



# Configuration Guide

For SMS Portal Authentication

Wireless Controller (AC500 / AC50)

1910012234 REV1.0.0

August 2017

# CONTENTS

<b>1</b>	<b>Overview .....</b>	<b>1</b>
1.1	SMS Portal Introduction.....	1
1.2	Network Topology for SMS Portal.....	2
1.3	SMS Authentication Process.....	2
<b>2</b>	<b>Configure SMS Portal.....</b>	<b>3</b>
2.1	Upgrade the Firmwares .....	3
2.2	Get a Twilio Account .....	3
2.3	Create SSID on AC.....	7
2.4	Configure Default Gateway and DNS on AC.....	8
2.5	Configure Splash Page on AC .....	9
2.6	Configure SMS Portal on AC .....	10
<b>3</b>	<b>Test the Configuration Result.....</b>	<b>11</b>
<b>4</b>	<b>Upgrade the Trail Account.....</b>	<b>13</b>

# 1 Overview

On the latest Wireless Controller AC500/AC50 (V1\_170706 or above), we newly develop a powerful portal feature: SMS Portal. To help users easily understand and enjoy the new feature, this configuration guide detailedly introduces what SMS Portal is and how to configure SMS Portal.

## 1.1 SMS Portal Introduction

In SMS Portal authentication, users can use their mobile phones to get a verification code via text message, and enter the received code to pass authentication.

The following introduces the main advantages of SMS Portal, which may help you determine when or whether you should choose SMS Portal on your network.

- Convenient For Customers

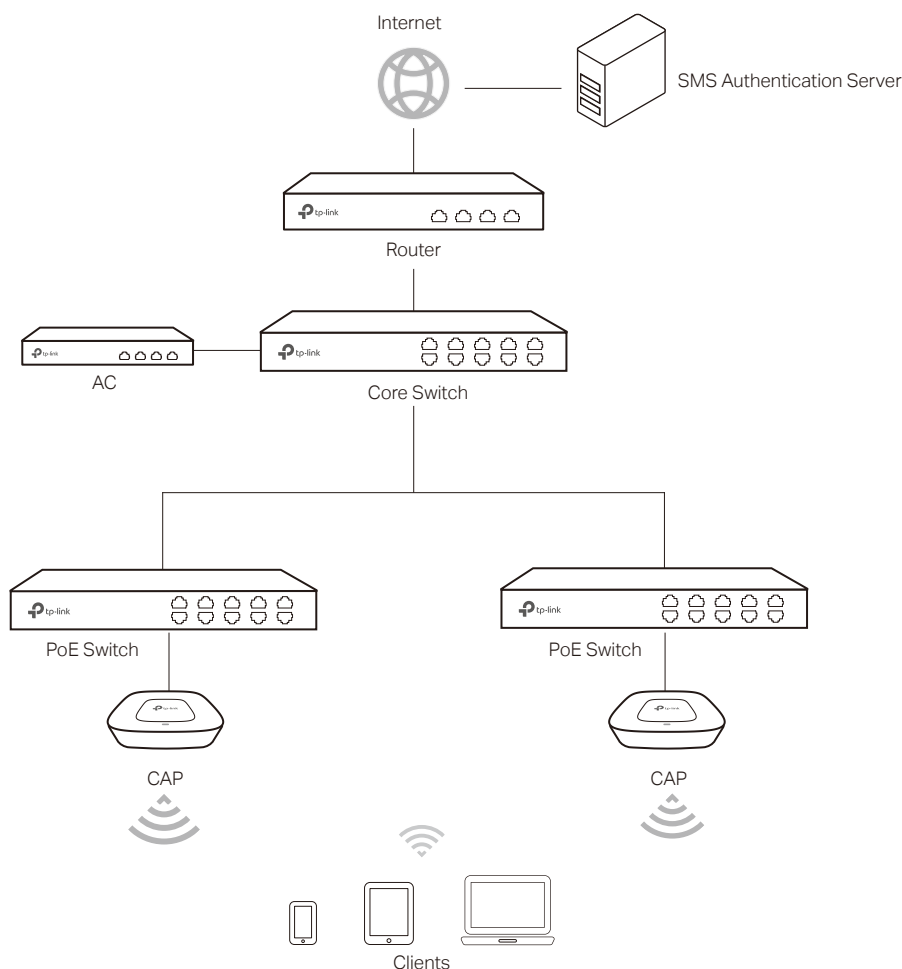
Nowadays almost everyone takes a mobile phone when go outside. SMS Portal directly uses the phone number for authentication without additional registration account or information required. The authentication process is very simple for customers. Customers only need to get a verification code using their mobile phones and provide the received code on the authentication page.

- Real-Name Authentication

Nowadays the United States, Germany, Britain, Australia, China and some other countries require users to provide a valid proof of identity and contact information to buy phone numbers. If your country requires users to provide proof of identity to access the network, SMS Portal is a good choice. Because SMS Portal authentication can verify the validity of users' identity by verifying their mobile phone numbers.

## 1.2 Network Topology for SMS Portal

The following figure shows the network topology for SMS Portal.



## 1.3 SMS Authentication Process

The process of accessing the internet via SMS Portal authentication is as follows:

- 1) Users connect to the SSID for SMS Portal and obtain the SMS authentication page.
- 2) On the authentication page, users enter their phone numbers and click the **Get Code** button.
- 3) The verification code will be sent to users' mobile phones. Users enter the received verification code to log in.
- 4) After authenticated, users will be redirected to the authentication result page.
- 5) When the authentication times out, users need to complete the step 2) to step 4) again to pass the authentication.

# 2 Configure SMS Portal

The configuration overview is as follows:

- 1) Upgrade the firmwares.
- 2) Get a Twilio account.
- 3) Create SSID on AC.
- 4) Configure the default gateway and DNS on AC.
- 5) Configure Splash page on AC.
- 6) Configure SMS Portal on AC.

## 2.1 Upgrade the Firmwares

To get the newly developed SMS Portal feature, make sure that both of your AC and CAP are upgraded to the latest firmwares:

- AC: V1\_1707076 or above
- CAP: V1\_170601 or above

Go to the download center <http://www.tp-link.com/en/support/download-center> and search your AC and CAP models. Then download the latest firmware files one by one and upgrade the AC and CAPs using the proper downloaded firmware files.

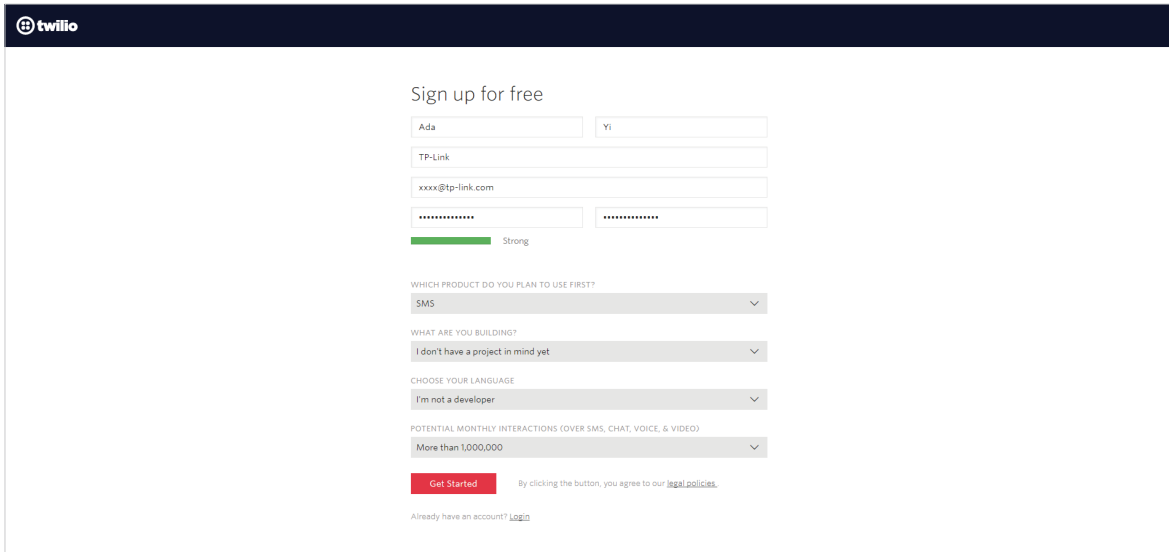
## 2.2 Get a Twilio Account

To use SMS Portal, you first need to get a Twilio account.

Twilio service is not free. When you test the SMS Portal feature the first time, you can get a free Twilio Trail account. However, the free Twilio Trail account can only provide SMS Portal service for the phone number which is used to register this Trail account. So if you are ready to use this feature, you need to update your Trail account.

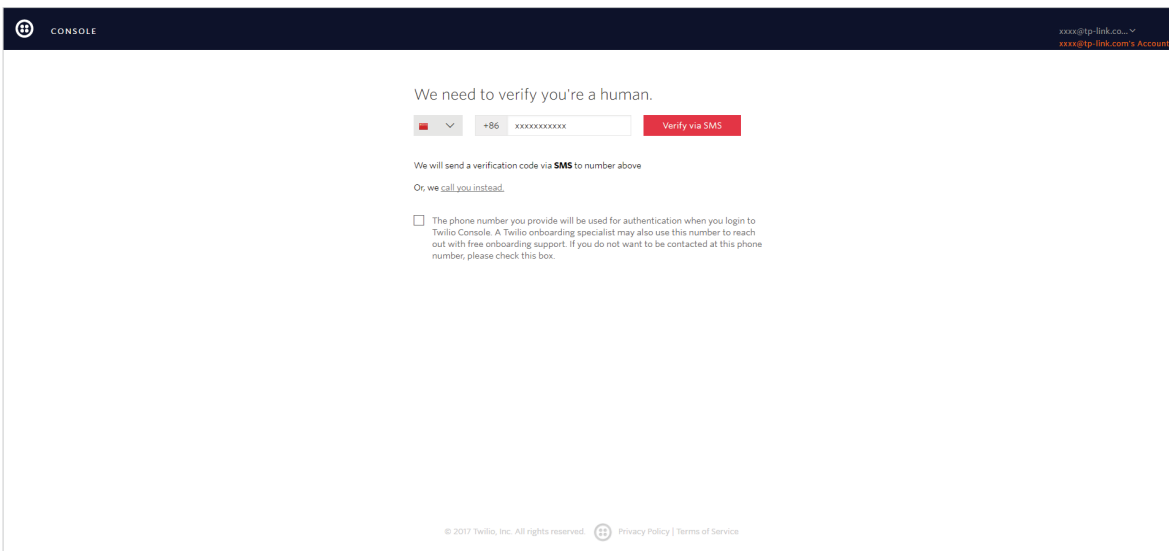
The following introduction takes a free Twilio Trial account as an example. Follow the steps below to get a Twilio Trail account:

- 1) Go to [www.twilio.com/try-twilio](http://www.twilio.com/try-twilio) and enter the required information to create a new account. Then click **Get Started**.



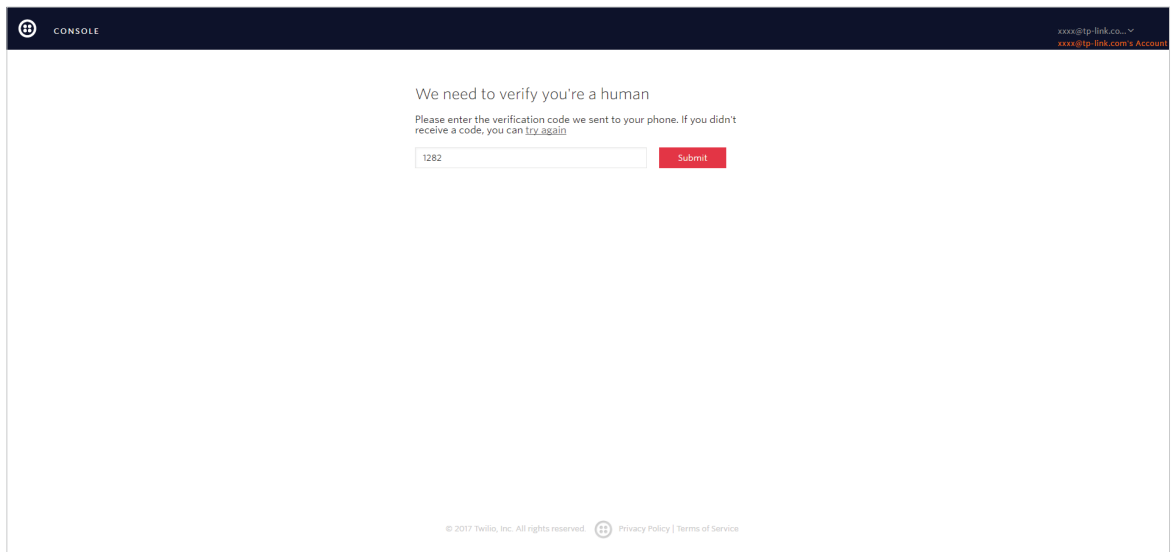
The screenshot shows the Twilio sign-up page. At the top left is the Twilio logo. The main heading is "Sign up for free". Below this are several input fields: a name field containing "Ada", a "Yes" checkbox, a "TP-Link" field, an email field containing "xxxx@tp-link.com", and two password fields. A green progress bar below the passwords indicates "Strong". There are four dropdown menus: "WHICH PRODUCT DO YOU PLAN TO USE FIRST?" (SMS), "WHAT ARE YOU BUILDING?" (I don't have a project in mind yet), "CHOOSE YOUR LANGUAGE" (I'm not a developer), and "POTENTIAL MONTHLY INTERACTIONS (OVER SMS, CHAT, VOICE, & VIDEO)" (More than 1,000,000). A red "Get Started" button is at the bottom, with a link to "legal policies" next to it. Below the button is a link for "Already have an account? Login".

- 2) Enter your telephone number and click **Verify via SMS**. Twilio will send you a verification code.



The screenshot shows the Twilio verification page. At the top left is the Twilio logo and the word "CONSOLE". At the top right is the user's email address "xxxx@tp-link.com" and a link to "xxxx@tp-link.com's Account". The main heading is "We need to verify you're a human.". Below this is a phone number input field with a dropdown menu for the country code (set to "+86") and a "Verify via SMS" button. Below the input field is the text "We will send a verification code via SMS to number above" and a link "Or, we call you instead.". There is a checkbox with the text "The phone number you provide will be used for authentication when you login to Twilio Console. A Twilio onboarding specialist may also use this number to reach out with free onboarding support. If you do not want to be contacted at this phone number, please check this box." At the bottom of the page is the copyright notice "© 2017 Twilio, Inc. All rights reserved." and links for "Privacy Policy" and "Terms of Service".

- 3) Enter the received verification code and click **Submit**.



CONSOLE

xxxx@tp-link.co...  
xxxx@tp-link.com > Account

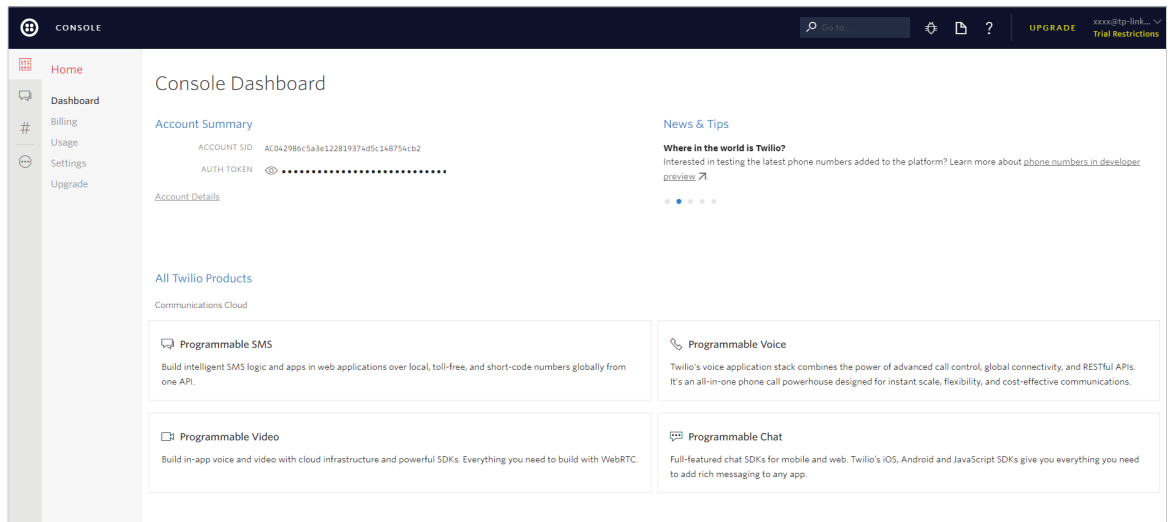
We need to verify you're a human

Please enter the verification code we sent to your phone. If you didn't receive a code, you can [try again](#)

1282

© 2017 Twilio, Inc. All rights reserved. [Privacy Policy](#) | [Terms of Service](#)

- 4) After sign up successfully, you will be redirected to the home page.



CONSOLE

Search

UPGRADE

xxxx@tp-link...  
Trial Restrictions

Home

Dashboard

Billing

Usage


Settings

Upgrade

Console Dashboard

Account Summary

ACCOUNT SID AC042986c5a3e122819374d5c148754cb2

AUTH TOKEN  .....

[Account Details](#)

News & Tips

**Where in the world is Twilio?**

Interested in testing the latest phone numbers added to the platform? Learn more about [phone numbers in developer preview](#)

All Twilio Products

Communications Cloud

**Programmable SMS**

Build intelligent SMS logic and apps in web applications over local, toll-free, and short-code numbers globally from one API.

**Programmable Voice**

Twilio's voice application stack combines the power of advanced call control, global connectivity, and RESTful APIs. It's an all-in-one phone call powerhouse designed for instant scale, flexibility, and cost-effective communications.

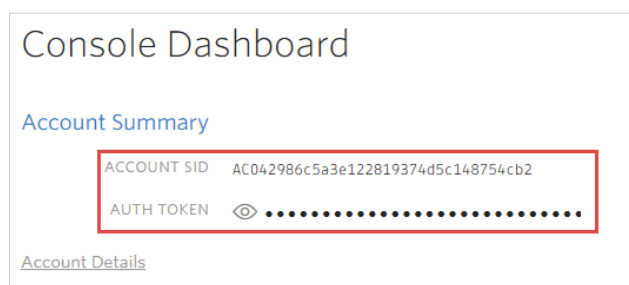
**Programmable Video**

Build in-app voice and video with cloud infrastructure and powerful SDKs. Everything you need to build with WebRTC.

**Programmable Chat**

Full-featured chat SDKs for mobile and web. Twilio's iOS, Android and JavaScript SDKs give you everything you need to add rich messaging to any app.


- 5) In the **Console Dashboard > Account Summary** section, you can find the **ACCOUNT SID** and **AUTH TOKEN**, which will be used in the AC configurations later.



Console Dashboard

Account Summary

ACCOUNT SID AC042986c5a3e122819374d5c148754cb2

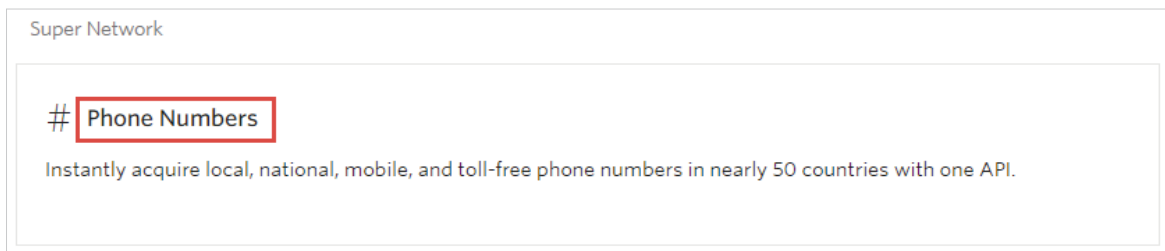
AUTH TOKEN  .....

[Account Details](#)

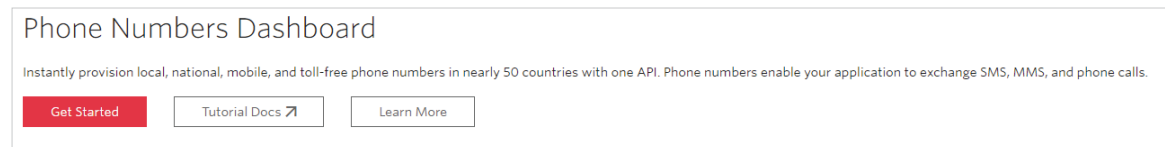
 **Note:**

To copy AUTH TOKEN to the AC, you first need to click  to display the token.

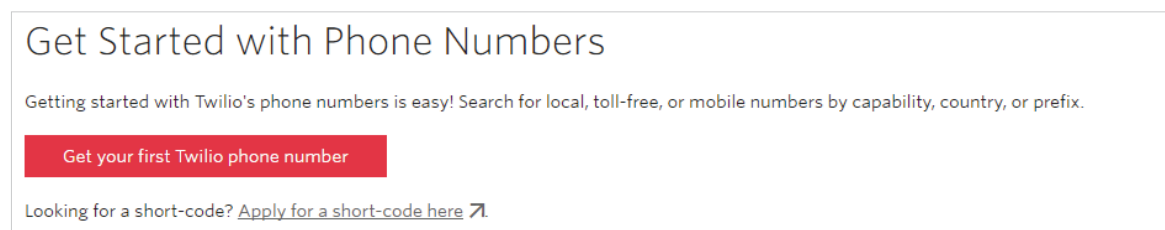
- 6) In the **Console Dashboard > All Twilio Products > Super Network** section, click **Phone Numbers**.



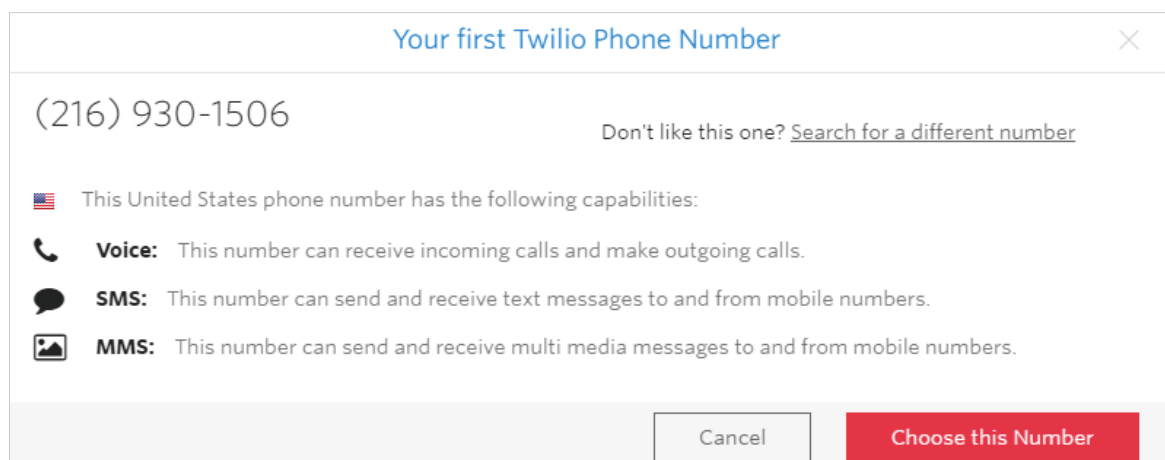
- 7) The following page will appear. Click **Get Started**.



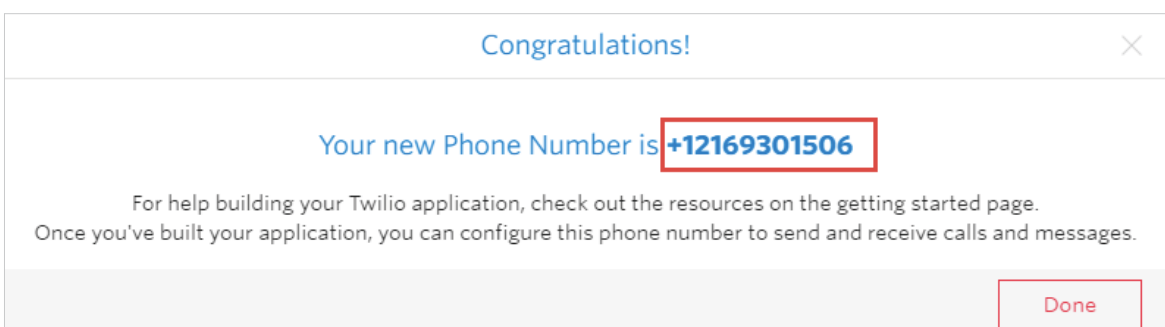
- 8) The following page will appear. Click **Get your first Twilio phone number**.



- 9) The following window will pop up. Click **Choose this Number**.



- 10) You will get a new phone number. This phone number will be used in the configurations later. Click **Done**.





## 2.3 Create SSID on AC

Follow the steps below to create an SSID for SMS Portal and bind the SSID to the CAP:

- 1) Go to **Wireless > Wireless Service** and click **Add** to load the following page. Specify the required parameters for the SMS Wi-Fi and click **OK**.

Wireless

Enable
  Disable
  Add
  Delete
  Search




<input type="checkbox"/>	ID	SSID	Description	Security	Status	Radio Binding	Operation
<input type="checkbox"/>	--	--	--	--	--	--	--


Status:  Enable  Disable  
 SSID:  (1-32 characters)  
 Description:  (1-32 characters, optional)  
 AP Isolation:  Enable  Disable  
 Security:

- 2) The SSID is created successfully. Click .

Wireless

Enable
  Disable
  Add
  Delete
  Search

<input type="checkbox"/>	ID	SSID	Description	Security	Status	Radio Binding	Operation
<input type="checkbox"/>	1	SMS_Wi-Fi	SMS	---	Enabled <input checked="" type="checkbox"/>		 

- 3) Select the CAP and click  **Bound** to bind the SSID to the CAP.

Wireless

SSID:

Select the Group:


VLAN Binding:  (1-4094, optional)

Back to Wireless
  Bound
  Unbind
  Search
  Global Search




<input checked="" type="checkbox"/>	ID	AP Name	Radio Frequency	Radio Mode	Binding Status	VLAN Binding
<input checked="" type="checkbox"/>	1	CAP300-0000	1(2.4GHz)	802.11b/g/n	Unbound	---


## 2.4 Configure Default Gateway and DNS on AC

To ensure the AC can communicate with the SMS servers, you need to set correct default gateway and DNS on your AC.

Go to **Network > Interface** and click  to edit the interface which is connected to the gateway router. Specify the correct Default Gateway address and DNS address according to your actual network environment. Click **OK**.

Interface Settings

 Add 
  Delete 
  Search

<input type="checkbox"/>	ID	Interface Name	Connection Status	VLAN	IP Address	Subnet Mask	Default Gateway	Operation
--	1	GE1	Connected <a href="#">Detail</a>	---	192.168.0.253	255.255.255.0	192.168.0.200	

Interface Name:  (1-12 letters, digits or underscores)

Connection Type:  ▼

IP Address:

Subnet Mask:

**Default Gateway:  (Optional)**

MTU:  (576-1500)

**Primary DNS:  (Optional)**

Secondary DNS:  (Optional)

MAC Address:

Description:  (1-50 characters, optional)

## 2.5 Configure Splash Page on AC

Before configuring SMS Portal, you need to create a splash page, on which users can get verification code and pass authentication.

Go to **Authentication > Portal Authentication > Splash Page** and click **Add** to load the following page.

Splash Page + Add - Delete 🔍 Search

ID	Page Name	Authentication Type	Description	Operation
--	--	--	--	--

Page Name:  (1-50 characters. Letters, digits, underscores or dashes are valid)

Authentication Type:

Page Title:  (1-50 characters)

Background:  Solid Color  Picture

Background Color:  (RGB Value)

Logo:  ---

Welcome Information:  (1-26 characters)

Copyright:  (1-50 characters)

Description:  (1-50 characters, optional)

Input Box:

Button:

**Note:**  
1. If this entry is referenced, the Page Name and Authentication Type cannot be changed.

Tablet PC  Mobile Phone  PC

Default

Follow the steps below to create a splash page for SMS Wi-Fi:

- 1) Specify a name for the splash page.
- 2) Select **Authentication Type** as **SMS**.
- 3) Customize the splash page according to your needs. You can preview the page on the right side of the page.
- 4) Click **OK**.

## 2.6 Configure SMS Portal on AC

Go to **Authentication > Portal Authentication > SMS** and click **Add** to load the following page.

SMS

✔ Enable ✘ Disable ➕ Add ➖ Delete 🔍 Search

	ID	Splash Page	SSID	Advertisement	Description	Status	Operation
<input type="checkbox"/>	--	--	--	--	--	--	--

Status:  On  Off

SSID:

Splash Page:

We provide Twilio API service. Please configure your account information:

Twilio SID:

Authentication Token:

Phone Number:  (e.g., +16175551212)

Free Authentication Timeout:  minutes (1-1440)

Advertisement:  Enable  Disable

Description:  (1-50 characters, optional)

Follow the steps below to configure SMS Portal:

- 1) Enable SMS Portal.
- 2) Select an SSID and a splash page for SMS Wi-Fi.
- 3) Copy the **Twilio SID**, **Authentication Token** and **Phone Number** from the Twilio website to the AC one by one.

### Note:

**Twilio SID** and **AUTH Token** can be found in the **Console Dashboard > Account Summary** section, and **Phone Number** can be found in the **Console Dashboard > Super Network > Phone Numbers** section. For details, refer to [Get a Twilio Account](#).

- 4) Configure free authentication timeout and choose whether to display advertisements on the splash page according to your needs.
- 5) Click **OK**.

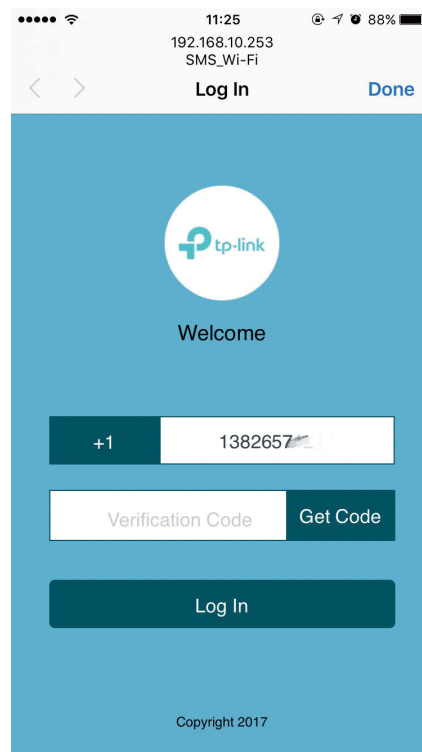
# 3 Test the Configuration Result

After all configurations are completed, you can follow the steps below to test whether SMS Portal works normally.

 **Note:**

The free Trail account can only provide SMS service for the mobile phone which is used to register the Trail account. So make sure that the following testing is on the mobile phone used for Trail account register.

- 1) Enable the Wi-Fi feature of your mobile phone.
- 2) Search and connect to the SSID for SMS Portal.
- 3) The default web browser on the mobile phone will pop up and the authentication page will appear.

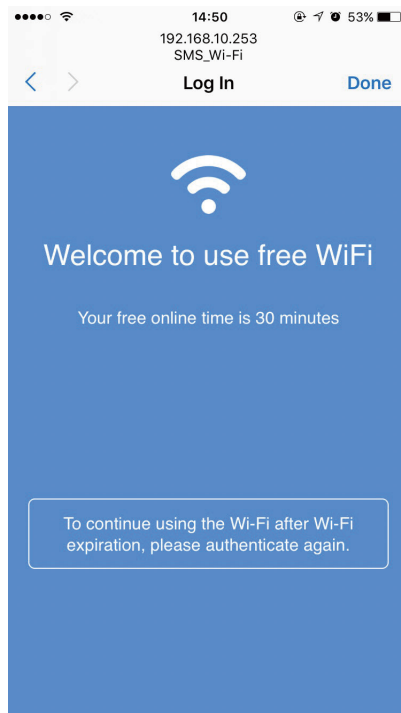


 **Note:**

Generally, the web browser pops up automatically. But if the web browser does not pop up, you can manually launch the web browser and visit any http website. Then the authentication page will appear.

- 4) Select your country, enter your mobile phone number and click **Get Code**.
- 5) You will receive a verification code on your mobile phone. Enter the code on the authentication page and click **Log In**.

6) After authenticated, you will be redirected to the authentication result page.

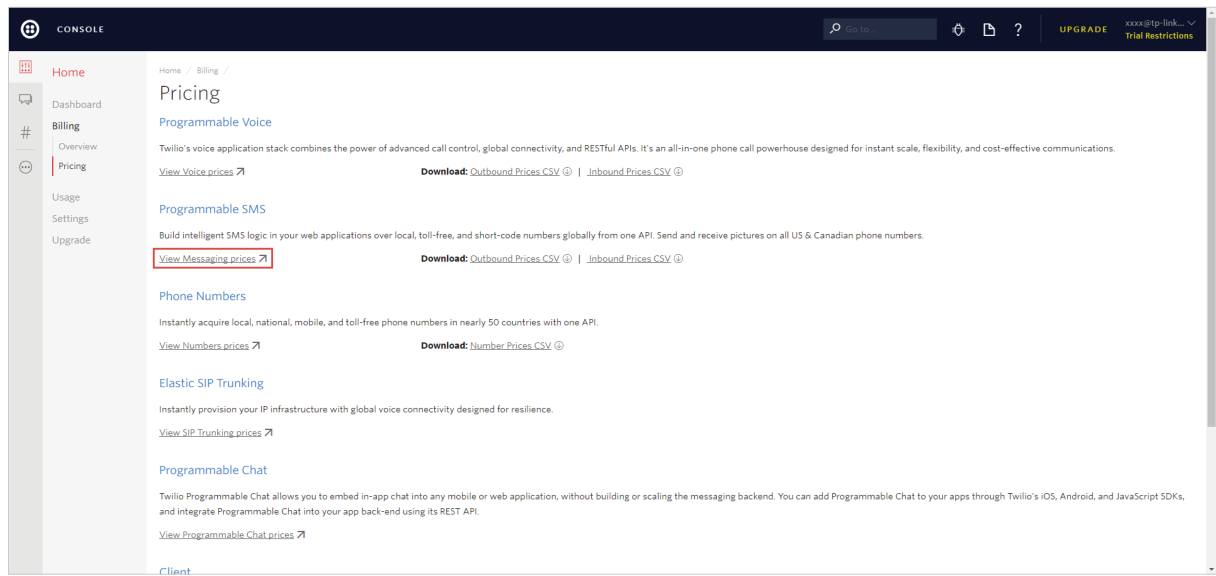


If all the steps above are completed, the SMS Portal feature works normally.

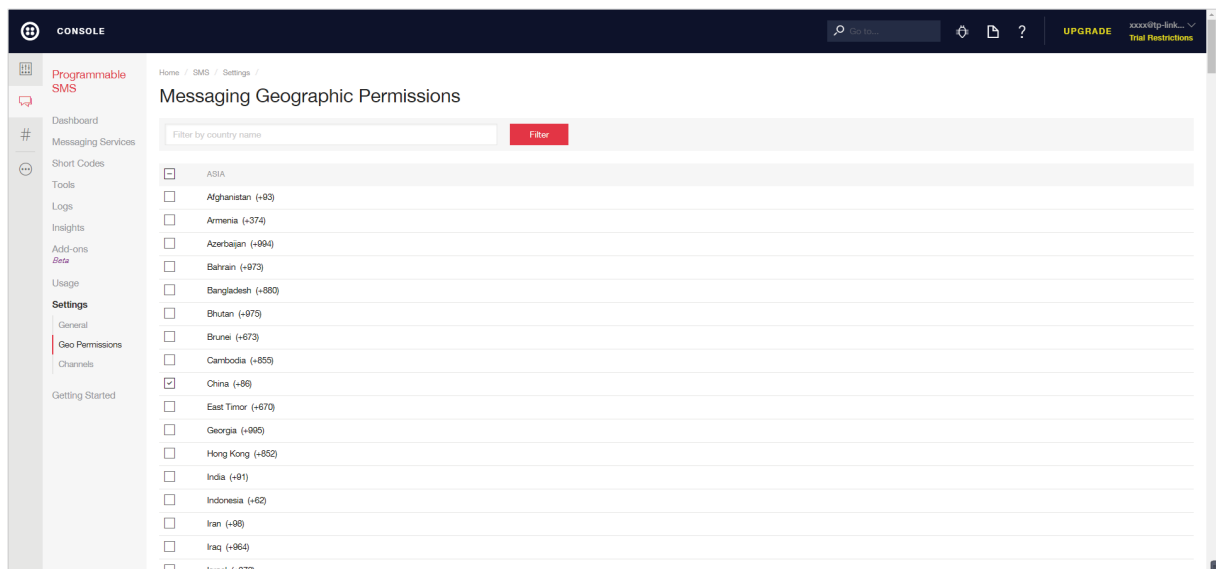
# 4 Upgrade the Trail Account

If you have determined to officially start to use SMS Portal, you need to upgrade your Trail account.

The SMS service is not free. To view the pricing for SMS service, you can go to **Billing > Pricing** and click **View messaging prices**.

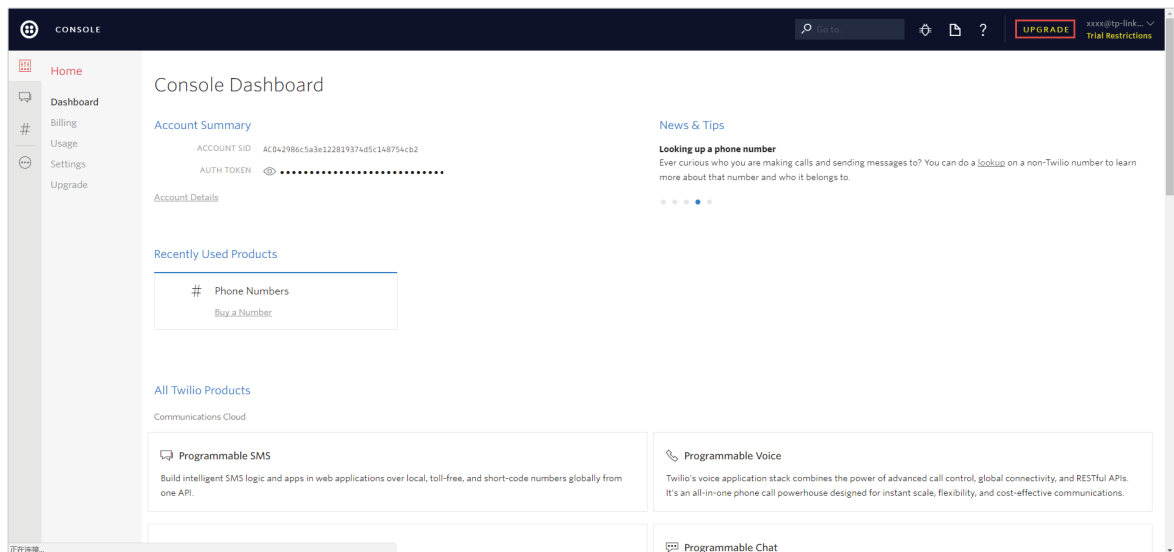


The SMS service is available in most regions. To view these regions, you can go to **Programmable SMS > Settings > Geo Permissions**. On this page, you can also configure which regions are allowed to use your SMS service.

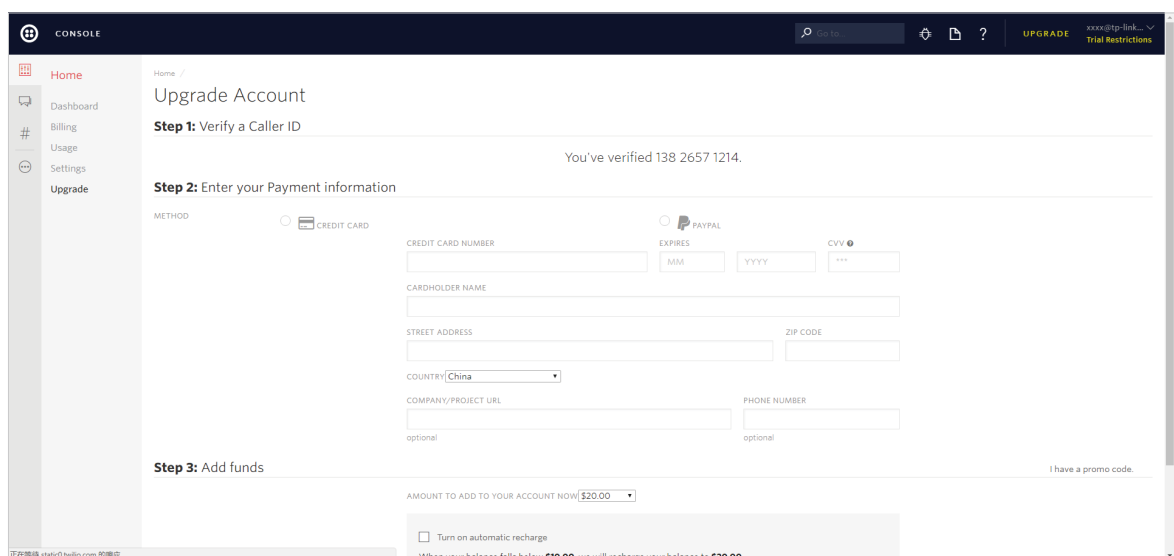


To upgrade your Trail account, follow the steps below:

- 1) Click **UPGRADE** at the top right corner.




- 2) The following page will appear. Provide your payment information and add funds to your account. Then you can use the Twilio service normally.





## COPYRIGHT & TRADEMARKS

Specifications are subject to change without notice.  tp-link is a registered trademark of TP-Link Technologies Co., Ltd. Other brands and product names are trademarks or registered trademarks of their respective holders.

No part of the specifications may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from TP-Link Technologies Co., Ltd. Copyright © 2017 TP-Link Technologies Co., Ltd.. All rights reserved.