COMMSCOPE®
RUCKUS®

Cloudpath Enrollment System Sponsored Guest Access Configuration Guide, 5.9

Supporting Cloudpath Software Release 5.9

Copyright, Trademark and Proprietary Rights Information

Contents

Overview

Sponsored guest access allows authorized employees to grant network access to third-parties. It is most commonly used to provide secure wireless network access to corporate visitors and partners, and is typically time-restricted. By distributing authorization to employees, third-parties are able to quickly gain access without IT involvement and with appropriate traceability.

Example Use Case - Generated Voucher Lists

During the setup of the Cloudpath Enrollment System (ES), the network administrator specifies that visitors may gain network access if they are sponsored. The network administrator specifies that anyone belonging to the Wireless Sponsors group within Active Directory is allowed to sponsor a guest. Along with this, the network administrator specifies that access is valid for three days.

FIGURE 1 Cloudpath Sponsorship Login Page
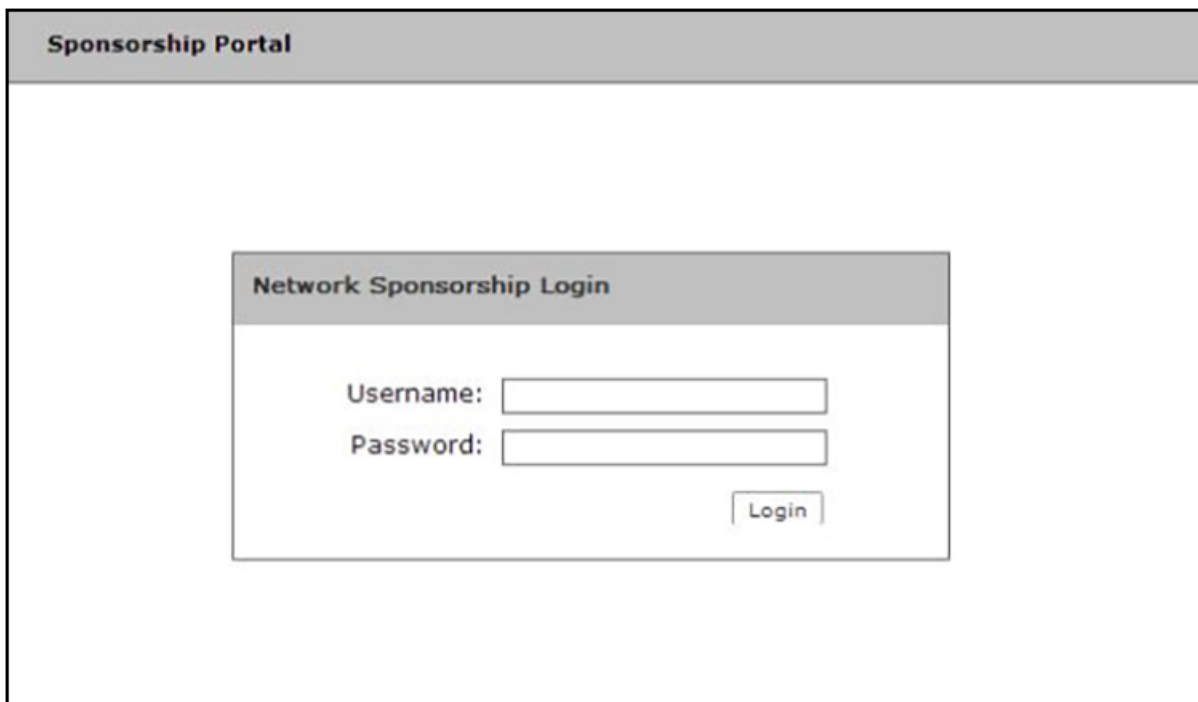
Prior to the guest's arrival, the sponsor accesses the sponsorship portal. After authenticating with the Active Directory server, the sponsor can specify details about the guest user, including name, email address, and the reason for sponsorship. After doing so, a unique voucher is generated for the guest user.

A voucher is a one-time password (OTP) and is useful for controlling access to an enrollment process separate from, or in addition to, user credentials. The system may automatically email the guest user or the sponsor can communicate the voucher manually.

Upon arrival, the guest user accesses the onboarding wireless network. The guest user is redirected to the Cloudpath system. The guest user completes the workflow specified by the network administrator, including specifying the voucher. Once authorized, the guest user is issued a certificate and moved to the secure wireless network.

Example Use Case - Request Network Access

While the Generated Vouchers use case requires the sponsor to pre-sponsor a user by generating a voucher ahead of time, the Request Network Access use case allows the user to enter their information on a webpage during the enrollment process, and request access. The user is held in a pending state until the sponsor accepts or rejects the request. The request may go to a static user (like a receptionist), to a sponsor selected from a list by the user, or to a sponsor entered by the user.

In this use case, Cloudpath is set up with a Request Access workflow plug-in, which allows the on- demand access to occur. This enrollment step allows the user to request access to the network as part of the enrollment process. It is not necessary to create a voucher list ahead of time.

FIGURE 2 Review Access Request

Upon arrival, the guest user accesses the onboarding wireless network. The guest user is redirected to the Cloudpath system. The guest user completes the workflow specified by the network administrator, and when the guest encounters the request access step, they fill in the required information and this information is sent to an approved sponsor. The sponsor can approve the access request, which allows the user to continue with the enrollment process. Once authorized, the guest user is issued a certificate and moved to the secure wireless network.

Sponsorship Process

Sponsor Experience - Generated Voucher Lists

An administrator gives an employee permission to sponsor guest users by placing them in a Sponsor group in the corporate authentication server (AD or LDAP).

1. When a visitor arrives, the employee sponsor checks the visitor in.

2. To provide a guest user with network access, the sponsor must log in to the Sponsorship portal to create a voucher for the guest user.
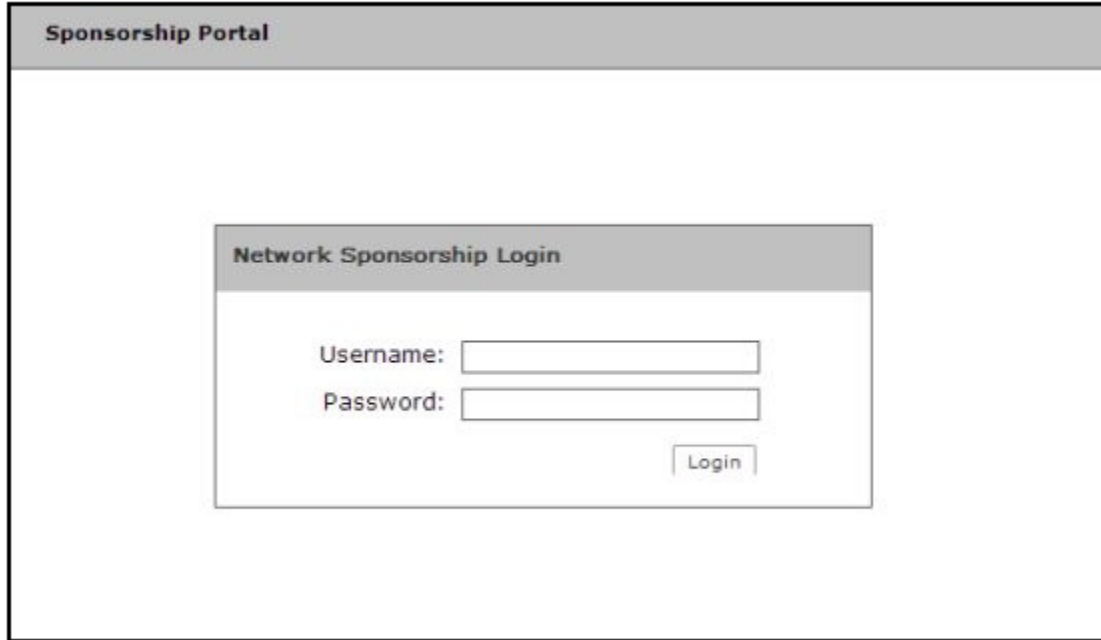
   Sponsors can access the Sponsorship login portal from the Cloudpath UI by going to **Managed Access > Sponsored Access** > Look & Feel tab:

   FIGURE 3 Sponsorship Look and Feel Page - Sponsorship URL
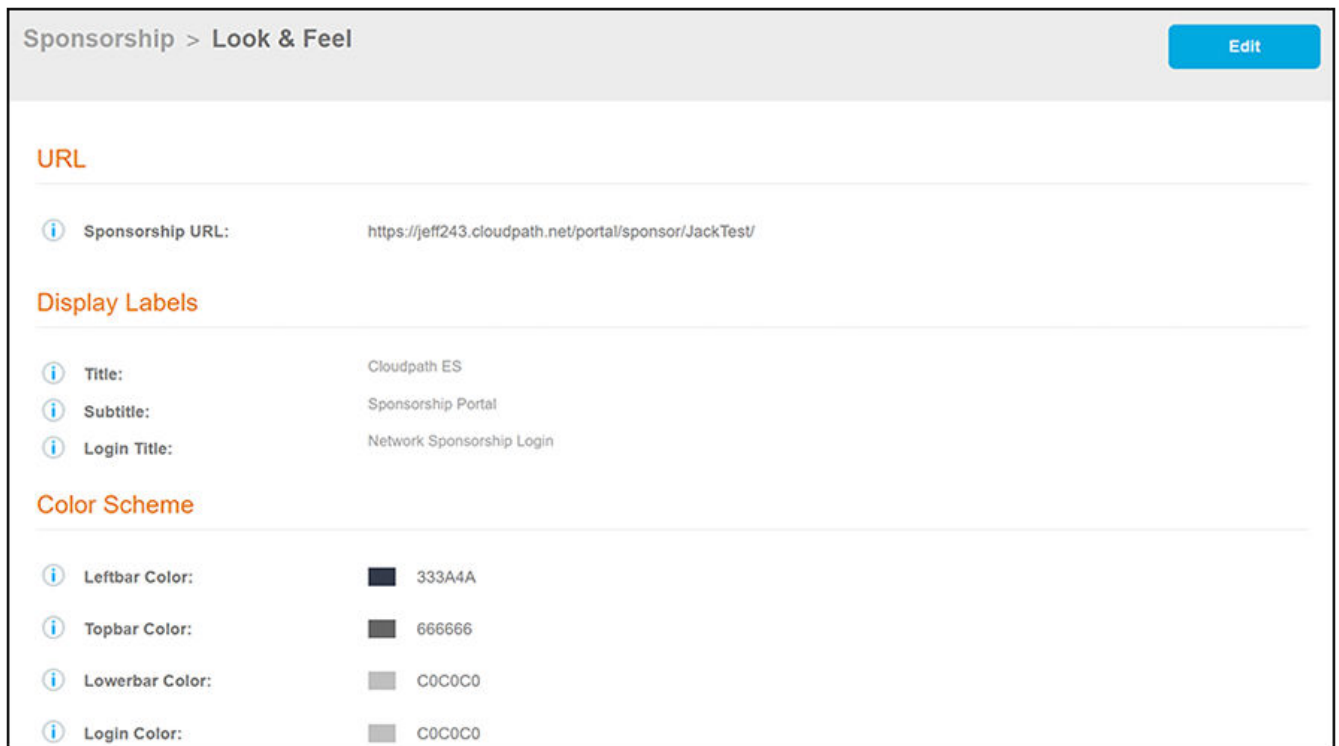
3.   After sponsor credentials are checked against the corporate authentication server, the sponsorship portal **Welcome page** appears.

FIGURE 4 Sponsorship Portal Welcome Page

4. The sponsor clicks the **Create Voucher** button to create a voucher for the guest user.

FIGURE 5 Create Voucher for Guest User

> **NOTE**
> The entry fields displayed on the **Create Voucher** page are configured when you create the voucher list. See Adding a Voucher Prompt to the Enrollment Workflow.

The sponsorship portal can be used to create vouchers, view voucher usage, and with the correct permissions, manage vouchers and sponsors. When finished, the sponsor must log out of the sponsorship portal.

Sponsor Experience - Request Network Access

1. A sponsor receives an email notification that indicates they are approved for granting network access to guest users.

FIGURE 6 Email to Sponsor

2. The sponsor receives and email from the guest user requesting access.

    This messaging is configurable.

    FIGURE 7 Email from System

3. The sponsor clicks the **Review** button to review the request and respond to the user.

    FIGURE 8 Sponsor Approves Guest Access
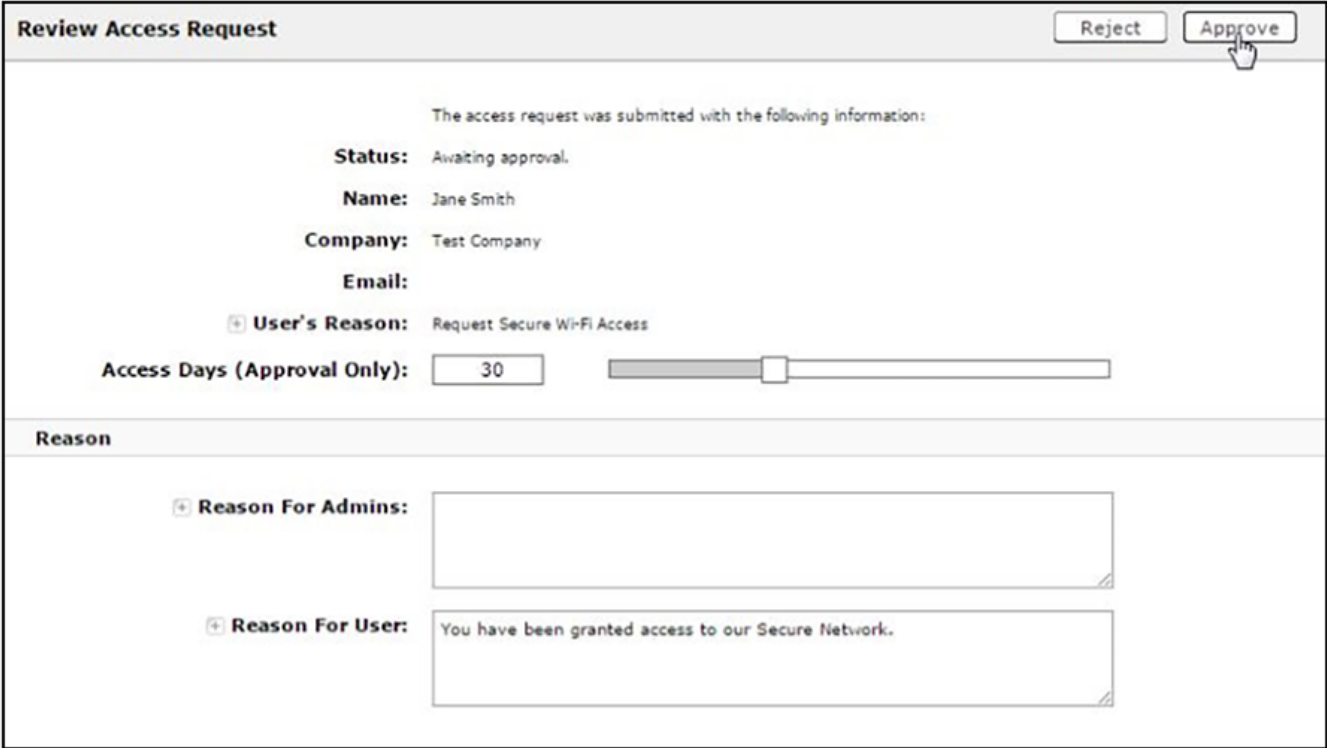
4. Sponsor receives confirmation that access has been accepted.

   FIGURE 9 Access Accepted Confirmation

   Test Sponsorship Portal

   Request Result

   Access request has been accepted.
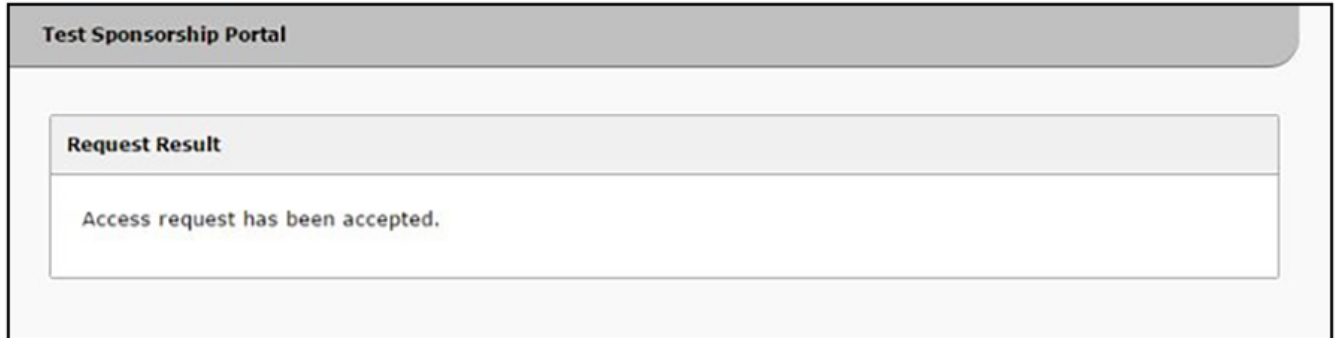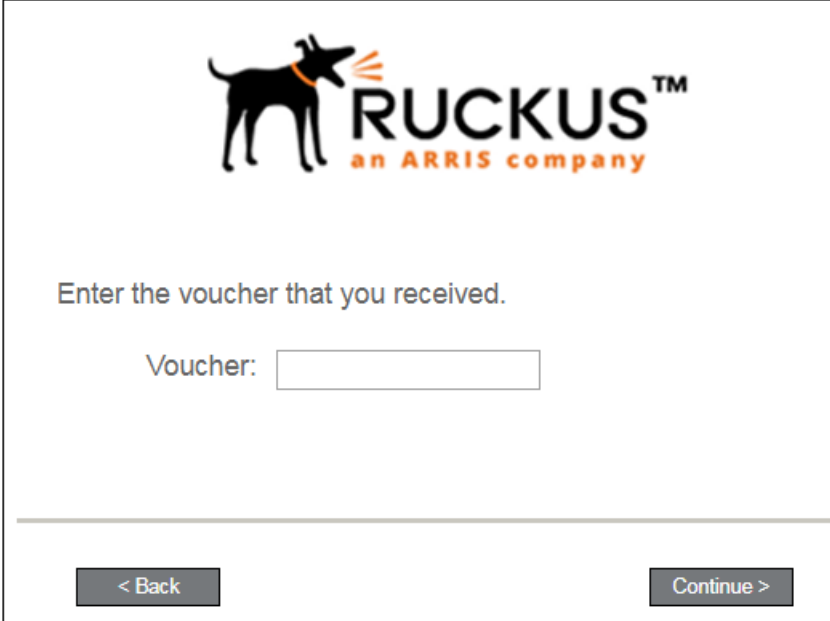
Guest User Experience

Guest User Experience - Generated Voucher Lists

1. The guest user receives the voucher from the sponsor (by email, SMS, or manual delivery), accesses the onboarding wireless network, and is redirected to the Cloudpath system.

2. As part of the enrollment process, the visitor is prompted for the voucher code.

   FIGURE 10 Voucher Prompt for Guest User

3. The guest user enters the voucher code provided by the sponsor and continues with the enrollment process to gain access to the secure network.

Guest User Experience - Request Network Access

1. The guest user comes within range of the onboarding SSID.

   - If you have a captive portal configured, the guest is redirected to the Cloudpath system to enroll their device for the secure SSID.

   - If no captive portal is configured, an enrollment URL is provided to the guest.

2. As part of the enrollment process, the guest is prompted to request access to the secure network in a screen like the one shown below.

   FIGURE 11 Enrollment Process Request Access Form

3. The user enters the required information and clicks **Send**.

   A screen showing status as "Pending" might now be presented to the user.

4. If the access is approved, the user continues with the enrollment process.

5. The next screen that is presented depends on how the user's network is set up.

Prerequisites

Authentication Server Setup

To configure the sponsored access feature, the network administrator must set up a sponsor group in the Corporate AD or LDAP server for employees that can be authorized as sponsors. For example, create a group named **Manager** or **Wireless Sponsors**.

This group name is used in Cloudpath when configuring which users are able to log into the sponsorship portal and sponsor guest users.

Configuring Cloudpath

This section describes how to configure the Active Directory or LDAP server for sponsorship, add a voucher or request for access prompt to the enrollment workflow, and how to add vouchers and sponsors to the voucher list.

> **NOTE**
> Administrators configure sponsors, the sponsorship portal, vouchers, and voucher lists from the Cloudpath Administrator user interface. Sponsors invite guest users and create vouchers from the sponsorship portal. See "Sponsorship Portal" for more information.

Authentication Server Configuration

You must set up your Active Directory or LDAP server to support sponsorship.

How to Configure the Authentication Server for Sponsorship:

1. From the ES Admin UI, go to **Configuration > Authentication Servers**.

2. On the **Authentication Servers** page, edit the AD or LDAP server you will be using to authenticate sponsors and guest users.

FIGURE 12 Configure AD Server for Sponsorship Logins

3. Select the **User For Sponsor Logins** box, to allow sponsors to log into the sponsorship portal using credentials from this authentication server.

Adding a Voucher Prompt to the Enrollment Workflow

This section describes how to add a step in the enrollment workflow to prompt a guest user for a voucher or one-time password. Use this configuration if you plan to use generated voucher lists.

1. From the ES Admin UI, go to **Configuration** > **Workflows** and create an enrollment workflow for guest users.

2.   Add an enrollment step that prompts guest users to **Authenticate using a voucher from a sponsor** by clicking on the button of that name:

FIGURE 13 List of Plugin Buttons

3. Create a new voucher list for guest users.

FIGURE 14 Create Voucher List

4. In the **Sponsorship** section, enter the appropriate information in the following fields:

    ● **Format** - In addition to defining the voucher format, determine if you want to enable **Require Username Match**.

        NOTE
        Require Username Match means that the user must authenticate with a username that matches the name specified in the voucher provided by the sponsor. This allows the voucher to be locked to a particular user.

    ● **LDAP Group Regex** - Defines with groups within LDAP are allowed to be sponsors. For example, if you enter **Wireless Sponsors**, this means that anyone in the **Wireless Sponsors AD** group can sponsor a guest user. **LDAP Username** defines which usernames within LDAP are allowed to be sponsors; **LDAP Username DN** defines with username DNs are allowed to be sponsors.

    ● **Maximum Certificates** - Maximum number of vouchers that a sponsor is allowed to create and allocate for a particular voucher list.

    ● **Default Permissions** - The permissions to be used for sponsors authenticated using the **Sponsorship AD Group Regex**.

        – **Add/Edit/Delete Sponsors In Group** - If checked, the sponsor can add, edit, and delete other sponsors within the group.
        – **Manage Devices Enrolled By Sponsor** - If checked, the sponsor can review and revoke devices enrolled via vouchers issued by that sponsor.
        – **Manage Devices Enrolled By All** - If checked, the sponsor can review and revoke devices enrolled via vouchers issued by any sponsor (within the Voucher List).

    ● **New Sponsor Email Subject** - When a new sponsor is added, an email is sent to the sponsor with this subject.

    ● **New Sponsor Email Template** - When a new sponsor is added, an email is sent to the sponsor with this message.

5. In the **Fields Displayed to Sponsor** section, select **Do not show**, **Show**, or **Show and require entry** to specify the information to be shown when a sponsor creates a voucher list for guest access.

        NOTE
        If a field is listed as **Do Not Show**, that field does not appear in the voucher list.

6. If needed, create one or more **Initial vouchers**.

7.   Create a webpage that will prompt the user to enter their voucher and **Save**. The voucher prompt is saved in the workflow.

   FIGURE 15 Cloudpath Workflow
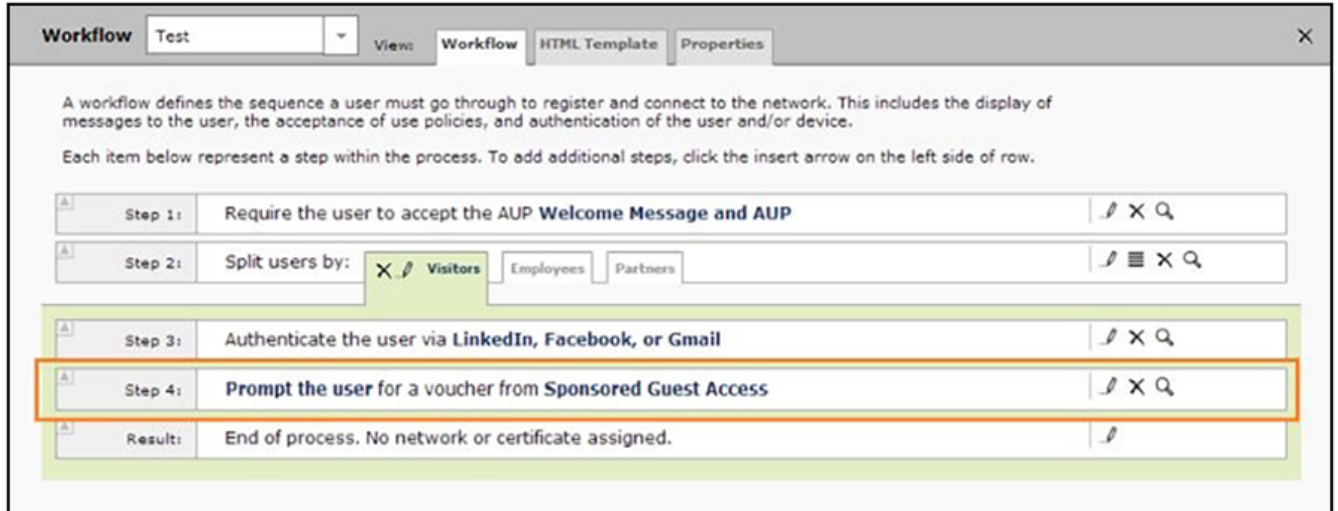
   NOTE
   Sponsored access can be combined with additional options, such as authentication via Facebook, LinkedIn, or Google. When combined, the social media provides the authentication while the voucher provides the authorization. This method provides additional identity information and reduces the risk of the voucher being intercepted or misused.

Adding a Request for Access Prompt

This section describes how to create a workflow plug-in that allows guests to request access via sponsorship upon arrival. Use this configuration if you want users to request immediate access from sponsors.

While the voucher list workflow plug-in requires the sponsor to pre-sponsor the guest, the request for access workflow plug-in allows the guest to enter their information on a webpage and then request access. The guest is held in a pending state until the sponsor accepts or rejects the request. The request may go to a static user (like a receptionist), to a sponsor selected from a list by the guest, or to a sponsor that is entered by the guest upon arrival.

How to Add a Request for Access Prompt to the Workflow

1.   From the ES Admin UI, go to **Configuration** > **Workflows** and create an enrollment workflow for guest users.

2. Add an enrollment step that prompts guest users to **Request Access From a Sponsor**.

    FIGURE 16 Create Access Request

3. For **Sponsors**, enter the email address for a dedicated contact, create a drop-down list of sponsors, or allow the guest to enter the email address of a sponsor.

4. The **Sponsor Email Template** is the information sent to the sponsor when a guest is requesting access. Use the default sponsor email template or create a custom email subject and message.

5. Specify the fields to display to the guest user.

6. Specify the fields to display to the sponsor receiving the access request.

7. The **User Webpage** Information is the prompt that displays to the guest during the enrollment process. Use the default guest prompt, enter your own messaging, or upload a custom HTML file.

8. The **User Error Messages** display to the guest user if there is an issue with the access request.

9. Click **Save**.

FIGURE 17 Request for Access Workflow
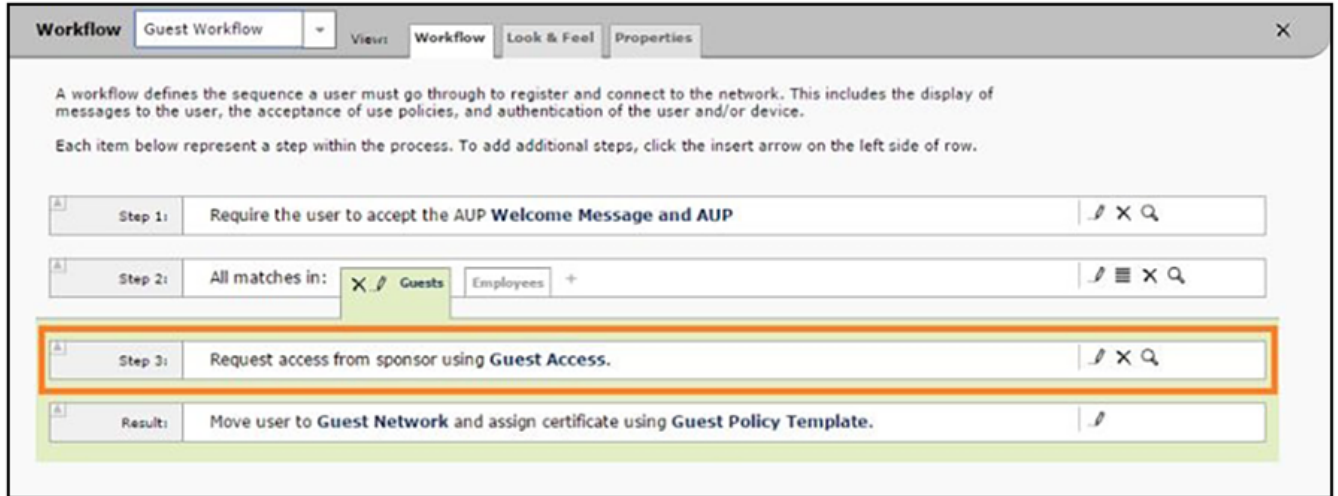
The workflow now includes the step for requesting guest access.

Adding Vouchers to a Voucher List

This section describes how to populate a voucher list. You can add a single voucher or upload multiple vouchers from a CSV file.

Voucher Lists

1. From the ES Admin UI, go to **Managed Access > Sponsored Access** > Vouchers tab to view the voucher lists. (Alternately, you access the **Voucher List** page by double-clicking the **Voucher List** link in the enrollment workflow.)

2.   Expand the voucher list.

FIGURE 18 Voucher List
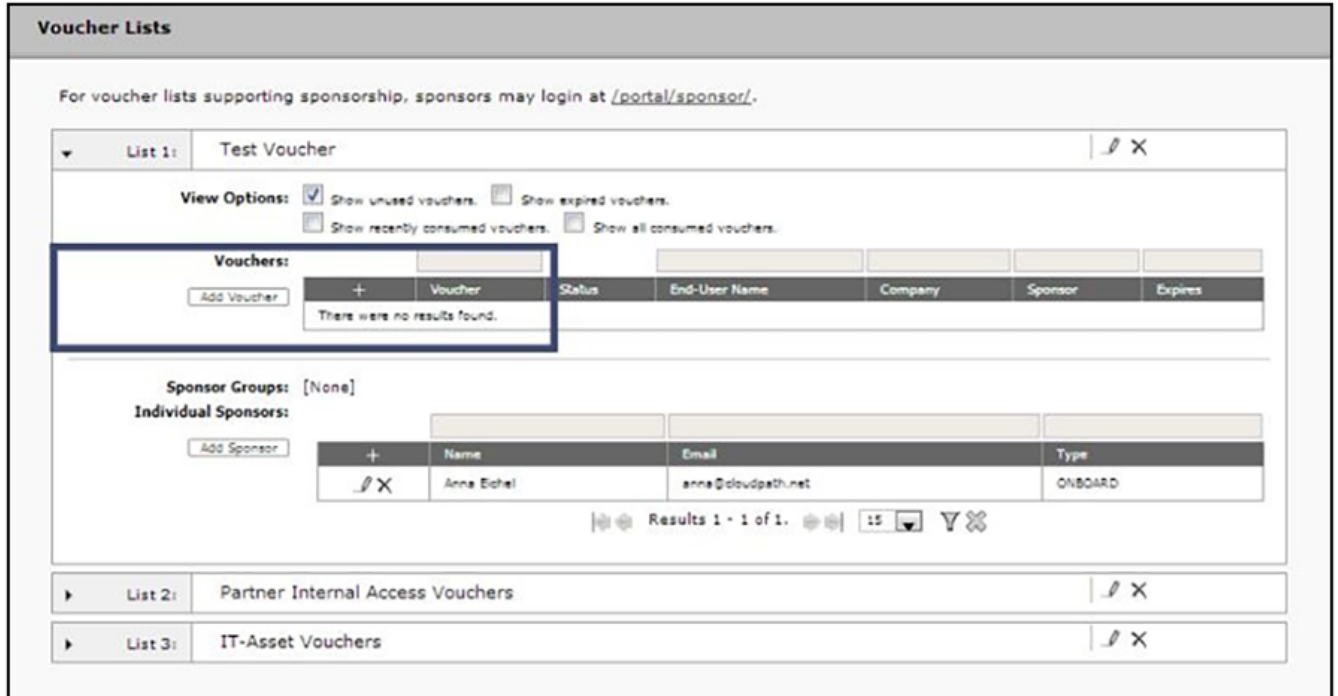
3.   Click **Add Vouchers** to create a single voucher or upload a list of vouchers. The **Create Vouchers** page opens.

FIGURE 19 Create Vouchers

How to Add a Single Voucher to a Voucher List

1. On the **Create Vouchers** page, select **Create a single voucher**.

    FIGURE 20 ES Admin UI - Create Single Voucher

2. On the **Modify Voucher** page, enter the guest user information in the fields, as described below, and **Save**.

    Only the Voucher field is required.

    - **Voucher** - This field is pre-populated, but can be changed.
    - **Name** - Guest user name.

        NOTE
        If **Require Username Match** has been specified in the voucher list, the guest must authenticate with a username that matches the name specified in the voucher provided by the sponsor. This allows the voucher to be locked to a particular user.

    - **Company** - Guest user company.
    - **Email** - Guest user email address.
    - **Email Voucher to User?** - Checked by default. If checked and email is entered, voucher is sent to guest user by email.
    - **Phone Number** - Select country and enter guest user phone number.
    - **SMS Voucher to User?** - Checked by default. If this is checked and Phone Number is entered, voucher is sent to guest user by SMS.
    - **Reason** - The reason the guest user is provided access.
    - **Redeem Voucher By** - The date after which the voucher may longer be redeemed.

        NOTE
        Email and SMS notifications are stored on the Notifications tab on the Cloudpath Admin UI Dashboard.

How to Add Multiple Vouchers to a Voucher List

If you are using a comma-separated value (CSV) file to upload multiple vouchers, the information must be formatted according to the instructions on the **Create Vouchers** page. A template file is available for download.

1. On the **Create Vouchers** page, select **Upload a CSV file containing a list of vouchers**.

2. Click **Choose File** to navigate to the CSV file to upload and click **Next**.

   FIGURE 21 Review Vouchers to Import
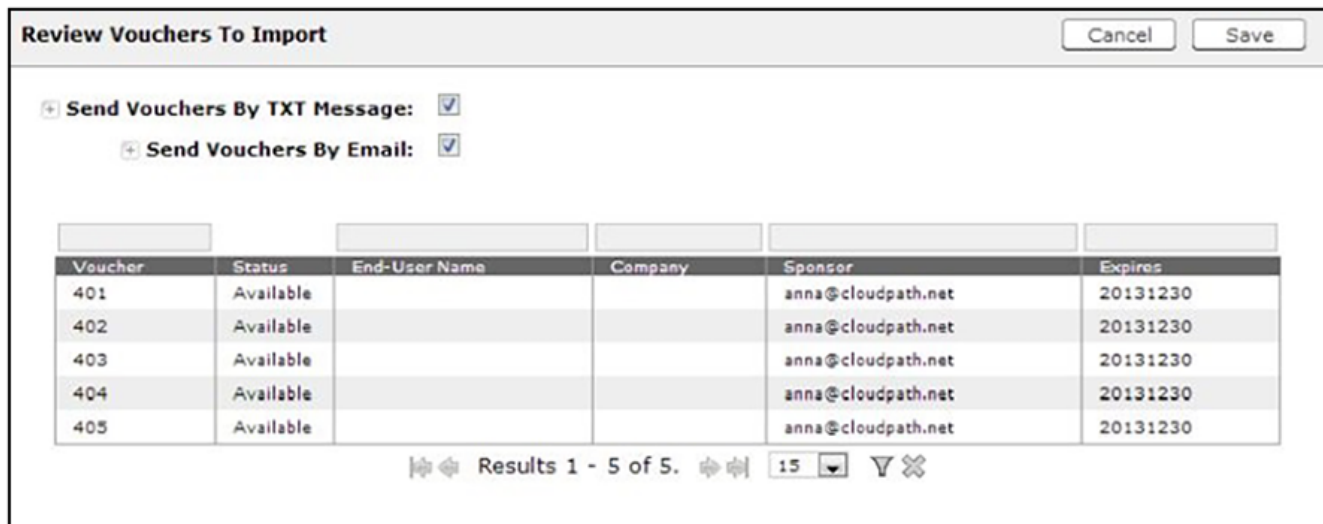
3. Verify the vouchers to import and specify if voucher should be sent to user by email or SMS, and **Save**.

   - **Send vouchers by TXT messages** - If checked, the voucher is sent to the user by TXT, if a phone number is specified in the CSV file.

   - **Send vouchers by Email** - If checked, the voucher is sent to the user by email, if an email address is specified in the CSV file.

   The **Voucher Lists** page shows which vouchers have been used, the expiration dates, and any guest user details that were entered when the sponsor created the voucher, or contained in the CSV file.

   > **NOTE**
   > The voucher field must be listed as **Show** in the voucher list to see it on the voucher table. For example, if **Days of Access** is set to **Do Not Show** on the voucher list, and your spreadsheet includes **Days of Access**, they do not appear in the voucher table. You must change the setting to **Show** in the voucher list. See Adding a Voucher Prompt to the Enrollment Workflow for more information.

Adding Sponsors to a Voucher List

Administrators can add sponsors to a voucher list. Sponsors can create vouchers and invite guest users to join the secure network.

Cloudpath supports Onboard and External sponsors. Onboard sponsors are created locally on the ES Admin UI. External sponsors can log into the Sponsorship Portal if they match a username or group name specified in the Authentication server.

How to Add Onboard Sponsors

An onboard sponsor is created locally on the ES Voucher list.

1. From the ES Admin UI, go to **Managed Access > Sponsored Access** > Vouchers tab to view the voucher list to be used for sponsors. (Alternatively, you access the **Voucher List** page by double-clicking the voucher list link in the enrollment workflow.)

    FIGURE 22 Voucher List - Add Sponsor
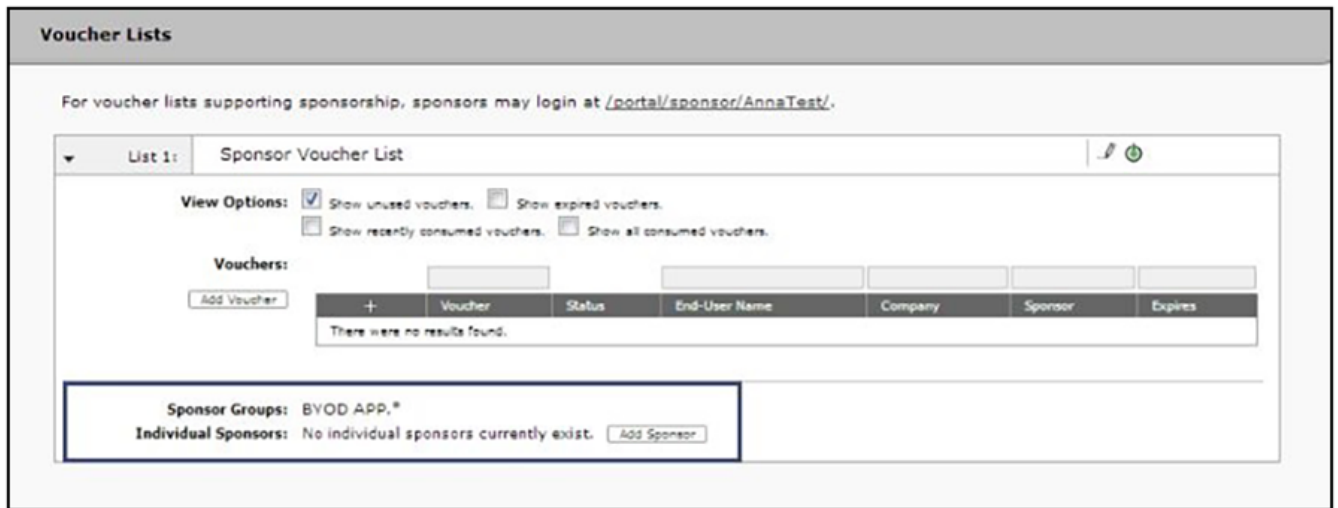
2. In the **Sponsor Group** section, click **Add Sponsors**. The **Sponsor Email** pop-up appears.

    FIGURE 23 Sponsor Email
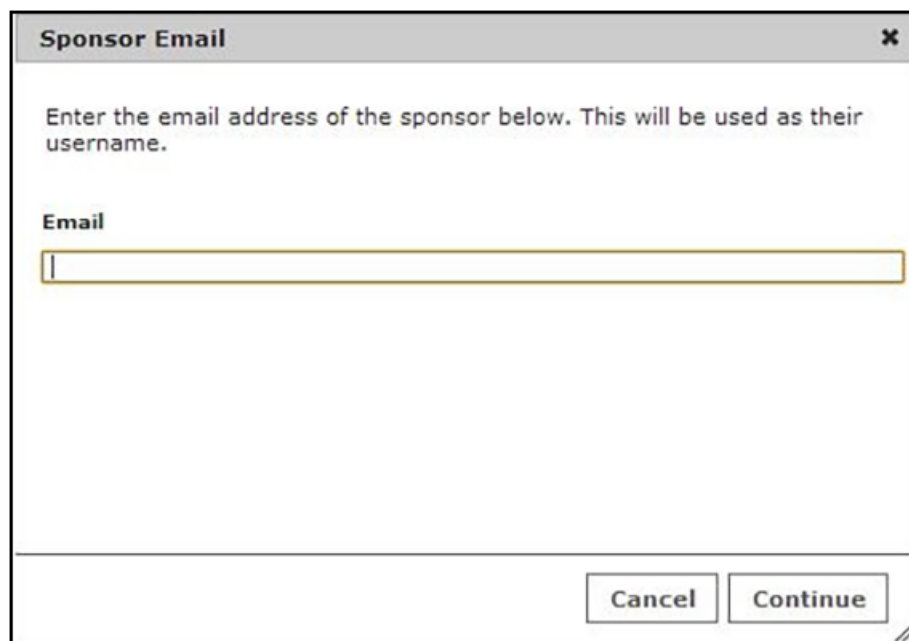
3. Enter the email address of the sponsor for this voucher list and click Continue. The email address becomes their **Name**.

FIGURE 24 ES Admin UI - Modify Sponsor

4. On the **Modify Sponsor** page, enter the sponsor **Name**, **Description**, and **Enable** the sponsor.

5. In the **Login Information** section, enter the sponsor's **Email** address and **Password**.

> **NOTE**
> The sponsor is prompted to change their password during the first login.

6. In the **Permissions** section, check the box for the appropriate sponsor permissions.

- **Add/Edit/Delete Sponsors In Group** - If checked, the sponsor can add, edit, and delete other sponsors within the group.

- **Manage Devices Enrolled By Sponsor** - If checked, the sponsor can review and revoke devices enrolled via vouchers issued by that sponsor.

- **Manage Devices Enrolled By All** - If checked, the sponsor can review and revoke devices enrolled via vouchers issued by any sponsor (within the Voucher List).

- **Allow Creation by File Upload** - If checked, the sponsor can create multiple vouchers at the same time through a file upload.

- **Allow Bulk Creation** - If checked, the sponsor can create vouchers in bulk by importing a spreadsheet of vouchers. A default template is provided.

7.   Save the sponsor information. The sponsor information is displayed in the lower part of the voucher list.

FIGURE 25 ES Admin UI - Voucher Lists
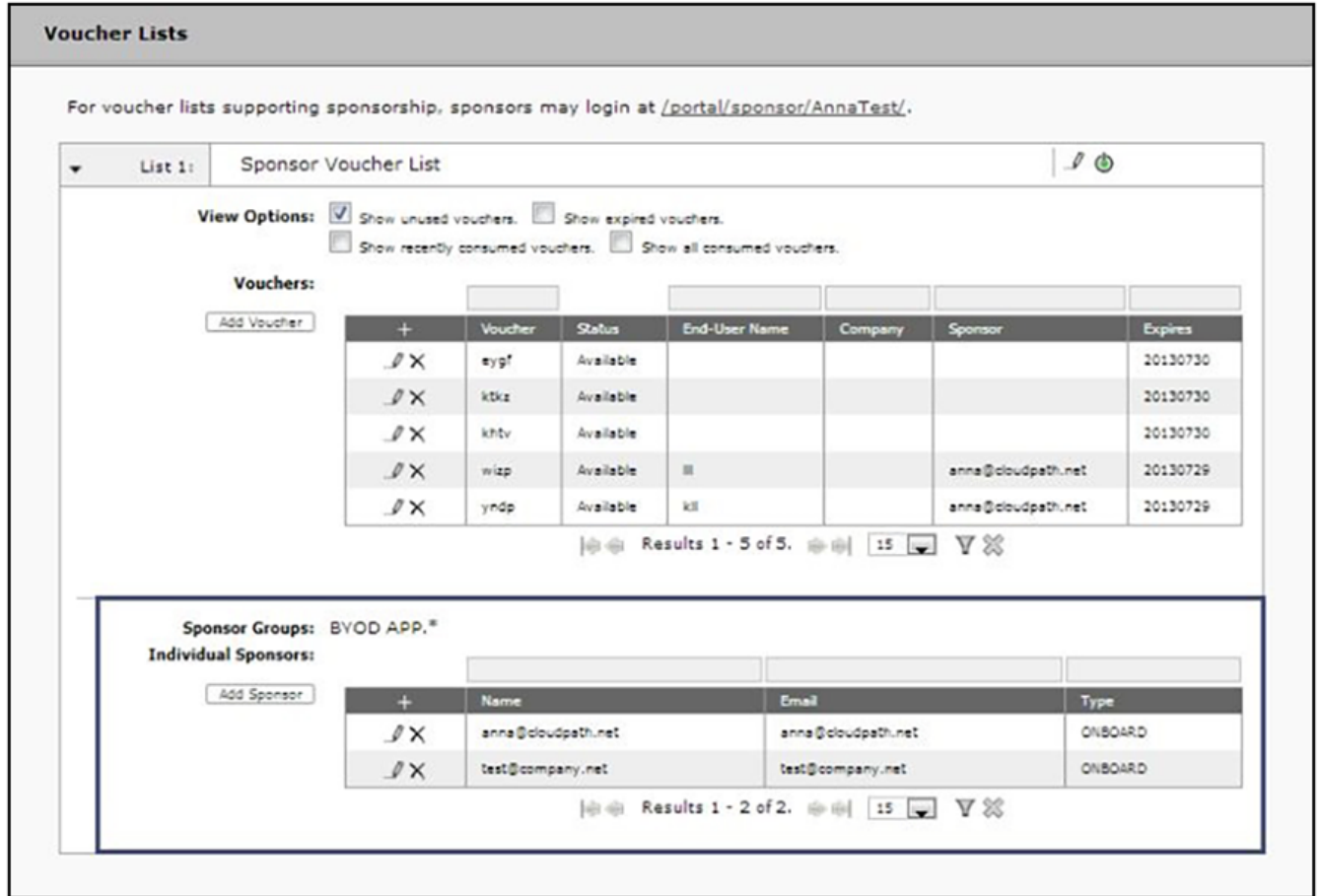
External Sponsors

An external sponsor uses AD or LDAP credentials to log into the Sponsorship Portal. An external sponsor can create voucher, invite users to join the secure network, and if the voucher list permissions allow, they can manage other sponsors and enrolled devices. To set up sponsor permissions for a voucher list, see Adding Sponsors to a Voucher List on page 23 .

If you want to allow sponsors to log in to the Sponsorship Portal using AD or LDAP credentials, the authentication server must be configured with the specified username or group name filter. To configure group filters for an authentication server, see "Authentication Server Configuration on page 13.

Sponsorship Portal

From the sponsorship portal, a sponsor can invite guest users to join the network by creating one or multiple vouchers, view outstanding, consumed, expired, and revoked vouchers, and manage devices, and sponsor accounts in your AD or LDAP group.

Use the Sponsorship Portal if guests access is managed using voucher lists.

NOTE

Only sponsors with manage permissions can manage sponsor accounts in the AD or LDAP group. Sponsor permissions are set per voucher list. See "Adding Sponsors to a Voucher List on page 23.

How to Customize the Sponsorship Portal

You can customize the labeling, images, and colors for the sponsorship portal.

1. From the ES Admin UI, go to **Managed Access > Sponsored Access** > Look & Feel tab. The sponsorship portal **System Setup** page displays the titles and colors for the sponsorship portal.

2. Click **Edit** to customize the sponsorship portal.

    FIGURE 26 Customize Sponsorship Portal

3. Modify titles and colors as needed.

4. To import a customized logo file to display in the upper-left corner of the sponsorship portal, the image size should be 180 x 84 pixels.

5. **Save** the customizations.

How to Log in to the Sponsorship Portal
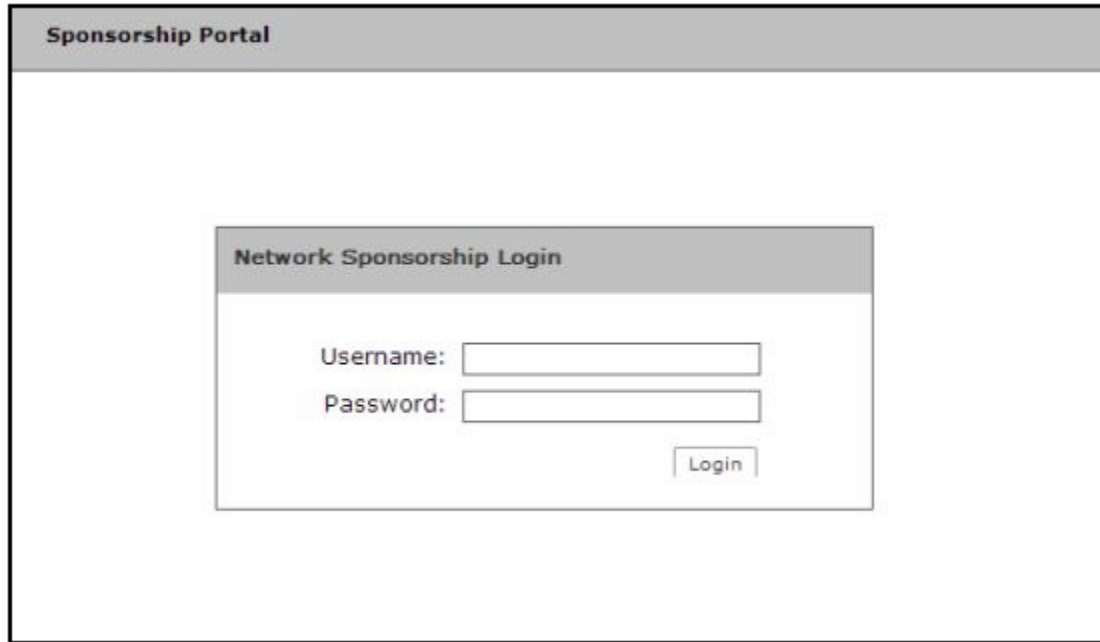
1. Sponsors can access the sponsorship portal by entering the sponsorship URL https://<SponsorshipLoginIPaddress>/portal/sponsor/

2.   The portal login page opens.

FIGURE 27 Sponsorship Portal Login

3.   Sponsors enter the **Username** and **Password** that was sent when the voucher list was created. See Adding Sponsors to a Voucher List on page 23.

4.   The first time a sponsor logs in, the password must be changed.

FIGURE 28 Sponsorship Portal - Change Password

5.   After the password updates, the Sponsorship Portal opens. The left menu includes tabs for **Sponsorship** operations and **Administration** operations.

FIGURE 29 Sponsorship Portal Left Menu
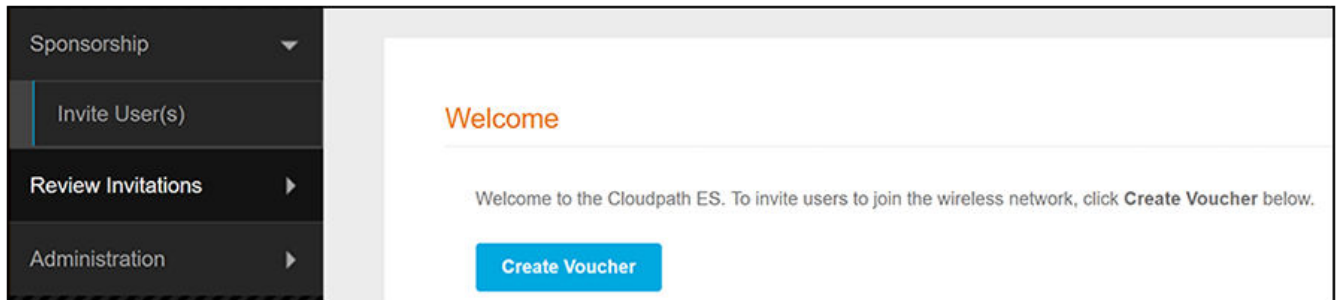
- **Sponsorship** tab
  – **Invite User** - Allows sponsors to create a new voucher that will enable a guest user to enroll their device.
  – **Review Invitations** - Allows sponsors to view outstanding, consumed, expired, and revoked invitations.
- **Administration** tab
  – **Sponsors** - If permissions allow, sponsors can add, change, or remove other sponsor.

Managing Vouchers from the Sponsorship Portal

Sponsors can manage voucher lists and sponsored guest access invitations from the sponsorship portal.

From the Sponsorship UI, select **Invite Users**. The **Create Voucher** page opens.

FIGURE 30 Create Voucher Selection Page
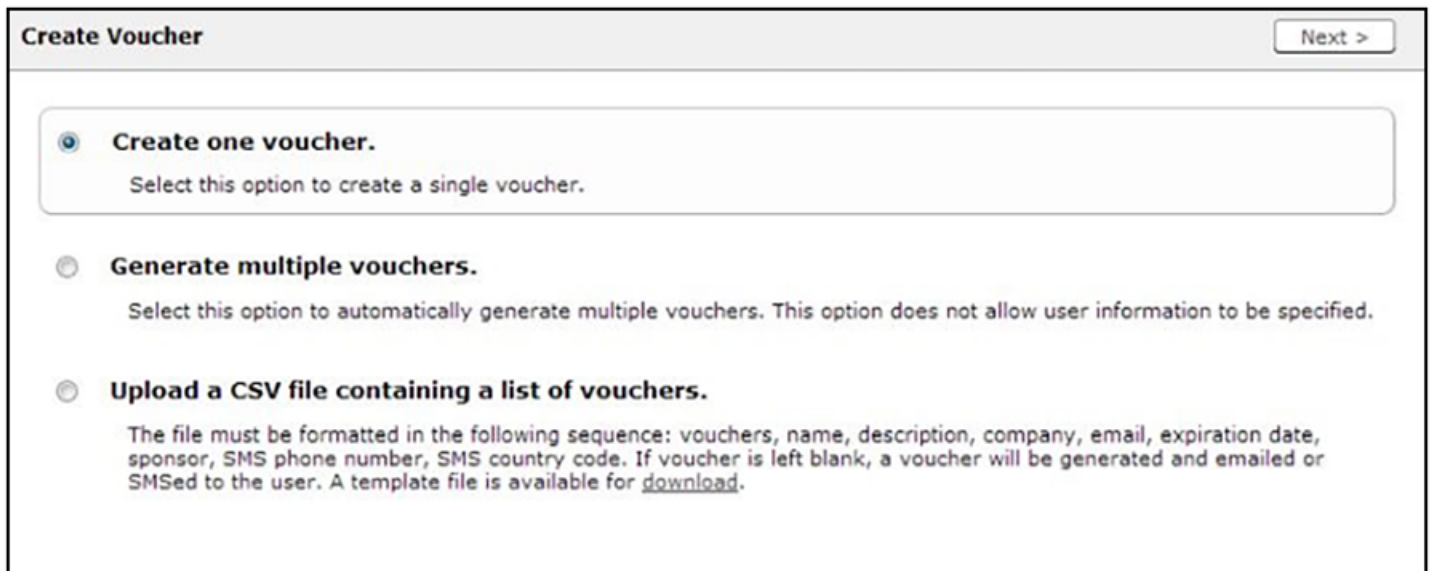
You can create a single voucher, allow ES to generate multiple vouchers, or upload a list of vouchers from a CSV file.

How to Create a Single Voucher

1. On the **Create Vouchers** page, select **Create one voucher**.

    FIGURE 31 Sponsorship Portal - Create Voucher

2. Enter the guest user information and **Save**.

- **Name** - Guest user name.

    > **NOTE**
    > If **Require Username Match** has been specified in the voucher list, the guest must authenticate with a username that matches the name specified in the voucher provided by the sponsor. This allows the voucher to be locked to a particular user.

- **Company** - Guest user company.
- **Email** - Guest user email address.
- **Email Voucher to User?** - Checked by default. If checked and Email is entered, a voucher is sent to guest user by email.
- **Phone Number** - Select country and enter guest user phone number.
- **SMS Voucher to User?** - Checked by default. If checked and Phone Number is entered, a voucher is sent to guest user by SMS.

    > **NOTE**
    > Voucher notifications sent by Email or SMS are stored on the **Notifications** tab on the ES Admin UI Dashboard.

- **Redeem Voucher By** - The date after which the voucher may no longer be redeemed.
- **Reason** - The reason the guest user is provided access.

    > **NOTE**
    > When you create a single voucher, a voucher is automatically generated according to the format specified when you created the voucher list. See Adding a Voucher Prompt to the Enrollment Workflow on page 14.

Details are displayed on the **Voucher Confirmation** page.

FIGURE 32 Voucher Confirmation
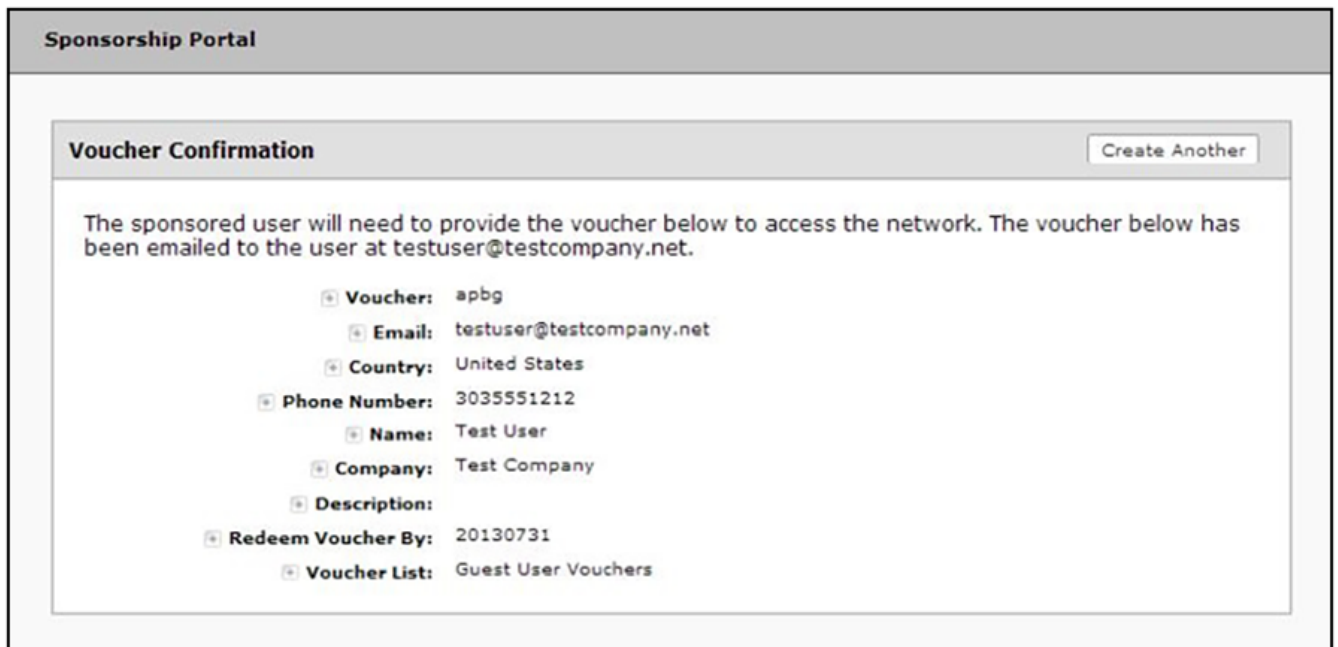
How to Generate Multiple Vouchers

You can have ES generate voucher for you. The automatically generated vouchers contain only the one-time password and expiration date, and are in the format specified in the voucher list. The generated vouchers can be downloaded as a CSV or TXT file.

1. On the **Create Vouchers** page, select **Generate multiple vouchers**.

2. Enter the number of vouchers to create.

FIGURE 33 ES-Generated Vouchers

3. Click **Done**.

The auto-generated vouchers are added to the voucher list.

How to Upload a List of Vouchers from a CSV file

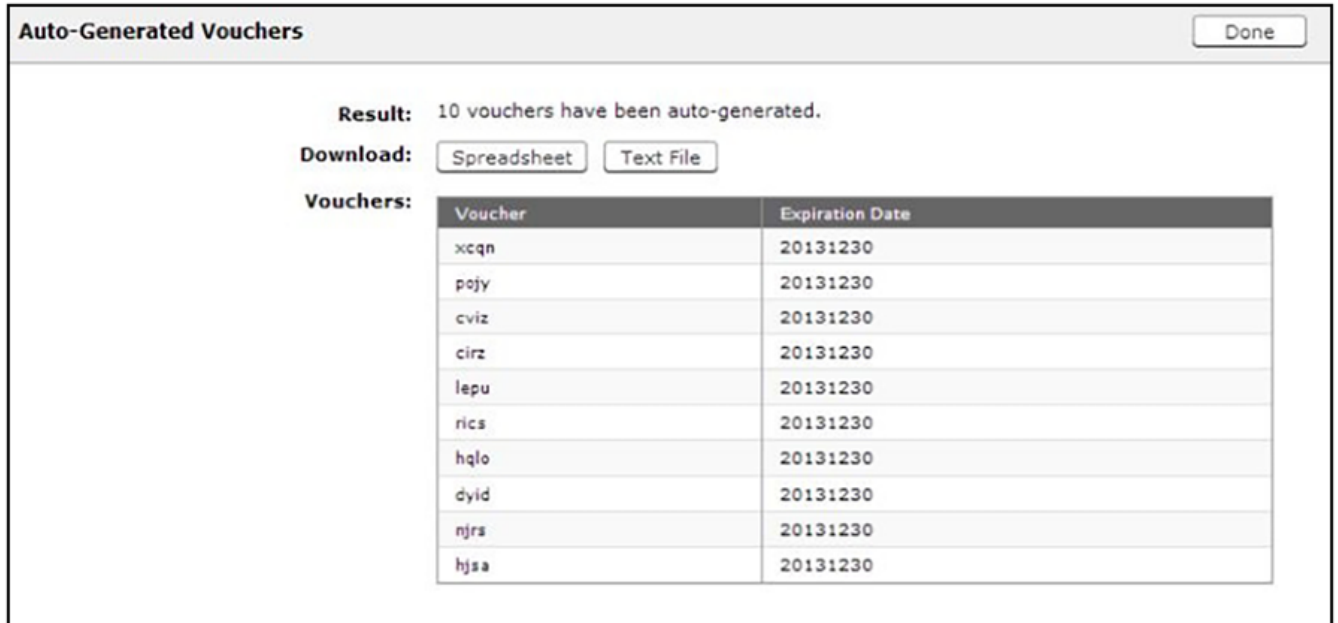Uploading a CSV file on the Sponsorship Portal is the same process as uploading a CSV file from the ES Admin UI.

If you are using a comma-separated value (CSV) file to upload multiple vouchers, the information must be formatted according to the instructions on the **Create Vouchers** page. A template file is available for download.

1. On the **Create Vouchers** page, select **Upload a CSV file containing a list of vouchers**.

2. Click **Choose File** to navigate to the CSV file to upload, and click **Next**.

FIGURE 34 Review Vouchers to Import

3. Verify the vouchers to import and specify if voucher should be sent to user by email or SMS, and **Save**.

   - **Send vouchers by TXT messages** - If checked, the voucher is sent to the user by TXT, if a phone number is specified in the CSV file.

   - **Send vouchers by Email** - If checked, the voucher is sent to the user by email, if an email address is specified in the CSV file.

4. The **Voucher Lists** page shows which vouchers have been used, the expiration dates, and any guest user details that were entered when the sponsor created the voucher, or contained in the CSV file.

   NOTE
   The voucher field must be listed as **Show** in the voucher list to see it on the voucher table. For example, if **Days of Access** is set to **Do Not Show** on the voucher list, and your spreadsheet includes **Days of Access**, they do not appear in the voucher table. You must change the setting to **Show** in the voucher list. See Adding a Voucher Prompt to the Enrollment Workflow on page 14 for more information.

Managing Guest User Devices

With the correct permissions, sponsors can manage devices that have enrolled under their own sponsorship, or enrolled under any other sponsor. See Adding Sponsors to a Voucher List on page 23 for more information about setting Sponsor permissions.

1. From the Sponsorship UI, select **Sponsorship** > **Review Invitations**.

2. Select the appropriate link to view outstanding, consumed, expired, and revoked voucher invitations.

3. To revoke a voucher, use the **delete** icon.

4. On the **Revoke Certificate** pop-up, list the reason for revocation and click **Revoke**. The voucher is not longer usable.

FIGURE 35 Revoke Certificate
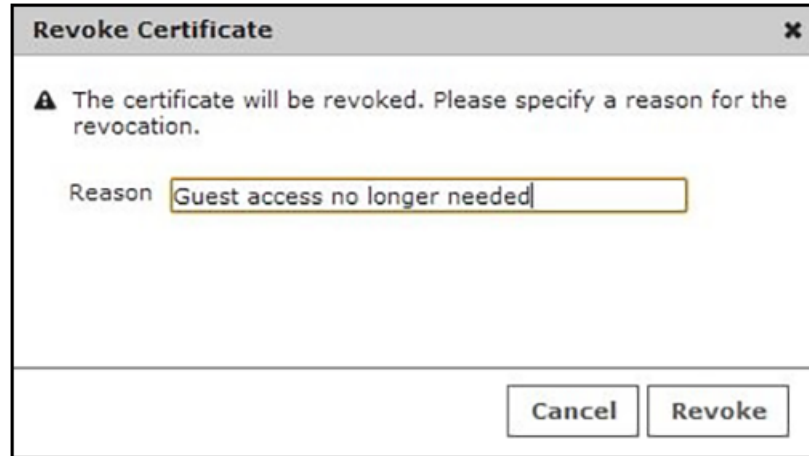
Managing Sponsors

With the correct permissions, you can manage sponsors in your Active Directory or LDAP Group. Permissions are set when sponsors are added to the voucher list using the Cloudpath Administrator user interface. See Adding Sponsors to a Voucher List on page 23.

1. From the Sponsorship UI, select **Administration** > **Sponsors**.

   The tables show which sponsors are able to log onto the sponsorship portal and sponsor guest users using each voucher list.

   FIGURE 36 Sponsors per Voucher List
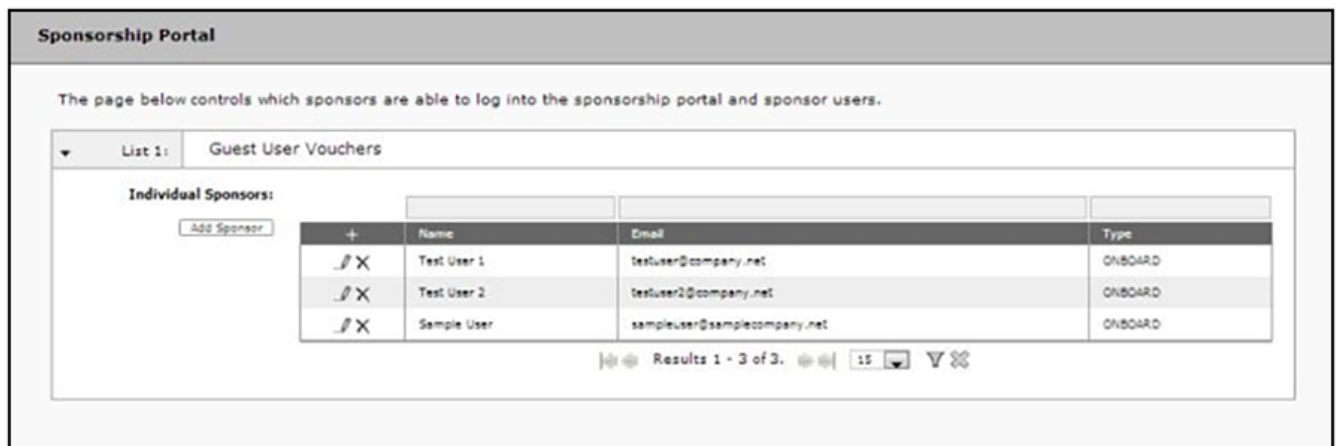
2. From this page, eligible sponsors can add or delete other sponsors, edit sponsor login information, or modify sponsor permissions within their AD or LDAP group.

   For details on configuring an authentication server for sponsors, see Authentication Server Configuration on page 13.

COMMSCOPE®
RUCKUS®