



Configuration Guide

For SMS Portal Authentication

Wireless Controller (AC500 / AC50)

1910012234 REV1.0.0

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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

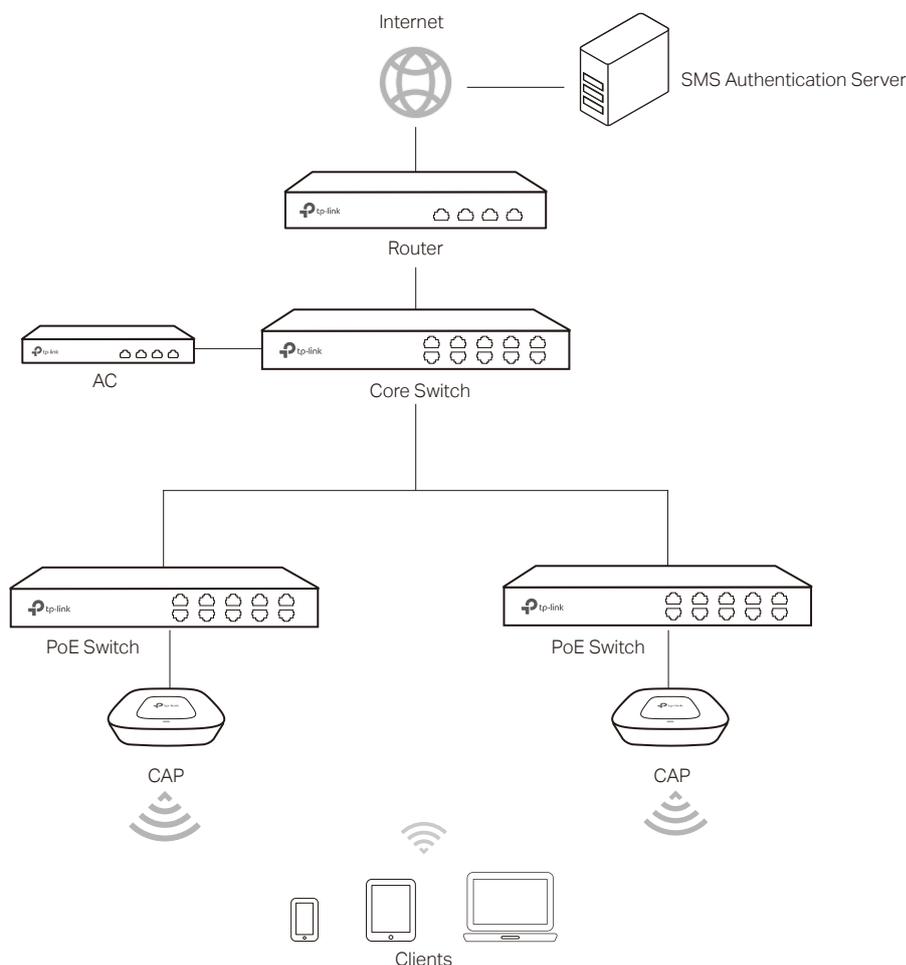
Nowadays almost everyone takes a mobile phone when go outside. SMS Portal directly uses the phone number for authentication without additional registration account or information required. The authentication process is very simple for customers. Customers only need to get a verification code using their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

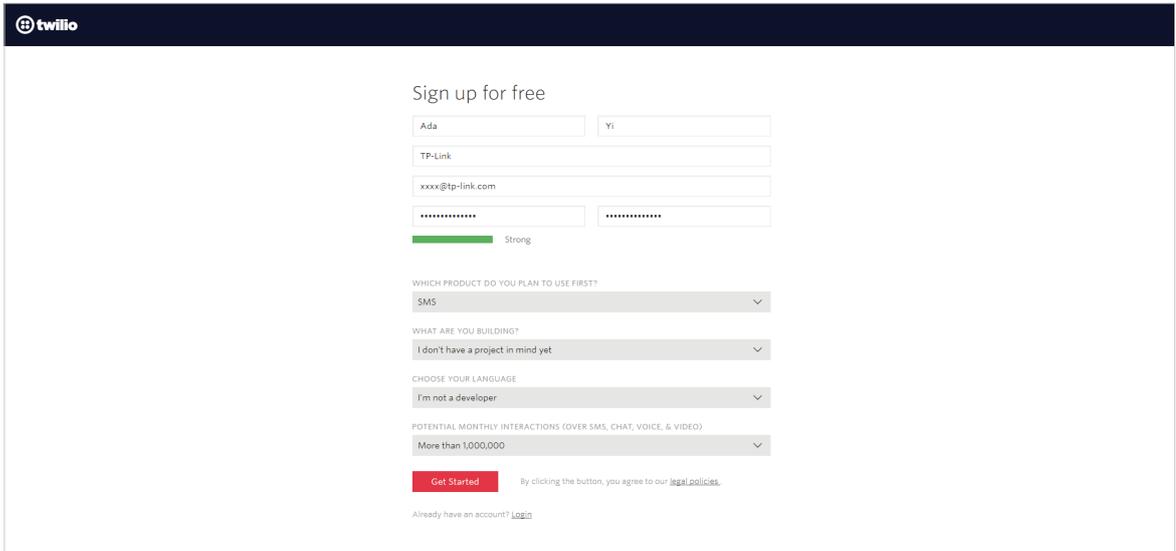
2.2 Get a Twilio Account

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.

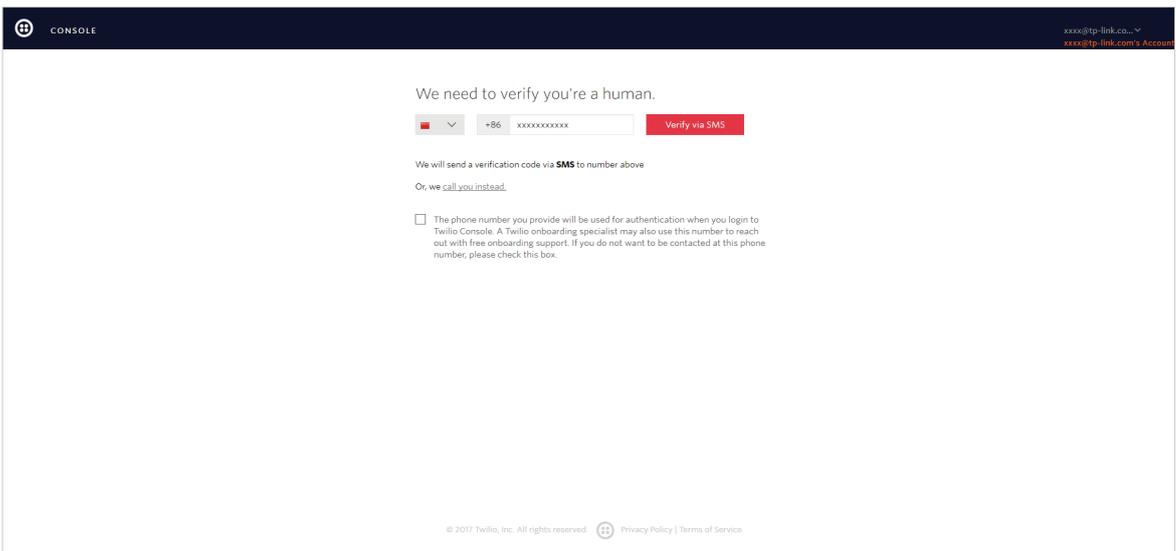
The following introduction takes a free Twilio Trial account as an example. Follow the steps below to get a Twilio Trail account:

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



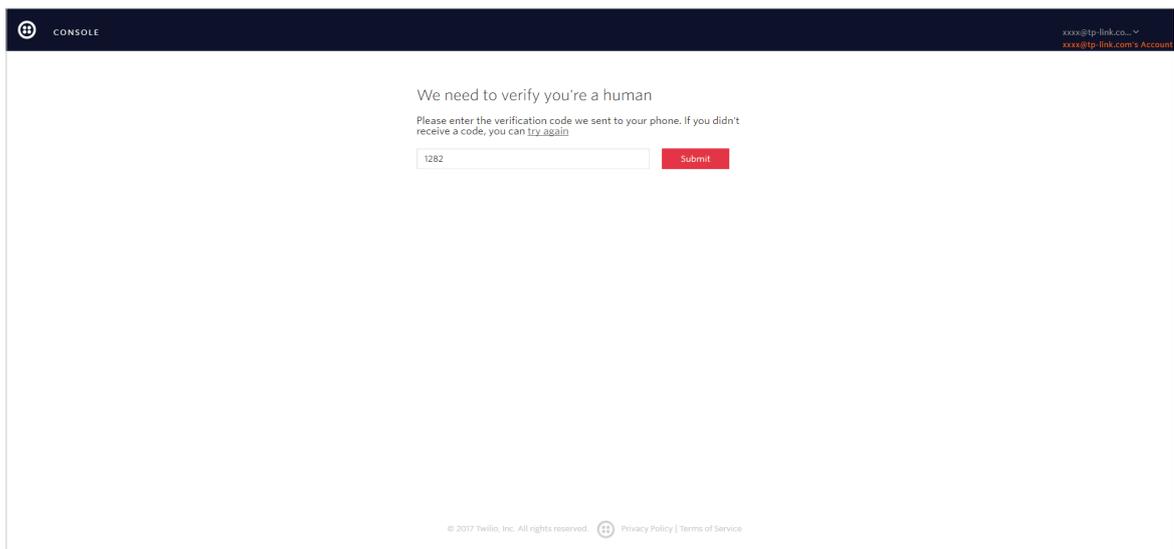
The screenshot shows the Twilio sign-up page. At the top left is the Twilio logo. The main heading is "Sign up for free". Below this are several input fields: a name field containing "Ada", a "Yes" checkbox, a "TP-Link" field, an email field containing "xxxx@tp-link.com", and two password fields. A green 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" and a "Login" link for existing users.

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



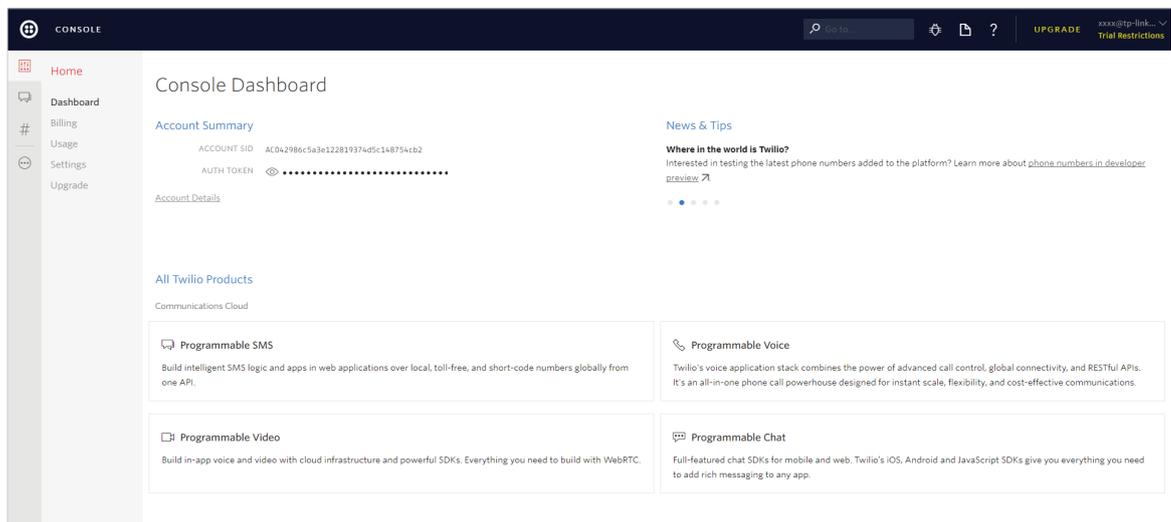
The screenshot shows the Twilio verification page. At the top left is the Twilio logo and the word "CONSOLE". At the top right is the user's email and account name. The main heading is "We need to verify you're a human.". Below this is a phone number input field with a dropdown for country code (set to +86) and a "Verify via SMS" button. Below the input field, it says "We will send a verification code via SMS to number above" and "Or, we call you instead.". There is a checkbox for "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, there is a copyright notice for Twilio, Inc. and links for "Privacy Policy" and "Terms of Service".

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



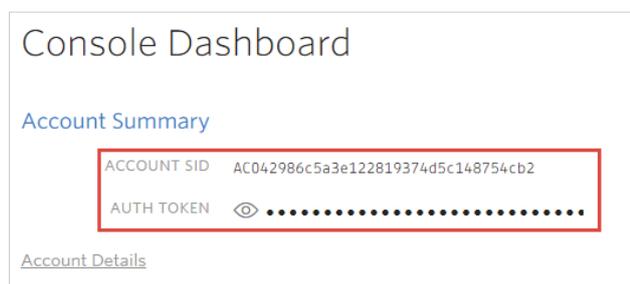
The screenshot shows the Twilio Console verification page. At the top, it says "We need to verify you're a human". Below this, there is a prompt: "Please enter the verification code we sent to your phone. If you didn't receive a code, you can [try again](#)". There is a text input field containing the number "1282" and a red "Submit" button. The footer of the page includes "© 2017 Twilio, Inc. All rights reserved." and links for "Privacy Policy" and "Terms of Service".

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



The screenshot shows the Twilio Console Dashboard. On the left is a navigation sidebar with links for Home, Dashboard, Billing, Usage, Settings, and Upgrade. The main content area is titled "Console Dashboard" and features an "Account Summary" section. This section displays the "ACCOUNT SID" as "AC042986c5a3e122819374d5c148754cb2" and the "AUTH TOKEN" as a series of dots with an eye icon to its left. Below the account summary are sections for "All Twilio Products" including Programmable SMS, Programmable Voice, Programmable Video, and Programmable Chat. There is also a "News & Tips" section on the right.

- 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.

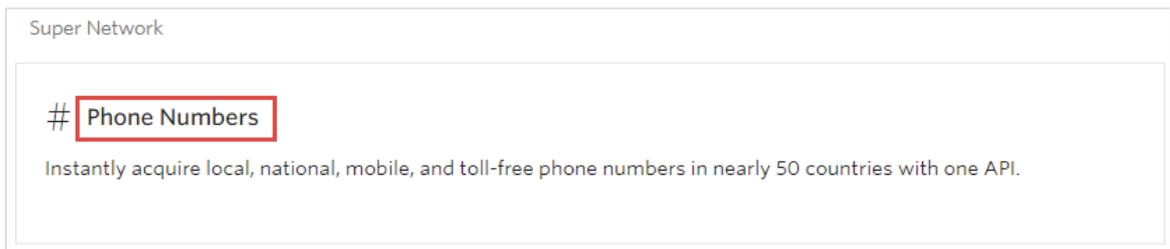


This screenshot is a zoomed-in view of the "Account Summary" section from the previous image. It shows the "ACCOUNT SID" as "AC042986c5a3e122819374d5c148754cb2" and the "AUTH TOKEN" as a series of dots with an eye icon to its left. A red rectangular box highlights both the ACCOUNT SID and the AUTH TOKEN field.

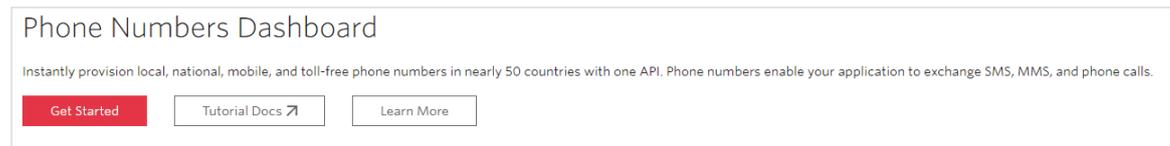
 **Note:**

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

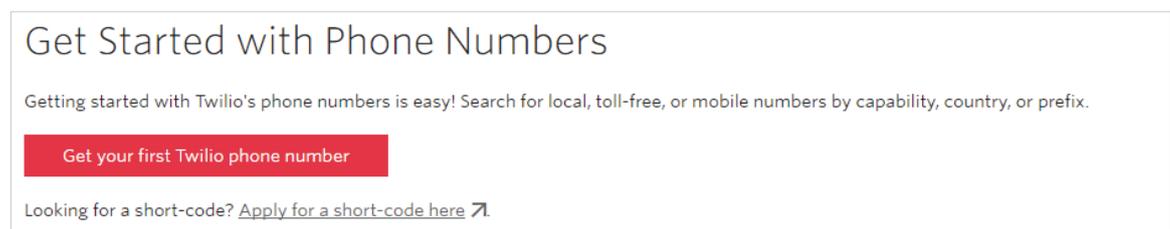
- 6) In the **Console Dashboard > All Twilio Products > Super Network** section, click **Phone Numbers**.



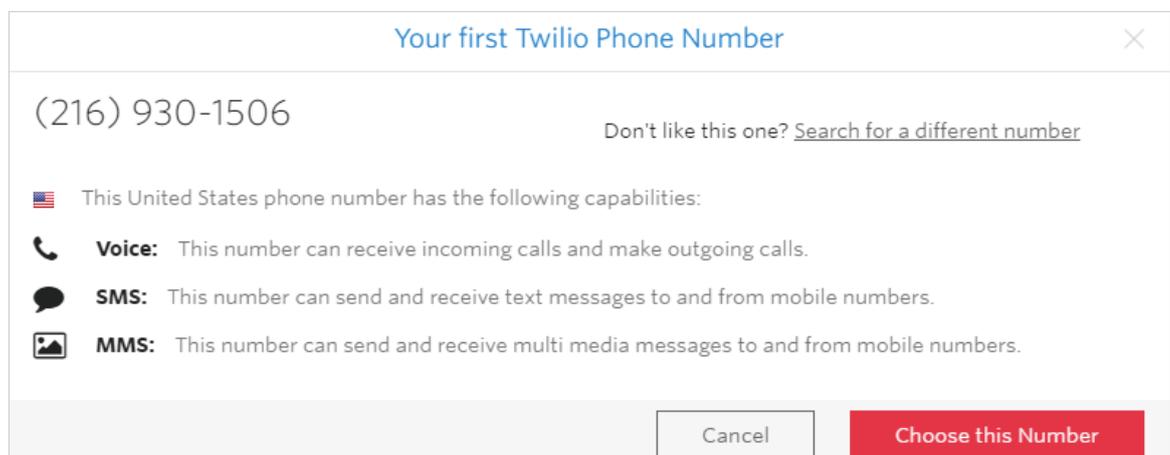
- 7) The following page will appear. Click **Get Started**.



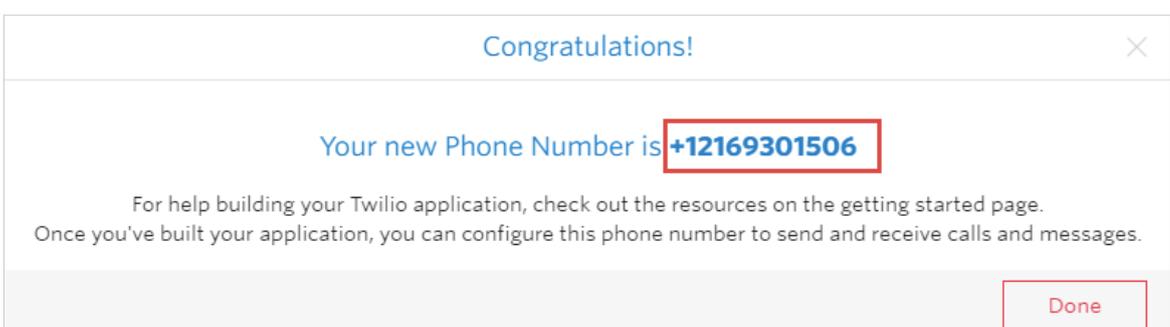
- 8) The following page will appear. Click **Get your first Twilio phone number**.



- 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 Detail	---	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

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

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**.

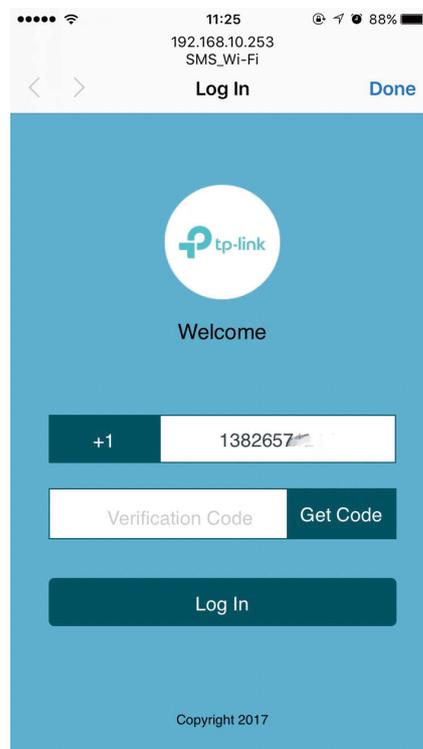
3 Test the Configuration Result

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.

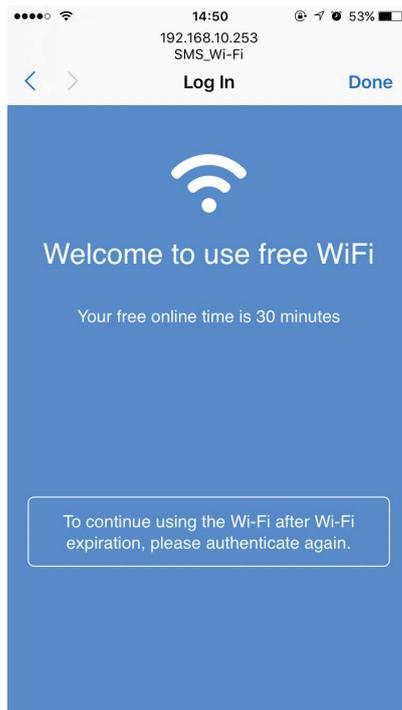


 **Note:**

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.

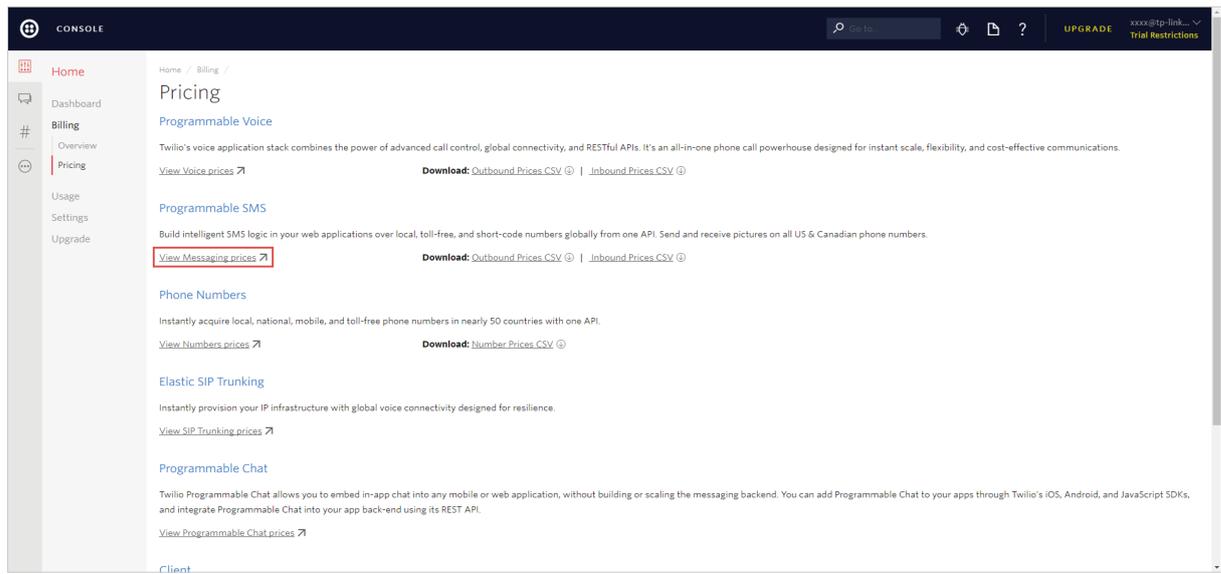


If all the steps above are completed, the SMS Portal feature works normally.

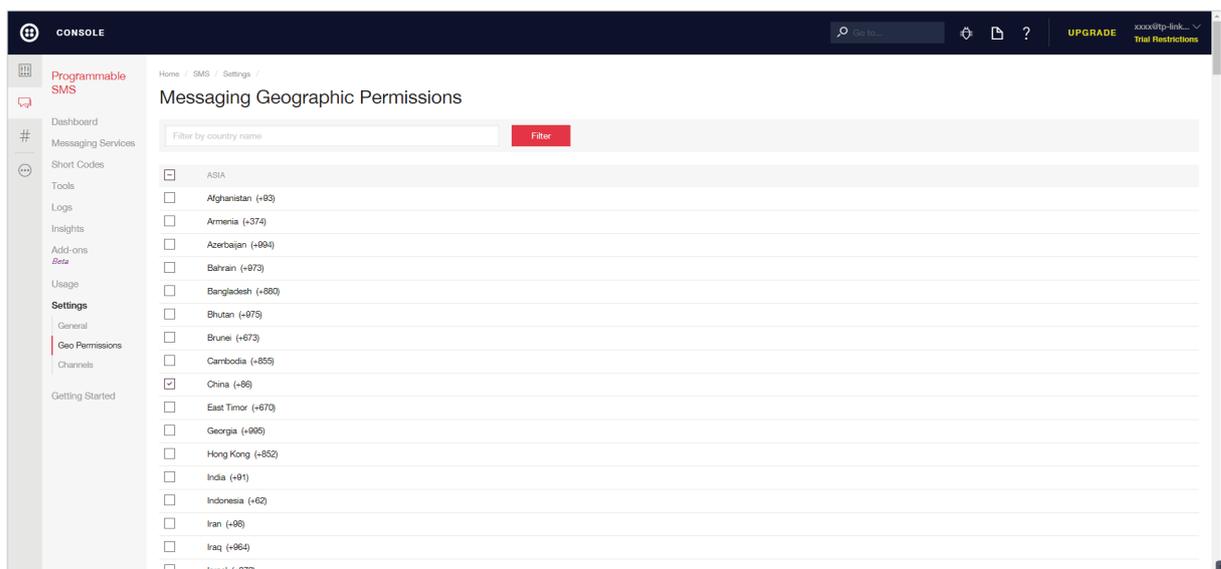
4 Upgrade the Trail Account

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**.

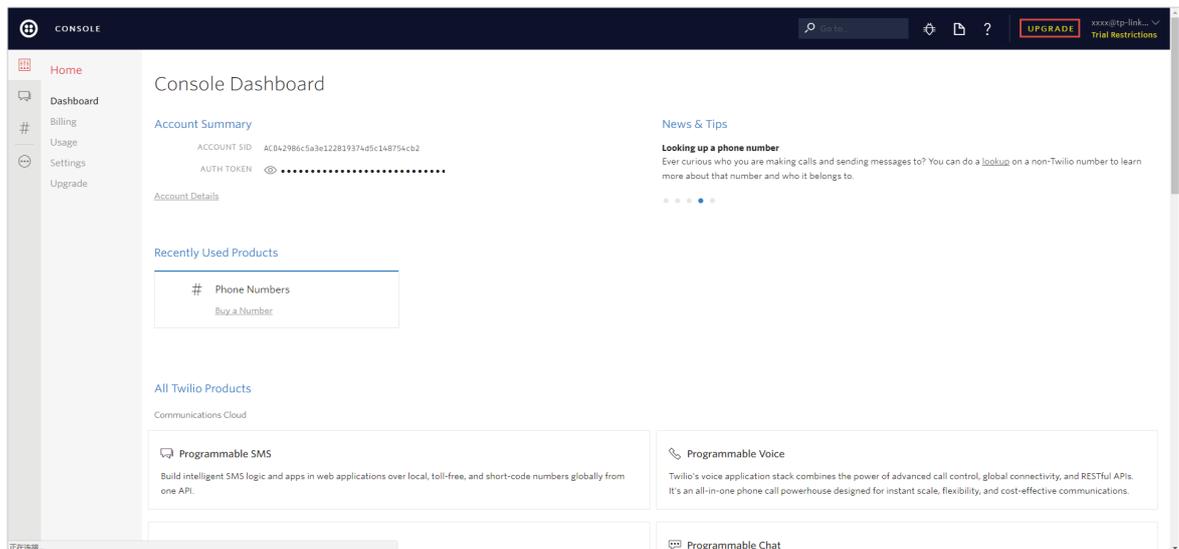


The SMS service is available in most regions. To view these regions, you can go to **Programmable SMS > Settings > Geo Permissions**. On this page, you can also configure which regions are allowed to use your SMS service.

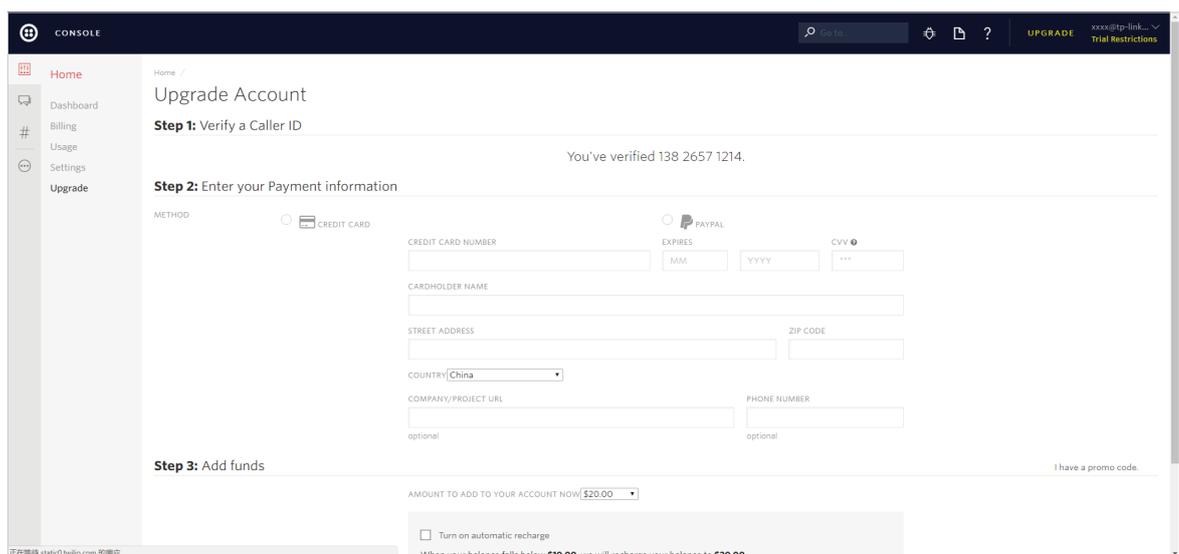


To upgrade your Trail account, follow the steps below:

- 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.



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