

# Wi-Fi PRESENCE

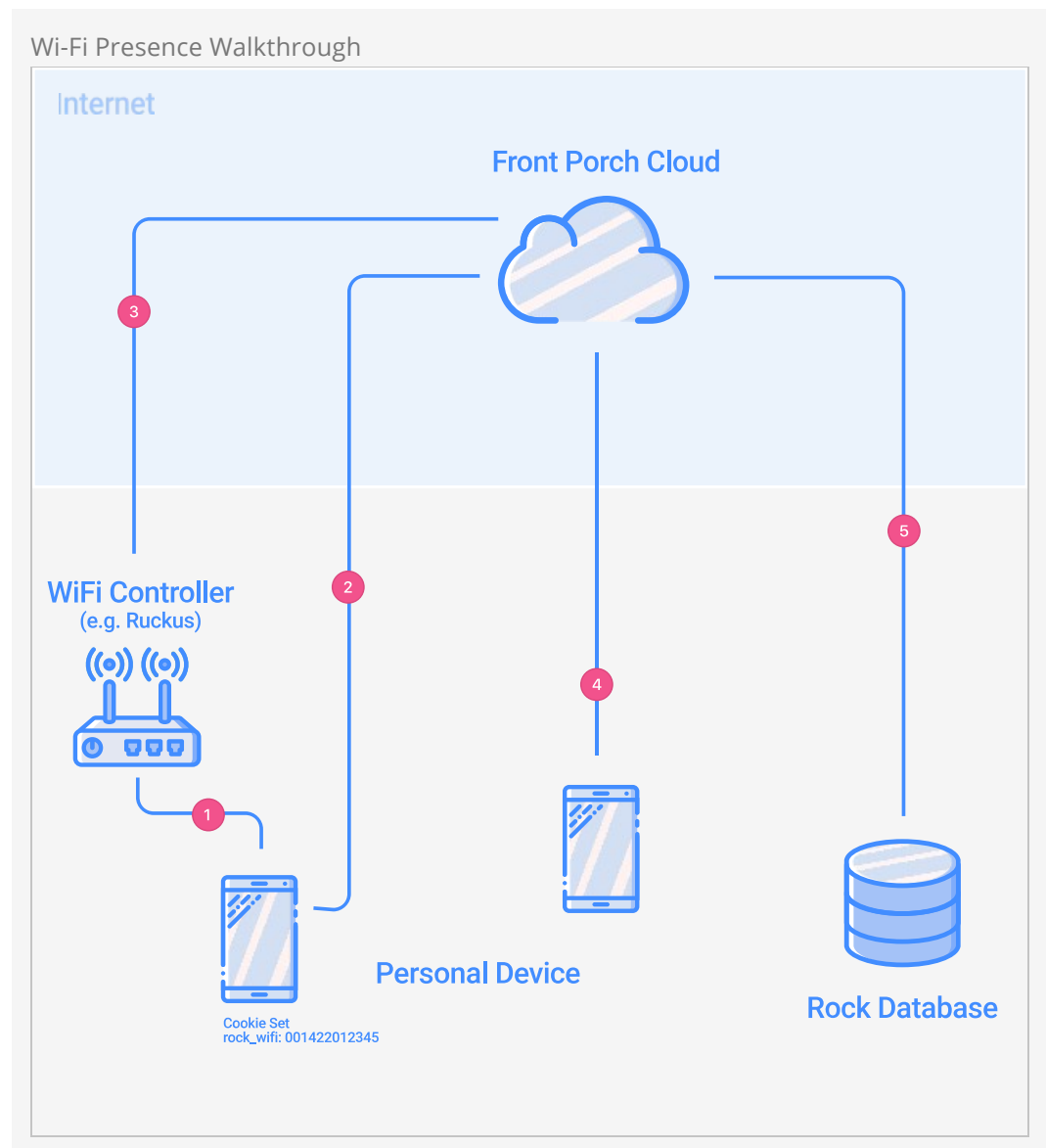


# Welcome

They say knowing is half the battle. For organizations, keeping track of individual engagement is critical, especially when it comes to knowing when an individual is physically present at a particular campus or site. We may have to infer what their presence at that site means—are they visiting the coffee shop, or engaging in an event?—but the fact they're there means something in terms of engagement. Rock's Wi-Fi Presence is a powerful tool in helping determine who is on site. Let's take a look at how it works.

# Solution Walkthrough

Let's look at how we're able to discover user devices and, most importantly, tie them to a person in your Rock database.



1. The whole process begins when an individual first connects to your organization's Wi-Fi. When this happens, the Wi-Fi controller uses a feature called Captive Portal (sounds like a fun place, right?) to determine who's approved to be on the network. The good

news is you get to decide who is approved. The Captive Portal process opens a web browser on the individual's phone, which takes them to page you configure on your Rock website (just like you experience when using airport Wi-Fi). You'll configure this page to use the *Captive Portal Rock* block. This block does a few things:

- Helps gather information about the individual. (This is very configurable. More on that in the *Customizing Your Captive Portal* section.)
- Sets a cookie (a hidden bit of data) on the individual's phone, which provides a unique identifier for their device (aka, MAC address).
- Redirects the user to the next screen when ready.

2. Once the individual accepts the agreement, they are redirected to the Front Porch Cloud service. They'll never see anything from Front Porch, but it's doing some important tasks that we'll look at next.

3. Front Porch makes a call back to the organization's Wi-Fi controller to grant access to the individual's device.

4. Front Porch then transparently redirects the individual to a *Success* page on your Rock server. The individual will think they went right from the *Captive Portal* page to the *Success* page. They won't notice any of the redirecting. The *Success* page is a great place to be creative with a custom (and perhaps personalized) welcome to the network. This is also where your organization could put some 'content of value', such as upcoming announcements. If, for some reason an error occurs the individual will be taken to the captive portal page.

5. Finally, Front Porch consistently passes information to your Rock server about every device it sees on the network. It passes in the data using each device's unique identifier (the same as used at the beginning of the process, above).

# Customizing Your Captive Portal

Rock ships with sample *Captive Portal* pages configured out of the box. You can find them under `Admin Tools > CMS Settings > Pages`. These are provided as samples, but feel free to use them as your default pages.

If you asked ten people how a Captive Portal should be configured, you'd get ten different answers. Luckily, you should be able to meet each of these goals with the settings available in Rock. For the purpose of discussion, we'll start with the most heavy-handed approach and work our way down to more permissive configurations.

## Required Login

By adding security to require a login you can, in effect, ensure that you know every individual who is connecting to your network. You could also choose to enable social media authentication, which provides additional information about them. You would still need the *Captive Portal* block to set the MAC address and redirect to the Front Porch service, but all of this would be behind a login.

## Captive Portal Registration

The next approach is to use Rock's *Captive Portal* block right out of the box. With the default settings, this block looks like the figure below.

Captive Portal Block

Rock Solid ChurchNew Here?ResourcesConnectGiveBlogCalendarWatchHello Alisha ▾

Captive Portal

Home / Captive Portal

First Name \*

Alisha

Last Name \*

Marble

Mobile Number \*

(555) 555-2345

Email Address \*

alisha@rocksolidchurchdemo.com

Terms & Conditions

This free Wi-Fi service("Service") is provided by Rock Solid Church ("Organization") to its guests. Please read the Service Terms and Conditions below. To use the Service, users must accept these Service Terms and Conditions.

1. The Service allows the users to access the Internet via the Wi-Fi network provided by the Organization by using the user's Wi-Fi-enabled device. In order to use the Service, the users must use a Wi-Fi-enabled device and related software.It is the user's responsibility to ensure that the user's device works with the service.
2. The Organization may from time to time modify or enhance or suspend the Service.
3. The users acknowledges and consents that:
  - a. The Service has to be operated properly in accordance with the recommended practice, and with the appropriate hardware and software installed;
  - b. The provisioning of the Service may reveal location-specific data, usage and retention of which are subject to the local standard privacy policy and jurisdiction;
  - c. Every user is entitled to 20 continuous minutes free Wi-Fi service every day at the Company's designated locations(s). If the connection is disconnected within the 20 minutes due to any reason, the users cannot use the Service again on the same day;

Connect To Wi-Fi

As with all Rock blocks, the styling is totally in your hands and there are a ton of block settings to configure this to your heart's content. Let's take a look at each of them.

Captive Portal Block Settings

- 1 MAC Address Parameter**

This is the query string parameter that contains the MAC address. You can change this based on the value that your Wi-Fi controller uses to pass in the address.
- 2 Release Link**

This is the URL that the person will be redirected to when they've completed the registration. This URL will be provided by Front Porch.
- 3 Show Name**

Determines if the first and last name fields should be shown.
- 4 Show Mobile Phone**

Determines if the mobile phone number field should be shown.
- 5 Show Email**

Determines if the email field should be shown.

**6 Show Acceptance Checkbox**

Determines if the acceptance checkbox needs to be shown or if pressing the button is enough to prove acceptance.

**7 Acceptance Checkbox Label**

The text that is displayed next to the acceptance checkbox. You may wish to change this depending on your legal counsel.

**8 Button Text**

The text to display on the button. You may wish to change this depending on your legal counsel.

**9 Show Legal Note**

Determines if the legal iframe should be shown.

**10 Legal Note**

The legal note text. Be sure to run this by your legal counsel for input. The provided sample is just that, a sample.

**Important**

Be sure to run all configuration and text past your legal counsel to ensure they meet the current best practices.

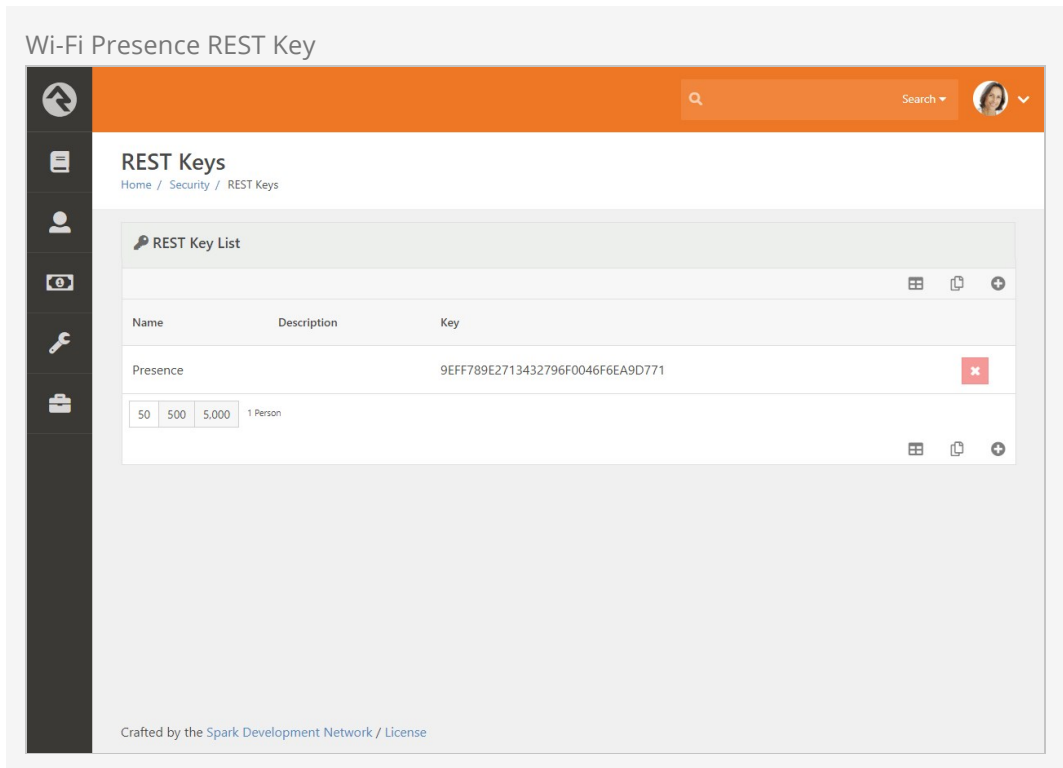
## Transparent Registration

Some may prefer not to have any registration at all. When no fields are set to be shown on the *Captive Portal* block, the individual will be redirected immediately after reaching the page. It's still critical that the *Captive Portal* block be used to set the unique device cookie. The user experience in this case will be that the individual is taken straight to the *Success* screen. Again, be sure to use the *Success* screen to provide a nice welcome and some additional 'content of value'.

## Wi-Fi Presence REST Key

The Wi-Fi Presence REST key is located with the other REST keys at [Admin Tools > Security > REST Keys](#). You can use the key that is automatically created or you can add a new one.





Once that is done, you'll need to give that new user rights to the API Endpoint.

Navigate to `Admin Tools > Security > REST Controllers` .

## Presence REST Controller Security

**Presence**

View Edit **Administrate**

**Item Permissions**

| Role / User              | Allow or Deny   |
|--------------------------|---|
| Presence Presence (User) | <input checked="" type="radio"/> Allow <input type="radio"/> Deny |

**Inherited Permissions**

| Role / User                      | Action | From              |
|----------------------------------|--------|-------------------|
| RSR - Staff Workers (Role)       | Allow  | (Rest Controller) |
| RSR - Staff Like Workers (Role)  | Allow  | (Rest Controller) |
| RSR - Rock Administration (Role) | Allow  | (Global Default)  |
| All Users                        | Deny   | (Global Default)  |

Done

**REST Controllers List:**

| Controller Name            | Controller Class   | Count    | Lock Icon |
|----------------------------|--|----------|-----------|
| PrayerRequests             | Rock.Rest.Controllers.PrayerRequestsController             | 19       | 🔒         |
| <b>Presence</b>            | Rock.Rest.Controllers.PresenceController                   | <b>2</b> | <b>🔒</b>  |
| RegistrationInstances      | Rock.Rest.Controllers.RegistrationInstancesController      | 14       | 🔒         |
| RegistrationRegistrantFees | Rock.Rest.Controllers.RegistrationRegistrantFeesController | 14       | 🔒         |

### 1 Presence Controller

Scroll to the Presence Controller in the list of Rest controllers

### 2 Security settings

Click the padlock icon button to open the Security Settings for the Presence REST Controller.

### 3 Add Role

On each of the available tabs (View, Edit, and Administrate), you will need to click "Add Role" and search for your REST Key's name. In this example, we called the key "Presence" so the person picker should find a record called "Presence Presence". Be sure the permissions are set to "Allow" on all three tabs, then click Done.

# Linking Individuals to Devices

At this point you might be thinking, “I see how we now know about the device, but how do we link that device to a specific individual?” Great question! If the person is already logged, or is forced to login, when visiting the *Captive Portal* block, we’ll create a new Personal Device and tie them to it. If we don’t know who they are, we’ll still create the Personal Device but will leave the owner blank. We’ll also add the ‘rock-Wi-Fi’ cookie with their device’s unique identifier (MAC address). This cookie will stick with the device and will be available every time they visit your website on their device.

The key then is to get them to login to your website from their device. That may take some time, but you can help them along. To do that you might occasionally send out a bulk SMS message to your individuals providing them with some relevant (and do make it relevant) content on your site. When you provide the link, you can also include a login token that will automatically log them in (even if they don’t have an account).

Creating the Lava for your SMS message to do this can be a little tricky, so here’s an example.

```
Hey {{ Person.NickName }}, here's video from Pastor Pete when some news you'll want to know
.
http://rocksolidchurchdemo.com/greatcontent?rckipid={{ Person | PersonTokenCreate }}
```

When the individual opens the link, they will see the content and also be linked to the personal devices that match the device identifier in their cookie. If that device wasn’t tied to a specific individual, we’ll also go back and link all previous Presence Interactions to this individual.

# Personal Presence Details







Once you get people linked to devices you'll want to enable the viewing of this information. The best place to start is to enable the Personal Devices badge on the *Person Profile* page. This badge has already been configured for you, so all you need to do is activate it.



Personal Devices Badge

The screenshot displays a user interface for a person's profile. At the top, there's a navigation bar with a search icon and a user profile icon. Below this, the profile of 'Ted Decker (Theodore)' is shown. His profile includes a photo, a 'Member' badge, and 'Main Campus' affiliation. Personal details listed are: 39 yrs old (2/10/1979), Male, Married 17 yrs (1/4) (Graduated 1994), and contact information: (623) 555-3322 Home, (623) 555-3322 Mobile, (623) 555-2444 Work, and email ted@rocksolidchurchdemo.com. A 'Decker Family' section shows Cindy (38), Noah (11), and Alex (8). A 'Home Address' is listed as 11624 N 31st Dr, Phoenix, AZ 85029. Below this, a horizontal menu includes 'Person Profile' (selected), 'Extended Attributes', 'Groups', 'Contributions', 'Benevolence', 'Security', 'History', and 'Prayer Requests'. The 'Timeline' section shows a recent event from Alisha Marble on April 2, 2014, at 11:00 PM, stating 'Called Ted and heard that his mother is in the hospital and could use prayer.' On the right side, there are sections for 'Bookmarked Attributes' and 'Connection Requests'.

Clicking on this badge will take you to a screen where you can view all of the devices linked to the individual.


## Personal Device List




 Search 

### Personal Devices

[Home](#) / [Person Profile](#) / [Personal Devices](#)







**Windows 10**  
Discovered  
2/15/2018 1:01:49 PM  
MAC Address  
9cb645d55707  
[Interactions](#)



**iOS 11.2.6.0**  
Discovered  
3/26/2018 2:39:34 PM  
MAC Address  
3408bcd24916  
[Interactions](#)

Crafted by the Spark Development Network / License

Clicking on a specific device's interactions lists all the visits this device has made to your organization's Wi-Fi network.


## Interaction List




 Search 

### Personal Device Interactions

[Home](#) / [Person Profile](#) / [Personal Devices](#) / [Personal Device Interactions](#)

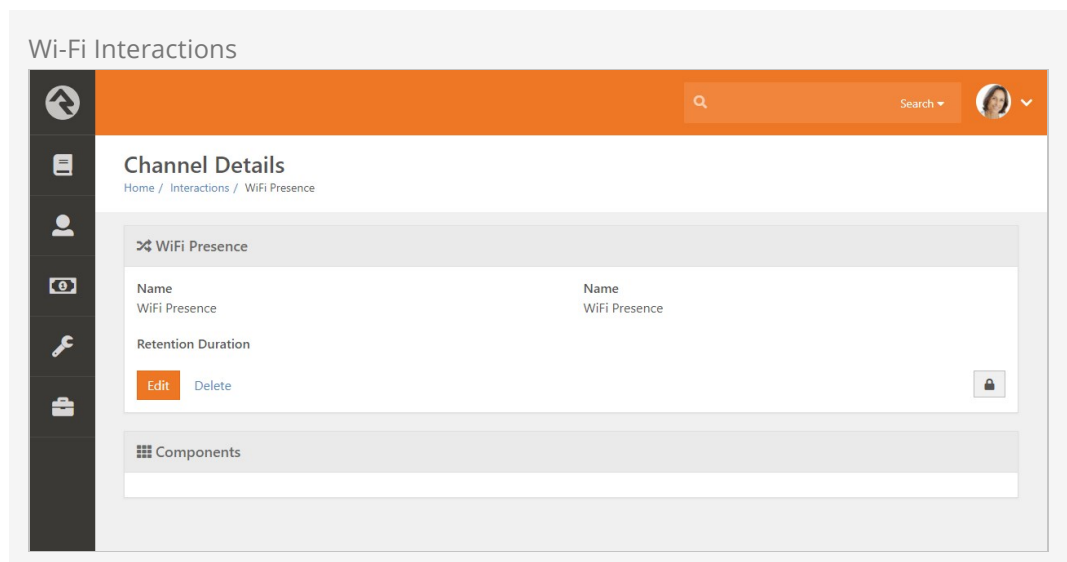
**Ted Decker's Device Interactions**

Filter Options 

| Date / Time           | Details   |
|-----------------------|---|
| 4/11/2018 7:13:30 AM  | Arrived at Auditorium on 4/11/2018 7:13 AM. Stayed for 1 hours and 1 minutes.   |
| 4/10/2018 7:14:31 AM  | Arrived at Auditorium on 4/10/2018 7:14 AM. Stayed for 10 hours and 4 minutes.  |
| 4/9/2018 7:13:36 AM   | Arrived at Auditorium on 4/9/2018 7:13 AM. Stayed for 10 hours and 14 minutes.  |
| 4/6/2018 1:43:30 PM   | Arrived at Auditorium on 4/6/2018 1:43 PM. Stayed for 3 hours and 58 minutes.   |
| 4/6/2018 6:53:39 AM   | Arrived at Auditorium on 4/6/2018 6:53 AM. Stayed for 5 hours and 31 minutes.   |
| 3/30/2018 12:37:46 PM | Arrived at Auditorium on 3/30/2018 12:37 PM. Stayed for 4 hours and 50 minutes. |
| 3/30/2018 7:22:06 AM  | Arrived at Auditorium on 3/30/2018 7:22 AM. Stayed for 4 hours and 32 minutes.  |
| 3/29/2018 12:54:35 PM | Arrived at Auditorium on 3/29/2018 12:54 PM. Stayed for 4 hours and 44 minutes. |

# Presence Interactions

As noted in the first figure (step 6), Front Porch will consistently be notifying your Rock server about devices that are on your network. Each time it does this, the data will be written to a new Interaction record. You can find these records in Rock under [Tools > Interactions > Wi-Fi Presence](#). Here you'll see an Interaction Component for each Space you configured in Front Porch. Clicking on a component allows you to see a listing of all the interactions for that space.



# More Presence Options

We've now seen how to view presence information for an individual for an entire network. There's a couple of other options for you to consider.

## Personal Device Interaction Block

You might remember the *Personal Device Interactions* block linked from the Personal Devices badge. Turns out you can use this same block to view details from the entire network. Just add the *Personal Device Interactions* block to a page and it will list all of the interactions at a network level. You can also filter by date range and even those interactions that are currently present.

Personal Device Interaction Block

Web Presence

Home / Web Presence

Personal Device Interactions

Filter Options

| Date / Time          |                   | Details  | Assigned Individual |
|----------------------|-------------------|--|---------------------|
| 4/13/2018 1:29:48 PM | Currently Present | Arrived at Auditorium on 4/13/2018 1:29 PM. Stayed for 23 minutes. | Ted Decker          |
| 4/13/2018 1:27:46 PM |                   | Arrived at Auditorium on 4/13/2018 1:27 PM. Stayed for 20 minutes. |                     |
| 4/13/2018 1:23:48 PM | Currently Present | Arrived at Auditorium on 4/13/2018 1:23 PM. Stayed for 27 minutes. |                     |
| 4/13/2018 1:19:46 PM | Currently Present | Arrived at Auditorium on 4/13/2018 1:19 PM. Stayed for 33 minutes. |                     |
| 4/13/2018 1:17:46 PM |                   | Arrived at Auditorium on 4/13/2018 1:17 PM. Stayed for 1 minutes.  |                     |
| 4/13/2018 1:12:48 PM | Currently Present | Arrived at Auditorium on 4/13/2018 1:12 PM. Stayed for 40 minutes. |                     |
| 4/13/2018 1:04:46 PM | Currently Present | Arrived at Auditorium on 4/13/2018 1:04 PM. Stayed for 48 minutes. |                     |
| 4/13/2018 1:04:46 PM | Currently Present | Arrived at Auditorium on 4/13/2018 1:04 PM. Stayed for 48 minutes. |                     |

# Front Porch Concepts

While the configuration of Front Porch is outside the scope of this document, it's important that you understand how their configuration applies to Rock. Let's look at some of their terms.

## Zones

Zones are defined in Front Porch as one or more access points. This allows you to create areas of your environment that are as large or small as you'd like. Each zone will show as an Interaction Component that Interactions will be assigned to.

## Sessions

A new session is created each time a device comes onto your network. There's quite a bit of configuration around how sessions are tuned. Let's take a look at some of them:

- **Minimum Session To Track** - This value, in minutes, determines how long a device needs to be on the network in order for a session to be created. This helps keep the drive-bys from becoming a session, which would then be added to Rock. While there's no right answer, Front Porch recommends making this value be 33-50% of the program event you'd like to track.
- **Session Timeout** - The amount of time before a session will timeout for inactivity.
- **Polling Interval** - How frequently to process records and (when necessary) poll the Wi-Fi controller for new information. Some Wi-Fi controllers push session data while others require polling.

For more information on Front Porch configuration see:  
<https://manager.frontporch.cloud/support/>.



# Frequently Asked Questions

Got questions? We've got answers!

What about the concept of random MAC addresses that modern devices use?

While it's true that modern devices will randomize their MAC address while not connected to a Wi-Fi network, it will use a consistent MAC address once it does connect to a specific network.