPv4 Address** field, enter the IP address of the interface.
    - From the adjacent drop-down list, select the subnet mask of the interface.
    - Click **Save**.

Setting up the DHCP on OUT Interface (Demo Only)

Before you begin

On the web browser, enter the Ignition Access Portal URL`http(s)://<accessportal-admin-ip>/interfaces_out_DEMO_ONLY.php`.

About this task

Ignition Access Portal supports multi-IN and multi-OUT interfaces. Use this procedure to enable DHCP on the OUT interface for demo or lab deployment only.

Important:

This feature is intended for use only in lab or demo environments. This feature is NOT supported in production live deployment.

Procedure

1. On the Ignition Access Portal, navigate to **Interfaces** > **OUT**.
2. Choose IPv4 Configuration Type as, **DHCP** from the drop-down list and click **Save**.
3. To verify the gateway configuration, navigate to **System** > **Routing** > **Gateways Tab** .
4. **(Optional)** In order to revert configuration from DHCP to Static, you can follow the above step 1 and choose IPv4 Configuration Type as, **Static** and save the configuration.

   Note:

   By default, gateway name is OUT. Modify the name to proceed with the gateway configuration without any error.

Related links

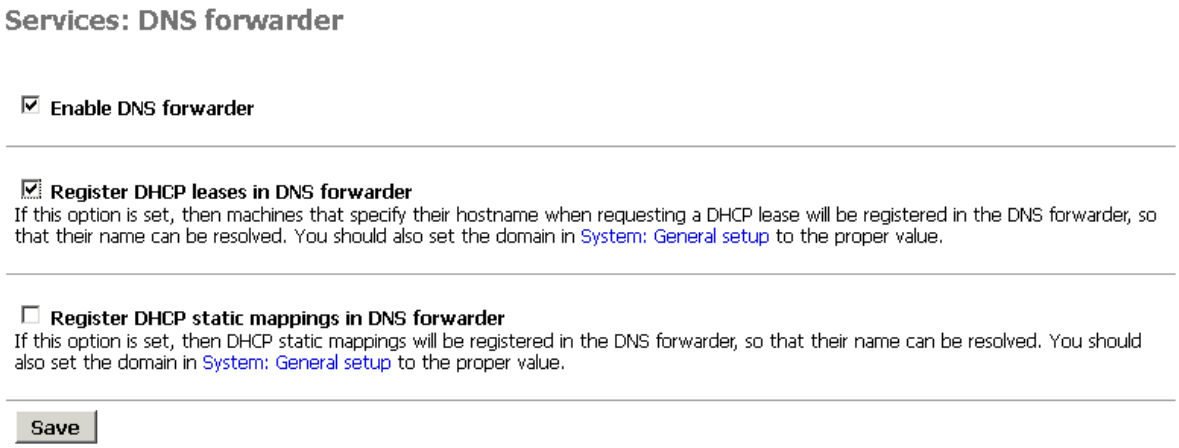
Configuring the Access Portal virtual machine on page 27

Setting up the Access Portal DNS forwarder

Use the following procedure to configure the Access Portal DNS forwarder.

Procedure

1. On the main Access Portal Administration Web UI page, click **Services** > **DNS Forwarder**.
2. Select the **Enable DNS forwarder** check box.
3. Select the **Register DHCP leases in DNS forwarder** check box.
4. Click **Save**.



Configuring the Access Portal DHCP settings

The Access Portal DHCP server settings allow the Ignition Server to provide an IP address to each guest user device upon connection to the network. By default, the DHCP server is enabled on the IN interface. You can also configure Access Portal to use an external DHCP server.

Follow this procedure to configure Access Portal to act as a DHCP server for the client network (default setting).

Procedure

1. On the main Access Portal Administration Web UI page, click **Services** > **DHCP Server**.
2. On the Services: DHCP server page, click the appropriate IN interface tab.
3. Select the **Enable DHCP Server on IN interface** check box.
4. In the **Range** fields, enter the range of IP addresses that the DHCP server will assign to guest devices.

5. Optionally scroll down to the **Additional BOOTP/DHCP Options** section, click **Advanced**, and click the Add icon to send additional DHCP options to the client. Click **Save**.

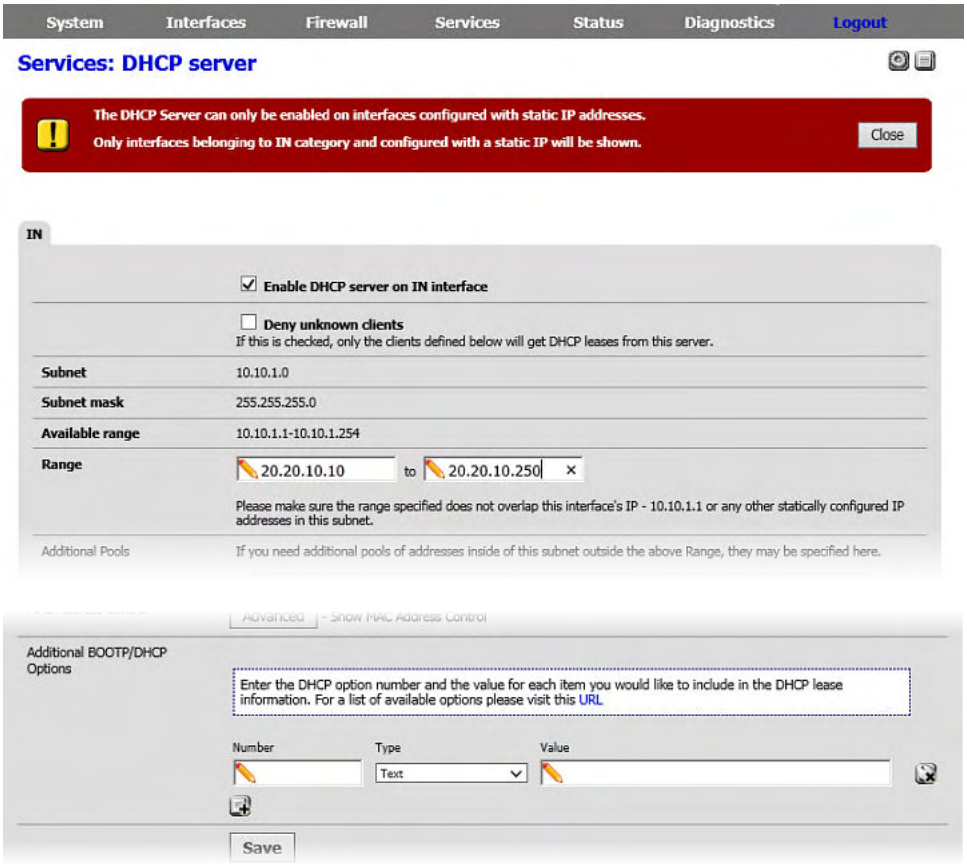
   This can include other DHCP options such as proxy settings. See Appendix A: Access Portal deployment example on page 115 for an example deployment that includes pushing the proxy setting to the clients to make the clients work with Access Portal and a proxy server.

6. Configure remaining settings as required.

   Note that the behavior of the Default lease time is as follows:

   - If the default lease time is configured as 300 seconds or more, then this value is used as the default lease time and the renew time the clients use is half of that value.
   - If default lease time is configured as anything less than 300 seconds, Access Portal considers the default lease time as 300 seconds and this value is used as the renew time by the clients.

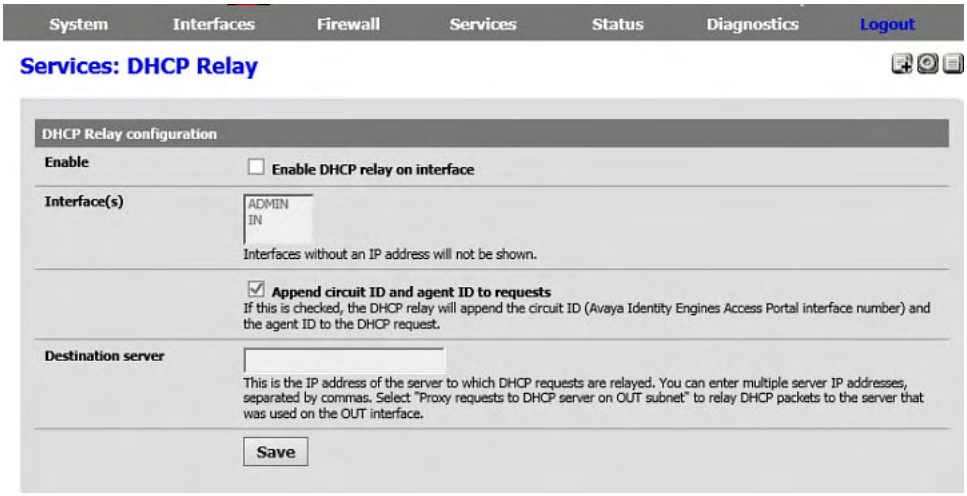
7. Click **Save**.



   To configure Access Portal to use an external DHCP server:

   a. On the main Access Portal Administration Web UI page, click **Services** > **DHCP Relay**.

      The Services: DHCP Relay page displays.



b. Select the **Enable DHCP relay on interface** check box.
c. In the **Interfaces** field, click the **IN** interface.
d. In the **Destination server** section, enter the IP address of the server to which the DHCP packet is relayed.
e. Click **Save**.

Configuring the Captive Portal settings

The Captive Portal settings determine how Access Portal authenticates guests and how it enforces their session timeouts.

You can define zones for captive portal. Zones are captive portal settings that apply to one or more IN interfaces. Beginning with Release 9.2, you have the option to configure and send RADIUS accounting to a server other than RADIUS authentication server.

Note:

If no RADIUS accounting server is specified and if accounting is enabled, RADIUS accounting will be sent to RADIUS authentication server.

Important:

Ensure that you enable the DHCP server on your captive portal interface. Ensure that the default/maximum DHCP lease time is greater than the time-out entered on this page. The DNS forwarder must be enabled for DNS lookups by unauthenticated clients to work.

Warning:

This procedure contains steps that disconnect all clients.

It is therefore advised to perform this procedure only during a maintenance window.

Procedure

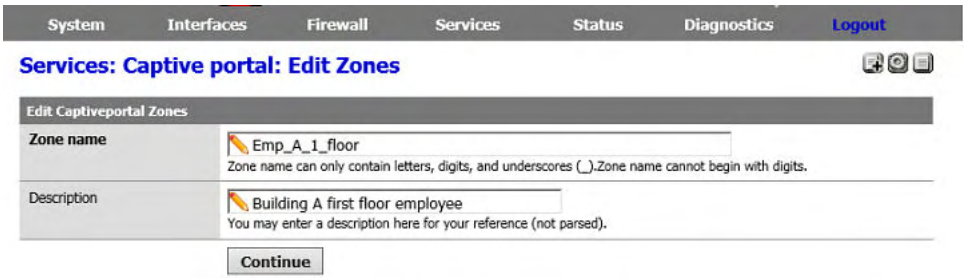
1. On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.

The Captiveportal: Zones page displays.

2. Click the Add icon on the right side of the page.

   The Services: Captive portal: Edit Zones page displays.

3. Enter a name for the zone into the **Zone name** field.
4. **(Optional)** Enter a description into the **Description** field.



5. Click **Continue**.

   The **Services: Captive portal** page displays, the following sections:

   - External Captiveportal settings- For more information, see Configuring the external captive portal settings on page 44.
   - Ignition server settings- For more information, see Configuring Ignition server settings on page 47.
   - HTTPS settings- For more information, see Configuring HTTPS settings on page 51.
   - Portal Page Customization- For more information, see CustomizingUser-VisiblePages on page 52.

6. Click **Save**.

Configuring the external captive portal settings

About this task

Use this procedure to configure the external Captive Portal settings on Services: Captive Portal page.

Before you begin

- Navigate to the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.
- On the Captive Portal : Zones configure zones. For more information, see Configuring the Appliance Access Portal Settings on page 43.

Note:

Delete any entries in **IP Address whitelist** and **MAC whitelist** and add these entries in WLAN 9100. Ensure to remove or disable manually added firewall rules on any of the interfaces associated with this zone.

Procedure

1. On the **Captive Portal: Zones**, click edit icon for the selected Captive Portal instance.

   The system displays Services: Captive Portal: <ZONE> page for the selected Captive Portal instance.

2. In the **External Captiveportal settings** section, select **Enable External Captive Portal** to enable this instance of Captive Portal as an external Captive Portal to WLAN 9100.

3. In the **AP 9100 redirect secret** field, enter the AP 9100 redirect secret key.

   Note:

   The redirect secret key is shared between WLAN 9100 and Access Portal. For more details, see Configuring External Captive Portal on WLAN 9100 on page 89.

4. Select the IN interfaces that you want to enable for this zone in the **Interface** field.

   Note:

   You can choose more than one IN interface per zone. However, an interface can only be enabled for one zone; one IN interface cannot be part of multiple zones.

5. **(Optional)** When you enable external Captive Portal in Step 2 on page 45, the following fields are disabled. To configure these field settings, clear **Enable External Captive Portal** check box and do the following:

Fields	Description
Maximum Concurrent connections	Enter a value to limit the number of users that can concurrently load the portal page or authenticate.
Idle timeout	Enter the maximum amount of time, in minutes, that the client can sit idle before being disconnected.
Hard timeout	Enter the maximum length of the session regardless of activity, in minutes.
Enable logout popup window	Select the check box to allow users to manually log out before Idle or Hard timeouts.
Max Concurrent user logins	Enter a value for the maximum number of devices a user can log onto concurrently.

Example

The following figure shows an example with activated **External Captive Portal** on the Services: Captive Portal page.

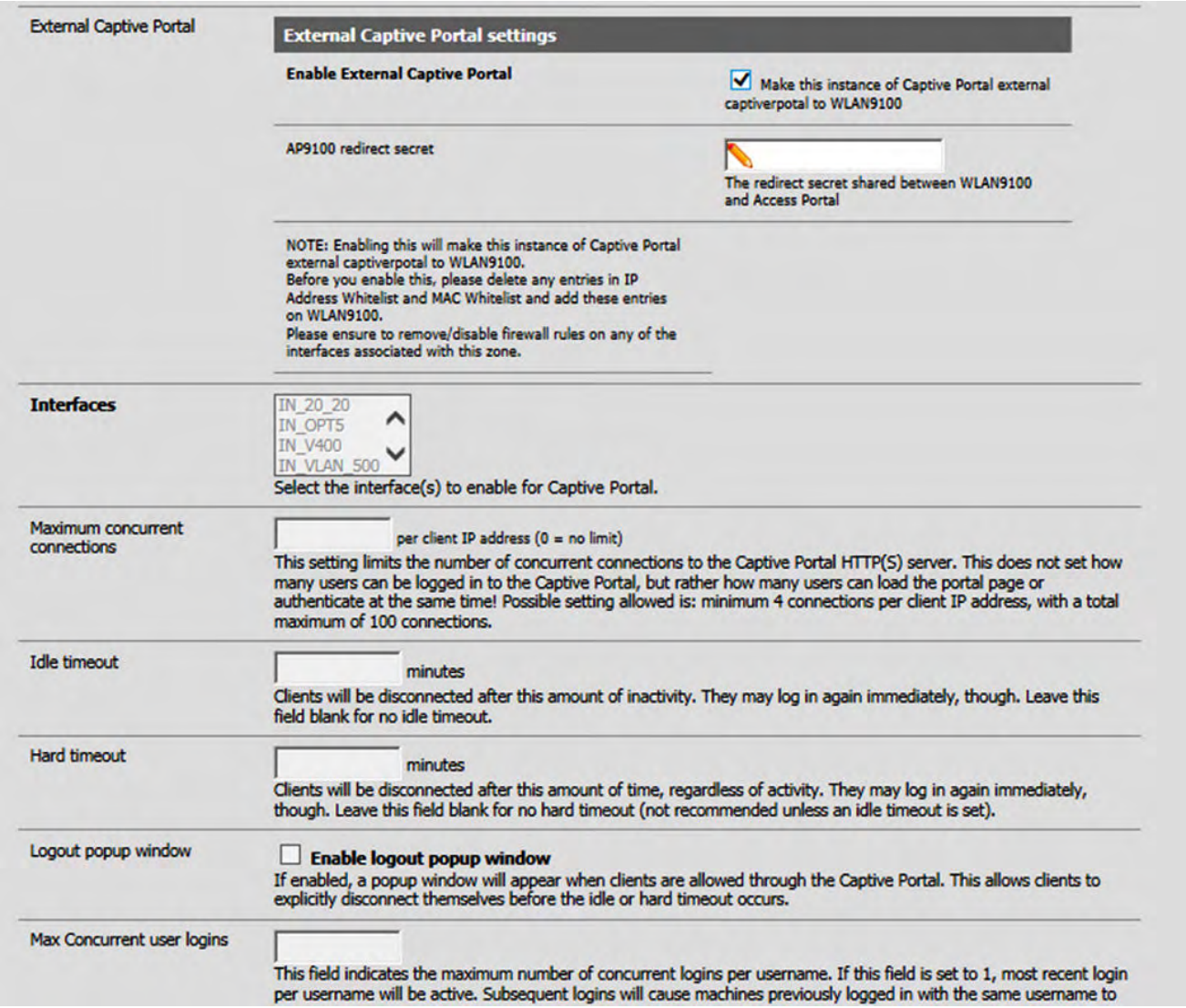


Figure 1: Services: Captive Portal: External Captive Portal settings example

Note:

On the Access Portal Login page, if there is a long time of inactivity (>15 minutes) to enter credentials, then the Guest User will have to refresh the page manually or will have to close and reopen the tab. To avoid this, you need to add the following lines to the <head> section of your Custom login page.

```
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<meta http-equiv="pragma" content="no-cache">
<meta http-equiv="refresh" content="300;url=$PORTAL_REDIRURL$">
<title>idEngines Access Portal</title>
</head>
```

Next steps

Perform the procedure for Configuring Avaya WLAN 9100 with Access Portal on page 88.

Configuring the Ignition Server settings

About this task

Use this procedure to configure the Ignition Server settings on Services: Captive portal page. This section allows you to configure the RADUIS authentication and accounting server details.

Before you begin

Navigate to the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**. For more information, see Configuring the Appliance Access Portal Settings on page 43.

Procedure

1. In the **Ignition Server settings** section, the following options are available:

Choice Option	Choice Description
No Authentication	Select if no authentication is required. Disables **Primary Authentication Source**, **Accounting**, and **RADIUS options**.
Local User Manager	Select if you want to authenticate using local users created in local user manager tab. Disables **Primary Authentication Source**, **Accounting**, and **RADIUS options**.
RADIUS Authentication	Select to enable RADIUS Authentication. **Note:** The **Primary Authentication Source**, **Accounting**, and **RADIUS options** are enabled only if **RADIUS Authentication** is selected.

2. Select **RADIUS Authentication** to configure **Primary Authentication Source**, **Accounting**, and **RADIUS options**.
3. In the **Primary Authentication Source** section, do the following:
   a. In the Primary and Secondary RADIUS server **IP address** field, enter the IP address of the Ignition Server against which users of the Access Portal must authenticate.
   b. In the Primary and Secondary RADIUS server **Shared secret** field, enter the Ignition Server appliance shared secret.
4. In the **Accounting** section, select **send RADIUS accounting packets** to send Radius accounting records to a different RADIUS server.
   a. In the Primary Accounting server **IP address** field, enter the IP address of the Accounting server.

      Note:

      If this field is left blank, primary RADIUS server IP address will be used as primary Accounting server IP address.

   b. In the Primary Accounting server **Port** field, enter the port value. By default, this field takes default value as `1813`
   c. In the Primary Accounting server **Shared secret** field, enter the Accounting server shared secret.

d. **(Optional)** To activate secondary Accounting server, configure **Secondary Accounting server** details in the respective fields.

Note:

If **Secondary Accounting server** section is left blank, secondary RADIUS server IP address will be used as secondary Accounting server IP address.

5. In the **Accounting updates** section, the following options are available:

Choice Option	Choice Description
no accounting updates	Select to send only start and stop accounting updates when the user logs in and log out.
stop/start accounting	Select to send start and stop accounting updates every minute.
interim update	Select to send start accounting and interim update every minute. It also sends stop accounting update when the user logs out.

6. Select **stop/start accounting** to receive the following standard RADIUS accounting attributes:

RADIUS accounting attributes	Choice Description
Accounting	• Status • UserId
Authenticator Attributes	• Name • IP Address • Calling station • Framed IP address
Session Attributes	• Session ID • Authentication • Session time

7. In the **RADIUS options** section configure RADIUS re-authentication to enforce the timeout of guest network sessions. In the **Session-Timeout** section, do one of the following:

Note:

The session expiry periods are configured in Ignition Server authorization policy.

- Select **No Timeout**.
- Select **Soft Timeout**.

For a soft timeout, the portal attempts to reauthenticate the client after the timeout period using the cached credentials. If the authentication succeeds, there is no disruption to the client; the client is unaware of the authentication happening in the background. However, if the authentication fails, the client gets disconnected and the user must log in again.

Caution:

Be aware that a soft timeout and subsequent reauthentication implies the same user session.

This may have implications for any policies that you may configure on the Ignition Server. For example, inbound attributes sent by Access Portal are only sent upon initial login—not during reauthentication for a soft timeout. Therefore, if a policy contains inbound attributes, and the inbound attributes change during the course of the user session, the user may experience a failed reauthentication after a soft timeout. A hard timeout would be a better option for this type of policy. Conversely, device fingerprinting attributes do not change during the course of a user session, so policies that contain device attributes work with the soft timeout option.

Note:

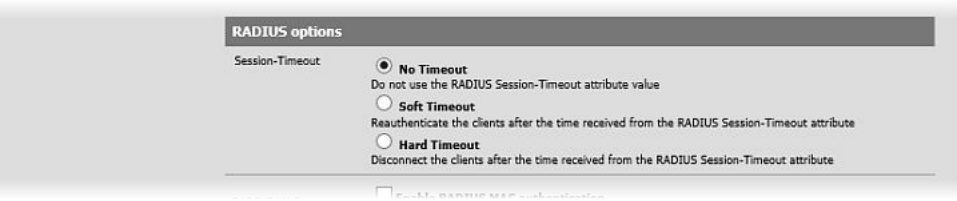
Note that this option is similar to the “Reauthenticate Connected Users Every Minute” functionality in previous releases, but is more flexible. The reauthentication frequency is configurable by defining the RADIUS outbound session time out value. Additionally, this reauthentication strategy does not have to apply to all users, instead choosing the users based on the policies defined on the Ignition Server.

- Select **Hard Timeout**.

  For a hard timeout, after the timeout period, the portal disconnects the client and the user must log in again.

  It is important to be aware of the differences and interaction between the Captive Portal Hard Timeout, and this RADIUS Session Hard Timeout option. Consider the following:

  - This RADIUS Session Hard Timeout setting only applies if you enabled RADIUS Authentication, while the Captive Portal Hard Timeout setting is unrelated to RADIUS Authentication.
  - This RADIUS Session Hard Timeout setting is applicable only for those users for whom this value is received. This value may be different for different users or not present for some users. Conversely, the Captive Portal Hard Timeout setting applies to all users.
  - If a timeout value is specified for both Hard Timeout options, the lower value takes precedence.



Example

The following figure shows an example of the **Accounting updates** with various accounting status:

- Start

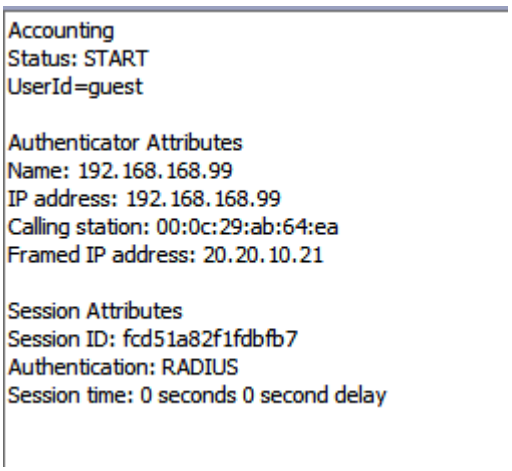


Figure 2: Accounting Attribute- Status <Start>

- Interim

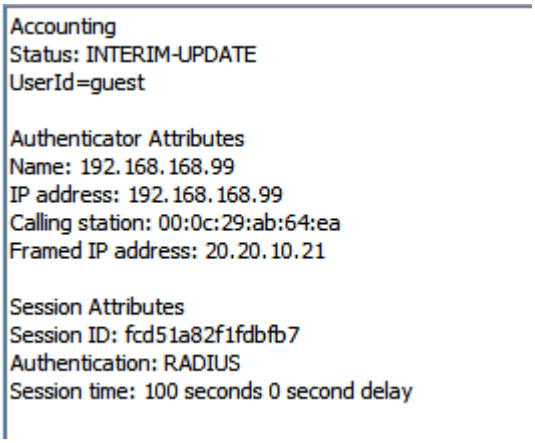


Figure 3: Accounting Attribute- Status <Interim>

- Stop

Figure 4: Accounting Attribute- Status <Stop>

Next steps

Perform the procedure for Configuring HTTPS settings on page 51.

Configuring the HTTPS settings

About this task

Use this procedure to configure the Hypertext Transfer Protocol Secure (HTTPS) settings on Services: Captive Portal page.

Before you begin

Navigate to the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**. For more information, see Configuring the Appliance Access Portal Settings on page 43.

Procedure

1. In the **HTTPS login** section, select the **Enable HTTPS login** check box to enable the secure data transmission.
2. In the **HTTPS server name** field, enter the HTTPS server name and select **SSLCertificate** type from the drop-down list.
3. To enable SSLv3 on this zone, select the **Enable SSLv3** check box.

Next steps

Perform the procedure for Creating Customized User-Visible Pages on page 52.

Enabling Social Media Login

About this task

Use this procedure to enable Social Media Login. Enabling Social Media Login allows the user to login to Access Portal using the social media credentials. These credentials are validated and after successful validation, users are redirected to Access Portal with the user profile information and token id. Using the same information, Guest Manager APIs creates a Guest User in the Ignition Server. On successful user creation, Access Portal authenticates this user against Ignition Server and automatically logs in the user into the network.

Before you begin

- Navigate to the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**. For more information, see Configuring the Appliance Access Portal Settings on page 43.

Procedure

1. In the Social Media Login section, select the **Social Media Login** check box to enable the Social Media Login.
2. Navigate to **Services** > **Social Media** section for Social Media configuration. For more information, see Configuring the Social Media Login on page 93.

Next steps

For information related to configuration on Guest Manager for Social Media Login, see *Avaya Identity Engines Ignition Guest Manager Configuration*, NN47280-501.

Customizing user-visible pages

You can customize four user-visible pages: the login page, the success page, the static logout page, and the authentication error page. First, you create and upload the user-visible HTML pages, and then you select which login, success, static logout, and error pages that Access Portal displays to users.

Warning:

Any procedure for selecting user-visible pages contains steps that disconnect all clients!

It is therefore advised to perform those procedures only during a maintenance window.

Creating customized user-visible pages

Use a text editor or HTML editor to create customized user-visible pages. Ignition Access Portal Release 9.2 introduces the following two new users defined VSAs:

- *Avaya-Access-Portal-Custom-VSA1*
- *Avaya-Access-Portal-Custom-VSA2*

Note:

To send custom VSA attributes to Ignition Server, you can add a hidden field (within the form) with name= *Avaya-Access-Portal-Custom-VSA1* and name= *Avaya-Access-Portal-Custom-*

VSA2 and any string to be sent as value. You can send any one attribute; *Avaya-Access-Portal-Custom-VSA1*, *Avaya-Access-Portal-Custom-VSA2* , or both attributes.

Your login page must include the PORTAL_ACTION login form shown in the example code in the **Portal page contents** section under **Services** > **Captive Portal**.

Ensure that you save your customized pages in HTML format.

Uploading customized user-visible pages

After you save your customized pages in HTML format, you can upload the files into Access Portal. Use the following procedure to load your customized HTML pages, as well as any supporting image and Cascading Style Sheet (CSS) files.

Any files that you upload here are made available in the root directory of the captive portal HTTP(S) server. You can reference them directly from your portal page HTML code using relative paths.

Example:

You uploaded an image with the name “test.jpg” using the File Manager. Then you can include it in your portal page like this:

<img src="test.jpg" width=... height=...>

You can also upload .php files for execution. You can pass the filename to your custom page from the initial page by using text similar to:

 Acceptable usage policy

For this procedure, the total size limit for all files is 1 MB. If your file size is larger than 1 MB, use the Upload Big Files interface on the File Manager page to upload the large files. Note that the files you upload using the Upload Big Files interface are not backed up.

Procedure

1. On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.

The Captive Portal: Zones page displays.

2. Click the Edit icon to the right of the desired captive portal.

   The Services: Captive portal page displays with the Captive Portal(s) tab selected.

3. Click the **File Manager** tab.

   The window displays a table listing all the files that were previously uploaded.

4. Click the plus sign (**+**) to the right of the bottom row in the table.
5. Click **Browse**, navigate to the desired file, and click **Open**.
6. Click **Upload** to load the file.
7. Repeat Step 4 on page 54 through Step 6 on page 54 for each file you want to upload.

Selecting the Access Portal login page

Follow this procedure to select the Access Portal login page.

Warning:

This procedure contains steps that disconnect all clients!

It is therefore advised to perform this procedure only during a maintenance window.

Procedure

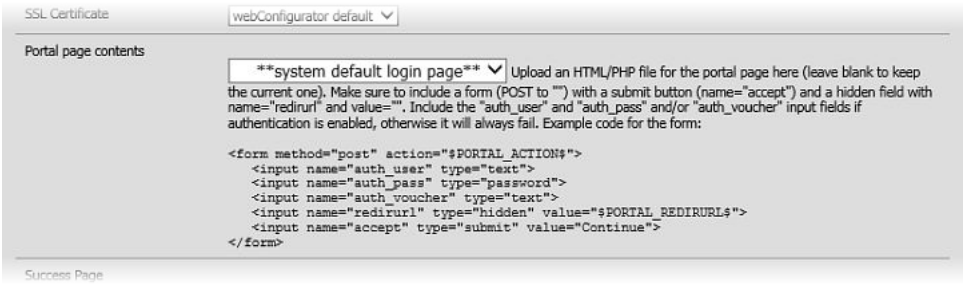
1. On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.

   The Captive Portal: Zones page displays.

2. Click the Edit icon to the right of the desired captive portal.

   The Services: Captive portal page displays with the Captive Portal(s) tab selected.

3. Scroll down to the **Portal page contents** section.



4. From the drop-down list, select the HTML file you want to use for your login page.
5. Click **Save**.

   The portal page displays.

Selecting the Success page

Follow this procedure to configure the **Success** page.

Note:

If a CASE package is deployed on Access Portal, the CASE application provides its own success page.

Warning:

This procedure contains steps that disconnect all clients!

It is therefore advised to perform this procedure only during a maintenance window.

Procedure

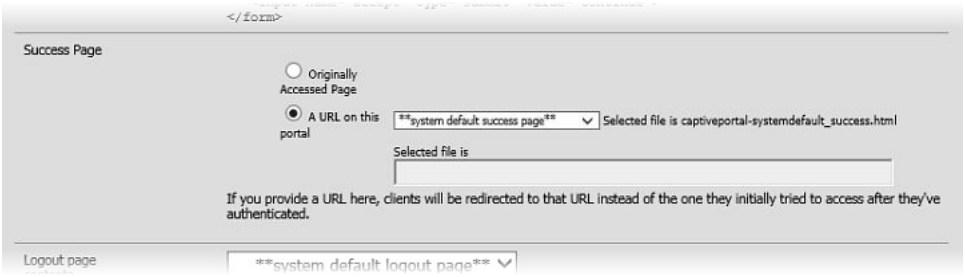
1. On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.

   The Captive Portal: Zones page displays.

2. Click the Edit icon to the right of the desired captive portal.

   The Services: Captive portal page displays with the Captive Portal(s) tab selected.

3. Scroll down to the **Success Page** section.



4. Perform one of the following actions to specify which URL to direct the client to after the client authenticates:
   - If, after clients authenticate, you want to direct them to the URL they initially tried to access, select **Originally Accessed Page**.
   - If, after clients authenticate, you want to direct them to an URL on this portal, select **A URL on this portal** , and specify the URL in the **Selected file is** field.
5. From the drop-down list, perform one of the following actions:
   - To use your customized Success page, select the HTML file you want to use. The guest user sees this page upon successful authentication.
   - If, after clients authenticate, you want to direct them to a URL on this portal, select the appropriate file name from the drop-down list that corresponds to the Success page you want to show. The guest user sees this page upon successful authentication.
   - If, after clients authenticate, you want to direct them to a URL on another server, click **On Other Servers: Specify URL below**, and specify the full URL in the field below.
6. Click **Save**.

Selecting the Authentication error page

Follow this procedure to select the Authentication error page contents.

Warning:

This procedure contains steps that disconnect all clients!

It is therefore advised to perform this procedure only during a maintenance window.

Procedure

1. On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.

   The Captive Portal: Zones page displays.

2. Click the Edit icon to the right of the desired captive portal.

   The Services: Captive portal page displays with the Captive Portal(s) tab selected.

3. Scroll down to the **Authentication error page contents** section.

4. From the drop-down list, select the HTML file you want to use for your authentication failure page.

   The guest user sees this page if an authentication attempt fails.

5. Click **Save.**

Selecting the static Logout page

Users can access this page to log out by entering the following address in a web browser:

`http(s)://<ip:port>/<static logout filename>`

Follow this procedure to select the static Logout page.

Warning:

This procedure contains steps that disconnect all clients!

It is therefore advised to perform this procedure only during a maintenance window.

Procedure

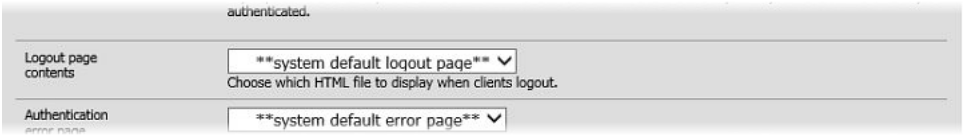
1. On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.

   The Captive Portal: Zones page displays.

2. Click the Edit icon to the right of the desired captive portal.

   The Services: Captive portal page displays with the Captive Portal(s) tab selected.

3. Scroll down to the **Logout page contents** section.



4. From the drop-down list, select the HTML file you want to use for your static Logout page.
5. Click **Save**.

Configuring Network Address Translation (NAT)

Currently, the default behavior of Access portal is, the traffic going through OUT interface is NATed and any system will see the OUT interface IP and not the client IP. You can disable this behavior by doing a configuration change in **Firewall** > **NAT** > **Oubound** tab.

This feature enables IP address simplification and protection by configuring NAT to advertise the individual IP addresses of the network to the outside world.

Limitation

- If the selected mode is Automatic outbound with NAT enabled, a mapping is automatically created for each interface subnet (except OUT-type connections). The rules on Firewall: NAT: Outbound page are ignored.
- If the selected mode is Manual outbound with NAT enabled, outbound NAT rules will not be automatically generated. The system displays mapping only specified by you on the Firewall: NAT: Outbound page.

Note:

To completely disable outbound NAT, switch to Manual Outbound NAT then delete any NAT rules that appears in the list. For more information see Disabling NAT rule in Access Portal on page 57.

Related links

Configuring the Access Portal virtual machine on page 27
Disabling NAT rule in Access Portal on page 57

Disabling NAT rule in Access Portal

About this task

Use this procedure to advertise the individual IP addresses of the network to the outside world by disabling NAT rule in the Access Portal.

Note:

If the selected mode is automatic outbound NAT enabled, a mapping is automatically created for each interface subnet (except OUT-type connections). The rules on Firewall: NAT: Outbound page are ignored.

Before you begin

Procedure

1. On the main Access Portal Administration Web UI page, click **Firewall** > **NAT**.

   The system displays the Firewall: NAT: Port Forward page, with **Port Forward** as the default tab.

2. On the **Firewall: NAT: Port Forward** page, click **Outbound** tab.

   The system displays the Firewall: NAT: Outbound page.

3. In the **Mode** field, select **Manual Outbound NAT rule generation (AON - Advanced Outbound NAT)** to configure and override the outbound NAT rules.

   Note:

   By default, **Automatic outbound NAT rule generation (IPsec passthrough included)** is enabled.

4. Click **Save**.

   The system displays the Outbound NAT rules of the interfaces in the Mappings section.

5. Select the desired **Interface** row and click the edit mapping icon.

   The system displays the Firewall: NAT: Outbound: Edit page.

6. In the **Edit Advanced Outbound NAT entry** section, select **Do not NAT** check box to disable the NAT for traffic matching this rule and stop processing Outbound NAT rules.

7. Click **Save** to save the changes.

   The system displays the updated Firewall: NAT: Outbound page.

8. Click **Apply changes** to apply the NAT configuration changes.

9. **(Optional)** Click **Close** to close the message.

Related links

Configuring Network Address Translation (NAT) on page 57

Configuring Access Groups

Access Groups control which success page is shown to users after successful authentication, and determine the OUT interface through which network access is granted. When Access Portal makes a RADIUS request to the Ignition Server for authentication for a user, Ignition Server performs a policy evaluation and sends out the Access Group to which the user belongs as an outbound value in the RADIUS ACCEPT response. Access Portal uses this value to determine the Access Group for the user and then grants network access and displays a success page accordingly.

Zones can have multiple Access Groups. Follow this procedure to configure one or more Access Groups for each zone.

Procedure

1. On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.

   The Captive Portal: Zones page displays.

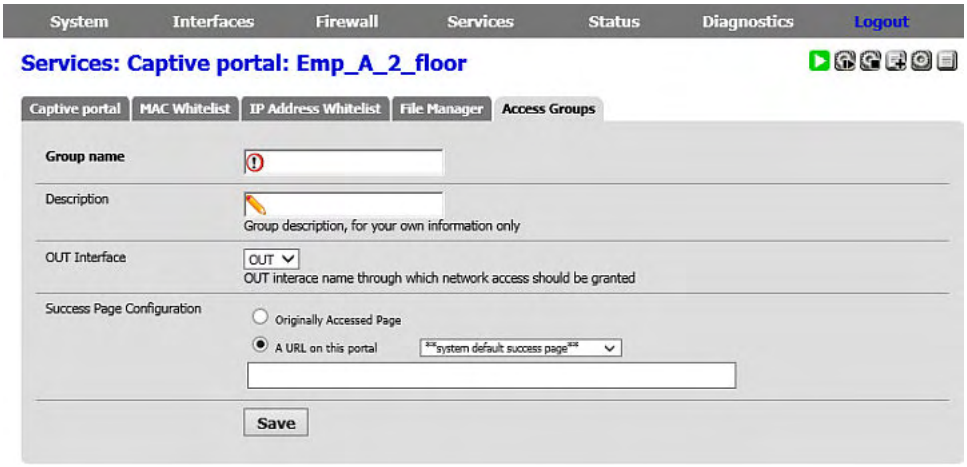
2. Click the Edit icon to the right of the desired captive portal.

   The Services: Captive portal page displays with the Captive Portal(s) tab selected.

3. Click the **Access Groups** tab.

4. Click the Add icon.

   The Services: Captive Portal page displays.



5. Enter the group name in the **Group** name field.

   The Access Group name must exactly match the Outbound Attribute value for the Access Group Name attribute configured in the access policy on the Ignition Server. If there is a name mismatch, the settings configured under Captive portal are not applied.

6. Optionally enter a description for the group in the **Description** field.

7. Select the desired OUT interface from the **OUT Interface** drop-down list.

8. Perform one of the following actions to specify which URL to direct the client to after the client authenticates:

   - If, after clients authenticate, you want to direct them to the URL they initially tried to access, select **Originally Accessed Page**.
   - If, after clients authenticate, you want to direct them to a URL on this portal, select the appropriate file name from the drop-down list that corresponds to the Success page you want to show. The guest user sees this page upon successful authentication.
   - If, after clients authenticate, you want to direct them to a URL on another server, click **On Other Servers: Specify URL below**, and specify the full URL in the field below.

9. Click **Save**.

Providing access to servers or other computers from a client machine

Normally, when Access Portal is deployed, if a client machine on the IN network that is not already authenticated through the portal issues an HTTP request, Access Portal captures this request and displays the Access Portal login page.

However, in certain situations, you may want to let clients access some servers even before they authenticate. For example, you might want to allow access to Guest Manager from client machines before authenticating with Access Portal. The guests can first access Guest Manager's self provisioning portal to register themselves and get a temporary user name and password. Guests can then log in to Access Portal with those credentials.

To allow this kind of access before Access Portal authentication, add the IP address of your server (Guest Manager in this use case) to the IP White List.

Alternatively, you can add MAC addresses to the MAC White List to direct users to a specific device before authenticating with Access Portal.

Warning:

This procedure contains steps that disconnect all clients!

It is therefore advised to perform this procedure only during a maintenance window.

Procedure

1. On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.

   The Captive Portal: Zones page displays.

2. Click the Edit icon to the right of the desired captive portal.

   The Services: Captive portal page displays with the Captive Portal(s) tab selected.

3. Do one of the following:

   - To add an IP address to the white list, click the **IP Address Whitelist** tab.
   - To add a MAC address to the white list, click the **MAC Whitelist** tab.

4. Click the Add icon on the right side of the page.

5. Do one of the following:

   - On the Services: Captive Portal: Edit IP Address Whitelist page, in the **IP Address** field, enter the IP address that you want to direct users to.
   - On the Services: Captive Portal: Edit MAC Whitelist page, in the **MAC Address** field, enter the MAC address for the device that you want to direct users to. Alternatively, click **Copy my MAC address** to populate the field with the MAC address for the current device.

6. Optionally enter a description into the **Description** field.

7. To limit the amount of bandwidth allowed for upload for this address, enter a value in Kbit/s in the **Bandwidth Up** field.

8. To limit the amount of bandwidth allowed for download for this address, enter a value in Kbit/s in the **Bandwidth Down** field.
9. Click **Save**.

Backing up and Restoring Access Portal

It is recommended to back up the configuration after making changes to the Access Portal. There is no upgrade ability to the Access Portal. For updates and new versions of the Access Portal, Avaya will provide a new Virtual Appliance to be deployed on the VMware ESXi server and you must restore a configuration back from your existing Access Portal in order to bring it online up and running to replace a previous version of the Access Portal. Therefore, it is recommended to back up the Access Portal configuration upon making configuration changes.

Related links

Introduction to backing up and restoring Access Portal on page 61
Performing an On-Demand Backup on page 61
Restoring from a backup file on page 62

Introduction to backing up and restoring Access Portal

You can save your Access Portal configuration to a backup file and later restore the configuration by loading the saved file. Having a backup file ensures you can recover from accidental data loss or administrator error. You can also use backup files to set up a replacement Access Portal or to upgrade to a newer version of Access Portal.

You can perform Backup at scheduled interval or on-demand basis. Release 9.2 introduces Scheduled Backup to perform backup at scheduled interval.

Performing an On-Demand Backup

You can perform an On-demand backup to instantly backup the configuration data.

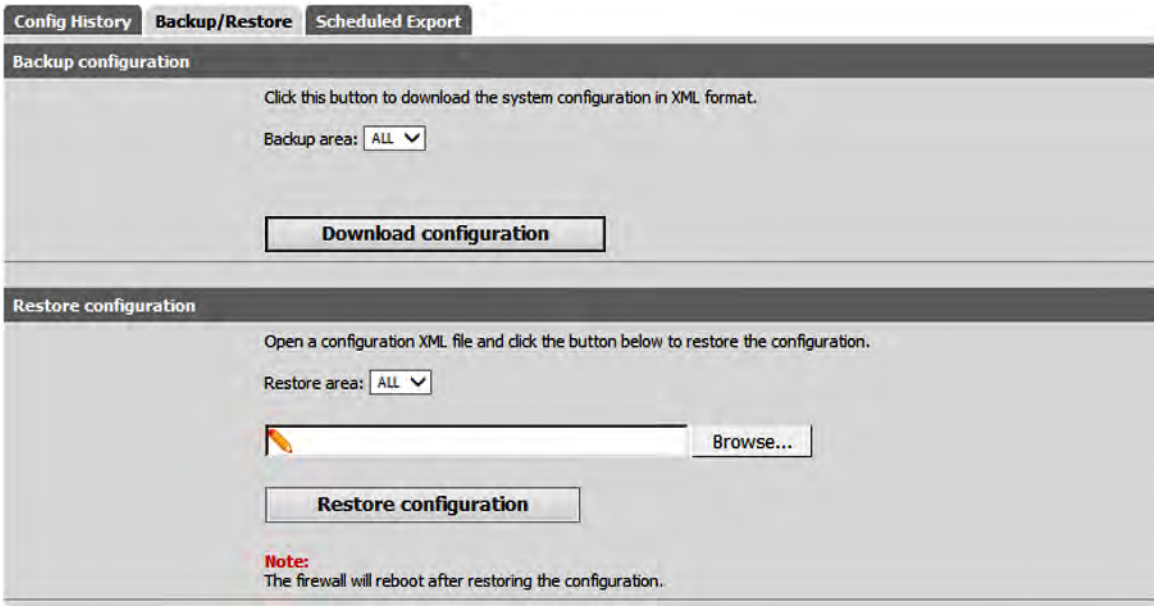
Before you begin

- To perform the following task, you must be a System Admin.

Procedure

1. On the main Access Portal Administration Web UI page, click **Diagnostics** > **Backup/ Restore**.
2. Click **Download configuration**.

   The browser prompts you to open or save the file.



3. Select **Save File** and click **OK**.
4. Browse to the desired location on your computer, and click **Save**.
5. **(Optional)** You can also perform scheduled backups, for more information see Scheduling a Backup on page 63.

Restoring from a backup file

When you perform a restore on Access Portal, the restoration process overwrites the configuration on the Access Portal.

ADMIN interface IP address warning

Warning:

When restoring from a backup file, your ADMIN port IP address and other network settings are set to the settings from the backup file. Make sure that you know which IP address the ADMIN interface is going to use. If the IP address is different from the current ADMIN IP address, the Access Portal Administration Web UI will no longer be able to function. You must point your browser to the new ADMIN IP address.

ADMIN password warning

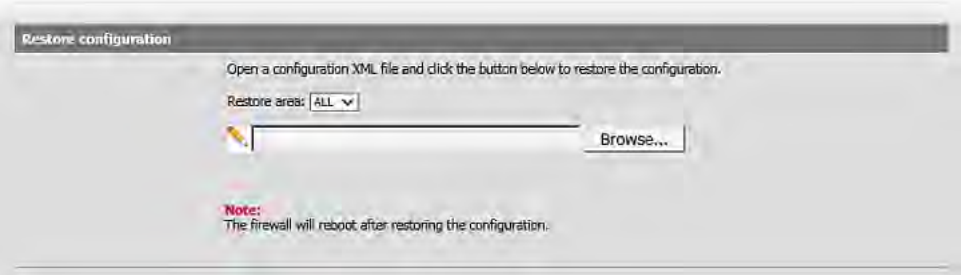
Warning:

If your backed up configuration contains an ADMIN password that is different from the current password, after restoring, you may have to log in again with the new password.

Follow this procedure to restore your Access Portal from a backup file.

1. On the main Access Portal Administration Web UI page, click **Diagnostics** > **Backup/ Restore**.
2. Click **Browse** to specify the path and filename for the backup file from which you are restoring the data, and select the file.
3. Click **Restore Configuration**.

   Access Portal may need to reboot the firewall after restoring the configuration.



Scheduling a Backup

Use this procedure to schedule backups using Scheduled Export tab. You can schedule backups to run once, daily, weekly, or monthly. Because backup operations can be lengthy, you can schedule them so they are not a disruption.

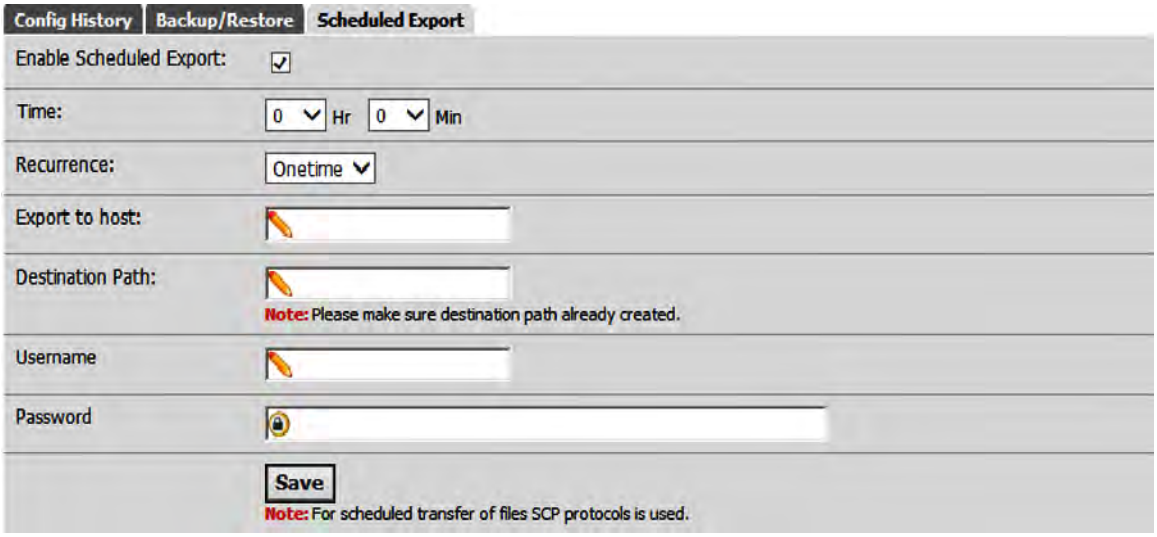
Before you begin

- You should have a basic understanding of Backing up and Restoring Access Portal on page 61.
- It is mandatory to create a destination path on the host SCP server.
- To perform the following task, you must be a System Admin.

Procedure

1. On the main Access Portal Administration Web UI page, click **Diagnostics** > **Backup/ Restore**.
2. On the **Backup/Restore** default panel, click **Scheduled Export** tab.

   The **Scheduled Export** panel appears.



3. Select the **Enable Scheduled Export** check box to enable schedule backup.
4. Enter the start **Time** in hour and minutes format.
5. Select the **Recurrence** type from the drop-down list:

Recurrence Option	Description
Onetime	Select **Onetime** to perform the backup only once.
Daily	Select **Daily** to perform the backup daily at the same time.
Weekly	Select **Weekly** and choose the day of the week from the **Recur on Day** drop-down list.
Monthly	Select **Monthly** and choose the day of the month from the **Recur on Day** drop-down list.

6. In the **Export to host** field, specify the machine name or IP address of destination SCP server.
7. In the **Destination Path** field, specify the path to store the Access Portal configuration files on the SCP server.
8. In the **Username** and **Password** field, enter the user name and password of the SCP server account where you will store the Access Portal configuration files.
9. Click **Save** to save the scheduled export.

Upgrading Access Portal

Access Portal does not support an in-line upgrade. The only way to upgrade is to deploy a new OVA and restore the new OVA with the configuration backed up from the earlier version of the Portal OVA.

Important considerations:

Be aware of the following when upgrading Access Portal from a previous version:

- When upgrading from a previous release that supported the legacy “Reauthenticate Connected Users Every 60 Seconds” captive portal option, if that option was selected, the restore disables that functionality and sets the RADIUS Session-Timeout option to “No Timeout”. You must reconfigure the Session-Timeout option as described in Configuring the Appliance Access Portal Settings on page 43.
- When upgrading from a previous release that did not support the ability to time synchronize with the hypervisor, the default time synchronization method after upgrade is synchronization with an NTP server. You must change the setting as described in Configuring the Access Portal Virtualization Appliance on page 27 if desired.
- When upgrading from a release that did not support multiple captive portals associated with zones, a default zone is created in the newer version, and the captive portal is automatically associated with that default zone.
- Avaya Identity Engines Ignition CASE Release 8.0 is not compatible with Access Portal Release 9.1. Therefore, the CASE files are not automatically included in an upgraded Access Portal deployment, and you must manually upload CASE files. See “Deploying Packages” in *Administering Avaya Identity Engines Ignition CASE, NN47280-603*.
- An upgrade from Release 8.0 results in a default firewall rule, associated with the IN interface, that was part of the installation for Release 8.0. If you plan to have multiple OUT interfaces and use Access Portal Access Groups, you must delete this default firewall rule. Release 9.1 does not require this rule, and you must manually delete the rule for the correct operation of multiple OUT interfaces and Access Portal Access Groups. Note that, if you only plan to have one OUT interface, the rule can remain in place. However, it is recommended to remove the rule immediately after upgrade to avoid future issues if your access needs require additional OUT interfaces in the future.

To upgrade Access Portal to the latest version:

About this task

Procedure

1. Create a backup of the existing configuration. See Performing an On-Demand Backup on page 61.
2. Make a note of the admin IP address and netmask. You will assign this to the new OVA.
3. Shut down this instance of Access Portal either through the Access Portal Administration Web UI (**Diagnostics** > **Halt System**) or through the console option 6.
4. Install a fresh OVA. See Installing the Access Portal virtual machine on page 20.
5. Use the console to assign the admin IP address that you noted in Step 2.
6. Point to the URL http://<admin ip> and use username: `admin` and password :`admin` to log in.
7. Restore the backed up configuration. See Restoring from a backup file on page 62.

8. After the restore, you must use the password that was in effect when you took the backup of the configuration to log in to the Access Portal Administration Web UI at http://<admin ip>.

Chapter 5: Configuring the Avaya Identity Engines Ignition Server

This chapter explains how to configure the Avaya Identity Engines Ignition Server to work with the Avaya Identity Engines Ignition Access Portal and how to configure and test user access.

Related links

Configuring the Ignition Server to work with the Access Portal on page 67
Configuring guest access on the wired switch on page 82
Configuring wireless guest access on page 84
Creating guest user accounts on page 85
Testing wireless guest access on page 85
Testing wired guest access on page 85

Configuring the Ignition Server to work with the Access Portal

Now that you have finished configuring your Access Portal, you must configure the Ignition Server to work with the Access Portal.

Make sure your Ignition Server is running and accessible on the network. Run Dashboard and configure as shown in the steps below. Note that this is a basic configuration that assumes you will store the guest user accounts locally, on the Ignition Server appliance.

Related links

Activating the Access Portal license on page 68
Configuring Access Portal server details on page 68
Editing Access Portal server details on page 70
Introduction to device profiling on page 71
Introduction to MAC authentication on page 72
Configuring MAC authentication on Access Portal on page 73
Configuring a guest access policy on page 78
Registering authenticators that provide regular user access in the Ignition Server on page 81

Activating the Access Portal license

Access Portal is a licensed feature. You must activate the Access Portal license to enable this feature.

The Access Portal license must match the level of the Ignition Server base license: LARGE, SMALL, or LITE. You can deploy multiple Access Portals under the same single license.

To activate the Access Portal license:

Procedure

1. In the Dashboard **Configuration** tree, click the name of your site.
2. Click the **Licenses** tab.
3. Click **Install**.
4. Find the Access Portal license you received from support and open it in your e-mail tool or text editor. Highlight and copy the text of your license. Copy the whole license including “BEGIN IGNITION LICENSE CERTIFICATE” and “END IGNITION LICENSE CERTIFICATE”.
5. Return to the License Installation window of Dashboard and click **Paste** to paste the license text there. Click **OK**.

Configuring Access Portal server details

After you activate the Access Portal license, you can configure the Access Portal server details. This procedure registers the Access Portal as an authenticator in the Ignition server.

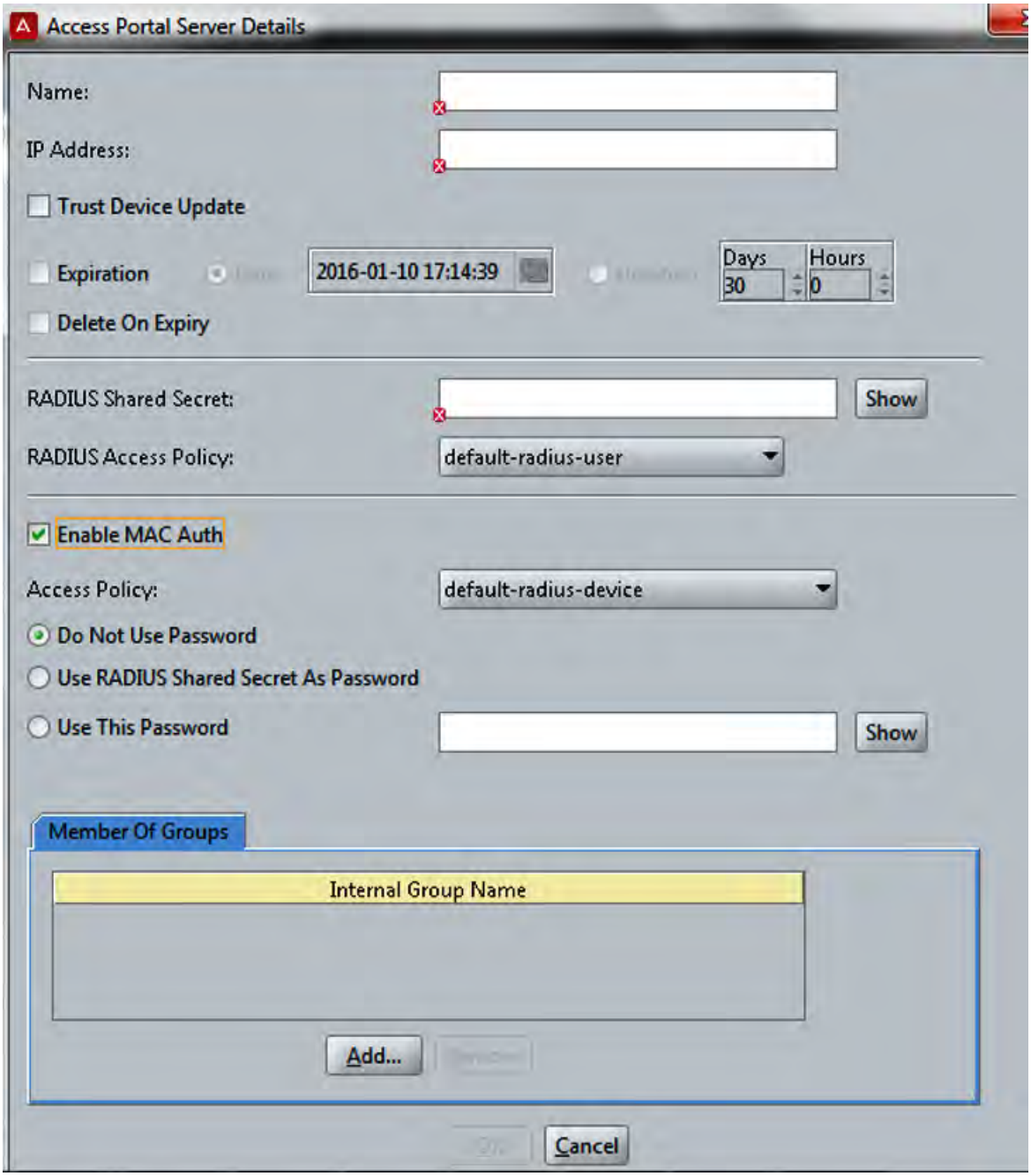
Warning:

Any mismatch in RADIUS configuration between the Ignition Server and Access Portal (for example, server IP address, shared secret, password, and so on) can result in fatal or internal errors to the clients. Always perform a test user authentication after configuring RADIUS settings in Ignition Server and Access Portal.

Procedure

1. In the Dashboard **Configuration** tree, expand the **Access Portal** folder and click **Access Portal Servers**.
2. Click **New**.

   The **Access Portal Server Details** page displays.



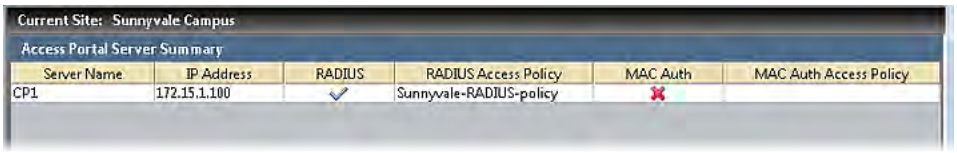
3. In the **Access Portal Server Details** window, specify the following:
   - **Name**: Enter a name for the Access Portal.
   - **IP Address**: Enter the IP address of the Access Portal. Ensure that you enter the IP address of the ADMIN interface. Also make sure that Access Portal's ADMIN interface is reachable from the Ignition Server.
   - **Trust Device Update**: Select this check box if you want the Ignition Server to create a device record in the local store with the device fingerprint of the authenticating user. Note that, if you select this check box, you must go to the Access Portal Administration Web UI,

click **Services > Captive Portal**, and select the **Enable Device Fingerprinting** check box.

- **Expiration**: Select this check box if you want to specify an expiry date or lapse period for the devices learned through Access Portal.
  - To specify an expiration date, click **Date** and click the clock-and-calendar icon and use the arrow keys to set the date and time it expires. Click outside the clock and calendar dialog to close it.
  - To specify a lapse period, click **Duration** and use the arrow keys to specify the number of days and hours from the time the device was learned until the time it expires.
- **Delete On Expiry**: Select this check box if you want the Ignition Server to delete learned devices after the expiry date. Note that it may take up to 24 hours after the expiry date for the devices to be purged from the local store.
- **RADIUS Shared Secret**: Enter the Shared Secret that you configured for RADIUS server.
- **RADIUS Access Policy**: The RADIUS access is enabled by default. Select the Ignition Server access policy that regulates RADIUS access requests relayed by Access Portal. If you do not select an access policy, Access Portal uses the default access policy (default-radiususer).
- **Enable MAC Auth**: Select this check box to provide authentication based on the MAC address of the device that is trying to connect.
- **Member of Groups**: Select one or more internal groups to which unregistered devices can be auto-associated. Click **Add**, select the internal group or groups, and click **OK**.

4. Click **OK**.

   The **Access Portal Server Summary** page displays.



Editing Access Portal server details

You can edit the details of the Access Portal server from the Access Portal Server Summary page.

Procedure

1. In the Dashboard **Configuration** tree, expand the **Access Portal** folder and click **Access Portal Servers**.
2. From the list of Access Portals, click on the Access Portal you want to edit.
3. Click **Edit**, and make the required changes.
4. Click **OK**.

Introduction to device profiling

With Bring Your Own Device (BYOD) to work becoming a common scenario in the Enterprise, Enterprise IT needs to support all the unmanaged and untrusted “smart” devices trying to access the enterprise network. The Avaya Identity Engines Ignition Server (AIEIS) Device Profiling feature addresses this need.

Device Profiling works on a Device Fingerprint which is a compact summary of software and hardware settings collected from a client device. In the AIEIS environment, Device Profiling is used as an automated way to register the devices with the Identity Engines Internal Store.

A user trying to gain network access using a personal or unmanaged device is transitioned to an Access Portal where the portal profiles the device; it learns the necessary device attributes such as device type, sub type, operating system, and version, and then updates the Ignition Server with the device information.

Device profiling allows administrators to write policies based not only on the user that is attempting to connect, but also on the type of device that is being used to connect to the network. The administrator can define policies based on the device attributes. For example, setting bandwidth limitation based on the type of device, allowing laptops to have unlimited access while iPads would not, and setting application-specific QoS, such as allowing only Internet and e-mail access for mobile devices.

Configuring device profiling

Follow this procedure to configure device profiling.

Procedure

1. From Dashboard, configure Access Portal as an authenticator as a trusted source to learn the devices. See Configuring the Access Portal Server Details to support MAC Auth on page 75. When specifying Access Portal Server details, select the **Trust Device Update** checkbox.
2. On the main Access Portal Administration Web UI page, click **Sevices** > **Captive Portal**.
3. Select the **Enable Device Fingerprinting** check box.

   Either enable **Trust Device Update** on the Ignition Server and **Device Fingerprinting** on Access Portal, or disable both, as a mismatch can result in unintended updates to the device records.

   Device Profiling can work with MAC Authentication. If you want device profiling to work with MAC Authentication, you must first add the device to the internal store. See Creating a device record on page 76. You can add the device by just specifying the MAC address, and not specifying any other device attributes. When the user tries to login through Access Portal using that device, Identity Engines updates the other device record attributes such as device type, sub type, and OS.

Introduction to MAC authentication

MAC authentication, or MAC address checking, verifies that the MAC address submitted by a connecting client device matches an entry on your list of known MAC addresses. Based on your policies, Ignition Server allows the device to connect to your network (and optionally assigns it to a VLAN) or rejects the device. The list of known MAC addresses is stored in the Ignition Server internal data store (you cannot use an LDAP or AD store for this).

MAC authentication is typically employed on 802.1X-authenticated networks as an 802.1X bypass mechanism for devices that are incapable of performing 802.1X authentication. For example, if your environment contains printers that cannot authenticate using 802.1X, you can configure Ignition Server to allow those devices to connect without performing an 802.1X authentication and to place them on an appropriate, limited-access VLAN.

To enforce MAC authentication, create device records that specify your set of allowed MAC addresses, and create “MAC Auth” rules in Ignition Server that determine which devices are allowed to connect, as well as where and how they are allowed to connect. Typically, these rules also force the device onto the appropriate VLAN.

Important:

Do not confuse MAC authentication with Windows machine authentication and asset correlation, which uses Windows machine authentication. See *Administering Avaya Identity Engines Ignition Server*, NN47280-600.

Warning:

Allowing MAC Authentication Can Reduce Network Security.

Using MAC authentication incorrectly can reduce the overall security of your network. When you activate MAC authentication on an authenticator along with one or more 802.1X authentication methods, the default behavior of most switches means that, even though you have specified 802.1X authentication, the typical switch attempts MAC authentication if the 802.1X user authentication fails. As a result, an ill-intentioned user can exploit the weakness of the less secure MAC authentication to bypass the 802.1X authentication.

In some cases, MAC authentication can be less secure than 802.1X user authentication if it is configured to use only the client device’s MAC address as the credential (instead of using a shared secret as a password). In such a case, if an ill-intentioned user acquires the MAC address of one of your allowed devices, he can pass that MAC address in his access request and gain access to the resources that your policy lists as available through MAC Auth in the applicable access policy.

Avaya recommends you take the following precautions: First, for switches that support per-port configuration of MAC authentication, enable MAC authentication on only those ports that require it, such as ports to which printers and other non-802.1X-compliant devices connect. Second, place all MAC- authenticated devices on a limited-access VLAN, as explained in the sections that follow.

Configuring MAC authentication on Access Portal

This section shows you how to configure MAC authentication on Access Portal. The required steps are:

Creating a MAC-Auth policy

This procedure shows you how to write a device authorization policy for client devices such as laptops and printers. We refer to these policies as “MAC-Auth policies.” The MAC-Auth policy identifies each device by means of its MAC address and authorizes it appropriately.

Important:

Do not include any outbound attributes for the Access Portal MAC-Auth policy. Access Portal cannot process any outbound values that the Ignition Server sends.

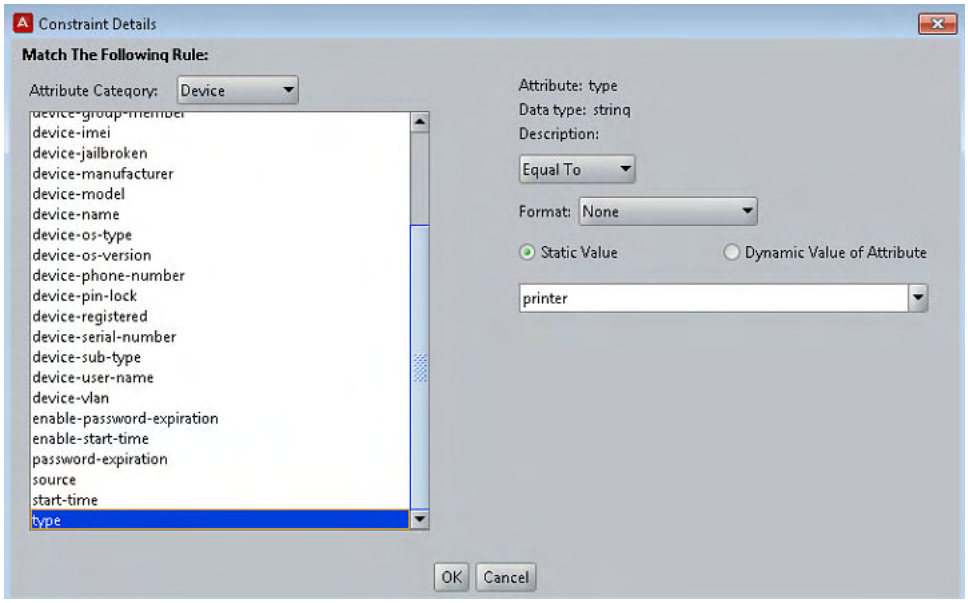
Procedure

1. In the Dashboard **Configuration** tree, expand the **Access Policies** folder, and click **MAC Auth**.
2. Click **New**.

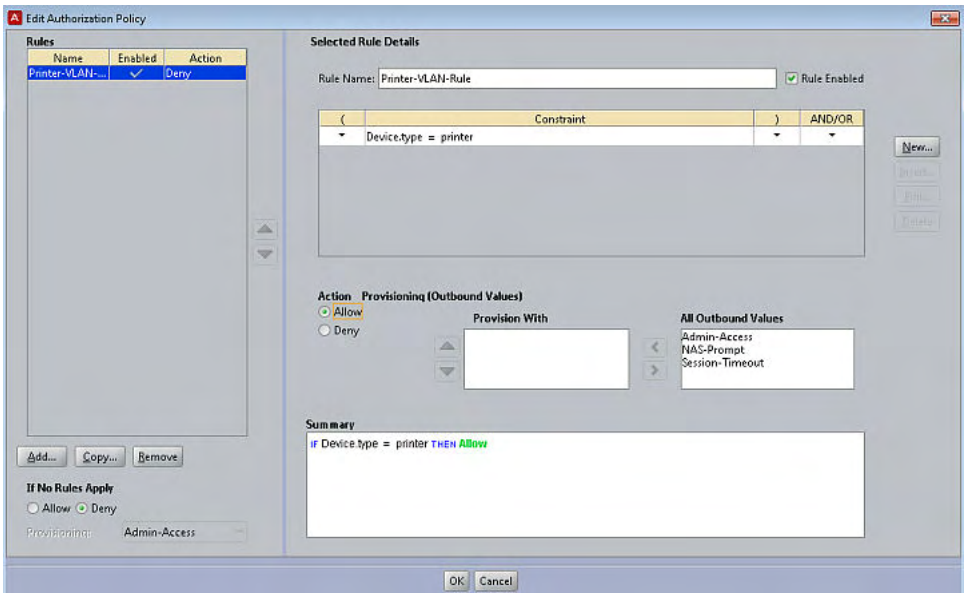
   You can edit an existing policy by clicking its name in the Configuration tree and clicking **Edit** on the right side of the window.
3. Enter a name for the policy and click **OK**.
4. Click the policy name in the tree and click **Edit** .
5. In the **Edit Authorization Policy** window, configure a MAC-Auth policy just as you would a RADIUS user authorization policy. For more information, see *Administering Avaya Identity Engines Ignition Server*, NN47280-600.

   Typically, your MAC-Auth rules evaluates attributes of the connecting device. To configure a MAC Auth rule:

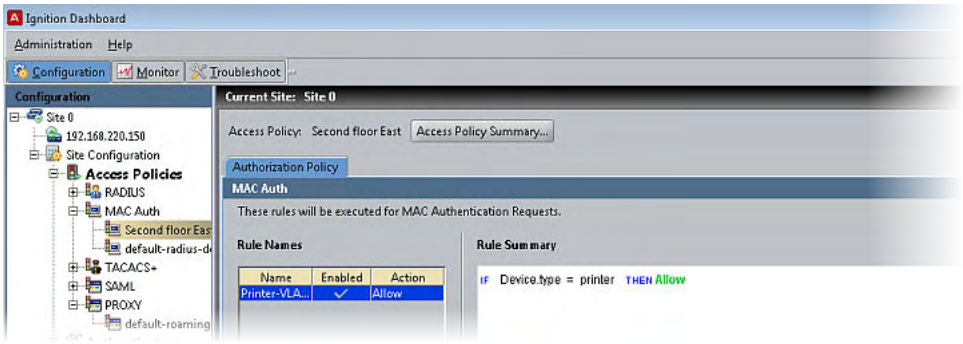
   - In the **Edit Authorization Policy** window, click the **Add** button below the **Rules** list.
   - In the **New Rule** dialog, give the rule a name and click **OK**. For example, you might call the rule, “Printer-VLAN-Rule”,
   - In the **Edit Authorization Policy** window, in the **Selected Rule** details section, click **New** to add a constraint. (You can add as many constraints as you require.)



- In the **Constraint Details** window, go to the **Attribute Category** dropdown list and click **Device**. In the list below this, choose **type**. In the drop-down list on the right, click **Equal To**. Select **Static Value** . In the drop-down list below this, click **printer**. Click **OK**.
- In the **Edit Authorization Policy** window, with your “Printer-VLAN-Rule” still selected, under **Action Provisioning** select **Allow**. Click **OK**.



Your policy is saved.



If your situation requires that your rules evaluate more detailed information, you can store and evaluate additional device information as described in *Administering Avaya Identity Engines Ignition Server*, NN47280-600.

Configuring the Access Portal Server Details to support MAC Auth

Configure the Access Portal Server Details to support MAC authentication. These settings tell Ignition Server that Access Portal relays MAC authentication requests from devices to the Ignition Server RADIUS service.

Follow this procedure to configure the Access Portal Server Details to support MAC authentication.

Procedure

1. In the Dashboard **Configuration** tree, expand the **Access Portal** folder and click **Access Portal Servers**.
2. Create or edit the Access Portal Server Details:
   - To create a new Access Portal entry, click **New**.
   - To edit an existing Access Portal entry, from the list of Access Portals, click on the Access Portal you want to edit and click **Edit**.
3. Use the **Access Portal Server Details** window to make these settings:
   - Select the **Enable MAC Auth** check box.
   - In the **Access Policy** drop-down list, click the name of the MAC Auth policy you configured in Creating a MAC-Auth policy on page 73.
   - Specify how the authenticator password should be checked.

     Caution:

     Do not select the **Do not use password** check box. Access Portal requires a password. To use the authenticator's shared secret as the password, select the **Use authenticator's shared secret as password** check box. To specify a password, select the **Use this password** check box, and type the password in the text field.
4. Click **OK**.

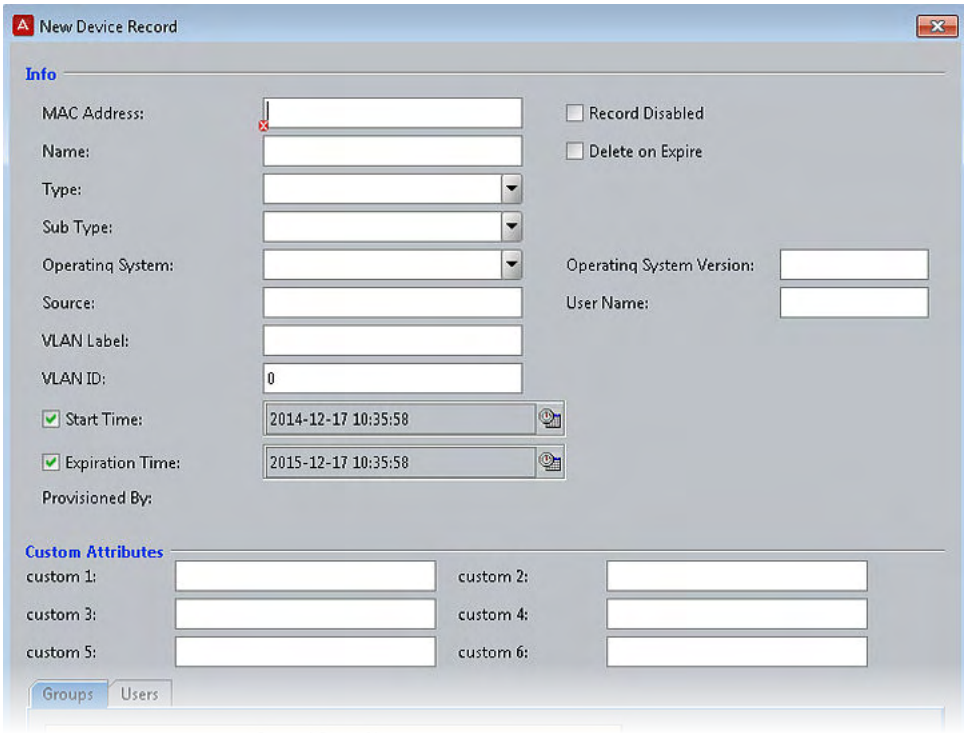
Creating a device record

Create a device record for each device allowed to connect to the network. Each device record is a record of a known MAC address. These records are stored in the Ignition Server internal data store; you cannot retrieve device information from an external store. (If you need to create many device definitions, you may prefer to create them in bulk. For more information, see *Administering Avaya Identity Engines Ignition Server*, NN47280-600.)

To create a device record in Ignition:

Procedure

1. In the Dashboard **Configuration** tree, click your site, expand the **Site Configuration** > **Directories** > **Internal Store** folders, and click **Internal Devices**. Click **New**.



2. In the **MAC Address** field, specify the MAC address of the device. Enter the address as a string of six octets. You can write the twelve characters without separators, or you can separate the octets with period, colon, or hyphen characters. Do not mix separator characters.
3. If you want to disallow this device from connecting to the network, select the **Record Disabled** check box.
4. In the **Name** field, type a name for the device. This name identifies the device in logs and when you associate it with agroup or user.
5. If you want Ignition Server to delete this record automatically after its expiration date, select the **Delete on Expire** check box. Ignition Server checks hourly for device records in the internal store that have been expired for at least one week. Upon finding such an expired

record, Ignition Server checks its **Enable Auto Deletion** setting, and, if the record is set for automatic deletion, deletes it. Deletions take place as time permits. For large sets of records, deletions are spread over a period of hours. Each deletion is logged in the Ignition Server logs.

6. In the **Type** drop-down list, designate what sort of device this is, such as a laptop, printer, or handheld device. You can choose one of the preset values or type your own value.
7. In the **Sub Type** drop-down list, define the details of the device from one of the preset values. For example, if you chose **mobile** as your device Type, you can define the **Sub Type** as iPhone, blackberry, or android phone, and so on.
8. In the **Operating System** drop-down list, select the operating system of the device. You can choose one of the preset values.
9. In the **Operating System Version** field, enter the version of the operating system.
10. In the **User Name field**, enter the name of the user of this device.
11. The **Source** field is typically used only for bulk-imported device records (see “Importing Device Records” in *Administering Avaya Identity Engines Ignition Server*, NN47280-600). The Source indicates the origin of this record. Usually this is the name of the file from which the device record was imported.
12. If you want to have Ignition Server automatically assign this device to a VLAN, enter the VLAN name in the **VLAN Label** field and enter the integer VLAN number in the **VLAN ID** field. If you do not want to assign it to a VLAN, leave these fields blank.
13. Select the **Start Time** check box if you want to specify when the account is to be activated. Click the clock-and-calendar icon and use the arrow keys to set the date and time to enable the account. Click outside the clock and calendar dialog to close it.
14. Select the **Expiration Time** check box if you want to specify an expiry date for the device record. Click the clock-and-calendar icon and use the arrow keys to set the date and time it expires. Click outside the clock and calendar dialog to close it. When an account expires, Ignition Server may delete it, depending on the **Delete on Expire** setting. (See Step 5.)
15. The **Custom Attributes** fields allow you to record additional information about the device. For more information, see *Administering Avaya Identity Engines Ignition Server*, NN47280-600.
16. Click **Save** to store the device record.

Editing the device template to support MAC authentication

Ensure that the default device template you are using points to “genericdefault”. Or, if you are using the “generic-avaya” device template, ensure that your MAC Address Source is not set to “Inbound-Calling-Station-Id”. If your MAC Address Source is set to “Inbound-Calling-Station-Id”, change the MAC Address Source to “Inbound-User-Name” to ensure that MAC address recognition will work.

Follow this procedure to change the MAC Address source field to “Inbound-User-Name”.

Procedure

1. In the Dashboard **Configuration** tree, expand the **Site Configuration** > **Provisioning** folders, and click **Vendors/VSAs**.
2. In the **Vendors** panel, double-click **Avaya** and then click **Device Templates** to display the list of templates.
3. In the list on the right, select **generic-Avaya** and click **Edit**. The **Edit Device Template** window displays.
4. Click **Edit**. The **Edit Device Template Details** window displays.
5. From the **MAC Address Source field**, select **Inbound-User-Name**.
6. Click **OK** and then click **Done**.

Enabling RADIUS MAC authentication on Access Portal

After you set up MAC authentication on Access Portal using Dashboard, you must enable RADIUS MAC authentication on Access Portal using the Access Portal Administration Web UI page.

Follow this procedure to enable RADIUS MAC authentication on Access Portal.

Procedure

1. On the main Access Portal Administration Web UI page, click **Sevices** > **Captive Portal**.
2. Scroll down to the **Authentication** section.
3. In the **RADIUS MAC authentication** section:
   - Select the **Enable RADIUS MAC** authentication check box.
   - In the **Shared secret** field, enter the Ignition Server shared secret.
4. Click **Save**.

Configuring a guest access policy

Your guest access policy determines how, when, and where guests can connect to your network, and what sections of your network they can use. If you will use Ignition Guest Manager to create guest user accounts, consult *Avaya Identity Engines Ignition Guest Manager Configuration*, NN47280-501 for instructions.

Use this procedure to create a basic guest access policy.

Procedure

1. In the Dashboard **Configuration** tree, click the name of your site.
2. Expand **Site Configuration**, expand **Access Policies** and click **RADIUS**.
3. Click **New**.
4. Enter a name for the new access policy and click **OK**.

5. In the left navigation pane, highlight the name of the new access policy, click the **Authentication Policy** tab and click **Edit**.
6. Configure your tunnel settings. Ensure that you select **PAP** under **None**. Click **OK**.
7. Configure your identity routing policy to enable the Ignition Server to find guest user accounts in the Ignition Server embedded user store. Click the **Identity Routing** tab and click **Edit**.
   - If you already have an identity routing policy that you wish to use, click **Enable Default Directory Set**, and select the **Directory Set** from the drop-down list. Click **OK** to save the policy. Proceed to Step 8.
   - To create a new identity routing policy, do the following:
     - Click **New**.
     - Configure the Ignition Server to use the embedded user store (or any other target directory). In the **Directory Set** section, select **default set** (or any other target set that you wish to use). In the **Match Realm** section, select **Realm Not Specified**. In the **Match Authenticator Container** section, select **Disable Authenticator Container Matching**. Click **OK**.
     - In the **Identity Routing Policy** window, select the **Enable Default Directory Set** check box and select **default set** as the Directory Set. Click **OK**.
8. In the **Access Policy** window, click the **Authorization Policy** tab.
9. In the **RADIUS Authorization Policy** section of the window, click **Edit**.
10. In the **Rules** section, click **Add**.
11. In the **New Rule** window, type a name for the rule and click **OK**.
12. With your rule selected, go to the buttons to the right of the **Constraint** list and click **New**.
13. In the **Attribute Category** drop-down list, select the attribute category **Inbound**.

    In response, the list shows all the attributes for **Inbound**.
14. In the list, select one of the following Access Portal Inbound Attributes:

    RADIUS VSA Attributes

    - Inbound-Avaya-Access-Portal-Captive-Portal-Zone-Name
    - Inbound-Avaya-Access-Portal-IN-Interface-Name

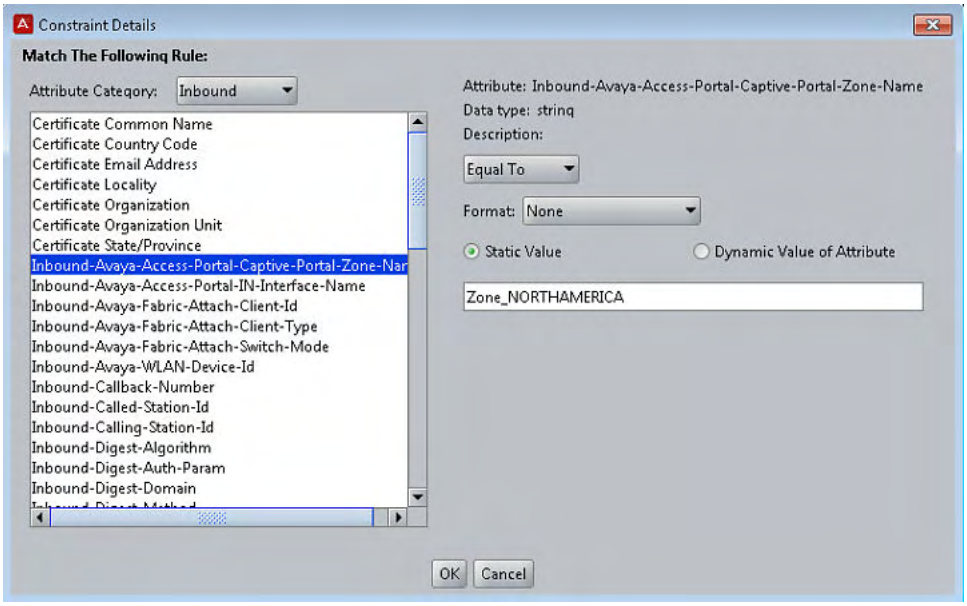
    RADIUS Standard Attributes

    - Calling-Station-Id - This attribute contains the MAC address of the authenticating client device.
    - Framed-IP-Address - This attribute contains the IP address of the authenticating client device.
    - NAS-Identifier - By default, this attribute contains the name of the Access Portal. You can, however, configure the value under Services > Captive Portal > <Zone>, within the RADIUS options section of the Captive Portal(s) tab.

- NAS-Port - This attribute contains a fixed value of 1.
- NAS-Port-Type - This attribute contains a fixed value of 15.

15. Select the appropriate value options and enter the value for the selected attribute.

    In this example, the Inbound attribute “Inbound-Avaya-Access-Portal-Captive-Portal-Zone-Name” is used with a value of “Zone_NORTHAMERICA”. Zone_NORTHAMERICA has two IN interfaces associated with it. This rule therefore applies to all users who enter through either of the two IN interfaces associated with Zone_NORTHAMERICA.



16. Click **OK** to close the Constraint Details window and return to the Edit Authorization Policy window.
17. In the **Action** section of the Edit Authorization Policy window, click **Allow**.

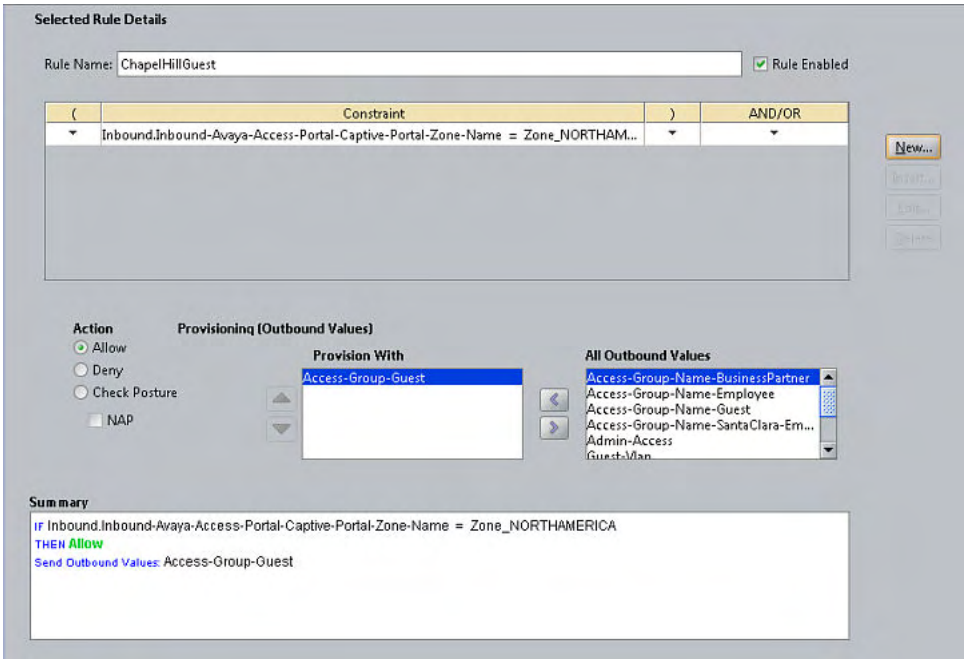
    A list of available Outbound Values displays. Any Access Portal Access Groups that have been created are listed as available Outbound Values.

18. Select one of the following Access Portal Outbound Values using the arrows to move the desired values into the **Provision With** field:

    - <Access Group Name>
    - Session-Timeout

19. Click **OK**.

    In this example, “Access-Group-Guest” is the selected Outbound Value. That is, all users who enter through either of the two IN interfaces associated with Zone_NORTHAMERICA will be granted access through the OUT interface, and see the success page associated with the Access Portal Access Group named “Access-Group-Guest”.



Registering authenticators that provide regular user access in the Ignition Server

A typical Access Portal deployment runs on the same equipment as the Ignition deployment that authenticates your regular users (for example, your employees). Make sure that your regular user access is configured in Ignition as well.

Wired access for non-guest users

Make sure that regular user access is configured on the wired switch. This is typically the same switch that you configure for guest user access in Configuring guest access on the wired switch on page 82.

Configure your wired switches as authenticators in the Ignition Server, configuring each to require 802.1X authentication. If authentication fails, the user is mapped to the authentication VLAN network that you create later in this procedure.

Wireless access for non-guest users

Make sure that regular user access is configured on your wireless access points (APs). While this set can include the AP that you configure for guest user access in Configuring wireless guest access on page 84, note that you do not configure the guest SSID for regular users. The SSID that you configure for guest access is a wide-open SSID. For all other SSIDs, configure 802.1X authentication as usual on the Ignition Server appliance. (See *Administering Avaya Identity Engines Ignition Server*, NN47280-600).

Now that you have created your guest and non-guest access policies, your Ignition Server configuration is complete. For further instructions, consult *Administering Avaya Identity Engines Ignition Server*, NN47280-600 and *Avaya Identity Engines Ignition Guest Manager Configuration*, NN47280-501.

Configuring guest access on the wired switch

Related links

Cabling the wired switch on page 82
Configuring VLANs on the wired switch on page 82
Configuring wired switch Ethernet ports on page 83

Cabling the wired switch

On the wired switch that will support guest user connections, make the following cable connections. These steps provide examples based on an Avaya Ethernet Routing Switch 5520.

Procedure

1. Connect the Ignition server appliance to the network. For example, connect the Ignition server appliance's Service Port A to port 1/7 of the Avaya Ethernet Routing Switch 5520
2. Connect the switch to the IN port of the Access Portal appliance. For example, connect switch port 1/11 to the IN port of the Access Portal.
3. Connect the Access Portal to the firewall that will provide an Internet connection for guest users. For example, you might connect the Access Portal WAN port to the WAN1 port of a Fortinet firewall.
4. To provide wireless guest access, connect the wired switch to your guest-accessible wireless access point (AP). For example, connect switch port0/1 to the AP's IN port. This will be an 802.1Q trunk connection.

Configuring VLANs on the wired switch

At a minimum, you need two VLANs to support Access Portal-based authentication:

- *A restricted-reach VLAN* that connects only the guest-accessible wired switches, the guest-accessible wireless access points, and the IN port on the Access Portal. (Note: You set the IP address of the Access Portal IN port in this section: "Setting up the Access Portal IN port" on page 34.)
- One or more *authenticated-access VLANs* that provide the level of access you wish to grant users after they successfully authenticate to Ignition.

Follow this procedure to configure your VLANs.

Procedure

1. Configure your restricted-reach VLAN. In this example, we have created a VLAN called Vlan200 for this. Its VLAN ID is 200. On the example Avaya Ethernet Routing Switch 5520, the Vlan200 settings are:

   ```
   vlan create 200 name Restricted type port
   ```

2. Configure your authenticated-access VLAN. This example uses a VLAN called Vlan1 for this, and we have configured Vlan1 to connect to the Internet through the firewall. Its VLAN ID is 1. On the example Avaya Ethernet Routing Switch 5520, the settings of Vlan1 are:

   ```
   ip address 172.16.100.9 255.255.255.0
   ```

Configuring wired switch Ethernet ports

Perform the following configuration on each guest-accessible wired switch.

Procedure

1. Configure each guest-accessible Ethernet port on the wired switch to require 802.1X authentication. Regular users will authenticate through 802.1X, and guests with non-802.1X compatible hardware will authenticate through the Access Portal. Ports set up for 802.1X supplicant traffic must be assigned to the restricted-reach (guest) VLAN.

   In this example, we use port 1/12 on an Avaya Ethernet Routing Switch 5520, and the VLAN is VLAN 200. The example Avaya Ethernet Routing Switch 5520 settings are:

   ```
   5520-48T-PWR(config)#interface fastEthernet 1/12
   5520-48T-PWR(config-if)#eapol guest-vlan enable
   5520-48T-PWR(config-if)#eapol guest-vlan 200
   520-48T-PWR(config-if)#eapol quiet-interval 15
   5520-48T-PWR(config-if)#eapol transmit-interval 15
   ```

2. If guests will connect over wireless, configure the wired switch's Ethernet port that connects to the wireless access point. Configure this port for 802.1Q trunking to the access point. Configure the trunk to carry both the restrictedreach VLAN and authenticated-access VLAN. On the example Avaya Ethernet Routing Switch 5520, the settings are:

   ```
   5520-48T-PWR(config)#vlan ports 1 tagging enable
   5520-48T-PWR(config)#vlan ports 1 tagging tagall
   5520-48T-PWR(config)#vlan members add 1 1
   5520-48T-PWR(config)#vlan members add 200 1
   ```

3. Configure the wired switch's Ethernet port that connects to the Access Portal appliance's IN port. This port should be configured to carry only the restrictedreach VLAN. In this example, we have designated VLAN 200 for this purpose. Example settings for an Avaya Ethernet Routing Switch 5520 are:

   ```
   5520-48T-PWR(config)#vlan members add 200 11
   5520-48T-PWR(config)#vlan ports 1 pvid 200
   ```

Configuring wireless guest access

To provide wireless guest access, you create a wide-open SSID on a wireless access point (AP). This SSID does not require authentication and places the user on a restricted-reach VLAN. No initial 802.1X session is attempted.

The guest user's supplicant associates with the SSID in open mode (no authentication). The supplicant is automatically mapped to the restricted reach VLAN (the SSID is statically mapped on the AP). This VLAN is the authentication VLAN network, which forces authentication through the Access Portal. In this architecture, the Access Portal is defined as the authenticator in the Ignition server appliance.

The following sections provide generic instructions.

Before you begin

Make sure the wired switch is configured and connected to the wireless access point (AP).

Log into the management screen for your wireless access point and make the following settings.

Procedure

1. Configure the AP's **Primary DNS Server Address** to the IP address of the Access Portal IN port.
2. Configure the AP's **Default Router Address** to the IP address of the Access Portal IN port.
3. Configure the AP's DHCP **Server Address**.

   For most APs, use the IP address of the Access Portal IN port as your **DHCP Server Address**.
4. Create VLAN and SSID definitions on the AP for the restricted-reach VLAN you configured in Configuring VLANs on the wired switch on page 82. This is your guest authentication VLAN / SSID.
   - Configure Layer 2 security to **None** on the VLAN.
   - Configure Layer 3 security to **None** on the VLAN.
   - Give the guest authentication SSID a name that your guest users will easily recognize. In this example, we use the name "Guest" for this SSID.
   - Configure the guest authentication SSID to beacon.
5. Create VLAN and SSID definitions on the AP for the authenticated-access VLAN you configured in this section Configuring VLANs on the wired switch on page 82.

   This is the VLAN / SSID your guests use after successfully authenticating.
   - Typically you leave beaconing turned off for this SSID.

Creating guest user accounts

Create your guest user accounts using either:

- Ignition Guest Manager, as explained in *Avaya Identity Engines Ignition Guest Manager Configuration*, NN47280-501.
- Ignition Dashboard, as explained in *Administering Avaya Identity Engines Ignition Server*, NN47280-600. To allow your front desk personnel to continue creating guest user accounts, configure each front desk clerk as a provisioner in Guest Manager.

Testing wireless guest access

Important:

Access Portal does not support proxy. To allow Access Portal to capture HTTP requests from a client machine, you must either remove the proxy settings from the client browser, or choose the "**auto detect proxy setting for this network**" setting on the browser. If a proxy is configured, Access Portal is not able to direct HTTP requests to the Access Portal login page.

Follow this procedure to test the wireless guest access.

Procedure

1. Using a laptop with wireless capability, connect to the "guest" SSID that you created in this procedure: Configuring wireless guest access on page 84.
2. Open a web browser on the laptop.
3. Browse to any site.

   For example, type "http://www.yahoo.com".
4. If correctly configured, the Access Portal forces the browser to display a login page. Enter your Ignition-generated guest user name and password. After authentication, the browser is able to access the Internet.

Testing wired guest access

Important:

Access Portal does not support proxy. To allow Access Portal to capture HTTP requests from a client machine, you must either remove the proxy settings from the client browser, or choose the "**auto detect proxy setting for this network**" setting on the browser. If a proxy is configured, Access Portal is not able to direct HTTP requests to the Access Portal login page.

Follow this procedure to test wired guest access.

Procedure

1. Connect your PC's Ethernet cable to a port connected to the switch you configured in Configuring guest access on the wired switch on page 82. Make sure that either:
   - the PC has no 802.1X supplicant software installed, or
   - if the PC has an 802.1X supplicant, then make sure you provide an incorrect user name and password, causing authentication to fail.
2. Wait one minute.

   The DHCP negotiation for a wired connection can take up to one minute.

   If you do not want to wait, and if you are using a Windows- based PC, then at the DOS prompt, enter: **>ipconfig /release** and then enter **>ipconfig /renew**.
3. Open a web browser on the PC.
4. If correctly configured, the Access Portal forces the browser to display a login page. Enter your Ignition-generated guest user name and password. After authentication, the browser is able to access the Internet.

   Some enterprises can require you to configure the proxy on the browser to access the Internet. If so, configure the proxy after authentication.

   Important:

   When you start a new session, you must remove the proxy to get redirected to the portal login page.

   Network access should be available from the client machine. Other internal sites on the intranet should be accessible.

Chapter 6: Configuring the External Captive Portal

Introduction

In addition to Internal Captive Portal Release 9.2 also supports External Captive Portal.

You need to create an open SSID on WLAN 9100 and enable WPR (web page redirection). Configure Access Portal IN interface IP as the redirect URL for wireless clients. Select External login functionality and configure Ignition server as external RADIUS server. The following image and procedure depicts the entire external captive portal configuration.

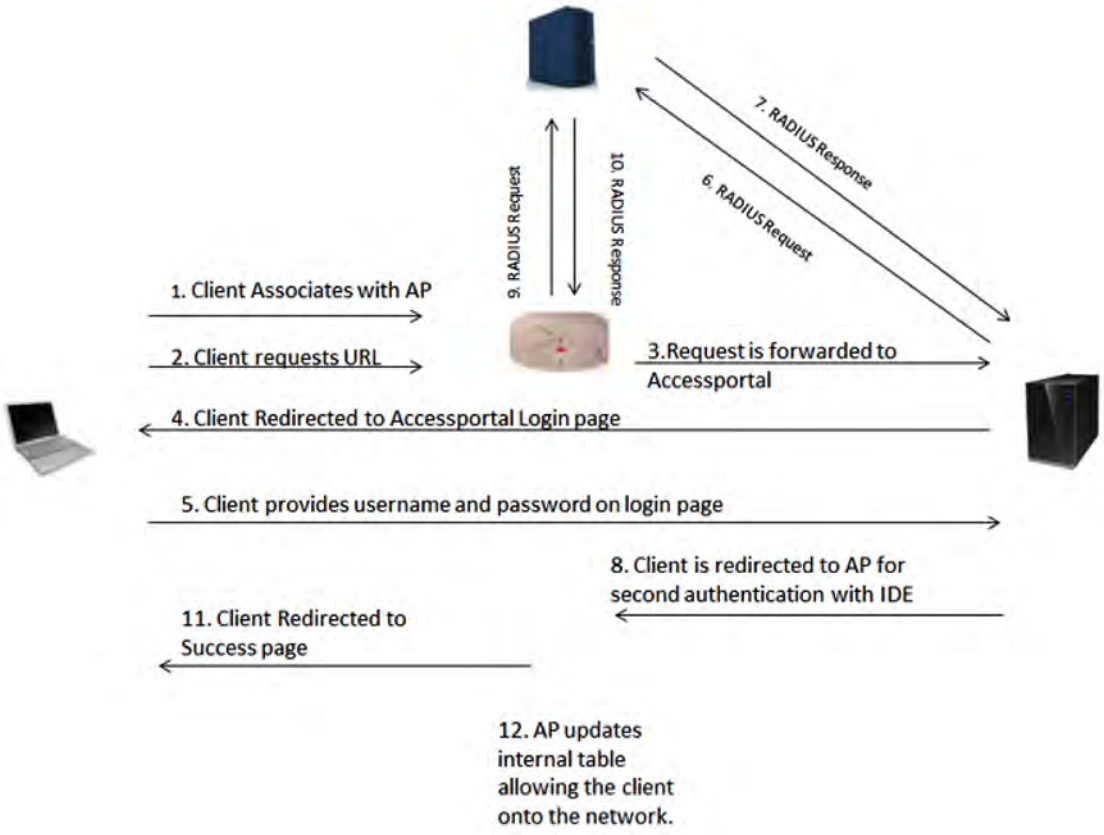


Figure 5: Configuring External Captive Portal — workflow diagram

Configuring External Captive Portal on Access Portal

Configure Access Portal with ADMIN, IN and OUT configuration. Enable External Captive Portal checkbox, configure shared secret and associate this with an interface.

When you enable external captive portal checkbox, the following settings in the captive portal section is disabled.

- Maximum concurrent connections
- Idle timeout
- Hard timeout
- Logout popup window
- Max Concurrent user logins
- MAC filtering
- Per-user bandwidth restriction
- Logout page contents

For more details on external captive portal configuration, see Configuring the external captive portal settings on page 44.

Configuring Avaya WLAN 9100 with Access Portal

About this task

The following procedure describes the generic instructions to integrate Avaya WLAN 9100 with Access Portal. You can also use this procedure to authenticate External Captive Portal.

Procedure

1. Create a VLAN and set-up a DHCP server. Ensure clients get the IP from the same DHCP server. For more information about configuring VLAN using Enterprises Device Manager (EDM), see *Quick Start Configuration for Avaya Ethernet Routing Switch 4000 Series*, NN47205-104.
2. Select VLAN tagging of the WLAN 9100 to **untagPvidOnly**. For more information, see *VLAN Management* topic in *Using the Avaya OS for Avaya WLAN AP 9100 Series* , NN47252-102.
3. Create a VLAN on WLAN 9100. Ensure that VLAN ID and VLAN name is same as the one configured on the switch. For more information, see *Using the Avaya OS for Avaya WLAN AP 9100 Series* , NN47252-102.
4. Create an SSID on WLAN 9100 and map to the same VLAN as created in Step 3 on page 88.

Note:

To integrate WLAN 9100 with Ignition Access Portal the WLAN 9100 port and Access Portal IN interface must be part of the same VLAN.

Configuring External Captive Portal on WLAN 9100

About this task

Use this procedure to configure External Captive Portal on WLAN 9100.

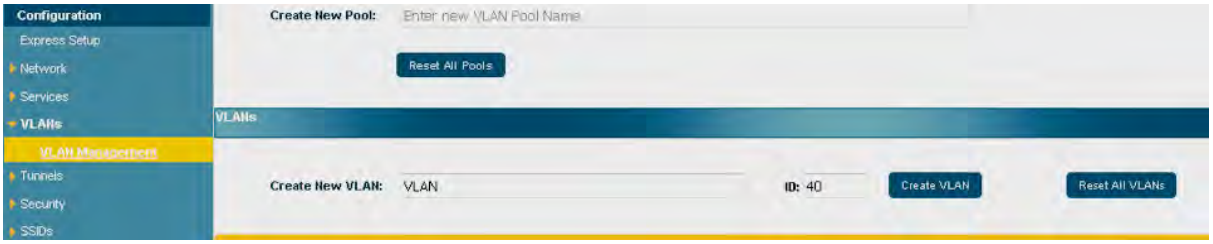
Before you begin

- Enable External Captive Portal on Services: Captive Portal page, to enable this instance of Captive Portal as an External Captive Portal to WLAN 9100. For more information, see Configuring the external captive portal settings on page 44.
- Login to WLAN 9100.

Procedure

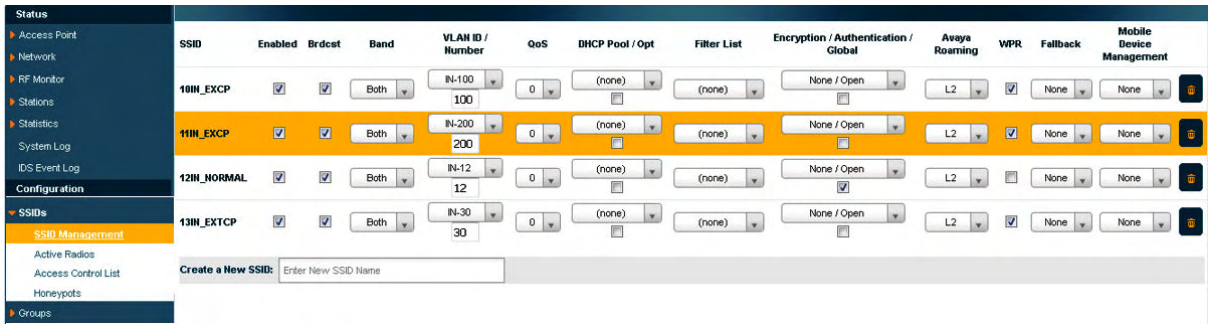
1. From the left-hand navigation pane, click **VLANs** > **VLAN Management**, and configure WLAN 9100 with the same VLAN as the IN interface VLAN.
   a. Enter VLAN name same as the IN interface in the **Create New VLAN** field and enter VLAN ID in the **ID** field.
   b. Click **Create VLAN**.

   The following example displays VLAN name as *VLAN* with VLAN ID as *40*.



2. From the left-hand navigation pane, click **SSIDs** > **SSID Management**.

   The system displays the SSID Management configuration page.

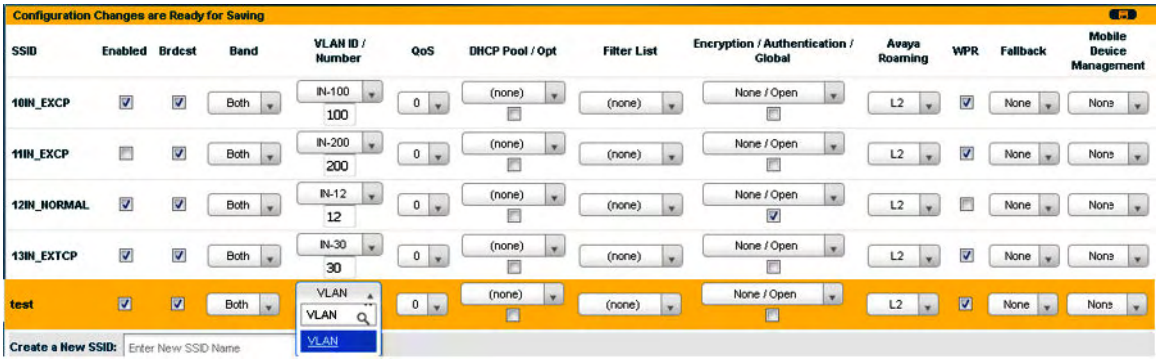


3. On the **SSID Management** page, enter a new SSID name in the **Create a New SSID** field.

   The system displays the newly created SSID name, in the SSID list.

4. In the SSID list, select the SSID created in Step 3 on page 90 and associate **VLAN ID/ Number** column to the VLAN created in Step 1 on page 89.

   The following image depicts the SSID *test* created in the step 3 associated with the VLAN name *VLAN* created in Step 1.



5. In the SSID list, for the selected instance of the SSID created in Step 3, and do the following:

   a. Select the **Enabled** and **Brdcst** check box.

   b. Clear **Encryption / Authentication / Global** check box.

   c. Select **WPR** check box.

   The system displays the SSID Web Page Redirect Configuration section for the selected instance of the SSID.

6. In the SSID Web Page Redirect Configuration section, leave **Landing Page URL** field blank.

   Note:

   If anything is entered here, WLAN 9100 will override access portal settings.

7. In the SSID Web Page Redirect Configuration section, select any one of the given option to configure External Captive portal flow on WLAN 9100.

Choice Option	Choice Description
External Login	If you select **External login** as the server, two authentication requests are sent to Ignition Server; one originating from access portal and the other from WLAN 9100, from every wireless client. **Note:** You need to add WLAN 9100 as one of the wireless authenticators on Ignition Server. For more information, see Registering Authenticators on page 81.
External Splash	If you select **External Splash** as the server, one authentication request is sent, originating from access portal, for every client.

Choice Option	Choice Description
	Note: It is recommended that you choose External Splash to avoid additional authentication request from the same client.

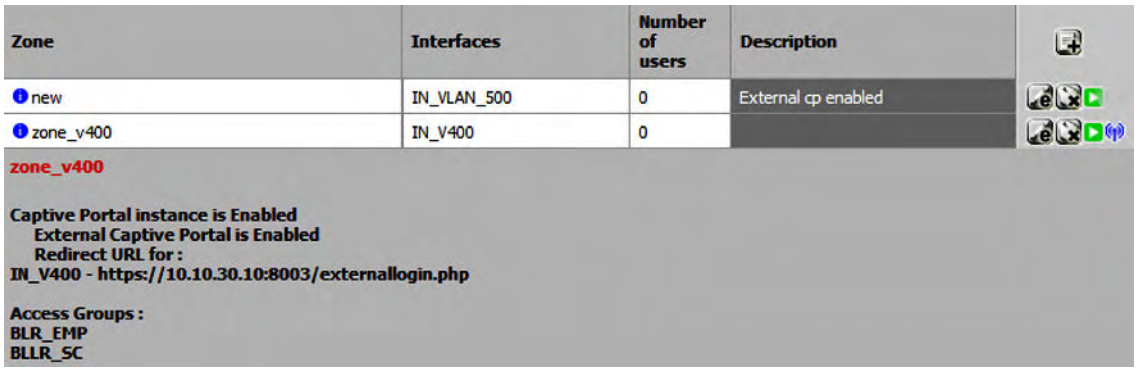
a. In the **Redirect URL** field, enter the redirect URL copied from access portal zone screen.

On the Ignition Access Portal page, navigate to **Services** > **Captive Portal** and click the blue icon next to the selected zone (as shown in the example below), in the zone column to view the redirect URL information.

Tip:

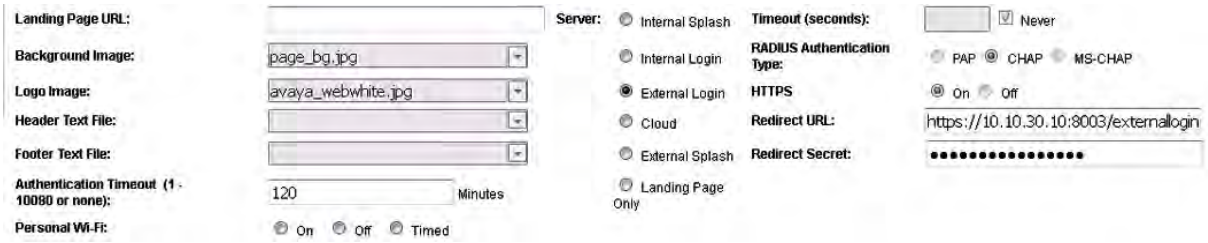
The  icon displays on the extreme right side for all the zone entries enabled with an External Captive Portal.

The following example displays the access portal zone screen for the selected instance of the Captive Portal with `https://10.10.30.10:8003/externallogin.php`, as redirect URL.



b. In the **Redirect Secret** field, enter the secret key same as access portal **AP 9100 redirect secret** key. For more information, see Configuring the external captive portal settings on page 44.

The following image depicts SSID *test* Web Page Redirect Configuration section.



8. In the **SSID WPR Whitelist Configuration** section, enter the Access Portal IN interface IP address to the Whitelist and click **Create**.

Note:

Whitelist the DNS servers and Captive Portal IP address on the WLAN 9100.

9. In the **SSID Authentication Service Configuration** section, select **Authentication Server** as **External Radius** and configure Ignition Server details.
10. **(Optional)** For MAC Authentication, enable MAC Authentication in access portal, for more information see Enabling RADIUS MAC Authentication on Access Portal on page 78 and on Wlan 9100, select **External Splash** as server in the **SSID Web Page Redirect Configuration** section.
11. Click save.

Chapter 7: Configuring the Social Media Login

Introduction

Avaya Identity Engines Ignition Access Portal, provides support for Social Media login. Users can now login to Avaya Access Portal page using Google, LinkedIn, or Facebook credentials.

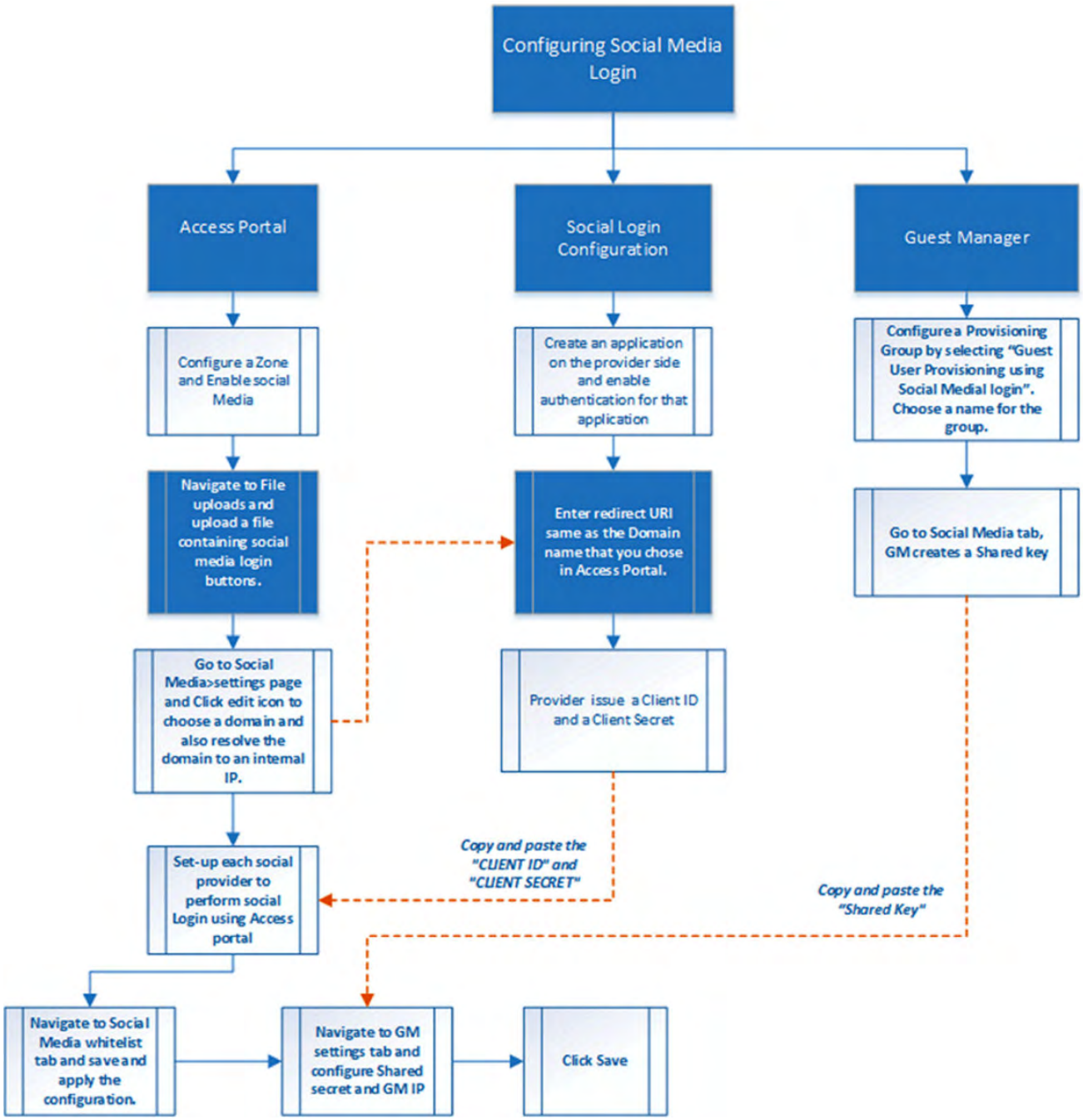
Note:

Before starting the configuration, you should have complete setup of Avaya Identity Engines-Access Portal, Ignition Server, and Guest Manager.

The process for configuring Social Media Login on Avaya Identity Engines consist of the following three stages:

- Configuring Social Media Login on Access Portal
- Social Media Login Configuration on third party developer console
- Configuring Social Media Login on Guest Manager

The following image depicts the high-level architectural workflow of the above stages to configure Social Media Login:



Related links

Configuring Social Media Login on Access Portal on page 95
Configuring Social Media Login Credentials on page 98

Configuring Social Media Login on Access Portal

About this task

Use this procedure to configure the Social Media Login on Access Portal, Services: Captive Portal page.

Before you begin

- You should have a complete setup of Avaya Identity Engines- Access Portal, Ignition Server, and Guest Manager.
- Navigate to the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**.

Note:

Ensure to enable HTTPS on Access Portal (admin UI and on the zone).

Procedure

1. On the **Services: Captive Portal : Zones** page, perform one of the following:
   - Click **Add Icon**, to configure zones. For more information, see Configuring the Appliance Access Portal Settings on page 43.
   - Select a desired zone and click **Edit Icon** , to edit the zone settings.

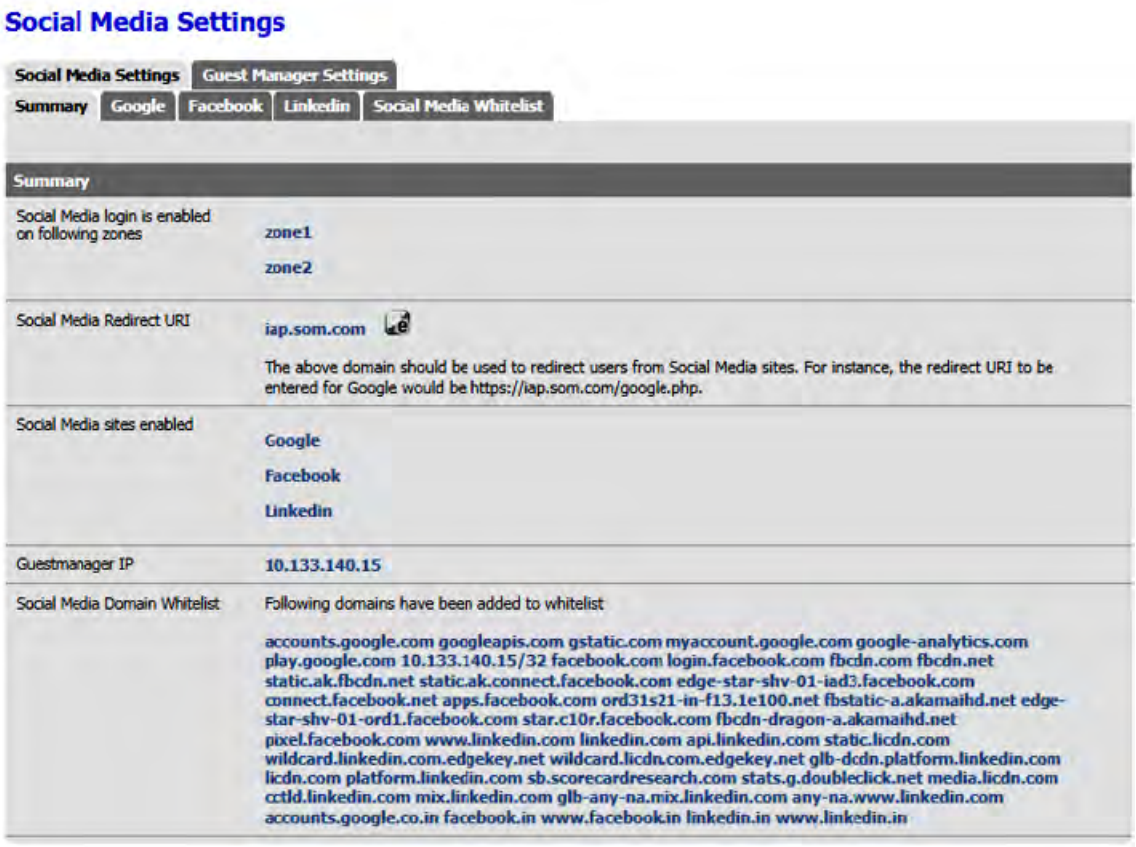
   The system displays the **Services: Captive Portal: Zone** *X* page. Here, *X* is the selected zone.
2. On the Services: Captive Portal: Zone *X* page, navigate to **Social Media Login** section and select **Enable Social Media Login** check box.
3. Navigate to **File Manager** tab, click **Add File Icon** and perform the following sub-tasks:
   a. Create a custom login file using the sample file given as a part of system default login page.

      Note:

      Create the `socialmedia-signin.html` file using the sample file given as a part of system default login page.

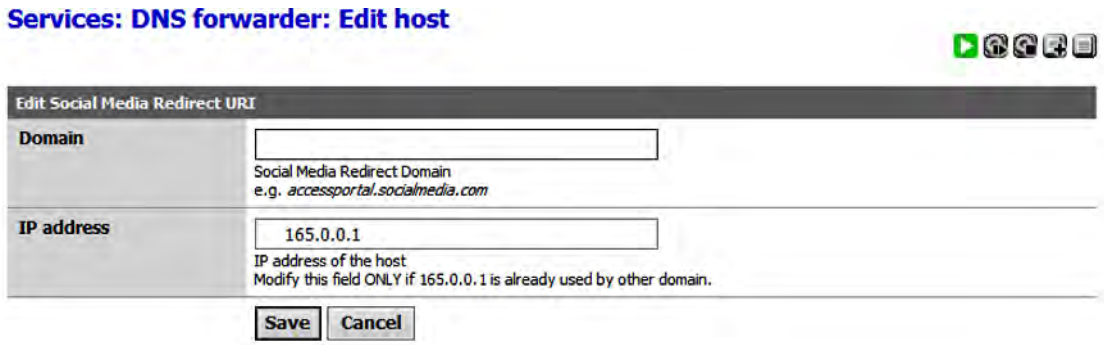
   b. Upload appropriate social media button login images. These Social media login button images should point to link *google.php, linkedin.php, and facebook.php* , respectively:
      - `google.png`
      - `linkedin.png`
      - `facebook.png`
4. Navigate to **Services** > **Social Media** page.

   The system displays the **Social Media Settings** tab by default.



5. Navigate to **Social Media Redirect URI** section, click **Edit** icon to add the redirect domain name.

   The system displays the **Services : DNS forwarder: Edit host** page in a separate window.



6. On the Services : DNS forwarder: Edit host page, enter the following details in the respective fields :

Field	Description
Domain name	Enter the Social Media Redirect domain name.
IP address	Enter the IP address of the host.

Field	Description
	Note: It is recommended to use `165.0.0.1` as the IP address of the host.

a. Click **Save**. The system displays **Services: DNS forwarder** page.

b. On the **Services: DNS forwarder** page, click **Apply changes** and close the page.

7. Navigate to individual social provider site to configure and enable authentication for that application. For more information on Social Login configuration, see Configuring Social Media Login Credentials on page 98.

   Copy the `CLIENT Id` and `CLIENT SECRET` from the respective social provider site.

8. On the Access Portal **Social Media Settings** page, click and open each social media sub-tab and enter the following details:

Field Name	Description
Client Id	Paste the copied `CLIENT Id` from the social provider site.
Client Secret	Paste the copied `CLIENT SECRET` from the social provider site.
Redirect URI	Enter the redirect URI same as the **Social Media Redirect URI** , as given in Step 5 on page 96. **Note:** . • For example, if you have enter Social Media Redirect URI as `accessportal.demo.com`, then enter redirect URI for Facebook as `https://accessportal.demo.com/facebook.php` and for Google as `https://accessportal.demo.com.google.php` • By default, the redirect URI on Access Portal is configured as HTTP version of URI. You may change this to HTTPS for enhanced security. • If External Captive portal is enabled, HTTPS redirect URI will fail. It is mandatory to choose HTTP as redirect URI.

Note:

Repeat Step 8 on page 97 to perform social login configuration for all the configured social provider. The current release support the following three social providers:

- Google
- Facebook
- LinkedIn

9. Navigate to **Social Media Whitelist** tab, the system displays the pre-populated domain name. Click **Save** and **Apply changes** to apply the configuration.

Note:

Ensure to verify the default Domain/IP name and add any other domain names here if the access is getting blocked.

10. Navigate to **Guest Manager Settings** tab and configure the following Guest Manager details. For more details, see *Avaya Identity Engines Ignition Guest Manager Configuration*, NN47280-501.

Field Name	Description
Shared secret	Enter the secret key generated by Guest Manager.
Guest Manager IP/hostname	Enter the Guest Manager IP address.

11. Click **Test Connection** to check the connection with Guest Manager.

    If successful the Provisioning group name is retrieved.

12. Click **Save**.

Related links

Configuring the Social Media Login on page 93

Configuring Social Media Login Credentials

About this task

Use this procedure to create an application and enable the authentication of the application on the service provider site. For this, you need to set-up each social provider for Access Portal to perform the social login.

The current release support the following three social providers:

- Google
- Facebook
- LinkedIn

Before you begin

- You should have domain name (Social Media Redirect URI), that you chose in Access Portal. For more information, see Configuring the Social Media Login on Access Portal on page 95.
- You should have organization `Email Address` and `Product Name`.

Procedure

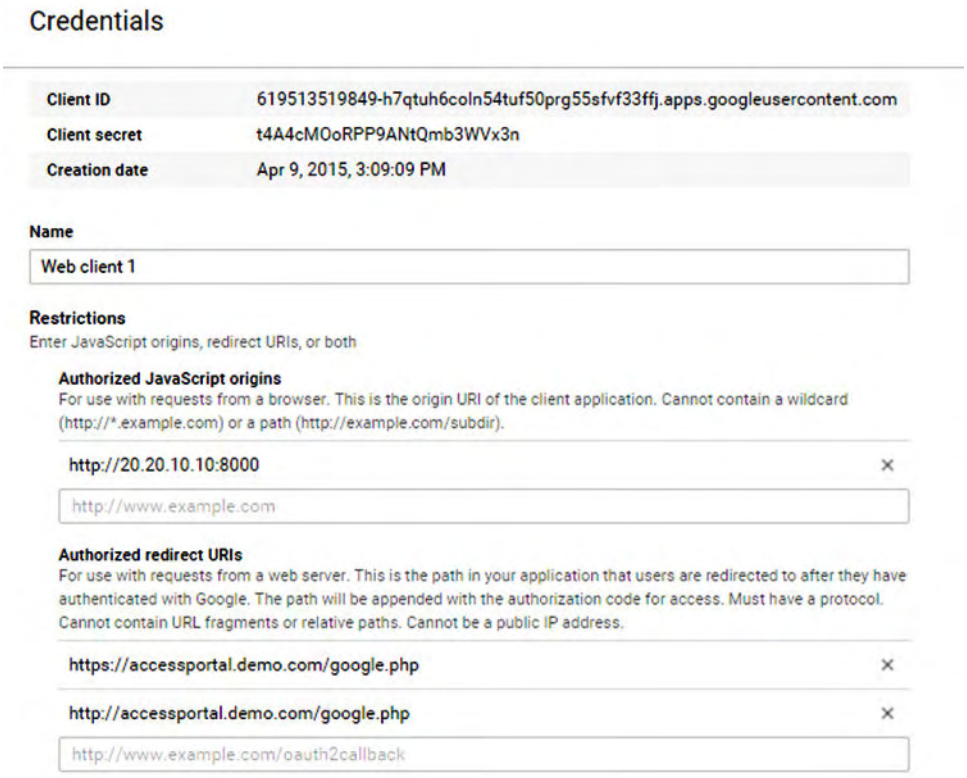
1. For Google Apps, login to the Google Developer console at https://console.developers.google.com/:
   a. Navigate to **Consent Screen** and enter the organization `Email Address` and `Product Name`.
   b. Enable APIs and create **Credentials**. The system generates the `Client ID` and `Client secret` key.

c. Enter the Access Portal domain name as the **Authorized redirect URIs**.

Note:

- Add both HTTP and HTTPS version of the redirect URI to minimize errors in the flow.
- By default, the redirect URI on Access Portal is configured as HTTP version of URI. You may change this to HTTPS for enhanced security.
- If External Captive portal is enabled, HTTPS redirect URI will fail. It is mandatory to choose HTTP redirect URI.

Sample screen:

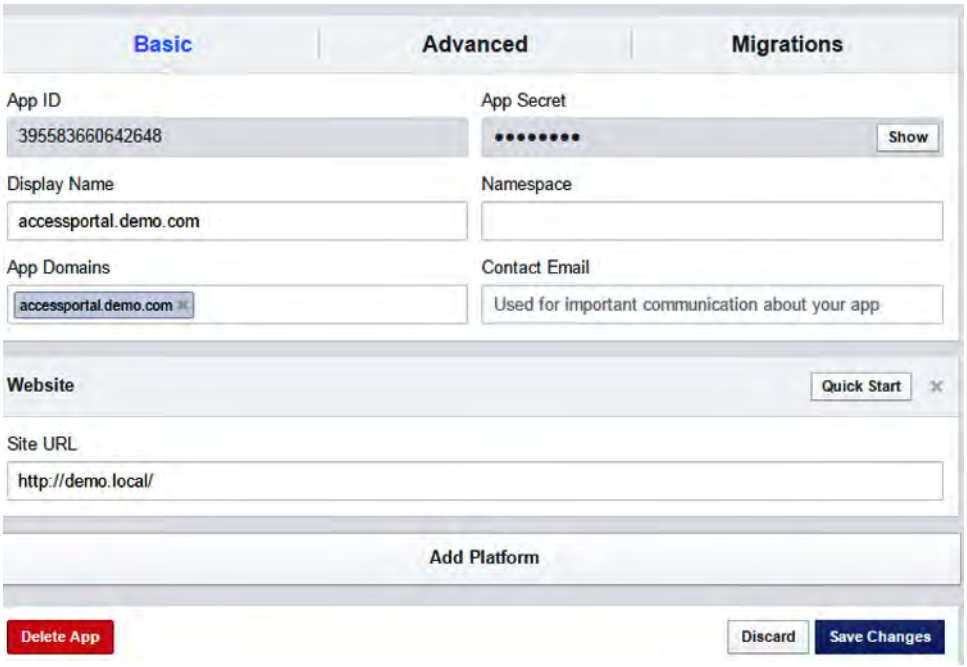


2. For Facebook, login to Facebook developer console at https://developers.facebook.com/:
   a. Create a **New Application**. The system generates the `App ID` and `App Secret` key.
   b. Configure advanced setup and the redirect URIs. The redirect URI must be same as the Domain name that you chose in Access Portal.

   Note:

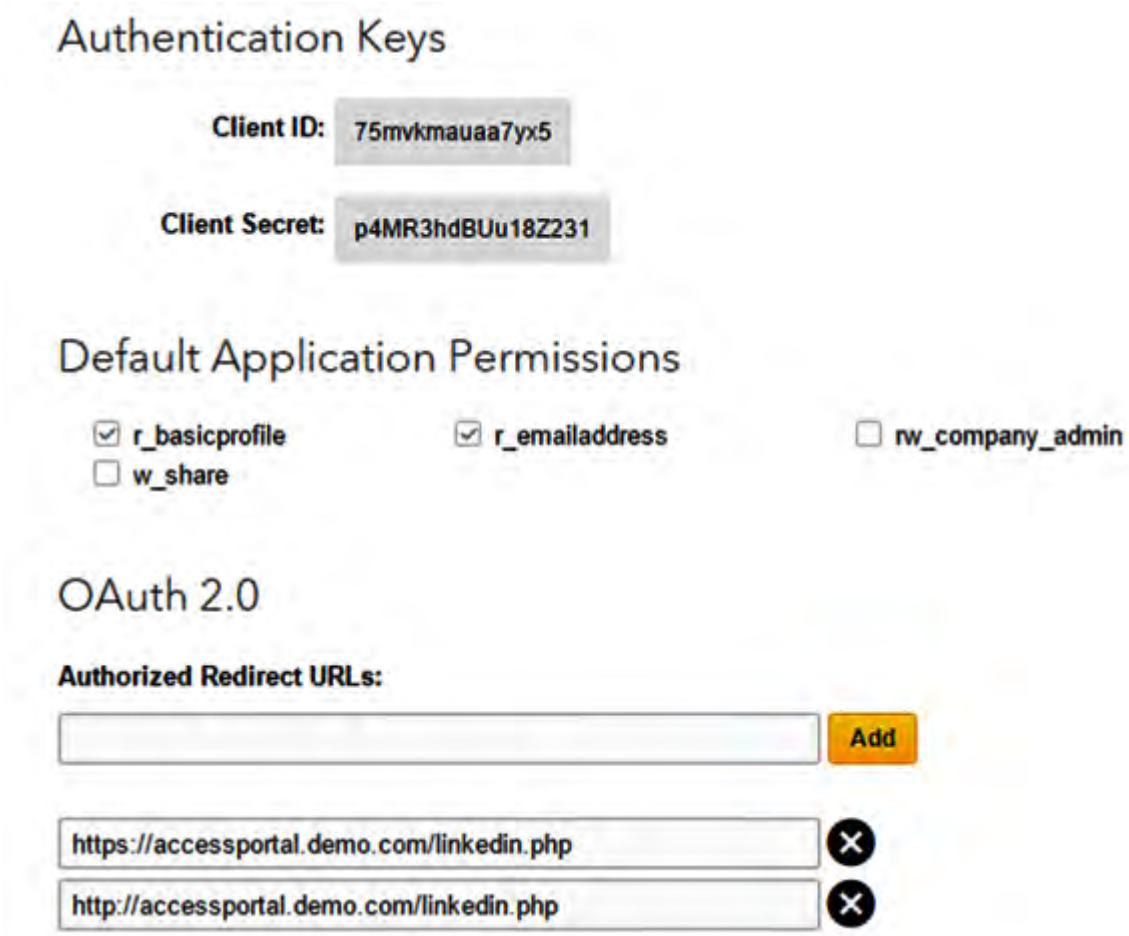
   For Facebook login flow to work in public domain, the Application needs to be submitted to Facebook. For further process about Application submission and review, please visit the Facebook website.

   Sample screen:



3. For LinkedIn, login to LinkedIn developer console at https://www.linkedin.com/developer/apps:
   a. Enable APIs and create **Credentials**. The system generates the `Client ID` and `Client secret` key.
   b. Configure advanced setup and the redirect URIs. The redirect URI must be same as the Domain name that you chose in Access Portal.

   Sample screen:



Next steps

Navigate to Avaya Identity Engines- Access Portal Web UI and perform Social Media configuration. For information, see Configuring the Social Media Login on Access Portal on page 95.

Related links

Configuring the Social Media Login on page 93

Chapter 8: Configuring CASE

This chapter explains how to configure Avaya Identity Engines Ignition Client for Accessing Secure Enterprise (CASE) to work with Access Portal.

Note:

Avaya Identity Engines Ignition CASE Release 8.0 is not compatible with Access Portal Release 9.1. Therefore, the CASE files are not automatically included in an upgraded Access Portal deployment, and you must manually upload CASE files. See “Deploying Packages” in *Administering Avaya Identity Engines Ignition CASE, NN47280-603*.

Related links

Configuring the CASE to work with Access Portal on page 102

Configuring the CASE to work with Access Portal

After you deploy Access Portal, you must configure CASE to work with Access Portal. Use the CASE Administrative Console to create a CASE package for your network and to deploy the CASE package to the Access Portal.

Related links

CASE Administrative Console overview on page 102
Creating a network profile on page 103
Creating a deployment package on page 103
Deploying packages on page 103

CASE Administrative Console overview

The CASE Administrative Console is a web-based application. The network administrator uses the CASE Administrative Console to build a configuration that specifies the end-user settings for specific network access. This configuration is called a network profile.

Network administrators can define multiple network profiles, each with its own configuration and behavior settings. The network administrator then builds deployment packages that contain one or more network profiles and deploys these packages directly to Access Portal.

Creating a network profile

To create a network profile, see the “Creating a network profile” procedure in the *Avaya Identity Engines Ignition CASE Administration*, NN47280-603.

Creating a deployment package

To create a deployment package, see the “Creating a deployment package” procedure in *Avaya Identity Engines Ignition CASE Administration*, NN47280-603.

Deploying packages

To deploy a package, see the “Deploying packages” procedure in *Avaya Identity Engines Ignition CASE Administration*, NN47280-603.

Chapter 9: Troubleshooting

This chapter lists solutions for common errors that can occur when configuring Access Portal.

Related links

[Troubleshooting common problems](#) on page 104
[Social Media and External Captive Portal Troubleshooting](#) on page 109

Troubleshooting common problems

Access Portal provides the following options for viewing the overall health of your system and performing common diagnostic and troubleshooting tasks:

To view the overall health of your system, on the main Access Portal Administration Web UI page click **Status**:

- Captive Portal
- Dashboard
- DHCP leases
- Filter Reload
- Gateways
- Interfaces
- Services
- System logs

To view diagnostic information or perform common troubleshooting tasks, on the main Access Portal Administration Web UI page click **Diagnostics**:

- ARP table
- Authentication
- Backup/Restore
- DNS Lookup
- Factory Defaults
- Halt System

- Packet Capture
- pfInfo
- pfTop
- Ping
- Reboot
- Routes
- Sockets
- Test Port
- Traceroute

The following sections describe solutions and workarounds for commonly reported issues:

Related links

Problem: Cannot access Access Portal

Possible cause

- You can get to the portal login page from the client machine's browser, by specifying any URL with an IP address, but not when specifying a URL containing the DNS name. The issue is with DNS name resolution.

Solution

- Ensure that the DNS servers specified in the Access Portal Administration Web UI are correct and the DNS forwarder is configured.
- Ensure that the connectivity is working.

Problem: Unable to authenticate user

Possible cause

- RADIUS server address mismatch.
- Shared secret mismatch.
- Stale data.

Solution

- Under **Services** > **Captive Portal**, verify that your Identity Engines RADIUS server address is correct and the shared secret is identical.
- Under **Status** > **Captive Portal**, remove older sessions and unwanted session(s).
- When connecting from a client, make sure that you close any older browser windows to clear out older sessions. Browser cookies can feed stale data to Access Portal.

Problem: MAC authentication failure

Possible cause

- Incomplete configuration on Access Portal and Ignition Server.
- Shared secret mismatch.

Solution

- Verify that MAC Authentication is enabled on both the Access Portal Administration Web UI and the Ignition Server.
- Make sure that the shared secret is identical.
- Make sure that your MAC Address Source is not set to “Inbound-Calling-Station-Id”. If it is, change your MAC Address Source to “Inbound-User-Name” or MAC address recognition will not work.

Problem: Cannot launch Access Portal Administration Web UI

Possible cause

- Browser proxy configuration issue.
- The machine you are using to connect to the Access Portal Administration Web UI is not on the ADMIN network.
- The ADMIN interface subnet has been changed.

Solution

- Remove any proxy settings on the browser.

- If the machine you are using to connect to the Access Portal Administration Web UI is not on the Admin network, you can add a static route to the network where the machine resides.
- If ADMIN interface IP address is changed such that it falls in a different subnet than before, it may render the default route associated with that interface invalid. In this case, in order to access the Access Portal Administration Web UI from a machine not on the ADMIN subnet, either reboot the machine or add a static route.

Problem: Client unable to communicate with Access Portal

Possible cause

- Browser proxy configuration issue.
- 802.1x authentication configuration issue
- IP selection configuration issue.
- Client default gateway configuration issue.

Solution

- Make sure that the proxy configuration on your Web GUI for the Access Portal Server, as well as the client machine, are turned off.
- Make sure that 802.1x is turned off.
- Make sure that the IP selection is not configured as static. Access Portal is designed to be used in conjunction with a DHCP server.
- Make sure the client's default gateway is pointing towards the IN interface IP address of the Access Portal and they are able to talk to each other.

Problem: Unable to ping IN and OUT interfaces

Possible cause

- Ping requests originating from incorrect source.

Solution

- If ADMIN interface responds to ping requests, but not IN and OUT interfaces, perform ping requests from IN and OUT interfaces to other hosts on the network, rather than pinging from other hosts to these interfaces.

Problem: In Dashboard, “Access Portal” not listed as option in Configuration list

Possible cause

- License not correctly installed.

Solution

- Install new FEATURE_PORTAL license.

Problem: VM not synchronizing with Hypervisor

Possible cause

- The hypervisor time may be lagging behind the virtual machine time. Access Portal does not set the clock backward for time synching with a Hypervisor—it only sets the clock forward.

Solution

- Reboot the virtual machine.

Problem: Access Group members cannot access network

Possible cause

- If an Access Group member successfully authenticates but cannot access the network as expected, the Access Group may be associated with an obsolete OUT interface. This can happen if an OUT interface is deleted when the VM is powered down. In this case, the Access Group is now associated with the obsolete OUT interface. Additionally, if any gateways are associated with the deleted OUT interface, those gateways must be manually removed from the system.

Solution

- Check to make sure that the OUT interface associated with the Access Group has not been deleted. If it has, manually configure the Access Group to associate the correct OUT interface. Additionally, check to make sure that the gateway associated with the deleted OUT interface is not in the system. If it is, manually delete the gateway.

Problem: Users experience fatal errors

Possible cause

- Any mismatch in RADIUS configuration between the Ignition Server and Access Portal (for example, server IP address, shared secret, password, and so on) can result in fatal or internal errors to the clients.

Solution

- Check for any configuration errors that involve a mismatch in RADIUS settings between Ignition Server and Access Portal. Correct any errors and perform a test user authentication to confirm the correct configuration.

Miscellaneous troubleshooting tips

- To disable device profiling, turn off device profiling on the Access Portal Administration Web UI as well as in the Ignition Server's Access Portal configuration (that is, clear the "Trusted Device Update" check box). If you turn off device profiling only on the Access Portal, that only prevents Access Portal from sending attribute information to the Ignition Server. The Ignition Server still attempts to learn devices.
- If you want to specify a RADIUS server that is not accessible through the default gateway configured in the WAN interface, go to **System** > **Routing** > **Routes** and add a route to the network where the RADIUS server is present.

Social Media and External Captive Portal Troubleshooting

This section provides contextual guidance for resolving Social Media and External Captive Portal related issues on networks. You can then address user concerns and provide a resolution in a timely manner.

Related links

Problem: SSL-encrypted Web connections on page 110
Problem: Redirection to login page not happening on page 110
Problem: User authentication fails in External Captive Portal setup on page 111
Problem: Clients failed to obtain IP Address in External Captive Portal Setup on page 111
Problem: Redirection to Ignition Access Portal not working when Social Media is enabled on page 112
Problem: Social Media authentication fails on page 112
Problem: Redirection unavailable for Social Media sites in External Captive Portal setup on page 113

Problem: MAC Auth fails on page 113

Problem: SSL-encrypted Web connections

Condition

In organizations where the networks have SSL intercepts, the Social Media login flow will be broken.

Cause

Encrypted Web connections are routinely intercepted by enterprises for legitimate reasons.

Solution

1. Navigate to the main Access Portal Administration Web UI page, click **System** > **Cert Manager**.
2. Click **Trusted CA Root Certs** tab.

   The system displays the trusted list of CA Root Certificates.

   Note:

   By default, Access Portal is pre-installed with around 166 trusted root certificates.
3. In the case of deployments where there are SSL intercepts to enhance security within the organization, the certificate needs to be added. Click **Add** button and paste a certificate in `X.509 PEM` format in **Certificate data** pane.
4. Click **Save**.

Related links

Social Media and External Captive Portal Troubleshooting on page 109

Problem: Redirection to login page not happening

Condition

Redirection to login page is not happening with External Captive Portal setup.

Cause

Any one of the following can be the cause for this problem:

- Redirect URL IP is not whitelisted in WPR configuration.
- Mismatch between WPR redirection URL and Access Portal zone URL.
- Routing issue between inter subnets when zone enabled with https mapped to Multi IN interface.

Solution

1. On the WLAN 9100 WMI, navigate to SSID page and click **SSID** .
2. Navigate to whitelist section and add IP of the redirect URL.

3. Navigate to **Services** > **Captive Portal** and click on the blue icon located before zone name to copy the URL.
4. Navigate to **SSID** and click **SSID** > **external login redirection URL field** and paste the copied URL.

Note:

- Make sure HTTPS server name under zone HTTPS settings is reachable from all IN interfaces subnets.

Related links

Social Media and External Captive Portal Troubleshooting on page 109

Problem: User authentication fails in External Captive Portal setup

Cause

- WLAN 9100 is not added as an authenticator in Ignition Server.
- Mismatch in External Captive Portal shared secret key between Ignition Access Portal and WLAN 9100.
- Mismatch in Ignition Access Portal and Ignition Server shared secret key.
- Mismatch in WLAN 9100 and Ignition Server shared secret key.

Solution

1. On the Dashboard connect to Ignition Server and click **Configuration**.
2. Navigate to authenticator and add WLAN9100 as an authenticator.

Note:

Make sure all the shared secret keys are matching respectively.

Related links

Social Media and External Captive Portal Troubleshooting on page 109

Problem: Clients failed to obtain IP Address in External Captive Portal Setup

Condition

Unable to get IP address when External Captive Portal is enabled.

Cause

External DHCP server may not be functional or reachable.

Solution

Whenever we enable External Captive Portal, built in DHCP server will get disabled. Make sure External DHCP server is up and running, and always live on the network.

Related links

Social Media and External Captive Portal Troubleshooting on page 109

Problem: Redirection to Ignition Access Portal not working when Social Media is enabled

Cause

The following list highlights the possible cause for this problem:

- DNS server is not reachable.
- Social Media whitelist entries are not saved.
- Root certificate of intermediate proxy may be missing on client.
- Redirection URI mismatch between Social Media application setting and Ignition Access Portal Social Media settings.
- OAuth credentials mismatch between Social Media developer console and Access Portal Social Media settings.

Solution

- DNS should be properly configured and reachable.
- After you enable and configure Social Media, ensure to click **Save** on Social Media Whitelist page and also, ensure that region specific domains are added in the Whitelist.

  Tip:

  Navigate to **Services** > **Social Media** > **Whitelist** .
- Upload proper proxy root certificate on client machine.
- Navigate to **Services** > **Social Media** > **Social Media setting** and ensure OAuth credentials are properly configured.

Related links

Social Media and External Captive Portal Troubleshooting on page 109

Problem: Social Media authentication fails

Cause

- Guest Manager details may not be configured properly under Social Media setting.
- Guest Manager Configuration is not added to the Ignition Server.
- Missing Root certificate of intermediate proxy on Ignition Access Portal.

Solution

- Navigate to **Services** > **Social Media** > **Guest Manager settings** and configure the Guest Manager settings properly.

  Note:

  Ensure that GM is deployed in HTTPS mode.

- Click **Configuration** and navigate to Guest Manager and add Guest Manager details in Ignition Server Dashboard.

Related links

Social Media and External Captive Portal Troubleshooting on page 109

Problem: Redirection unavailable for Social Media sites in External Captive Portal setup

Cause

The following list highlights the possible cause for this problem:

- Social Media sites are not Whitelist under WLAN 9100 WPR configuration.
- Social Media Redirect URI may not be resolvable from WLAN 9100.
- DNS server is not Whitelist under WPR configuration.

Solution

- On **WPR Configuration** page, add Social Media Whitelist entries in to WLAN 9100 SSID.
- Make sure Social Media Redirect URI is resolvable from WLAN 9100 DNS server.
- Add DNS server to WPR whitelist.

Related links

Social Media and External Captive Portal Troubleshooting on page 109

Problem: MAC Auth fails

Cause

- Device MAC Address not present in Ignition Server Internal Store.
- Under Access Portal configured zone page, MAC Auth Shared secret field is empty.

Solution

- Make sure that the Device MAC Address is added in the Internal Store of Ignition Server.
- Mac Auth Shared secret value should not be left blank under Access Portal configured zone setting.

Related links

Social Media and External Captive Portal Troubleshooting on page 109

Appendix A: Avaya Identity Engines Ignition Access Portal deployment example

This section assumes that you are familiar with setting up and maintaining networks and network security.

It also assumes that you have:

- deployed the Avaya Identity Engines Ignition Server OVA and configured the virtual machine. For more information, see *Avaya Identity Engines Ignition Server Getting Started Configuration, NN47280-300*.
- installed and configured the Dashboard desktop application. For more information, see *Avaya Identity Engines Ignition Server Getting Started Configuration, NN47280-300*.
- installed all applicable licenses. For more information, see *Avaya Identity Engines Ignition Server Getting Started Configuration, NN47280-300*.
- deployed the Avaya Identity Engines Access Portal OVA and configured the virtual machine. For more information, see Configuring the Access Portal virtual machine on page 27 in this document.
- added six additional Ethernet adapters to the virtual machine, in preparation for assigning and enabling the multiple interfaces as described in this deployment. For more information, see Adding Mulitiple IN and OUT interfaces on page 35 in this document.

Related links

Background

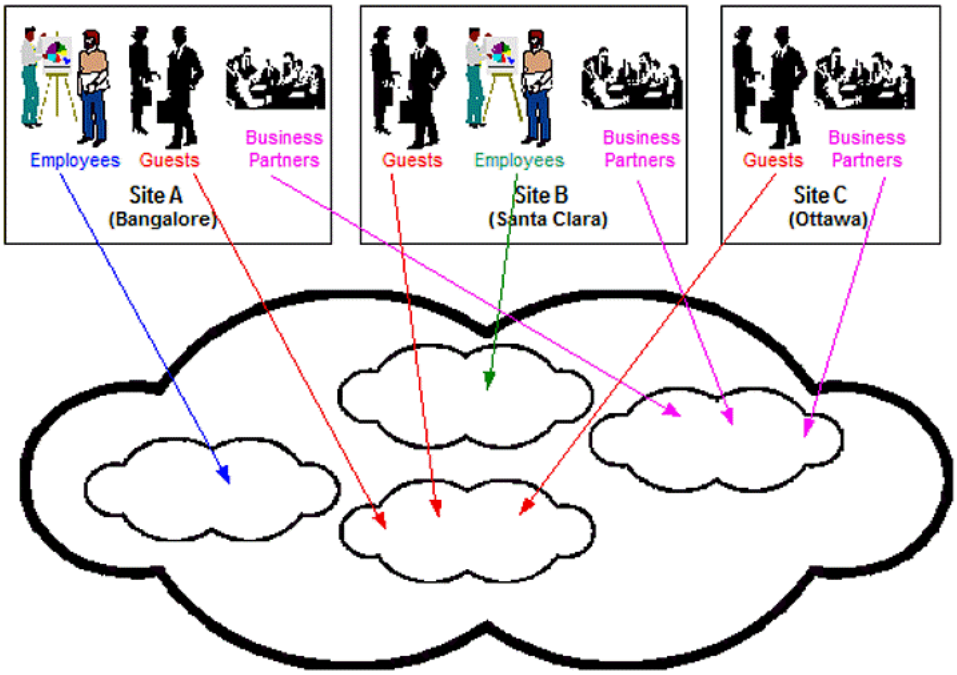
The example deployment in this section services a customer with geographically dispersed sites and different access requirements for those sites, as follows:

- Site A is located in Bangalore, India, and has employees, business partners, and guests

- Site B is located in Santa Clara, USA, and has employees, business partners, and guests
- Site C is located in Ottawa, Canada, and has business partners and guests, but no employees

All of the different employees, business partners, and guests at all of the sites have remote devices and require access to company network resources as follows:

- Guests at Sites A, B, and C can access but should be restricted to one portion of the company network.
- Employees at Site A can access but should be restricted to one portion of the company network.
- Employees at Site B can access but should be restricted to one portion of the company network.
- Business partners at Sites A, B, and C can access but should be restricted to one portion of the company network.



To accommodate the access requirements for the various sites and types of users, this deployment is configured with:

- two captive portals, associated with different zones
  - one zone services Site A (Zone_BANGALORE)
  - one zone services Sites B and C (Zone_NORTHAMERICA)
- one default out-of-the-box ADMIN interface for centralized administration (there is always only one ADMIN interface)

- four IN interfaces, including:
  - the default out-of-the-box IN interface (IN) (not used in this example)
  - one additional IN interface, configured for managing access for all users in Site A (IN_BANGALORE)
  - one additional IN interface, configured for managing access for all users in Site B (IN_SANTACLARA)
  - one additional IN interface, configured for managing access for all users in Site C (IN_OTTAWA)
- four OUT interfaces, including:
  - the default out-of-the-box OUT interface, configured for guests of Sites A, B, and C (OUT)
  - one additional OUT interface, configured for employees of Site A (OUT_EMPLOYEE_BANGALORE)
  - one additional OUT interface, configured for employees of Site B (OUT_EMPLOYEE_SANTACLARA)
  - one additional OUT interface, configured for business partners of Sites A, B, and C (OUT_BUSINESSPARTNER)
- Access Portal Access Groups as follows:
  - Under Zone_BANGALORE:

    Access-Group-Employees (mapped to interface OUT_EMPLOYEE_BANGALORE)

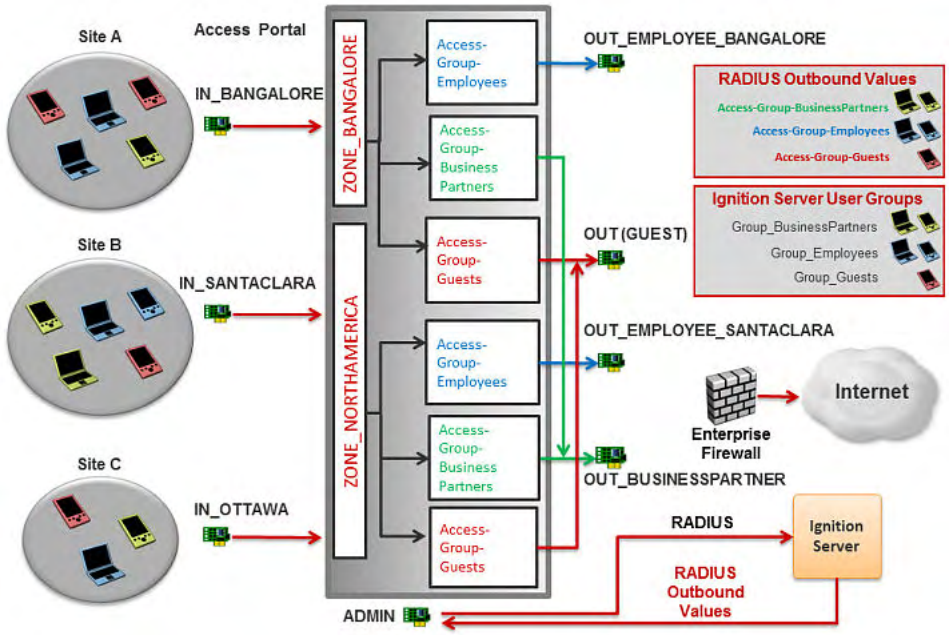
    Access-Group-Guests (mapped to interface OUT)

    Access-Group-BusinessPartners (mapped to interface OUT_BUSINESSPARTNER)
  - Under Zone_NORTHAMERICA:

    Access-Group-Employees (mapped to interface OUT_EMPLOYEE_SANTACLARA)

    Access-Group-Guests (mapped to interface OUT)

    Access-Group-BusinessPartners (mapped to interface OUT_BUSINESSPARTNER)



Configuring Ignition Server

For detailed instructions about the tasks in this section, see *Administering Avaya Identity Engines Ignition Server, NN47280–600*.

Procedure

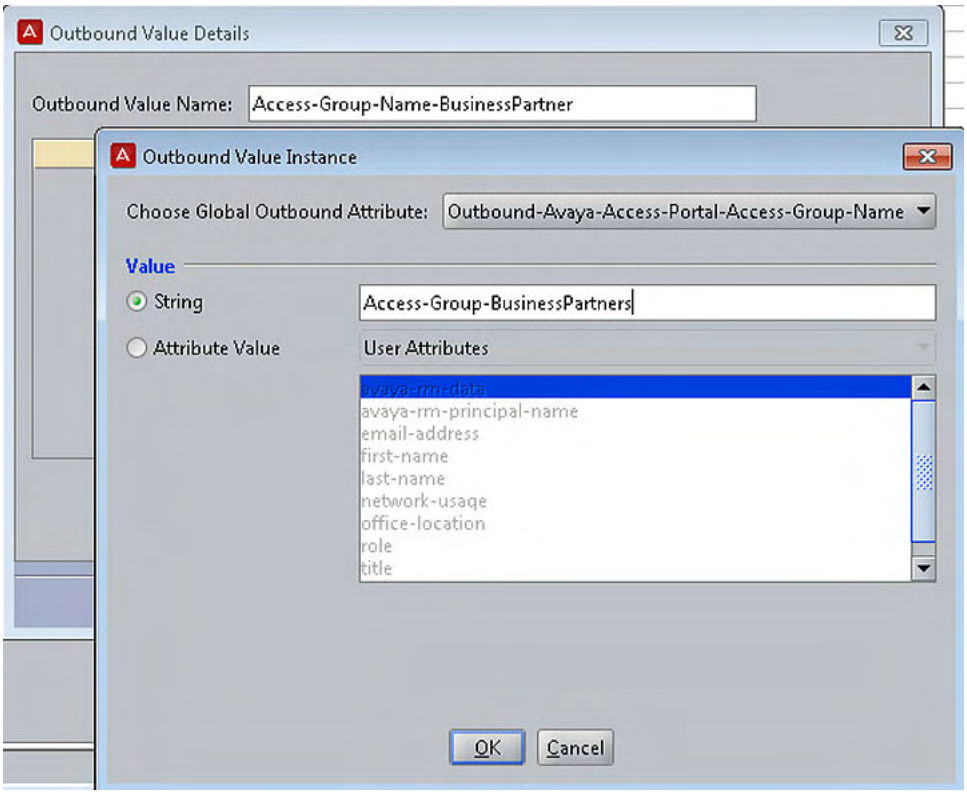
1. **Configure Internal Groups:** In the Ignition Server Dashboard Configuration tree, expand **Site Configuration**, expand **Directories**, expand **Internal Store**, and click **Internal Groups**. Under the Default Internal Group, create the following Internal Groups:
   - “Group_Employees”, and add users as required
   - “Group_Guests”, and add users as required
   - “Group_BusinessPartners”, and add users as required
   - “DeviceGroup1”, and add devices as required

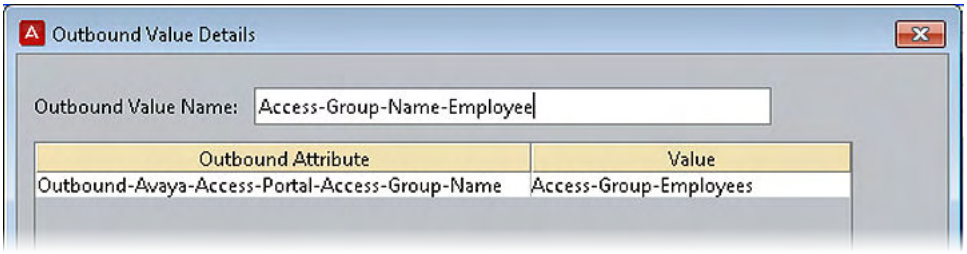
2. **Configure RADIUS Outbound Values:** In the Ignition Server Dashboard Configuration tree, expand **Site Configuration**, expand **Provisioning**, expand **RADIUS**, and click

Outbound Values. Click **New**, enter a name, and click **New** to configure the Outbound Value instance. Create the following Outbound Values:

- “Access-Group-Name-Employee” with the Global Outbound Attribute “Outbound-Avaya-Access-Portal-Access-Group-Name” and a Value of String “Access-Group-Employees”
- “Access-Group-Name-Guest” with the Global Outbound Attribute “Outbound-Avaya-Access-Portal-Access-Group-Name” and a Value of String “Access-Group-Guests”
- “Access-Group-Name-BusinessPartner” with the Global Outbound Attribute “Outbound-Avaya-Access-Portal-Access-Group-Name” and a Value of String “Access-Group-BusinessPartners”

Note that the string values defined for these attributes will be used to create Access Portal Access Groups later in this section.

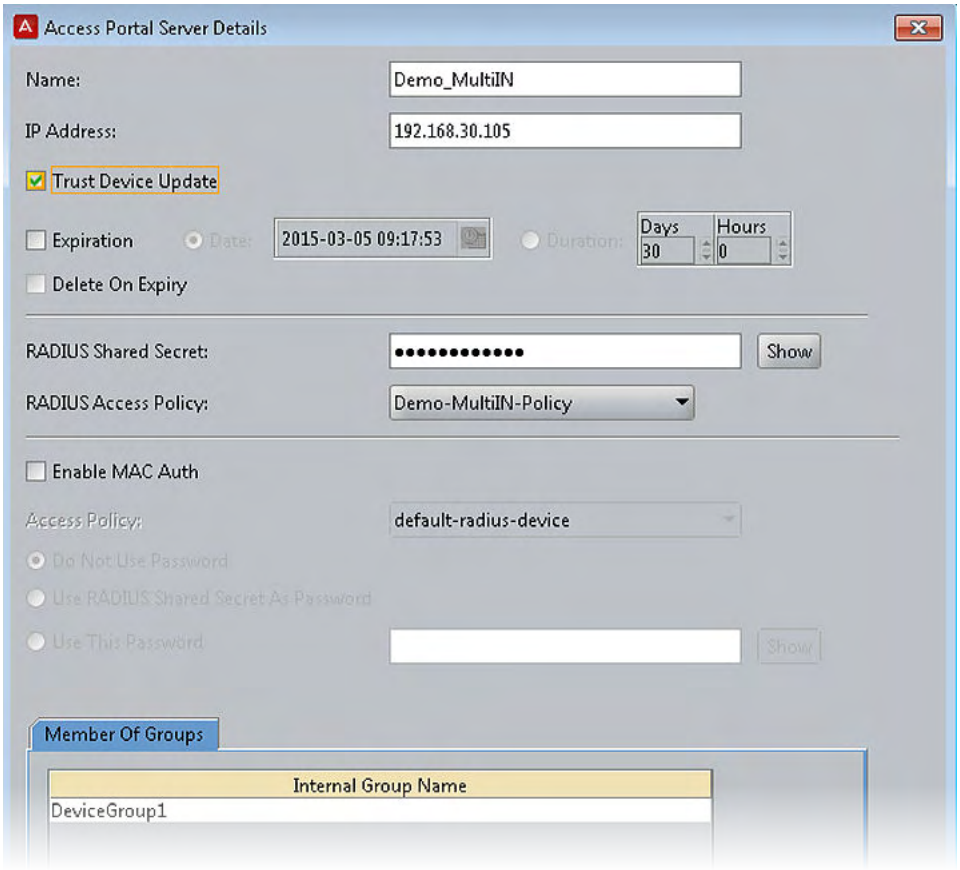




3. **Configure RADIUS Access Policies:** In the Ignition Server Dashboard Configuration tree, expand **Site Configuration**, expand **Access Policies**, and click **RADIUS**. Create an Access Policy named “demo-MultiIN-policy” and associate it with the following rules:
   - If the user belongs to Group_Employee, send Outbound Value “Access-Group-Name-Employee”
   - If the user belongs to Group_Guest, send Outbound Value “Access-Group-Name-Guest”
   - If the user belongs to Group_BusinessPartner, send Outbound Value “Access-Group-Name-BusinessPartner”

4. **Configure the Access Portal server details:** In the Ignition Server Dashboard Configuration tree, expand **Access Portal**, click **Access Portal Servers**, and click **New**. Enter a name for the server, the ADMIN interface IP address, and RADIIUS shared secret. Enable device fingerprinting, , associate the server with access policy demo-MultiIN-policy, and choose DeviceGroup1 for auto-association.

   For more information, see Configuring the Access Portal Server Details on page 68 in this document.

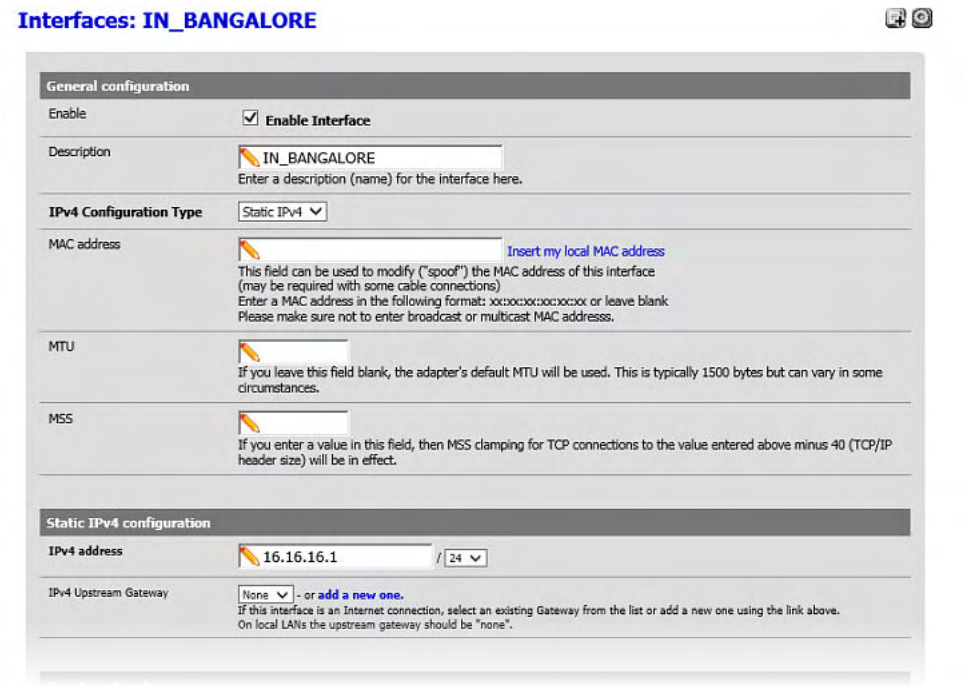


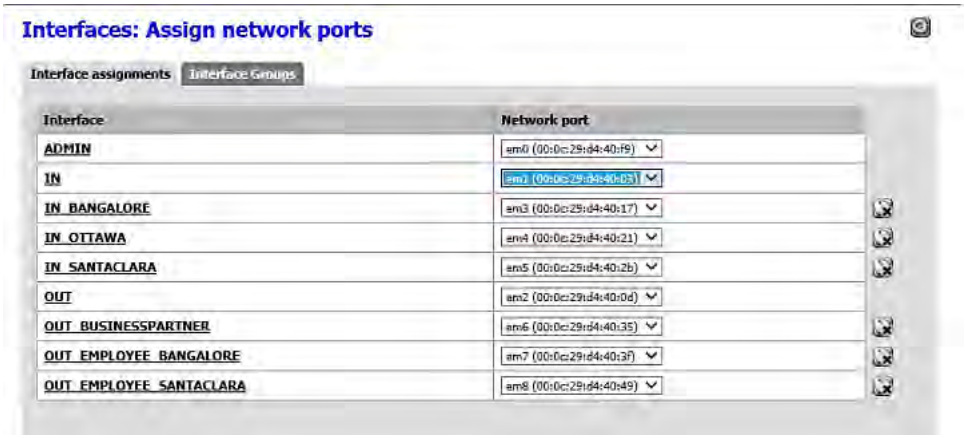
Configuring Access Portal

Procedure

1. **Assign and enable additional IN and OUT interfaces:** On the main Access Portal Administration Web UI page, click **Interfaces** > **(assign)**. For each Ethernet adapter you previously added, select IN or OUT from the drop-down list, click the Add icon, and choose the appropriate network port. Click the name of the interface and enable the interface, enter the appropriate name, and enter the IP address and subnet mask.

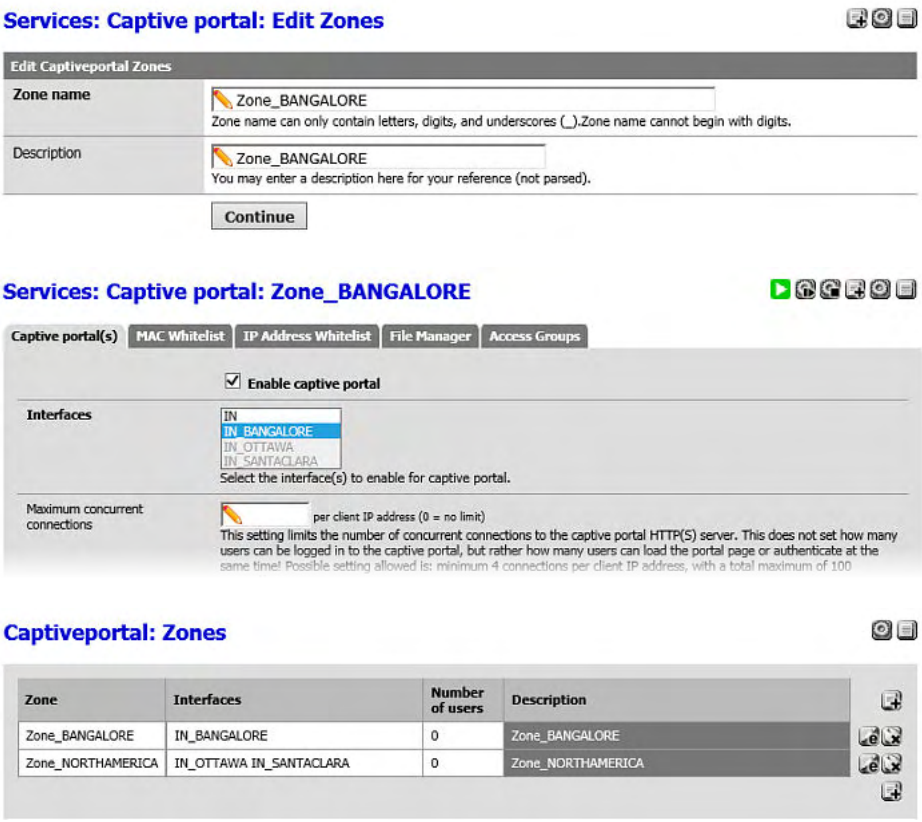
   For more information, see Adding multiple IN and OUT interfaces on page 35 in this document.





2. **Configure Zones:** On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**. Configure one captive portal for Zone_BANGALORE and associate it with the IN_BANGALORE interface. Configure another captive portal for Zone_NORTHAMERICA and associate it with the IN_OTTAWA and the IN_SANTACLARA interfaces.

   For more information, see Configuring the Appliance Access Portal Settings on page 43 in this document.



3. **Configure Access Portal Access Groups:** On the main Access Portal Administration Web UI page, click **Services** > **Captive Portal**. Click the Edit icon for Zone_Bangalore and click the **Access Groups** tab. Click the Add icon to create an Access Group. Create six Access Groups as follows:

   For Zone_BANGALORE:

Group name	Description	OUT Interface	Success Page setting
Access-Group-Employees	OUT_EMPLOYEE_BANGALORE interface	OUT_EMPLOYEE_BANGALORE	originally accessed page
Access-Group-Guests	Default OUT interface	OUT	system default success page
Access-Group-BusinessPartners	OUT_BUSINESSPARTNER interface	OUT_BUSINESSPARTNER	http://<URL of choice>

   For Zone_NORTHAMERICA:

Group name	Description	OUT Interface	Success Page setting
Access-Group-Employees	OUT_EMPLOYEE_SANTACLARA interface	OUT_EMPLOYEE_SANTACLARA	originally accessed page
Access-Group-Guests	Default OUT interface	OUT	system default success page

Table continues…

Group name	Description	OUT Interface	Success Page setting
Access-Group-BusinessPartners	OUT_BUSINESSPARTNER interface	OUT_BUSINESSPARTNER	http://www.<URL of choice>

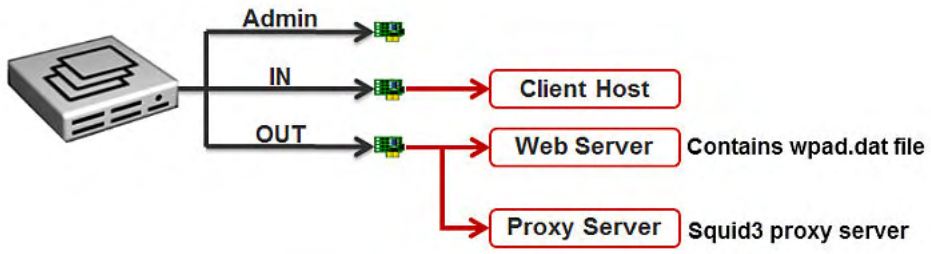
For more information, see Configuring Access Groups on page 58 in this document.

Example with proxy server for clients

The following section contains an example of how to automatically push the proxy setup from the Access Portal to guest devices.

This example uses IIS as a web server and Squid as a proxy server. The configuration for other web servers and proxy servers will differ.

In this example, the client is redirected to the Web and proxy server on the OUT interface. The proxy server and web server must be on the OUT interface since all the traffic from client will always goes through the OUT interface.



Related links

Configuring the example deployment on page 124

Configuring the example deployment

Procedure

Create the .dat file:

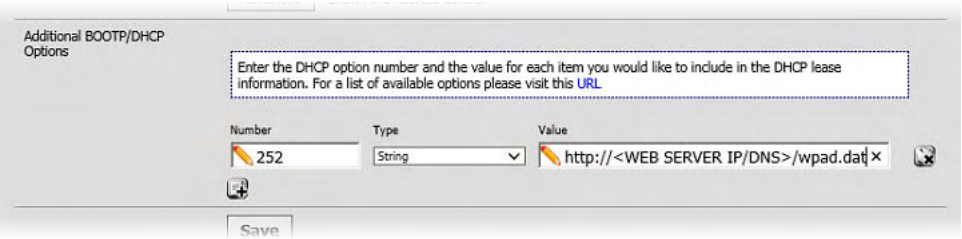
1. Create a .dat file, in this example named “wpad.dat”, with the following contents:

```
function FindProxyForURL(url, host) {
 return "PROXY <PROXY SERVER IP>:<PORT NUMBER>;
}
```

Configure the Access Portal DHCP settings:

2. On the main Access Portal Administration Web UI page, click **Services** > **DHCP Server**.
3. On the Services: DHCP server page, click the appropriate IN interface tab.
4. Select the **Enable DHCP Server on IN interface** check box.

5. In the **Range** fields, enter the range of IP addresses that the DHCP server will assign to guest devices.
6. Scroll down to the **Additional BOOTP/DHCP Options** section, click **Advanced**, and click the Add icon.
7. Enter `252` in the **Number** field, choose **String** from the **Type** drop-down list, enter `http://<WEB SERVER IP/DNS>/wpad.dat` in the **Value** field, and click **Save**.



Configure the proxy server:

In this example, the proxy server is a squid3 Linux proxy server

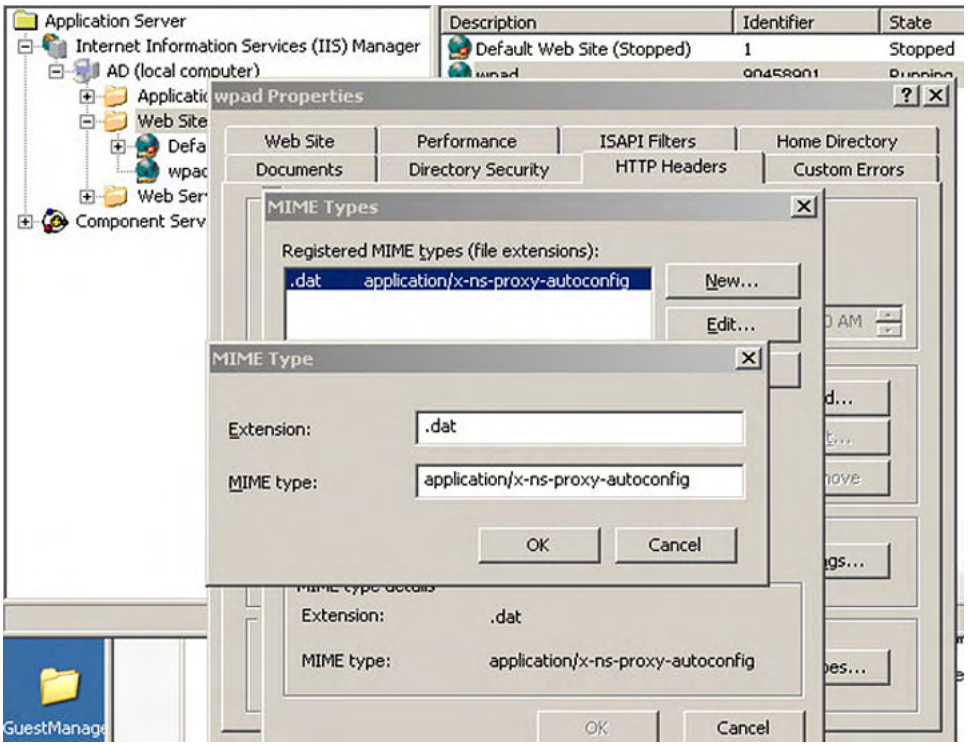
8. Do the following to configure the squid3 Linux proxy server:
   - Enter `apt-get install squid3`
   - Edit `/etc/squid3/squid.conf`:
     - Find “http_port” and change the port number if necessary (by default squid3 listens on 3128 port)
     - Find “http_access” change from `deny all` to `allow all`
   - Enter `Service squid3 restart` or `/sbin/squid3 -s -n -v -f /etc/squid3/squid.conf`
   - If necessary enter to view the logs enter `tail -f /var/log/squid3/access.logs`

Configure the web server:

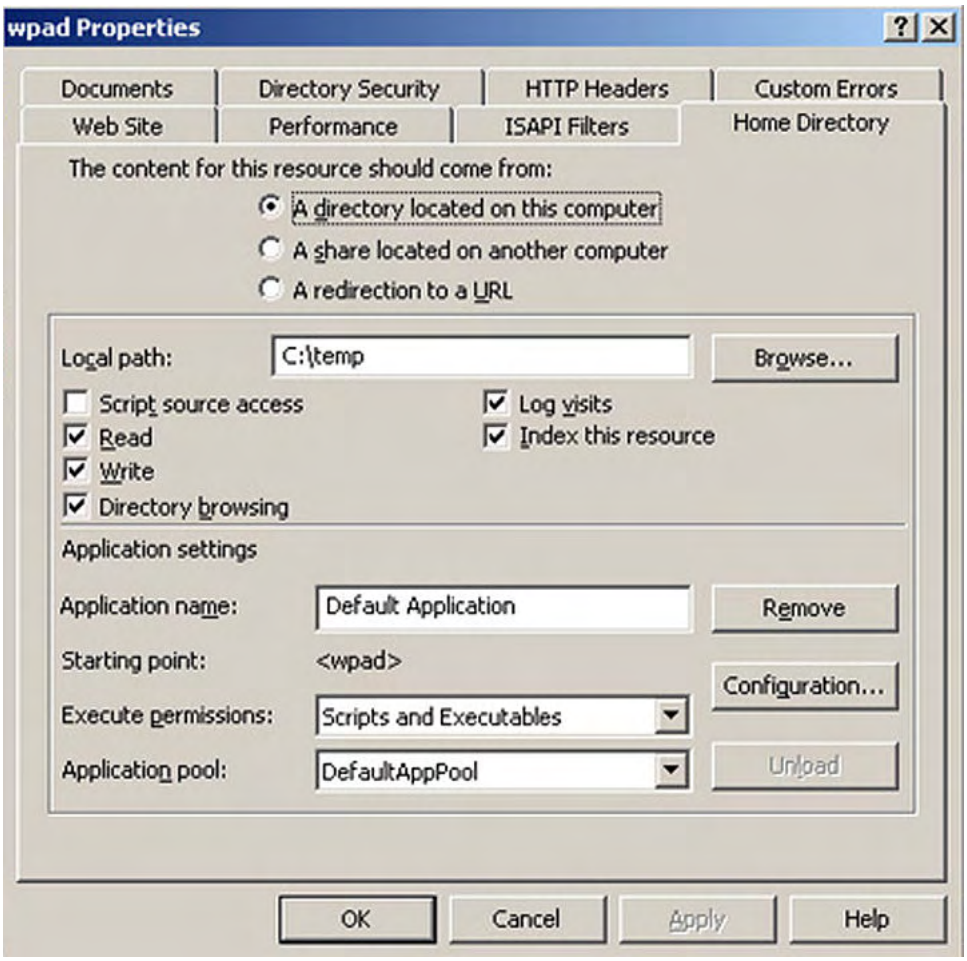
This example uses IIS as a web server.

9. Open **Manage your server** and click **manage application server** > **IIS manager** > **<local computer>** > **Web sites**.
10. Right-click **Create new web site**, right-click on the newly created web site, and open **Properties**.

11. Click **HTTP headers** > **Edit mime types** and configure as follows:



12. Store the .dat file in the home directory of the web server (in this example “C:\temp”).



Test the proxy server functionality:

13. Configure one zone named “Zone_BANGALORE_GUEST”.
14. Associate one IN interface to this zone.
15. Enable DHCP Server on the IN interface and configure the DHCP server 252 option.
16. Configure Zone_BANGALORE_GUEST with one Access Portal Access Group named “Internet”.
17. Connect a client on the Zone_BANGALORE_GUEST network.
18. From the client, execute `ipconfig release/renew`.
19. Open and configure a browser for “auto configure proxy setting”.
20. Enter the client host URL in the browser. If the proxy server is reachable, the Client should get redirected to the portal page with a redirection URL of http://<webserver>/wpad.dat.