

Cloudpath Enrollment System Property Management Administration Guide, 5.9

Supporting Cloudpath Software Release 5.9

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Preface

Contacting RUCKUS Customer Services and Support

The Customer Services and Support (CSS) organization is available to provide assistance to customers with active warranties on their RUCKUS products, and customers and partners with active support contracts.

For product support information and details on contacting the Support Team, go directly to the RUCKUS Support Portal using https://support.ruckuswireless.com, or go to https://www.ruckuswireless.com and select **Support**.

What Support Do I Need?

Technical issues are usually described in terms of priority (or severity). To determine if you need to call and open a case or access the self-service resources, use the following criteria:

- Priority 1 (P1)—Critical. Network or service is down and business is impacted. No known workaround. Go to the **Open a Case** section.
- Priority 2 (P2)—High. Network or service is impacted, but not down. Business impact may be high. Workaround may be available. Go to the **Open a Case** section.
- Priority 3 (P3)—Medium. Network or service is moderately impacted, but most business remains functional. Go to the Self-Service Resources section.
- Priority 4 (P4)—Low. Requests for information, product documentation, or product enhancements. Go to the Self-Service Resources section.

Open a Case

When your entire network is down (P1), or severely impacted (P2), call the appropriate telephone number listed below to get help:

- Continental United States: 1-855-782-5871
- Canada: 1-855-782-5871
- Europe, Middle East, Africa, Central and South America, and Asia Pacific, toll-free numbers are available at https://support.ruckuswireless.com/contact-us and Live Chat is also available.
- Worldwide toll number for our support organization. Phone charges will apply: +1-650-265-0903

We suggest that you keep a physical note of the appropriate support number in case you have an entire network outage.

Self-Service Resources

The RUCKUS Support Portal at https://support.ruckuswireless.com offers a number of tools to help you to research and resolve problems with your RUCKUS products, including:

- Technical Documentation—https://support.ruckuswireless.com/documents
- Community Forums—https://forums.ruckuswireless.com/ruckuswireless/categories
- Knowledge Base Articles—https://support.ruckuswireless.com/answers
- Software Downloads and Release Notes—https://support.ruckuswireless.com/#products_grid
- Security Bulletins—https://support.ruckuswireless.com/security

Using these resources will help you to resolve some issues, and will provide TAC with additional data from your troubleshooting analysis if you still require assistance through a support case or RMA. If you still require help, open and manage your case at https://support.ruckuswireless.com/case_management.

Document Feedback

RUCKUS is interested in improving its documentation and welcomes your comments and suggestions.

You can email your comments to RUCKUS at #Ruckus-Docs@commscope.com.

When contacting us, include the following information:

- Document title and release number
- Document part number (on the cover page)
- Page number (if appropriate)

For example:

- RUCKUS SmartZone Upgrade Guide, Release 5.0
- Part number: 800-71850-001 Rev A
- Page 7

RUCKUS Product Documentation Resources

Visit the RUCKUS website to locate related documentation for your product and additional RUCKUS resources.

Release Notes and other user documentation are available at https://support.ruckuswireless.com/documents. You can locate the documentation by product or perform a text search. Access to Release Notes requires an active support contract and a RUCKUS Support Portal user account. Other technical documentation content is available without logging in to the RUCKUS Support Portal.

White papers, data sheets, and other product documentation are available at https://www.ruckuswireless.com.

Online Training Resources

To access a variety of online RUCKUS training modules, including free introductory courses to wireless networking essentials, site surveys, and products, visit the RUCKUS Training Portal at https://commscopeuniversity.myabsorb.com/.

Document Conventions

The following table lists the text conventions that are used throughout this guide.

TABLE 1 Text Conventions

Convention	Description	Example
monospace	Identifies command syntax examples	device(config)# interface ethernet 1/1/6
bold	User interface (UI) components such as screen or page names, keyboard keys, software buttons, and field names	On the Start menu, click All Programs .
italics	Publication titles	Refer to the RUCKUS Small Cell Release Notes for more information.

Notes, Cautions, and Safety Warnings

Notes, cautions, and warning statements may be used in this document. They are listed in the order of increasing severity of potential hazards.

NOTE

A NOTE provides a tip, guidance, or advice, emphasizes important information, or provides a reference to related information.

Command Syntax Conventions

ATTENTION

An ATTENTION statement indicates some information that you must read before continuing with the current action or task.



CAUTION

A CAUTION statement alerts you to situations that can be potentially hazardous to you or cause damage to hardware, firmware, software, or data.



DANGER

A DANGER statement indicates conditions or situations that can be potentially lethal or extremely hazardous to you. Safety labels are also attached directly to products to warn of these conditions or situations.

Command Syntax Conventions

Bold and italic text identify command syntax components. Delimiters and operators define groupings of parameters and their logical relationships.

Convention	Description
bold text	Identifies command names, keywords, and command options.
italic text	Identifies a variable.
[]	Syntax components displayed within square brackets are optional.
	Default responses to system prompts are enclosed in square brackets.
{x y z}	A choice of required parameters is enclosed in curly brackets separated by vertical bars. You must select one of the options.
x y	A vertical bar separates mutually exclusive elements.
<>	Nonprinting characters, for example, passwords, are enclosed in angle brackets.
	Repeat the previous element, for example, member[member].
\	Indicates a "soft" line break in command examples. If a backslash separates two lines of a command input, enter the entire command at the prompt without the backslash.

What's New in This Document

This manual includes information about how a Cloudpath administrator can create a management portal that property personnel such as front-desk workers can use to add, modify, or delete properties and units. For more information, refer to Creating a Management Portal on page 34.

Property Management Overview

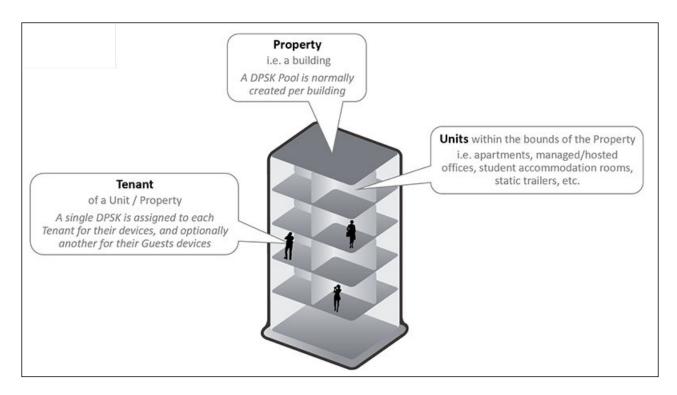
With the Cloudpath UI, you can create a detailed property management system that gives you many options for managing your wi-fi network, and includes a *tenant portal* to provide network access and important information to your users. Also supported beginning with Cloudpath release 5.9 is a *management portal* that is accessible to registered users to perform designated tasks on properties or units added to this portal.

Main Property Management Terms

Cloudpath property management utilizes dynamic pre-shared keys (DPSKs) that you can structure into a logical group called a *property*. The following terms are used throughout this manual, and are depicted in the diagram below.

- Property: A single building, such as an office building or an apartment building within a larger complex.
- Unit: A well-defined section of a property, such as one apartment within an apartment building.
- Tenant: The regular occupant of a unit.

FIGURE 1 Main Components of Property Management: Property, Units, Tenants

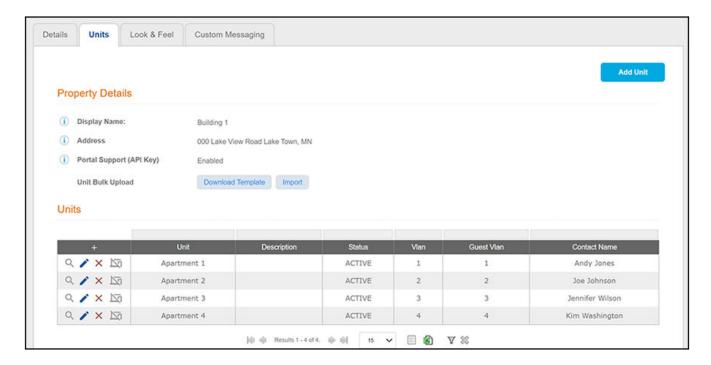


You can manage multiple properties with the Cloudpath property management feature, but, for the purposes of this manual, many of the concepts are illustrated using an example of a single apartment building that contains four units.

Within such a setup, the basic steps include:

- Creating the property in the Cloudpath UI.
- Adding units to that property. Each time one unit is added to a property, a tenant portal for that unit is automatically enabled. An example of how the Cloudpath UI would look after four units have been added to a property is shown below (and described later in this manual):

FIGURE 2 Example of Configured Property With Four Units Assigned



- •
- Setting up the look and feel of the automatically created tenant portal.
- Notifying the residents of each unit about how to access the tenant portal (which has its own UI) and how to connect their devices to the wi-fi network in the property. Such notifications occur automatically based on how you configure them during creation of the property. You can use the Custom Messaging tab to change the default text of various notifications.
- Creating a management portal that is accessible to registered users to perform designated tasks on properties or units added to this
 portal.

Audience for This Manual

This manual is intended for the property manager -- the person who administers the Cloudpath system, has access to the Cloudpath UI, and so on. This manual describes how to use the Cloudpath UI to set up the tenant portal UI, and to create the management portal UI. Also described are how tenants would use the tenant portal and how property personnel (such as a front-desk worker in a property company) can use the management portal.

Creating Your Property Management System

You can use the Cloudpath UI to create unique access to a tenant portal for each unit within the property you manage as well as to provide secure network access to your tenants and their guests with the use of dynamic pre-shared keys (DPSKs).

Creating your property management system consists of these main steps:

- 1. Generating an API Key
- Creating An External DPSK Pool for the Property

- 3. Creating the Property
- 4. Adding Units to the Property
- 5. Setting up the Look and Feel of the Tenant Portal
- 6. Creating a Management Portal on page 34 A management portal can be created to allow property personnel such as front-desk workers to perform various actions on specified properties or units.

Refer also to Licensing Information.

Generating an API Key

An API key is required to enable the tenant REST API, which also enables the tenant portal, so this should be the first item you configure. Follow these steps to generate the key:

- 1. Go to Configuration > API Keys.
- Click Add API Key.
- 3. On the ensuing screen, give the API key a meaninful name, make sure the "Enabled" box is checked, set the "Expiration Date" as desired, then click **Save**. You are returned to the main API Keys screen, where your newly generated key is displayed.

NOTE

You will need this key if you use REST APIs for property management, described in the Cloudpath Enrollment System REST API User Guide.

Creating An External DPSK Pool for the Property

Because one (and only one) eDPSK pool must be assigned to a property, you must create the pool before you configure the property. For every unit that you add to a property, a DPSK is assigned from this eDPSK pool to that unit. (One guest DPSK is also assigned to each unit if you configure the property to include Guest DPSKs, described later).

NOTE

Once you have assigned a unit to a property, the eDPSK pool cannot be changed unless you first delete all its units.

For instructions on creating an eDPSK pool, refer to the Cloudpath Enrollment System RUCKUS External Dynamic Pre-Shared Key (eDPSK) Configuration Guide.

NOTE

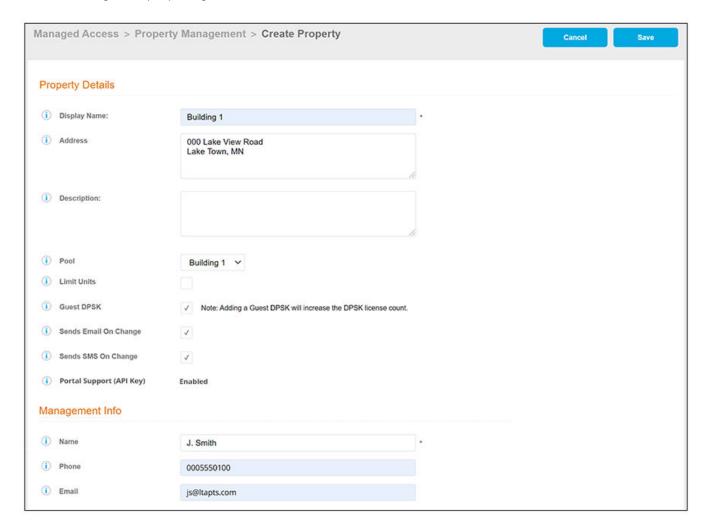
If your property contains multiple buildings, you can use the same pool for more than one building, but you can also create one unique pool for each building. For the purposes of this guide, the creation of one pool to be applied to only one building is used as an example.

Creating the Property

Once you have created an eDPSK pool to assign to your property, follow these steps to configure the property:

- 1. In the Cloudpath UI, go to Managed Access > Properties.
- 2. Click Add Property.
- 3. Configure the property, as shown and described in the following example.

FIGURE 3 Creating the Property Configuration



- Display Name: A meaningful name for the property (visible to you, as an administrator, and visible on the tenant portal).
- Address: Address of the property.
- Description (optional): Description of the property (visible only to you, as an administrator).
- Pool: The eDPSK pool assigned to this property (selected from the drop-down list). In this example, a pool called "Building 1" has already been created specifically to be assigned to this property. For information about creating an eDPSK pool with all its options, refer to the Cloudpath Enrollment System RUCKUS External Dynamci Pre-Shared Key (eDPSK) Configuration Guide.
- Limit Units: You can check this box if you want to limit the number of units that can be assigned to this property. If you check the box, a "Max Units" pop-up field appears where you can enter the desired number.
- Guest DPSK: Checking this box assigns a guest DPSK to every unit that you add to the property. This field cannot be set on individual units, nor can this selection be changed once units have been assigned to the property.

Checking this box also increases the DPSK license count for each unit. Refer to Licensing Information.

• Sends Email On Change: Checking this box means that the contact person for a unit gets notified by email whenever the DPSK of the unit or the unit's guest DPSK (if guest DPSKs are being used) changes, or if the access token to the tenant portal is changed.

If this box is checked, the contact person of the unit also gets notified by email as soon as you have added that unit to the property and saved the configuration.

• Sends SMS On Change: Checking this box means that the contact person for a unit gets notified by text whenever the DPSK of the unit or the unit's guest DPSK (if guest DPSKs are being used) changes, or if the access token to the tenant portal is changed.

NOTE

If this box is checked, the contact person of the unit also gets notified by text as soon as you have added that unit to the property and saved the configuration.

- Management Info section: As the property manager, this should be your contact information that you want displayed in all communications with your tenants.
- Portal Support (API Key): This field should indicate "Enabled" if you already generated an API key. If this field is not yet enabled, follow the instructions in Generating an API Key. This key is required to access the tenant portal.
- 4. Click **Save**. You are returned to the main Properties screen where your newly configured property is now displayed, as shown in the example below:

FIGURE 4 Properties Screen Before Adding Units to Newly Configured Property



5.

Adding Units to the Property

Once you have configured a property, you can add units to the property, as shown with these steps:

NOTE

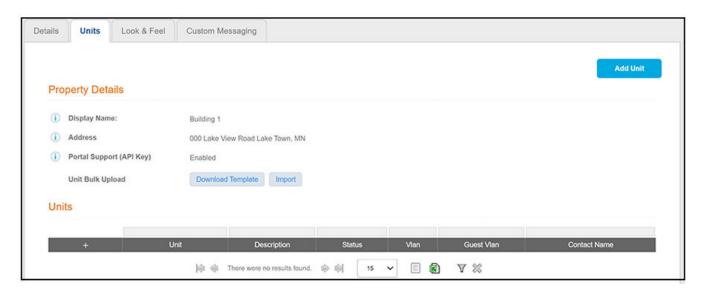
You may want to consider Setting up the Look and Feel of the Tenant Portal before you create the units so that the portal will have the desired look before any tenants visit the portal.

- 1. From the main Properties screen, click the wrench icon.
- 2. On the ensuing screen, click the Units tab to invoke the following screen:

Creating Your Property Management System

Adding Units to the Property

FIGURE 5 Adding Units By Bulk Upload or Individually

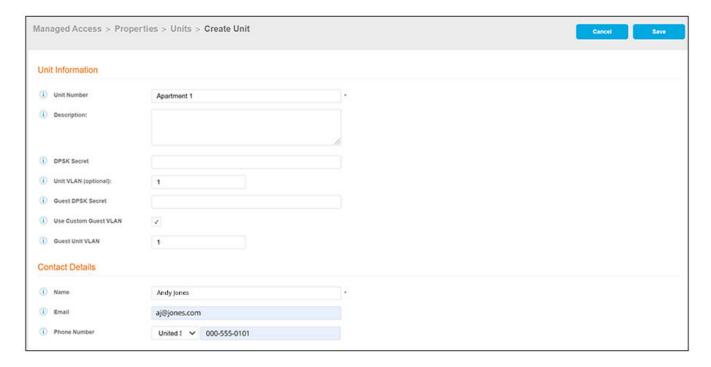


NOTE

If you have a lot of units to add, you can use the **Download Template** and **Import** buttons to add units by bulk (field descriptions are provided in the following steps). For more information about bulk uploads, refer to Bulk Upload Considerations. To add units individually, proceed to the next step.

3. Add the first unit to your property, as shown and described in the following example:

FIGURE 6 Adding a Unit to Your Property



- Unit Number: Number or name of the unit you are adding.
- Description (optional): Description of the unit.
- DPSK Secret (optional): This is the secret that all devices connecting to this unit will need for wi-fi access. On the tenant portal, this secret is called the "Wi-Fi Passphrase." In the Cloudpath UI, you do not need to enter a value here because the secret is automatically generated. However, you can enter a value if you wish, and you can also change the unit secret at a later time.

NOTE

If, when you created the property, you checked the "Guest DPSK" box, a separate "Guest DPSK Secret" gets generated that all guest devices connecting to this unit will need for wi-fi access.

- Unit VLAN (optional): You can assign a VLAN to all devices in this unit. If no VLAN is specified here, the values defined in the DPSK pool that has been assigned to the property are used here.
- Guest DPSK Secret (optional): This field is present in unit configuration only if you checked the "Guest DPSK" box when you configured the property. This is the secret that all *guest* devices connecting to this unit need for wi-fi access. On the tenant portal, this secret is called the "Guest Passphrase." In the Cloudpath UI, you do not need to enter a value here because the secret is automatically generated. However, you can enter a value if you wish, and you can also change the guest secret at a later time.
- Use Custom Guest VLAN: This field is present in unit configuration only if you checked the "Guest DPSK" box when you configured the property. You can then check the "Use Custom Guest VLAN" box to invoke a popup where you can assign a VLAN to all guest devices in the unit that is different from the unit VLAN. If you leave this box unchecked, the guest VLAN is the same as the unit VLAN.

NOTE

In Figure 6, the "Use Custom Guest VLAN" is checked to show the "Guest Unit VLAN" popup for illustrative purposes only.

• Contact Details: Enter the contact information for the tenant of this unit. The email and mobile phone information that you enter will be used to notify the tenant about how to access the tenant portal and what the pass phrases are for unit and guest wi-fi access.

Creating Your Property Management System

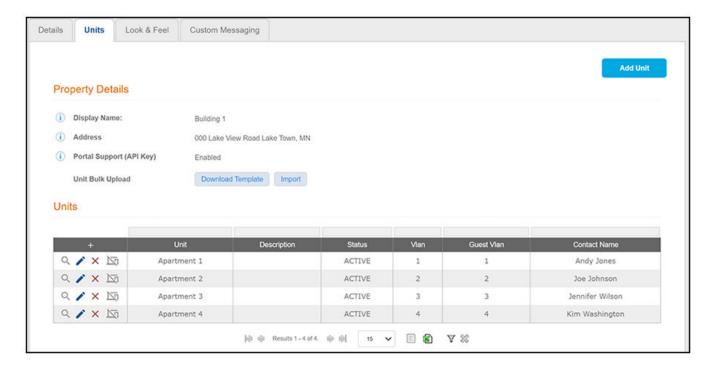
Adding Units to the Property

NOTE

The name you enter here will appear near the top of the home page on this person's tenant portal.

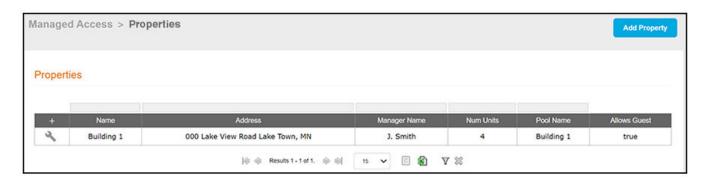
- 4. Click Save.
- 5. Using the **Add Unit** button (or the + button above the Units grid), continue to add as many units to the property as you want. The following screen shows four units have been added to the "Building 1" property:

FIGURE 7 Property Details Example After Adding Four Units



When you are finished adding units, you can go to the main Properties screen (Managed Access > Properties in the UI) for the following view, which shows the four units added to the "Building 1" example property:

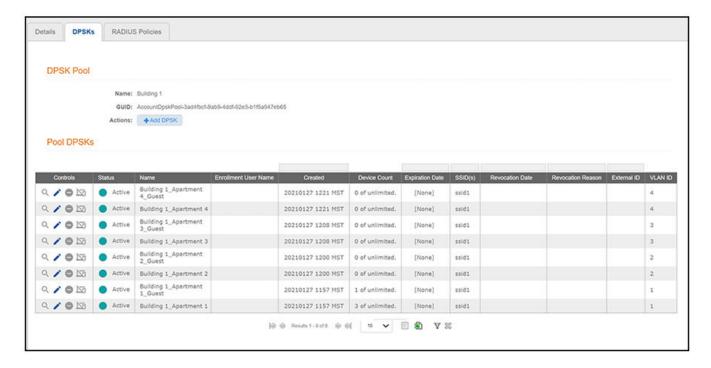
FIGURE 8 Main Properties Screen After Units Added



To view the correlation between the units and the DPSKs assigned from the pool in the "Building 1" example, the following is a screen shot of all the DPSKs in "Building 1:"

DPSK names are managed at the unit level; therefore, if you change the name of a unit, Cloudpath updates the name of the corresponding DPSK. You should not attempt to change the name of the DPSK itself once it has been associated with a unit in your property.

FIGURE 9 DPSKs Being Used in Configured Property Example



Setting up the Look and Feel of the Tenant Portal

NOTE

Each time you add a unit to the property, the unit's contact person (in this case, Andy Jones in Apartment 1 in the example) receives a notification such as the one shown below:

FIGURE 10 Email Notification Sent to Unit Contact Person

Unit Assigned



Andy Jones,

A Unit has been assigned to you. The Wi-Fi Passphrase for both your access and your guest access at Building 1 have been assigned. Your Wi-Fi Passphrase: gsyhfwwfixyz Your Guest Wi-Fi Passphrase: muaobgjzezdb

You can access your unit's portal using this url: https://jeff245.cloudpath.net/tenant

For additional information on this please contact your property manager.

J. Smith 0005550100

The email contains the link to the person's tenant portal as well as the wi-fi pass phrases for the unit and the guests in the unit. A separate guest wi-fi pass phrase is included because the initial property configuration was set up that way (see the "Guest DPSK" field in Figure 3).

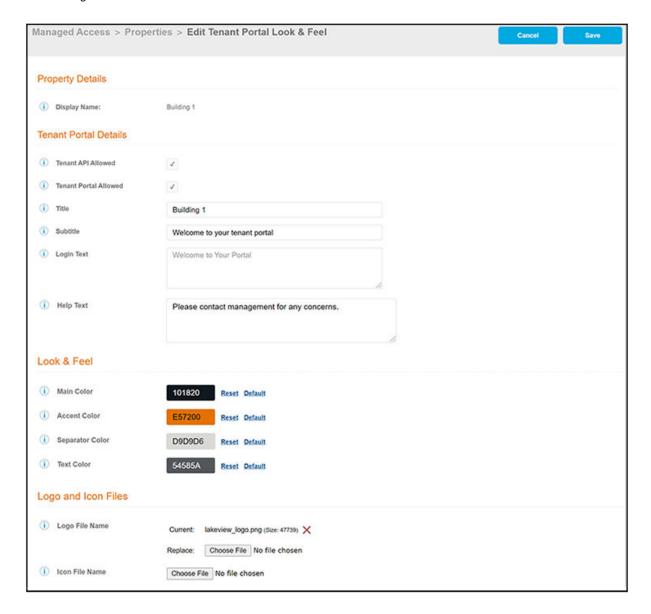
If you wish to make any changes to the default information provided in any of the notifications, go to the Custom Messaging tab of the applicable property (Managed Access > Properties, click Wrench icon for property).

Setting up the Look and Feel of the Tenant Portal

You can use the Look & Feel tab from within a property to add a logo, color scheme, and announcements to your tenants. This basic look and feel takes effect on all units within the property. The following steps describe setting up the look and feel for the example property that was configured in Figure 3:

- 1. From the main Properties screen, click the wrench icon.
- 2. On the ensuing screen, click the Look & Feel tab.
- 3. From within the Look & Feel tab, click Edit.
- 4. Configure the look and feel as desired, as shown and described in the following example:

FIGURE 11 Creating the Look and Feel for the Tenant Portal



- Display Name (optional): Name of the property (visible only to you, as an administrator).
- Tenant API Allowed: Allows access to the tenant REST API for units on this property. Enabled by default.
- Tenant Portal Allowed: Allows access to the tenant portal for units on this property. Enabled by default.
- Title: Title of the property that you want displayed on the home page of the tenant portal.
- Subtitle: A subtitle, if desired, that provides a welcome-type message to the tenant and appears underneath a logo that you can also add to the tenant portal.
- Login Text: Text to display on the tenant portal when the login screen is presented.
- Announcements: Enter any announcement that you want displayed on the tenant portal if the tenant clicks the Information icon:



Setting up the Look and Feel of the Tenant Portal

NOTE

If you leave this field blank, the icon appears on the tenant portal as:



- Help Text: Enter any help information that you want displayed on the tenant portal if the tenant clicks the Help icon:
- Color buttons: Use the various color buttons to create the desired look for the tenant portal.
- Logo File Name: You can upload an image file to display the logo of your property on the tenant portal. In this example, the name of the property is "Lake View Apartments," which is why the imported file is named accordingly.

NOTE

It is recommended that the image for the logo be no larger than 440 x 119 pixels.

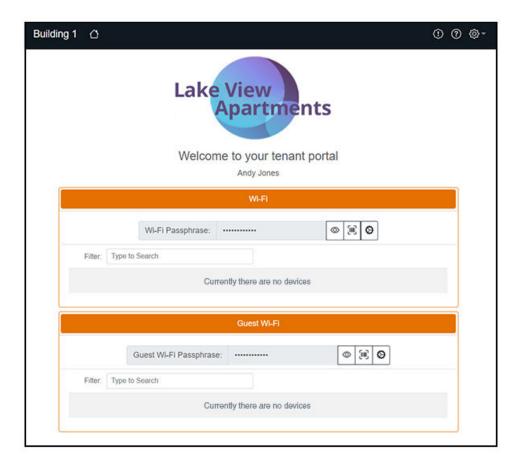
- Icon File Name: Sets the favicon that is displayed in the tenant portal UI browser tab.
- Click Save.

NOTE

As soon as you save any changes that you made in the Look & Feel tab of the Cloudpath UI, these changes will be reflected on the tenant portal once you refresh the tenant portal page in your browser.

Based on the settings shown in Figure 11, the tenant portal home page (or "landing page") would appear as follows:

FIGURE 12 Look and Feel of the Tenant Portal Home Page After Configuration in Cloudpath UI



Bulk Upload Considerations

If you have many units to add, you may want to consider using the "Unit Bulk Upload" option instead of adding each unit individually. Be aware of the following information pertaining to the bulk upload feature:

- The file could potentially take several minutes to upload, depending on its size.
- If the file contains errors, it may still upload and add some of the units in the spreadsheet, but will not upload units whose entries contains errors such as duplicate unit numbers, guest secrets being the incorrect length, and so on.
- Any unit without a unit number or contact name will not upload, and an error message will indicate the missing information.

Licensing Information

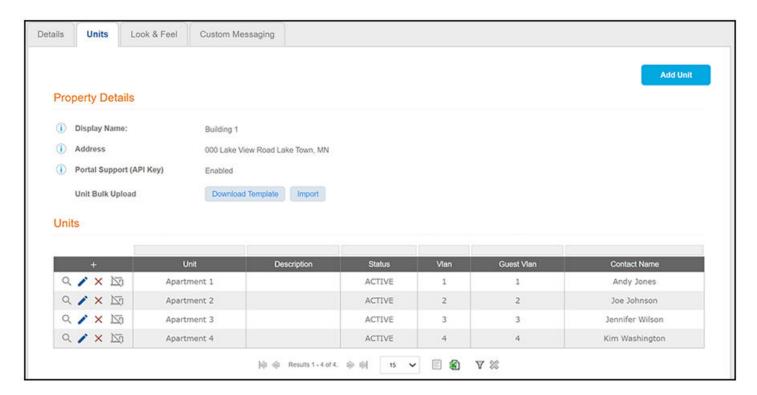
Each active DPSK (incuding active guest DPSKs) counts as one license being used. Therefore, if you have 50 units in your building, and you checked the "Guest DPSK" box during property configuration, you could have as many as 100 licenses being used. To check the number of licenses being utilized, go to **Support > Licensing >** Details tab in the UI, and see the number of "Total Active Dpsks."

Viewing Information of a Configured Unit

Once you have configured a unit, there is a lot of information about the unit that you, as property manager, can find useful.

If you go to the main Properties page (Managed Access > Properties) in the Cloudpath UI, click the wrench icon for the desired property, then click the Units tab, you get a view such as the one below:

FIGURE 13 View of All Units Within a Property

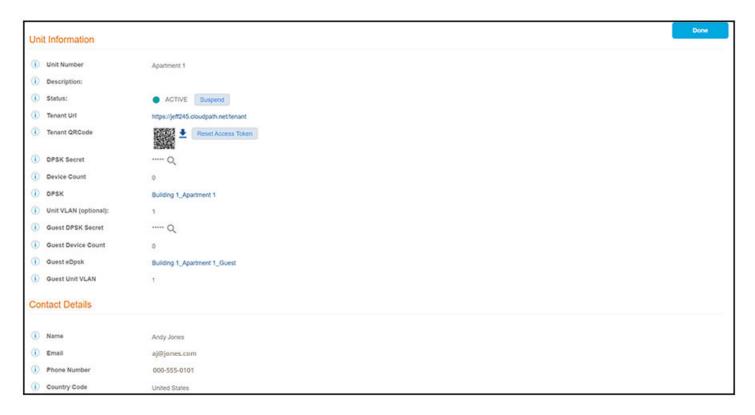


Then, you can click the magnifying glass icon to view all the settings of one of the units. The example below shows the information for the unit called Apartment 1:

Creating Your Property Management System

Viewing Information of a Configured Unit

FIGURE 14 Unit-Specific Information



Some fields of interest include:

- Status: If for any reason you want to suspend this unit, you can do so from this field. This would revoke its associated DPSKs and prevent it from accessing the tenant portal and wi-fi network. You can re-activate the unit at anytime.
- Tenant URL: This is a live link that will take you directly to the tenant portal for this unit.
- Tenant QRCode: You can download the code and give it to the tenant as another option to provide them with access to the portal if they have QRCode-compatible devices. You can also reset the access token for any reason if you want to prevent the original code from working. Once you reset the code, the tenant receives a notification with the new access information.

NOTE

The tenant also has the ability to reset the access code from the tenant portal profile page if he or she thinks the code has been compromised. For more information, refer to Profile Page on page 29. In this case too, the tenant receives a notification with the new access information as soon as the code has been reset.

- DPSK Secret: You can view the secret from here by clicking the magnifying glass. You can also change the secret from the UI by editing the
 unit configuration. This is described in more detail later.
- DPSK: The name of the DPSK is formed as: name of the property_name of the unit
- Guest DPSK Secret: You can view the secret from here by clicking the magnifying glass. You can also change the secret from the UI by editing the unit configuration. This is described in more detail later.
- Guest DPSK: The name of the Guest DPSK is formed as: name of the property_name of the unit_Guest

Connecting to the Tenant Portal

The tenant portal can be accessed in a number of ways.

Common methods for connecting to the tenant portal are:

- The tenant can click the link provided in an email and/or text message notification. An example of such a notification is shown in Figure 10 on page 16.
- You, as property manager, can provide the QRCode for the tenant portal (for QRCode-compatible devices). You can download the QRCode from Cloudpath UI. For instructions, refer to Viewing Information of a Configured Unit on page 19.

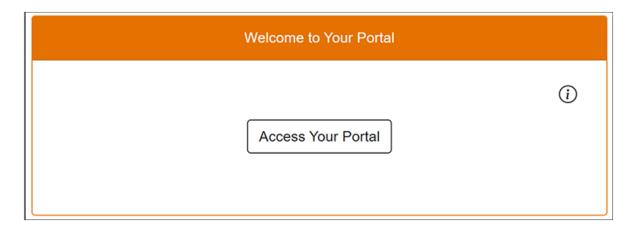
NOTE

The QRCode for access to the tenant portal is also available on the tenant portal itself -- in the Profile screen. For more information, refer to Profile Page on page 29.

The steps below cover what happens when you access the tenant portal:

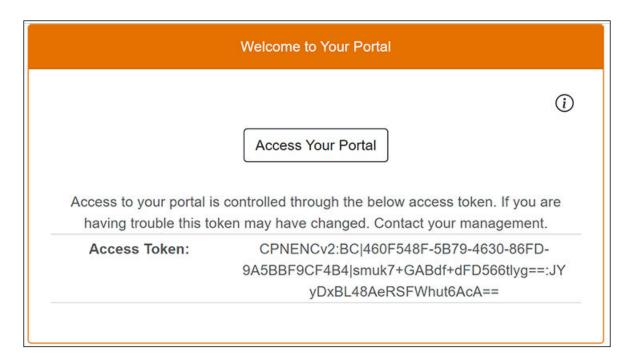
1. You will be taken to the Welcome to the Portal screen:

FIGURE 15 Welcome to Your Portal Screen With Credentials Hidden



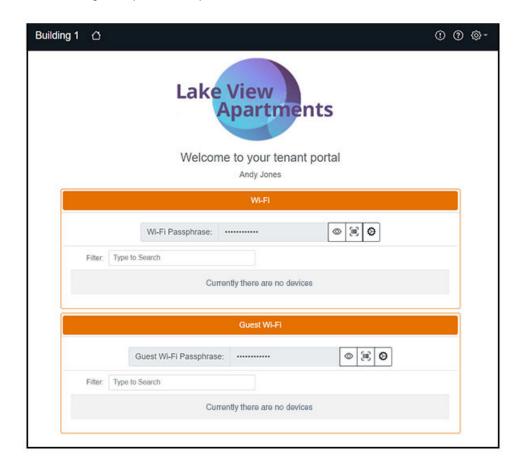
2. You can click the Information icon, if you wish, to view your access token, as shown below.

FIGURE 16 Welcome to Your Portal Screen With Credentials Displayed



3. Click Access Your Portal. The tenant portal home page appears, as shown in the example below:

FIGURE 17 Tenant Portal Home Page Example Before Any Devices Have Been Connected to Wi-Fi



Related topics:

- Connecting to the Wi-Fi Network on page 23
- Using the Tenant Portal on page 26

Connecting to the Wi-Fi Network

The wi-fi network can be accessed in a number of ways.

Common methods for connecting to the wi-fi network are:

• You, as property owner, tell the tenant the name of the wi-fi network. The tenant receives the wi-fi pass phrase for the unit and the pass phrase for their guests (if you configured separate guest access) via an email and/or text message notification. An example of such a notification is shown below.

FIGURE 18 Email Notification Sent to Unit Contact Person

Unit Assigned



Andy Jones,

A Unit has been assigned to you. The Wi-Fi Passphrase for both your access and your guest access at Building 1 have been assigned. Your Wi-Fi Passphrase: gsyhfwwfixyz Your Guest Wi-Fi Passphrase: muaobgjzezdb

You can access your unit's portal using this url: https://jeff245.cloudpath.net/tenant

For additional information on this please contact your property manager.

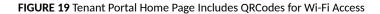
J. Smith 0005550100

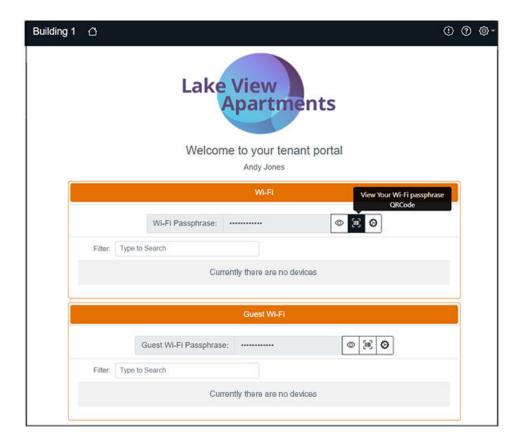
NOTE

If you wish to make any changes to the default information provided in any of the notifications, go to the Custom Messaging tab of the applicable property (Managed Access > Properties, click Wrench icon for property).

Tenants can then proceed to connect their devices, and they can inform their guests of the guest passphrase so that they can connect their devices.

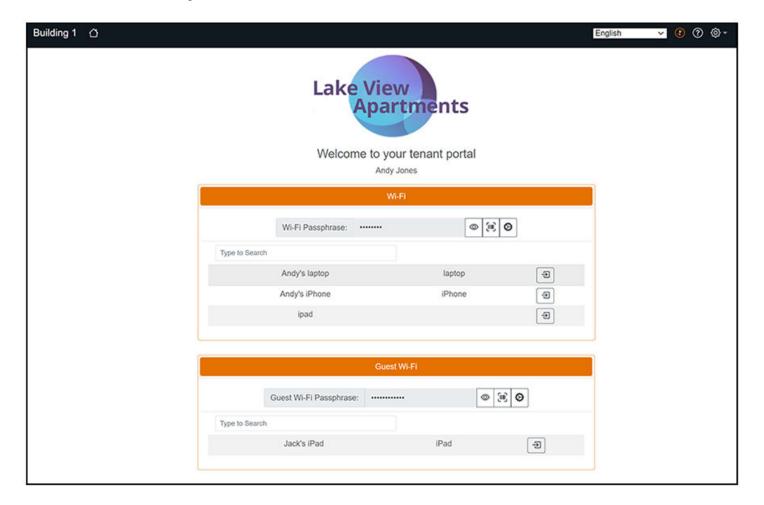
• For devices that are QRCode-compatible, they can scan the QRCode to instantly connect to the wifi. The QRCode can be obtained by clicking the middle of the three icons (it is a specific to the "Wi-Fi Passphrase" field or "Guest Wi-Fi Passphrase" field, as applicable, as shown in the example tenant portal home page below.





The following screen shows an example of the tenant portal home page after some devices have been connected:

FIGURE 20 Tenant Portal Home Page After Devices Are Connected



When devices first connect to the wi-fi, they appear with their MAC addresses only. You can provide more specific naming if you wish. For more information, refer to Using the Tenant Portal on page 26.

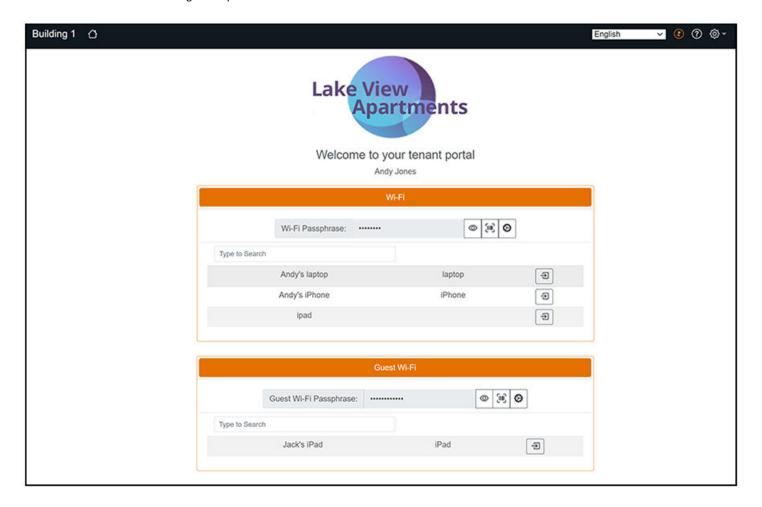
Using the Tenant Portal

Anyone who has access to the tenant portal can make the changes described in this section. However, the tenant portal user interface would typically be used by tenants and guests. The property manager can use the Cloudpath UI to make changes to the tenant portal if so desired.

What the Tenant Portal Home Page Provides

The following is an example of a tenant portal home page.

FIGURE 21 Tenant Portal Home Page Example



From anywhere in the portal, you can return to the home page by clicking the Home icon () in the upper left portion of the portal. The following table lists some actions you can perform from the home page:

TABLE 2 Actions You Can Take from Tenant Portal Home Page

Actions	Instructions
Show/hide the Wi-fi or Guest Wi-fi Passphrase.	Click the Eye icon:
View the Wi-fi or Guest Wi-fi Passphrase QRCode.	Click the QRCode icon

Creating Your Property Management System

Using the Tenant Portal

TABLE 2 Actions You Can Take from Tenant Portal Home Page (continued)

Actions	Instructions
Change the Wi-fi or Guest Wi-fi Passphrase.	Click the "gears wide connected icon"(), then follow the screen instructions. NOTE If you change a wi-fi pass phrase, all devices that used that pass phrase are removed from the network and must reconnect using the new pass phrase.When a pass phrase is changed, email and/or text messge notifications are sent to the tenant with the new information. NOTE Also, as the property manager, if you view the DPSK Secret or Guest DPSK Secret in the Cloudpath UI Unit Information screen (Viewing Information of a Configured Unit on page 19), you can observe any pass-phrase changes there as well as in the tenant portal.
Rename or remove a device.	Click the right-arrow icon (). On the ensuing screen, you can click the same icon to edit the name or description of the device. You also can click Remove Device From Network, but will not receive a warning. NOTE Removing a device does not remove the DPSK secret from the device. Therefore, if the device is within access distance of the access point, the device automatically reconnects to the network. If you want to permanently remove a device from the network, you need to also change the associated DPSK secret. This could be useful if some old devices are being permanently replaced by new devices.
View any announcements from the property manager.	If any announcement(s) were configured in the UI in the Look & Feel tab for the property, the Information icon in the upper-right portion of the portal appears as: Clicking the icon will display the annoucement(s), such as the one shown below: FIGURE 22 Announcements Configured in Cloudpath UI to Appear in Tenant Portal Announcements Pavement work happening this Tuesday. NOTE If there are no announcements, the icon is:

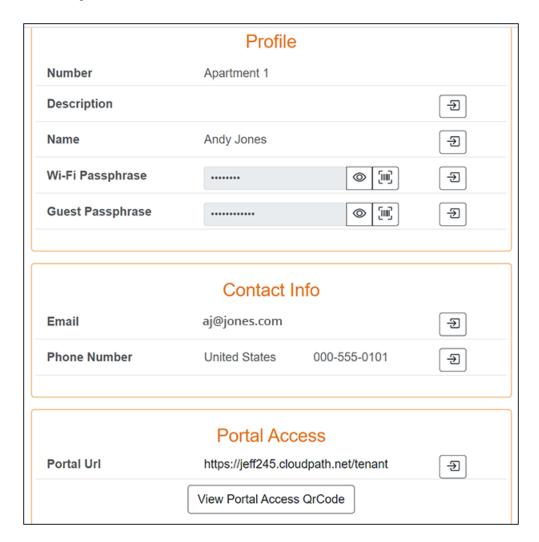
TABLE 2 Actions You Can Take from Tenant Portal Home Page (continued)

Actions	Instructions
View any help text from the property manager.	Click the Help icon () in the upper-right portion of the portal. Any help text configured in the UI in the Look & Feel tab for the property will pop up, such as the one shown below:
	FIGURE 23 Help Text Configured in Cloudpath UI to Appear in Tenant Portal
	Portal Help
	Please contact management for any concerns.
	If no help text was configured in the UI, the default help text pops up:
	FIGURE 24 Default Portal Help Text
	Portal Help This portal enables you to change your personal details and Wi-Fi Passprase(s) under "Profile", and view and manage devices connected to your Wi-Fi network.
Use the Settings drop-downlist.	The settings dropdown in the upper-right provides the following options:
	Profile
	Property Info
	Sign Out
	The Profile Page and Property Info are described below.

Profile Page

If you click on **Profile** from the Settings drop-down list, a page such as the one in the following example is displayed.

FIGURE 25 Tenant Portal Profile Page



The following table lists some actions you can perform from the Profile page:

TABLE 3 Actions You Can Take from Tenant Portal Profile Page

5	
Actions	Instructions
Change the Number, Description, or Name in the "Profile" section, and Email and Phone Number in the "Contact Info" section. Each of these items pertain to the unit resident, not to the property manager.	Click the right-arrow icon: . enter the text you want, then click Change.
Show/hide the Wi-fi or Guest Wi-fi Passphrase.	Click the Eye icon:
View the Wi-fi or Guest Wi-fi Passphrase QRCode.	Click the QRCode icon:

TABLE 3 Actions You Can Take from Tenant Portal Profile Page (continued)

Actions	Instructions
Change the Wi-fi or Guest Wi-fi Passphrase.	Click the right-arrow icon (), then follow the screen instructions. NOTE If you change a wi-fi pass phrase, all devices that used that pass phrase are removed from the network and must reconnect using the new pass phrase. When a pass phrase is changed, email and/or text messge notifications are sent to the tenant with the new information. NOTE Also, as the property manager, if you view the DPSK Secret or Guest DPSK Secret in the Cloudpath UI Unit Information screen (Viewing Information of a Configured Unit on page 19), you can observe any pass-phrase changes there as well as in the tenant portal.
View the tenant portal access QRCode.	In the "Portal Access" section of the screen, click View Portal Access QRCode .
Change the portal authentication token.	The portal access code can be reset here as well as in the Cloudpath UI. Resetting it here would typically be done by the tenant if he or she believes that the current code may have been compromised. Click the right-arrow icon: "Change" after viewing the warning. The code resets, and a notification with the new access information gets sent to the tenant.

Property Information

If you click on **Property Info** from the Settings drop-down list, a page such as the one in the following example is displayed, and this page provides the contact information of the property manager as configured in the Cloudpath UI.

FIGURE 26 Property Information Including Contact Information of Property Manager

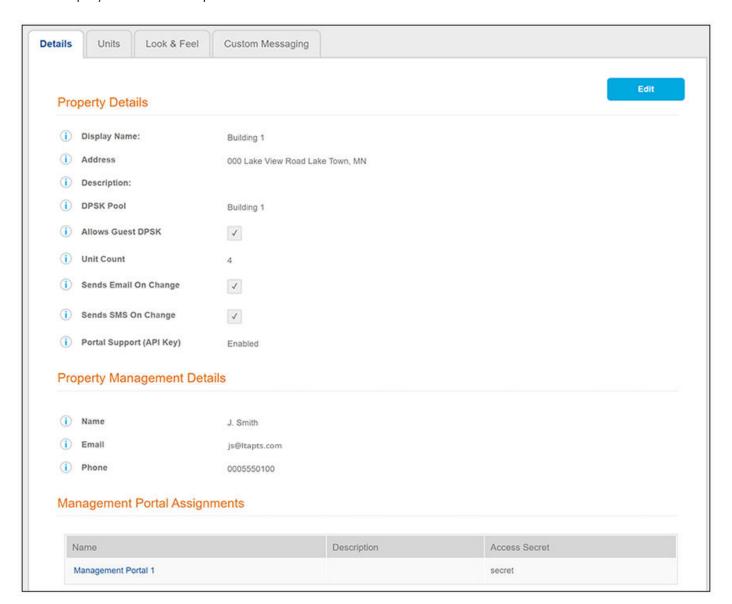


Other Actions You Can Perform in the Properties Area of the Cloudpath UI

You can manage your property and its units in many ways after the initial configuration.

In the Cloudpath UI, go to **Managed Access > Properties** to view any properties you have configured, then click the wrench icon of the desired property. The Property Details screen appears, as shown in the following example:

FIGURE 27 Property Details Screen Example



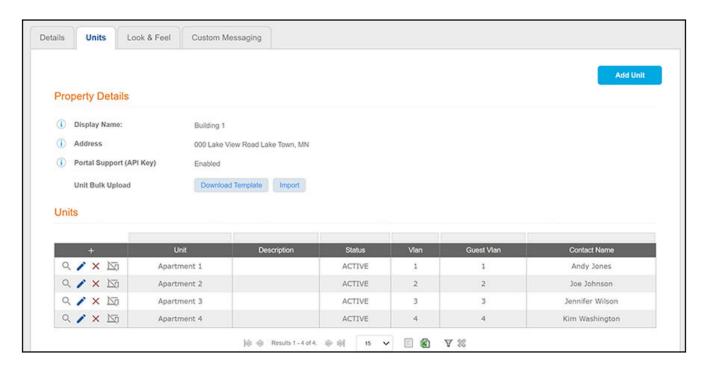
Some actions you can perform include:

- From the **Details** tab, you can:
 - Click **Edit** to change any existing values. You can also delete the property by scrolling down to the "Cleanup" section and expanding the arrow, and following on-screen instructions.

Be very certain that you want to delete an entire property before doing so, since you will also be wiping out all associated units, their DPSKs, related device information, and so on.

- "Under Management Portal Assignments," the links to any management portals that this property belongs to are provided. You can
 click on a link to be taken to the Properties tab of the configuration page of that management portal. For more information, refer to
 Creating a Management Portal on page 34.
- If you click the **Units** tab, the following view is displayed:

FIGURE 28 Units Tab View of Property



- Add additional units to the property by either clicking the + above the units grid or clicking Add Unit at the top of the screen.

NOTE

You can use the Download Template and Import buttons to add many units to the property simultaneously.

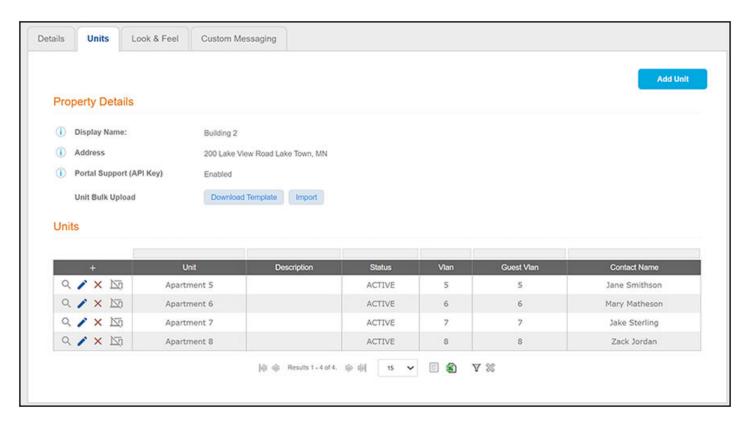
- Click the magnifying glass next to any unit to view all values for that unit; you can view DPSK shared secrets as well as download the tenant portal QRCode from the magnifying glass view. For more information, refer to Figure 14 on page 20
- Click the pencil icon to edit the existing unit.
- Click the X next to a unit to delete it altogether. Proceed with caution because this will also delete the DPSKs associated with the unit.
- Click the Suspend icon (to the right of the X) to suspend a unit. Proceed with caution because this will also revoke the associated DPSKs.
- From the Look & Feel tab, make any changes you want, and then refresh the tenant portal UI to check your changes.
- From the **Custom Messaging** tab, you can make modifications to the default text that is included in notifications sent to tenants about assigned units, tenant portal access, and so on.

Creating a Management Portal

You can use the Cloudpath GUI to create a management portal, which has its own user interface for property personnel such as front-desk workers to perform actions such as adding, modifying or deleting units, or modifying properties. When creating the management portal in Cloudpath, you assign users who can access the portal, and you can specify APIs that they can also access. For API usage, refer to the *Cloudpath Enrollment System REST API Guide*.

Before you create a management portal, you need to create one or more properties that you wish to add to the portal. For example, Figure 7 on page 14 shows a property called Building 1. The following illustration shows a property called Building 2:

FIGURE 29 Configured Property Example called "Building 2" to Add to Management Portal



To create a management portal that contains both of these properties (for example, they could be two buildings in the same apartment complex), follow these steps:

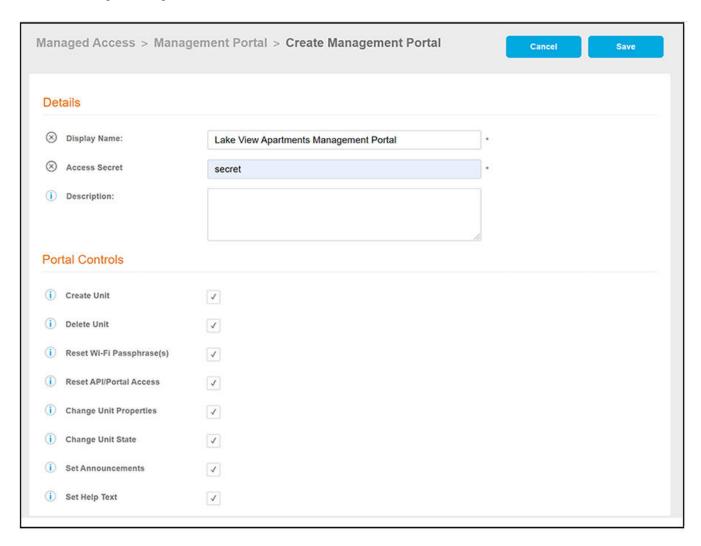
1. In the Cloudpath UI, go to Managed Access > Management Portal.

FIGURE 30 Management Portal Configuration



- 2. Click Add Portal Access.
- 3. Create the management portal, as shown and described in the following example.

FIGURE 31 Creating the Management Portal

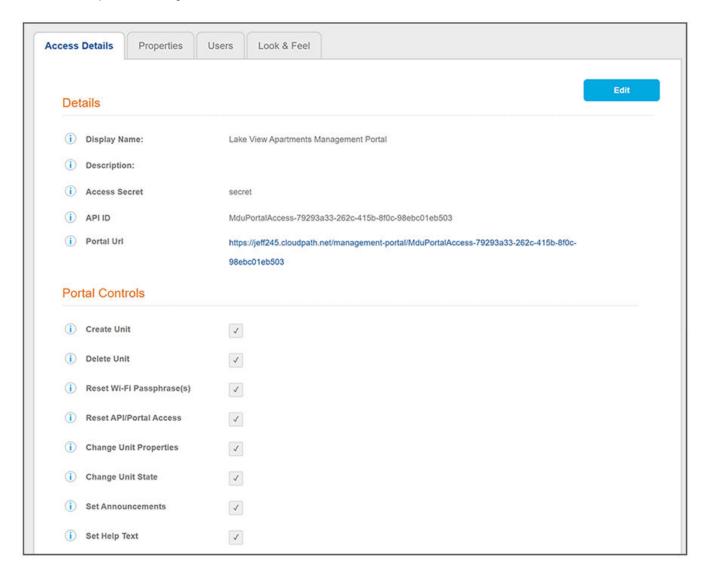


- Display Name: A meaningful name for the management portal (visible only to you, as an administrator).
- Access Secret: In this field, you create a secret that will be required on login to access the management API and management portal.
- Description (optional): Description of the management portal (visible only to you, as an administrator).
- Portal Controls: Use the check boxes to indicate which management APIs you want users of this portal to be allowed to access. The settings you choose here also determine what actions users of the management portal UI can perform.

Once you have configured the portal, you can then add users.

4. Click Save. The Access Details tab of the newly created management portal is displayed, as shown in the following example.

FIGURE 32 Newly Created Management Portal - Access Details Tab

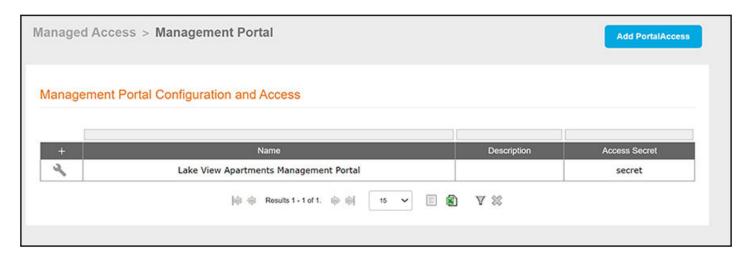


To view all configured management portals, go to **Managed Access > Management Portal**. The example management portal shown above is shown in the grid-view list of portals:

Creating a Management Portal

Using the Access Details Tab of the Management Portal Configuration Screen

FIGURE 33 Management Portal Shown in Grid View



If you click on the wrench icon next to a portal, the four-tab view (shown in Figure 32) is displayed. From there, you can go to any of the tabs.

Using the Access Details Tab of the Management Portal Configuration Screen

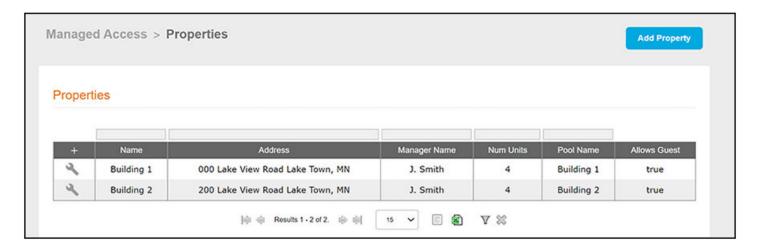
From the Access Details tab of a configured management portal (refer to the example screen in Figure 32), you can do the following:

- Click the Portal URL to be directed to the UI for this management portal. (For information about using the management portal UI, refer to Connecting to the Management Portal User Interface on page 43.)
- You will use the API ID as the GUID of this management portal in API calls.
- Use the **Edit** button to:
 - select or de-select any of the portal controls.
 - change the access secret, description, or display name.
 - delete the management portal by scrolling down to the Cleanup portion of the screen and following the instructions. If you delete the management portal, the portal and all of the assigned users as well as the UI configuration data will be deleted. The properties that have been associated with this portal will not be affected.

Using the Properties Tab of the Management Portal Configuration Screen

Use the Properties tab to assign properties to the management portal. For example, the following screen shows two properties (configured in the Cloudpath UI via the Managed Access > Properties path) that will be added to the example management portal shown earlier.

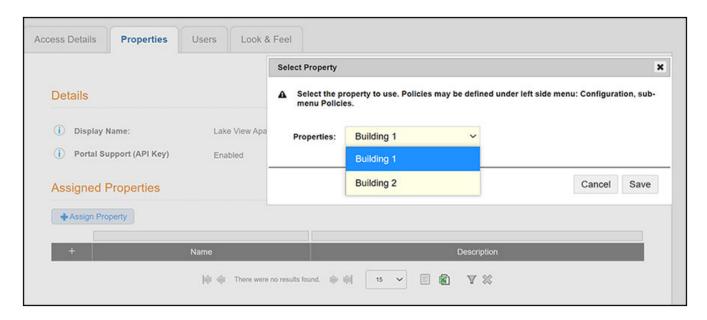
FIGURE 34 Two Properties to Add to New Management Portal



To add these two properties to the Lake View Apartments Management Portal (Figure 32), perform the following steps:

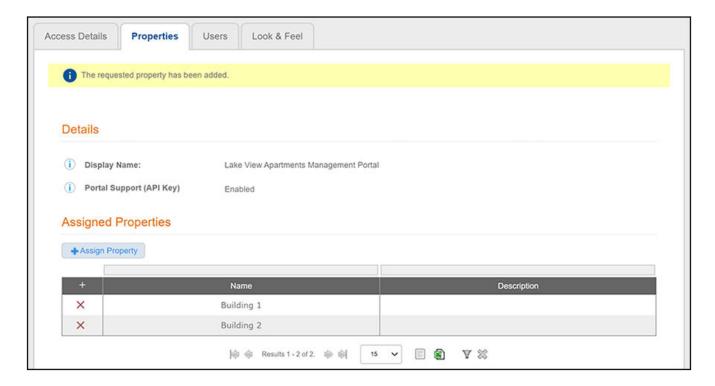
- 1. From the Properties tab, click +Assign Property.
- 2. On the ensuing screen, use the Properties drop-down selection to select a property you wish to add, then click Save.

FIGURE 35 Selecting Properties to Add to the Management Portal



3. Repeat the preceding steps until you have added all the properties you want to the management portal configuration. The screen below shows that both "Building 1" and "Building 2" have been added to the Lake View Apartments Management Portal.

FIGURE 36 Properties Tab After Two Properties Have Been Added to Management Portal



NOTE

If you want to remove a property from the management portal, click the X for the applicable property.

Using the Users Tab of the Management Portal Configuration Screen

The **Users** tab allows you to add all the users that you want to this management portal. All users will have the same API capability, which is defined in the Portal Controls portion of the Access Details tab.

To add users, follow the steps below:

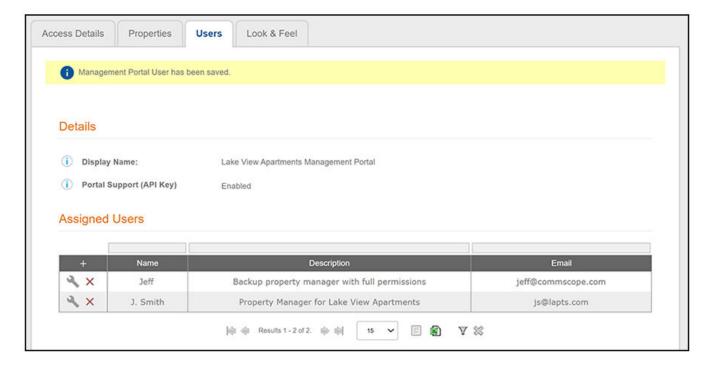
- 1. From the **Users** tab, click + under the "Assigned Users" area.
- 2. In the ensuing screen, enter the email address to use when validating the user against the management portal and the access secret.

NOTE

You can also enter a name and description.

- 3. Click Save.
- 4. Follow the preceding steps to add additional users. The following example screen shows that two users have been added: The main property manager and the backup property manager.





NOTE

You can create multiple management portals to manage the same properties. In the example provided in Figure 32, all portal controls are enabled. But, you might want a front-desk worker, for example, to only have access to a subset of those controls. In such as case, you could create a management portal to contain the same properties, but then enable the desired subset of portal controls, and then assign the users you want to that portal.

Other actions you can perform from the Users tab include:

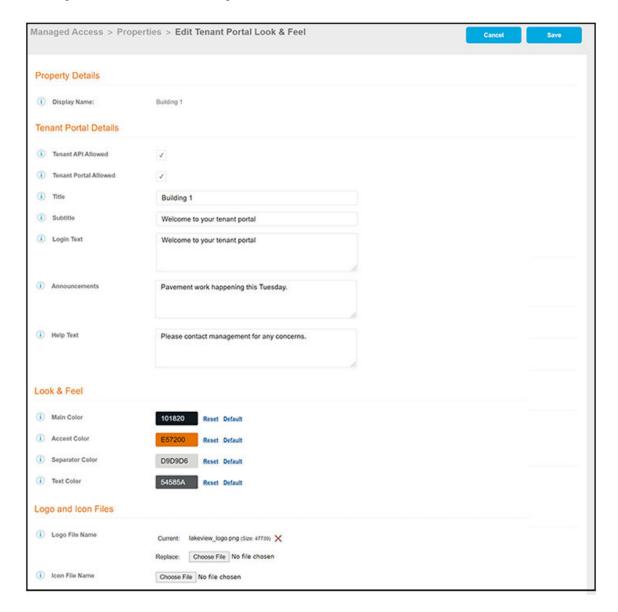
- To remove a user from the management portal, click **X** next to the desired user.
- Click the wrench icon next to the desired user to edit the user's name, description, or email address to use when validating the user against the management portal and the access secret.

Using the Look and Feel Tab of the Management Portal Configuration Screen

You can use the Look & Feel tab from within a management portal configuration to add a logo, color scheme, title, and subtitle for portal users. The following steps describe setting up the look and feel for the example management portal that was configured in Figure 32.

- 1. From the Look & Feel tab, click Edit.
- 2. Configure the look and feel as desired, as shown and described in the following example:

FIGURE 38 Creating the Look and Feel for the Management Portal



- Title: Title to display on the home page of the management portal UI.
- Subtitle: A subtitle, if desired, that provides a welcome-type message to the user and appears underneath the title.
- Login Text: Text to display when the user login screen is presented.
- Color buttons: Use the various color buttons to create the desired look for the management portal GUI.
- Logo File Name: You can upload an image file to display the logo of your property on the management portal GUI. In this example, the name of the property is "Lake View Apartments," which is why the imported file is named accordingly.

NOTE

It is recommended that the image for the logo be no larger than 440 x 119 pixels.

• Icon File Name: Sets the favicon that is displayed in the management portal UI browser tab.

3. Click Save.

NOTE

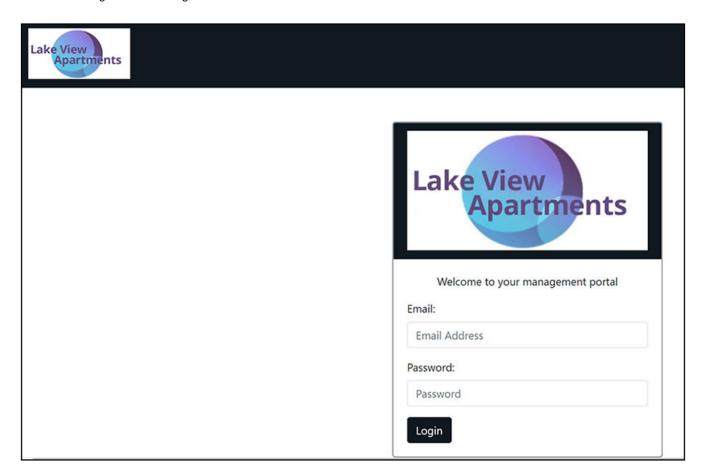
As soon as you save any changes that you made in the Look & Feel tab of the Cloudpath UI, these changes will be reflected on the management portal once you refresh the management portal page in your browser.

Connecting to the Management Portal User Interface

Follow the steps below to access the management portal UI.

1. Click the URL in the "Portal URL" field in the Management Portal configuration screen (see Figure 32 on page 37) to invoke the login window:

FIGURE 39 Management Portal Login Screen



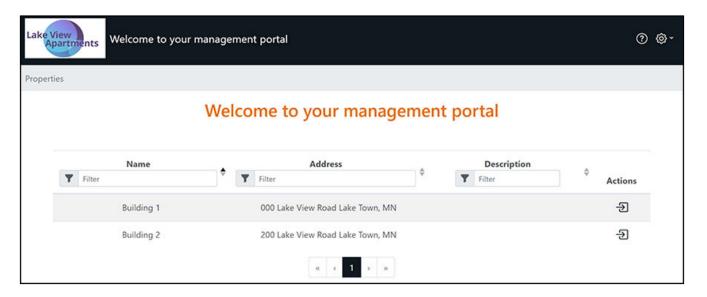
2. Users must log in with their configured email address and the secret key.

NOTE

The secret is configured in Figure 31 on page 36.

The management portal UI should now appear, as shown in the example screen below.

FIGURE 40 Welcome Screen for Management Portal User Interface

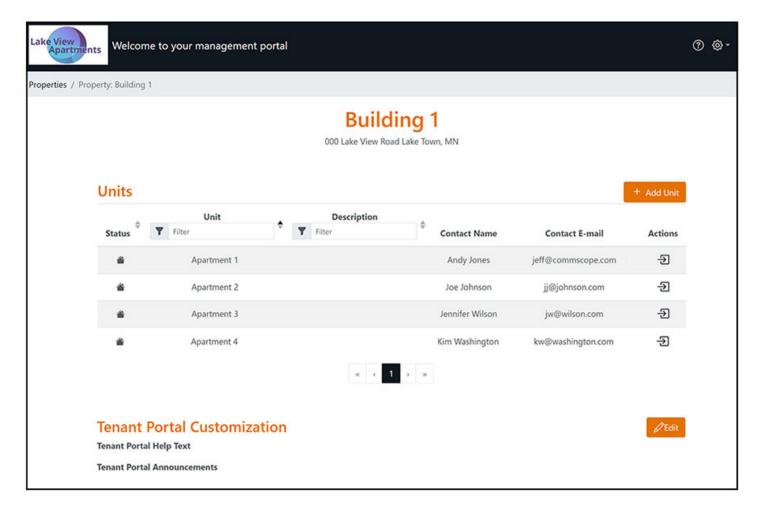


Using the Management Portal

Once a resistered user successfully logs in to a management portal, the user can perform actions that have been "enabled" in the Portal Controls areas of the portal management configuration screen (see Figure 32 on page 37).

You can click the right-pointing arrow () on a property in the management portal to view details of that property, as shown in the example below:

FIGURE 41 Property Called "Building 1" in Management Portal

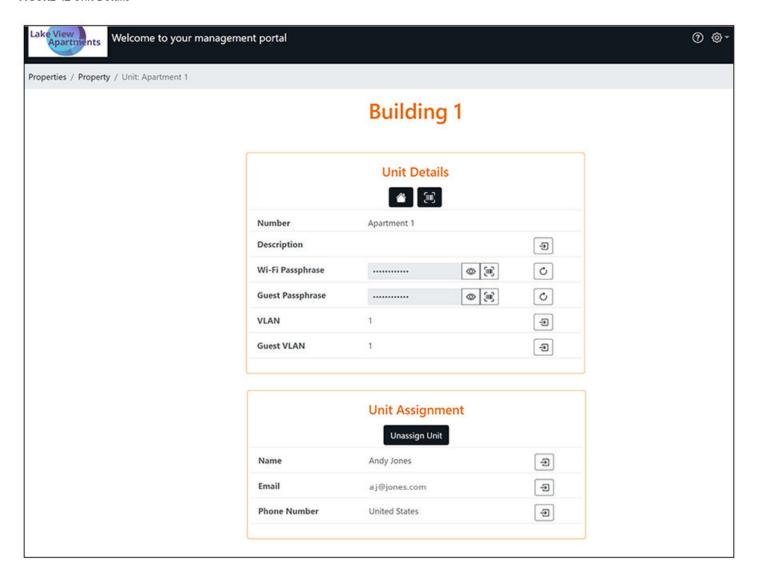


Actions you can take include:

Editing a Unit:

To make changes to an existing unit, click the right-pointing arrow () for the unit. The Unit Details screen is displayed, as shown in the example below:

FIGURE 42 Unit Details



You can perform a number of actions on a unit, provided the access controls configured in the Management Portal configuration screen in the Cloudpath UI allow them:

TABLE 4 Actions That Can Be Performed on a Unit

Action	How to Perform
 Changing the authentication token Deleting a unit Signing out 	Click the gear dropdown: Change Authentication Token Delete Unit Sign Out Then choose the desired action and follow any on-screen instructions. NOTE Changing the token invalidates the existing credentials for the unit's tenant portal. The contact for the unit will receive an email/SMS with the new access URL and the required credentials to connect.
Suspending the unit	Click This revokes its associated DPSKs and prevents it from accessing the tenant portal and wi-fi network.
Activating a suspended unit	Click
Viewing the tenant portal QR code	Click
Changing any of the following: Description VLAN Guest VLAN Name, Email and Phone Number	Click and follow any on-screen instructions.
Unassign Unit	Click Unassign Unit and follow the instructions. NOTE Unassigning the unit clears the contact information and change the passphrase(s).
Viewing the wifi passphrase or guest passphrase	Click
Viewing the wifi QRCode or guest QRCode	Click
Changing the wifi passphrase or guest passphrase	Click

Adding a Unit

Creating a Management Portal

Using the Management Portal

From the property page in the management portal UI (see Figure 41), click **Add Unit**, then enter the information in the ensuing screen and click Create. The newly created unit should then appear in the list of units for the corresponding property.

Editing Tenant Portal Information

From the property page in the management portal UI (see Figure 41), to change the help text or announcements that appear on the tenant portal, click **Edit**, make the desired changes, then click **Submit**.

