

# SETTING UP APPLICATION ENVIRONMENT

## Create an account in SendGrid

Date	28 October 2022
Team ID	PNT2022TMID39206
Project Name	Inventory Management System for Retailers
Maximum Marks	4 Marks

### SendGrid Setup

#### How to setup SendGrid for use in One Signal Email Messaging

One Signal's Email Messaging requires the use of a third-party email service provider to handle email delivery. All you have to do is set up the integration between the provider and One Signal, and you'll be ready to send emails through One Signal.

#### Step 1. Requirements

- [SendGrid Account](#)
- [One Signal Account](#)

#### Step 2. SendGrid Sender Authentication

It is recommended to use SendGrid's "Domain Authentication" so that SendGrid sends emails via your domain rather than via `sendgrid.net`, and the links your users click as coming from your domain.

##### Install DNS Records

If you selected **Domain Authentication**, make sure your DNS Records are verified.

SendGrid

Secure | https://app.sendgrid.com/settings/sender\_auth/verify?domain=1890679&provider=GoDaddy

SendGrid Support

Dashboard

Marketing

Templates

Stats

Activity

Suppressions

Settings

Account Details

Alert Settings

API Keys

Inbound Parse

IP Access Management

IP Addresses

Mail Settings

Partners

Experiments

Sender Authentication

Install DNS Records

You will need to install the following records to complete the process.

Install Myself

Send To A Coworker

Instructions

1

Add all of these records to GoDaddy's DNS section.

TYPE	HOST	POINTS TO
CNAME	em7587.anclovn.com	u6791010.wl011.sendgrid.net
CNAME	s1_domainkey.anclovn.com	s1_domainkey.u6791010.wl011.sendgrid.net
CNAME	s2_domainkey.anclovn.com	s2_domainkey.u6791010.wl011.sendgrid.net

Not sure how to do this? Consult the documentation

2

Once added, press Verify.

☐ I've added these records.

Verify

SendGrid

Secure | https://app.sendgrid.com/settings/sender\_auth/verify?domain=1890679&provider=GoDaddy

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CNAME	em7587.anclovn.com	u6791010.wl011.sendgrid.net
CNAME	s1_domainkey.anclovn.com	s1_domainkey.u6791010.wl011.sendgrid.net
CNAME	s2_domainkey.anclovn.com	s2_domainkey.u6791010.wl011.sendgrid.net

Not sure how to do this? Consult the documentation

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Once added, press Verify.

☐ I've added these records.

Verify

## ← mail.catfac.ts Domain

[Remove Default Status](#)

VALID	DEFAULT	SUBDOMAIN	DOMAIN	USER ASSIGNED
✗	✓	mail	catfac.ts	meow

**DNS Record** information for sending your email with your whitelabel. Copy the following DNS Records into your hosting provider. If you have questions please refer to our documentation.

[Validate Record](#)

VALID	TYPE	HOST	DATA
✗	MX	mail.catfac.ts	mx.sendgrid.net.
✗	TXT	m1_domainkey.catfac.ts	k=rsa; t=s; p=JSDFLKEINS)SJD023WF23dfj(SSD)sdfFF/6cPbln8vVjx9BR9+HeHCyHxd4
✗	TXT	mail.catfac.ts	v=spf1 include:sendgrid.net ~all

[Save IPs](#)

Select the IP(s) you would like to add to your SPF record. Including specific IPs in place of "sendgrid.net ~all" will enhance the security of your account by only allowing SPF to pass if a message was sent from IPs that you own.

Search



## IP ADDRESSES

## USER ASSIGNED

☐ 55.155.255.1

meow

## ← mail.catfac.ts Domain

[Remove Default Status](#)

VALID	DEFAULT	SUBDOMAIN	DOMAIN	USER ASSIGNED
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[Validate Record](#)

VALID	TYPE	HOST	DATA
✗	MX	mail.catfac.ts	mx.sendgrid.net.
✗	TXT	m1_domainkey.catfac.ts	k=rsa; t=s; p=JSDFLKEINS)SJD023WF23dfjJSSD)sdfFF/6cPbln8vVjx9BR9+HeHCyHxd4
✗	TXT	mail.catfac.ts	v=spf1 include:sendgrid.net ~all

[Save IPs](#)

Select the IP(s) you would like to add to your SPF record. Including specific IPs in place of "sendgrid.net ~all" will enhance the security of your account by only allowing SPF to pass if a message was sent from IPs that you own.

Search

## IP ADDRESSES

## USER ASSIGNED

☐ 55.155.255.1

meow

My Name ▾

Dashboard

Marketing ▾

Templates ▾

Stats ▾

Activity

Suppressions ▾

Settings ▾

Account Details

Alert Settings

API Keys

Inbound Parse

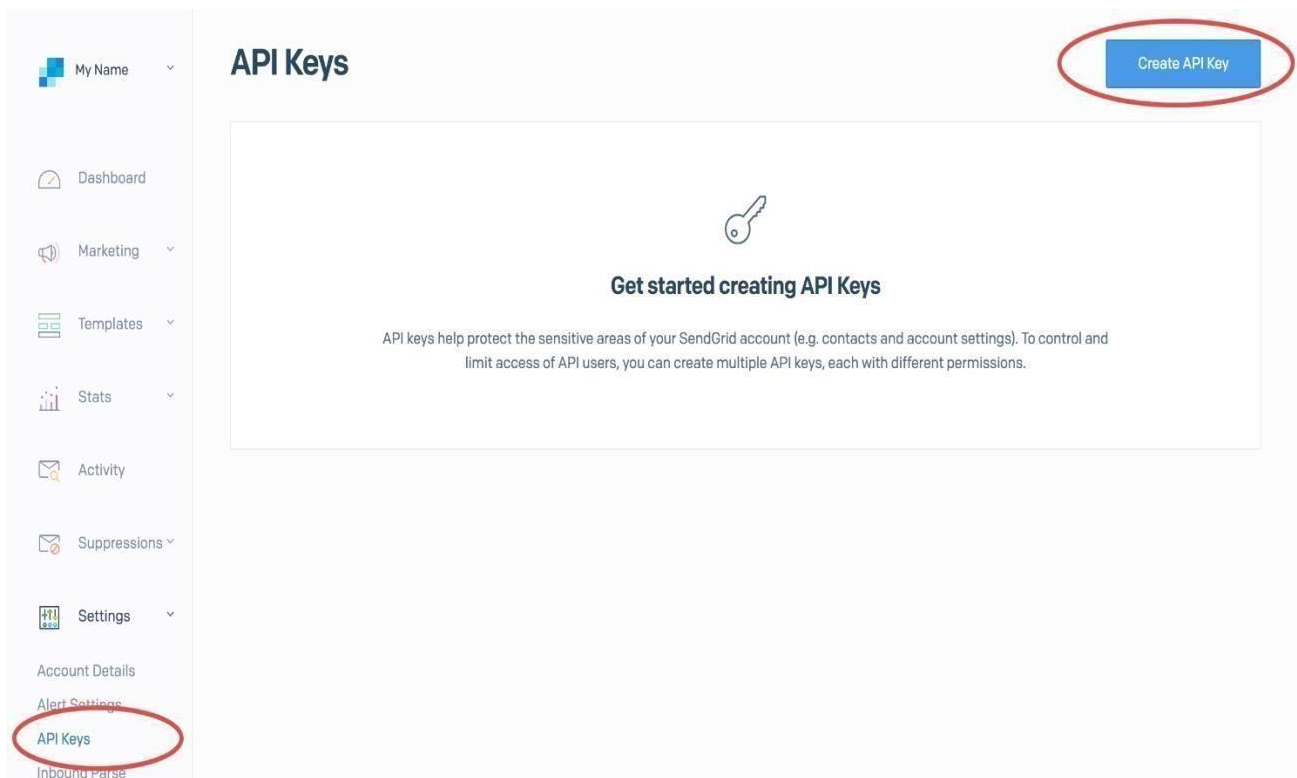
## API Keys

Create API Key

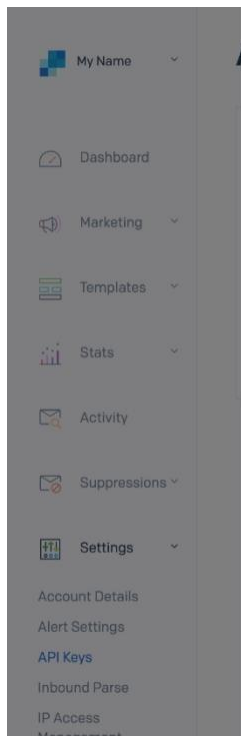


### Get started creating API Keys

API keys help protect the sensitive areas of your SendGrid account (e.g. contacts and account settings). To control and limit access of API users, you can create multiple API keys, each with different permissions.






Name your API key something like OneSignal API Key and be sure to set permissions to **Full Access**. Click 'Create & View' when you are ready.



## Create API Key

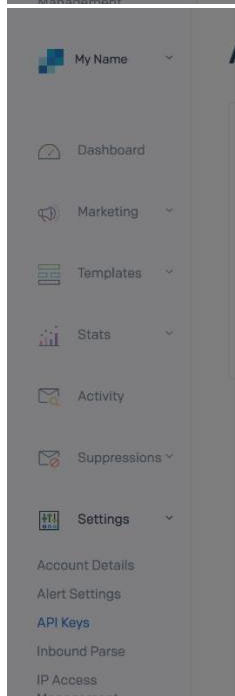
API Key Name •  
OneSignal API Key

### API Key Permissions • ⓘ

- ☒  **Full Access**  
Allows the API key to access GET, PATCH, PUT, DELETE, and POST endpoints for all parts of your account, excluding billing.
- ☐  **Restricted Access**  
Customize levels of access for all parts of your account, excluding billing.
- ☐  **Billing Access**  
Allows the API key to access billing endpoints for the account. (This is especially useful for Enterprise or Partner customers looking for more advanced account management.)

Cancel




Create & View



## Create API Key

API Key Name •  
OneSignal API Key

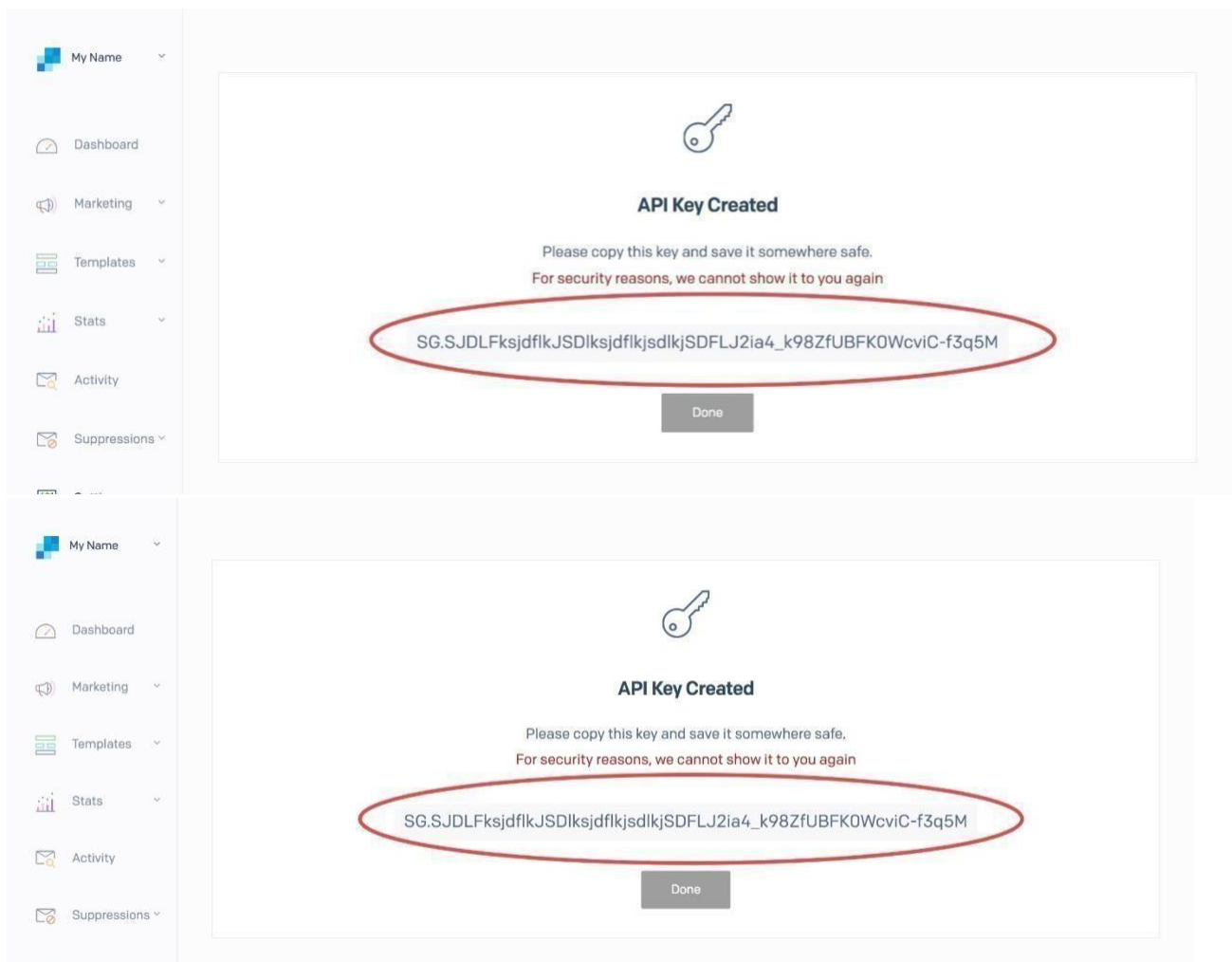
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Cancel

Create & View

Next, click on the API key to copy it to your clipboard.



What are the minimum API restrictions I can allow?

The minimum access you need to allow is as follows:



# Edit API Key

API Key Name •

Restricted Test

API Key Permissions •

☐

Full Access

Allows the API key to access GET, PATCH, PUT, DELETE, and POST endpoints for all parts of your account, excluding billing and Email Address Validation.

☒

Restricted Access

Customize levels of access for all parts of your account, excluding billing and Email Address Validation.

☐

Billing Access

Allows the API key to access billing endpoints for the account. (This is especially useful for Enterprise or Partner customers looking for more advanced account management.)

Access Details	No Access	Read Access	Full Access
API Keys			
Alerts			
Category Management			
Design Library			
Email Activity			
Email Testing			
IP Management			
Inbound Parse			
Mail Send			
Mail Settings			
Marketing			
Partners			
Security			
Sender Authentication			
Stats			
Suppressions			

## ● Step 4. Enable Email Messaging

In OneSignal, navigate to **Settings > Platforms** and click Email to configure your email settings.

Select **SendGrid** as the provider.

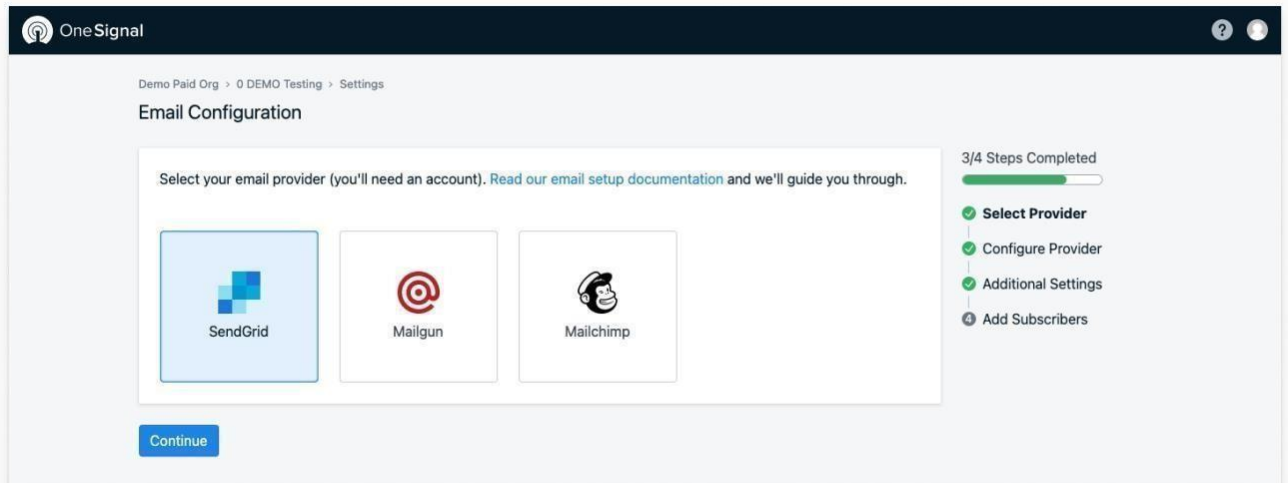
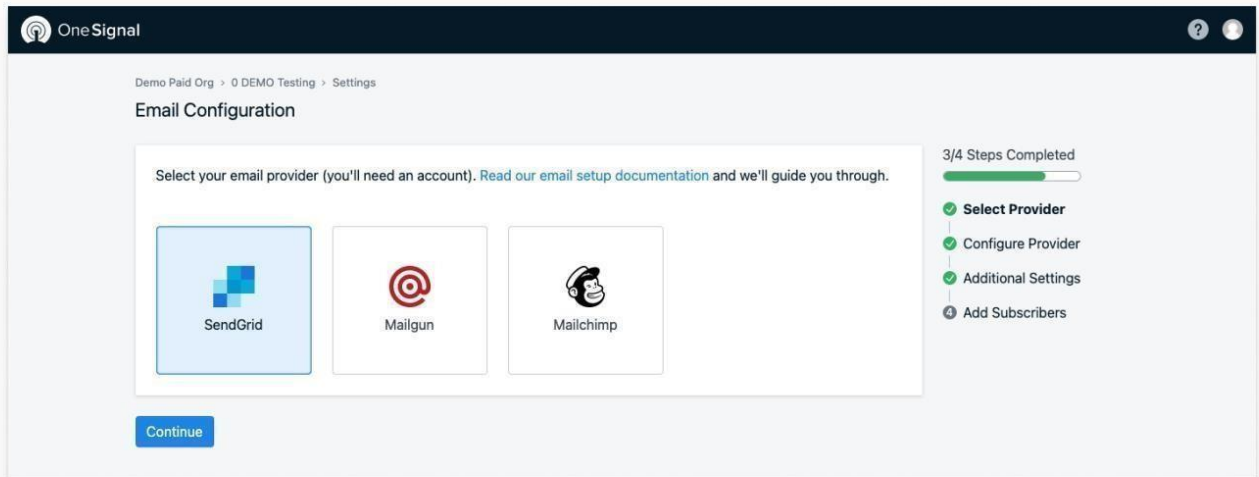


Image selecting SendGrid from email settings

Paste your SendGrid API key into the provided field.

The screenshot shows the OneSignal 'Email Configuration' page. The breadcrumb trail is 'Demo Paid Org > 0 DEMO Testing > Settings'. The page title is 'Email Configuration'. A message states: 'Now, let's configure your app. Read our [SendGrid documentation](#) to learn how to complete the fields below.' Below this is a text input field for the 'SendGrid API Key' with a red asterisk and a help icon. The field contains the value 'SG-AizBsyC\_N8hcAeDaZEELfPadGnKBWE5zrmAdY'. A link 'Copy from your SendGrid Console' is below the field. At the bottom are 'Continue' and 'Go Back' buttons. On the right, a progress bar shows '3/4 Steps Completed'. The steps are: 'Select Provider' (checked), 'Configure Provider' (checked), 'Additional Settings' (checked), and 'Add Subscribers' (not checked).

This screenshot is identical to the one above, showing the 'Email Configuration' page with the 'SendGrid API Key' field filled with 'SG-AizBsyC\_N8hcAeDaZEELfPadGnKBWE5zrmAdY'. The progress bar on the right indicates '3/4 Steps Completed' with the first three steps completed.

Image showing where to enter your API Key

## Delivery Defaults

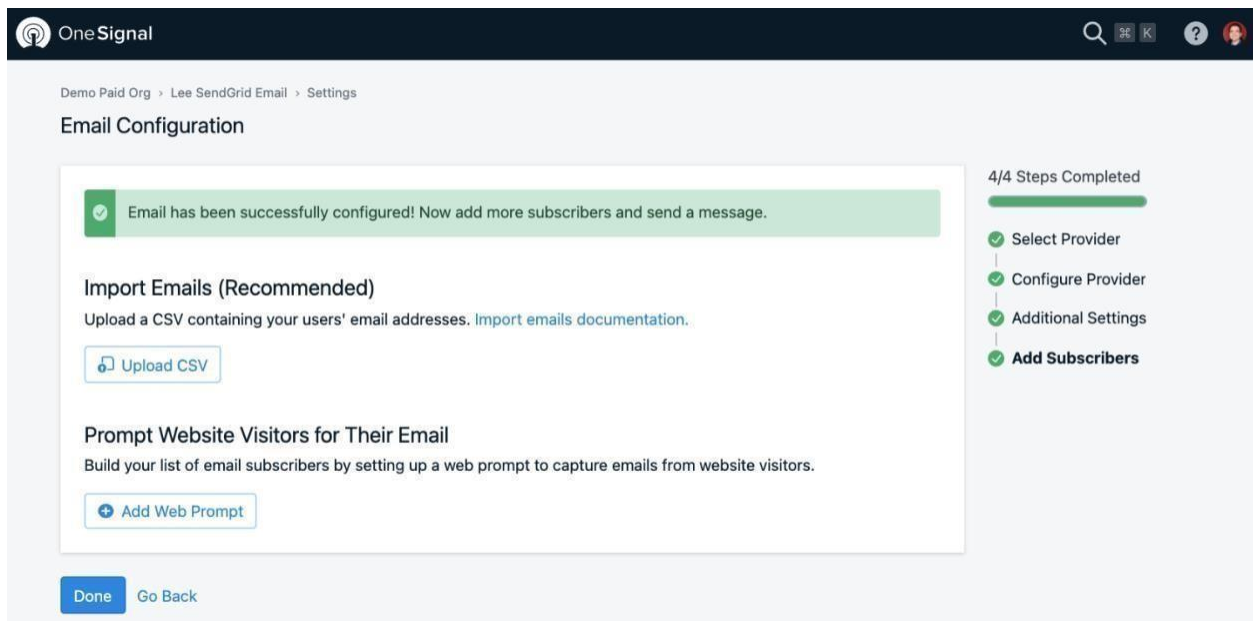
Add the default **name** and **email address** you want your emails to come from (these can be changed later).

Press Done when finished.

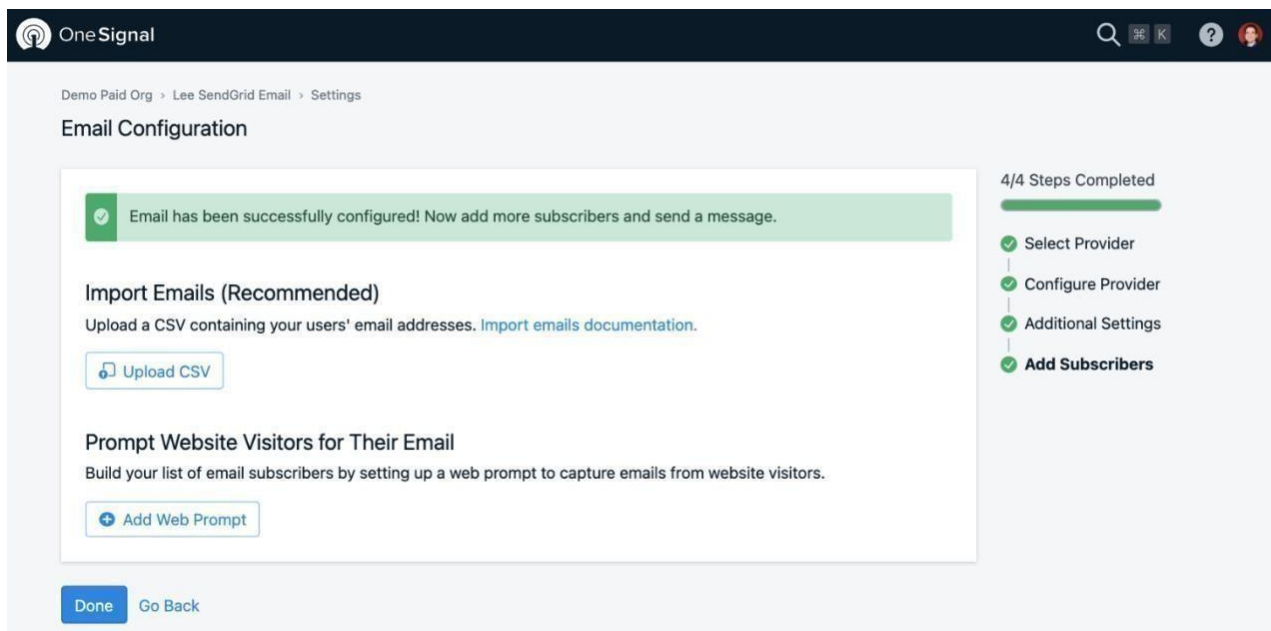
## Step 5. Add Subscribers

If you have a list of emails ready, select **Upload CSV** to [Import Email Addresses](#). You can always do this again later.

If you have a website and want to prompt users to provide their email.  
Select **Add Web Prompt** to use OneS



ignal's [Email Web Prompt](#).



## Step 6. Send Yourself a Test Email

In **OneSignal > Messages > Email**, select **New Email**.

Add a `subject` and click **Send Test Email**. Input your email and press **Send Test Message**.

2. Message Send Test Email

From Name \* ?  
hello

From Email \* ?  
hello@client-emails.os.tc

Subject \*  
testing

☒ Track link clicks ?

An email should arrive to your inbox shortly!

## Step 7. Set Custom User Properties

One Signal creates channel-level device records under a unique Id called the `player_id`. A single user can have multiple `player_id` records based on how many devices, email addresses, and phone numbers they use to interact with your app.

If your app has its own login system to track users, call `setExternalUserId` at any time to link all channels to a single user. For more details, see [External User Ids](#).

All other event and user properties can be set using [Data Tags](#). Setting this data is required for more complex segmentation and message personalization.

## Step 8. Collect New Emails

Emails can be added into OneSignal using the following options outlined in our [Import Email Addresses](#) guide.

Option	Description
Dashboard Upload	Upload a <code>CSV</code> of emails and user data or manually add emails.
Server API	Programmatically add emails server side.
SDK <code>setEmail</code> method	Add emails using our client side SDK. <b>Recommended if using our SDKs for push or in-app messaging.</b>
Email Web Prompt	A web prompt that allows user to include their own email address and phone number.

## Email Configuration



Email has been successfully configured! Now add more subscribers and set up a prompt to collect email addresses.

### Import Emails (Recommended)

Upload a CSV containing your users' email addresses. [Import emails documentation](#).

 Upload CSV

### Prompt Website Visitors for Their Email

Build your list of email subscribers by setting up a web prompt to capture emails from website visitors.

 Add Web Prompt

Done

[Go Back](#)