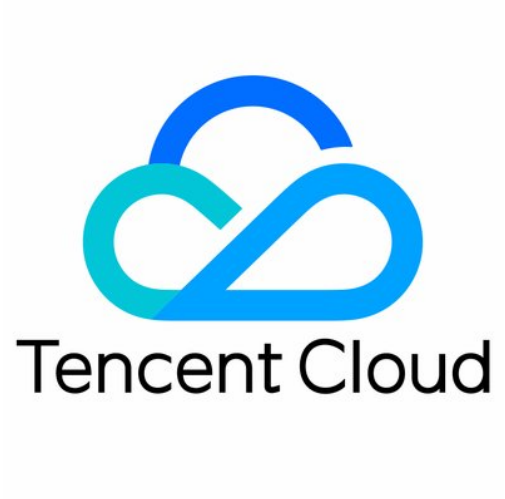
# Short Message Service

# Best Practice

# Product Documentation



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# Best Practice
# How to Send Bulk Best Wishes Messages

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## How to Send Bulk Best Wishes Messages

Best wishes for birthdays, holidays, and other matters is an important way for enterprises to retain existing customers. You can use Tencent Cloud SMS to send such messages to users on special days such as holidays, member birthdays (anniversaries), and days of major weather changes for customer care.

**Note:**

The best wishes SMS sent to members is considered marketing SMS. Only verified organizational users are allowed to send domestic marketing SMS. For more details, please refer to Differences in Rights.

This document takes the example of Company A sending Spring Festival best wishes message to its members in Hong Kong, helping enterprise users understand how to quickly send holiday greeting SMS.

## Preparations

Register a Tencent Cloud account and complete the enterprise real-name authentication.

Prepare the qualification documents for the SMS signature owner. For a detailed list of documents and specifications, please refer to Signature Review Standards. This article takes the example of using the business license as the qualification document.

Understand the SMS content review specifications. For details, please refer to Body Template Review Standards.

## Step 1. Create a signature

**Note:**

After an SMS signature is submitted, it will be reviewed within two hours generally. You can configure alarm contacts to receive review result notifications.

1. Log in to the SMS Console.
2. Select **Global SMS** > **Signatures** on the left sidebar and click **Create Signature**.
3. Set the following parameters as needed and according to the signature review standards:

| Parameter | Sample Value |
| --- | --- |
| Signature use | For verified entities (such as organizations, websites or product names with signatures |

| | |
|---|---|
| | verified by the account) |
| Signature type | Company |
| Signature content | A Co., Ltd. |
| Certificate type | Business license |
| Certificate upload |  |

4. Click **OK**.

Wait for signature review. The SMS signature will be available only after its status changes to **approved**.

## Step 2. Create a body template

**Note：**

After an SMS body template is submitted, it will be reviewed within two hours generally. You can configure alarm contacts to receive review result notifications.

1. Log in to the SMS Console.
2. Select **Global SMS** > **Body Templates** on the left sidebar and click **Create Body Template**.
3. Set the following parameters as needed and according to the body template review standards:

| Parameter | Sample Value |
|---|---|
| Template name | Best wishes message |
| | |

| SMS type | Marketing SMS |
| --- | --- |
| SMS content | Dear Ms./Mr. {1}, thank you for your always support and trust. We want to extend our Spring Festival greetings and best wishes to you and your beloved ones. |

4. Click **OK**.

Wait for body template review. The body template will be available only after its status changes to **approved**.

## Step 3. Send SMS

Before sending an SMS, you need to confirm that both the SMS signature and body template have been approved.

You can send an SMS through the console or API. This document uses the console as an example.

1. Log in to the SMS Console.
2. Select **Global SMS** > **Bulk SMS** on the left sidebar and click **Create Bulk SMS Sending Task**.
3. Configure the following parameters as needed:

| Parameter | Sample Value |
| --- | --- |
| Signature name | Select the signature [A Co., Ltd.] created in step 1 |
| Template name | Select the **Best wishes message** created in step 2 |
| Sent time | Select **Send by schedule** and specify a reasonable time point down to the second, such as **2020-01-25 00:00:00**. As only a time point within one month can be specified for schedule, please configure the sending task appropriately. |
| Recipient | Click **Download Standard Template**, enter recipient's mobile number and custom SMS content in the form by referring to the sample table, and click **Click here** to upload it. The maximum form size supported is 30 MB. |
| Associated application | Select the application that needs to send SMS. For details, please refer to Create Application. |

Below is a sample table:

| Recipient's Mobile Number | SMS Content Variable 1 |
| --- | --- |
| Example: 825xxxxxxxx Instructions: please enter the mobile numbers of recipients. All the mobile numbers in one single SMS sending must be registered in domestic regions. The cells need to be in a regular format, i.e., without any specific number formats. | Example: John SmithInstructions: please enter the first custom variable content according to the body template, i.e., replacing {1} in the template. |

4. Click **OK**.
5. Check the number of recipients, indicate your consent to the prompt about fees, and click **Send**. You can view the status of the task in the Delivery Records list. When the status is **sent**, the task has been completed.

## Step 4. View SMS delivery result

You can view the SMS delivery result in the following ways:
On the **Global SMS** > **Bulk SMS** page, click **Details & Receipt Analytics** on the line of the target task to view its detailed record and report analysis.
Select **Business Statistics** > **Global SMS** and you can filter and view the statistics and relevant analysis of Global SMS by application, signature, body template, and time.

# How to Send SMS Verification Codes

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Sending verification codes through SMS is the most popular and securest way to verify user identities. Currently, SMS verification codes are widely used in various application scenarios such as user registration, password reset, login protection, identity verification, random password generation, and transaction confirmation.
This document uses developing a verification code-enabled login and signup service based on SCF as an example to describe how to implement the SMS verification code feature.
In addition to SCF, you can also use the SendSms API for this purpose.

## Preparations

You have signed up for a Tencent Cloud account and verified your organization verification.
You have purchased an SMS package.
Prepare SMS signature owner qualification certificates.
This document takes a business license as a qualification certificate for example.
Understand the SMS body content review standards.
Get the `SDKAppID` of the SMS application.

## Relevant Documents

Demo source code
Other products' documentation
VPC documentation
TencentDB for Redis documentation
SCF documentation

## Step 1. Configure SMS content

After an SMS signature or body template is submitted, it will be reviewed within two hours generally. You can configure alarm contacts and set template/signature review notifications to receive review result notifications.

### Step 1.1. Create a signature

1. Log in to the SMS console.
2. Select **Chinese Mainland SMS** > **Signatures** on the left sidebar and click **Create Signature**.

3. Set the following parameters as needed:

| Parameter | Sample Value |
| --- | --- |
| Signature purpose | For verified entities (such as organizations, websites or product names with signatures verified by the account) |
| Signature type | App |
| Signature content | Test demo |
| Certificate type | Screenshot of WeChat Mini Program settings page |

4. Click **OK**.

Wait for signature review. The SMS signature will be available only after its status changes to **approved**.

### Step 1.2. Create a body template

1. Log in to the SMS console.
2. Select **Chinese Mainland SMS** > **Body Templates** on the left sidebar and click **Create Body Template**.
3. Set the following parameters as needed:

| Parameter | Sample Value |
| --- | --- |
| Template name | Verification code SMS |
| SMS type | OTP SMS |
| SMS content | Your signup verification code is {1}. Please enter it within {2} minutes. If the signup was not initiated by you, please ignore this message. |

4. Click **OK**.

Wait for body template review. The body template will be available only after its status changes to **approved**. Please note down the template ID.

## Step 2. Set the SMS sending frequency limit (optional)

**Note:**

Individual users have no permission to modify the sending frequency limit. To use this feature, change "Individual Verification" to "Organization Verification".

To ensure business and channel security and minimize potential financial losses caused by malicious calls of SMS APIs, you are recommended to set the sending frequency limit. In addition, you can use Tencent Cloud Captcha to

maximize the protection of your business security.
This document uses the default SMS sending frequency limit policy as an example.
For SMS messages with the same content, a maximum of one such message can be sent to the same mobile number within 30 seconds.
A maximum of 10 messages can be sent to the same mobile number on a calendar day.

## Step 3. Configure the VPC and subnet

By default, SCF is deployed in the public network and can access public network only. If you need to access Tencent Cloud resources such as TencentDB instances, you need to build a VPC to ensure data and connection security.
1. Plan the network design as needed.
2. Create a VPC. For detailed directions, please see Creating VPC.

**Note:**
The CIDRs of the VPC and subnet cannot be modified after creation.

| Parameter | Sample Value |
| --- | --- |
| Region | South China (Guangzhou) |
| Name | Demo VPC |
| IPv4 CIDR | 10.0.0.0/16 |
| Subnet name | Demo subnet |
| IPv4 CIDR | 10.0.0.0/16 |
| AZ | Guangzhou Zone 3 |

## Step 4. Configure a TencentDB for Redis instance

The region and subnet AZ of the TencentDB for Redis instance must be the same as those of the VPC configured in step 3.
Purchase a TencentDB for Redis instance. For detailed directions, please see Creating TencentDB for Redis Instance.

| Parameter | Sample Value |
| --- | --- |
| Billing mode | Pay-as-you-go |
| Region | Guangzhou |
| | |

| | |
|---|---|
| Database version | Redis 4.0 |
| Architecture | Standard architecture |
| Network | Demo VPC and demo subnet |
| Instance name | Demo database |
| Purchase quantity | 1 |

## Step 5. Create a function

SCF currently supports development in Python, Node.js, PHP, Java, and Go. This document uses Node.js as an example.

1. Create a function in the region of the VPC created in step 3. For detailed directions, please see Writing Function.

| Parameter | Sample Value |
|---|---|
| Function name | Demo |
| Runtime environment | Node.js 8.9 |
| Creation method | Template function: helloworld |

2. Deploy the function and set **API Gateway Trigger** as the trigger. For detailed directions, please see Deploying Function.

## Step 6. Enable public network access (optional)

Functions deployed in a VPC before April 29, 2020 are isolated from the public network by default. If you want them to have access to both private network and public network, you can do so by enabling public network access.

Log in to the SCF console, select **Function Service**, click the name of the target function in the function list to enter the function configuration page. Click **Edit**, check **Public Network Access**, and click **Save** to save the configuration.

Functions deployed on or after April 29, 2020 have public network access enabled by default, and no additional operations are required.

## Step 7. Deploy the SMS demo

1. Go to the SCF console and select the SMS demo to deploy it.

2. Set the environment variables of the demo in **Advanced Configuration**.

| Field | Description |
| --- | --- |
| REDIS_HOST | Redis database address. |
| REDIS_PASSWORD | Redis database password. |
| SMS_TEMPLATE_ID | Template ID. You must enter the ID of an approved template, which can be viewed in the SMS console. |
| SMS_SIGN | Content of the SMS signature, which should be encoded in UTF-8. You must enter an approved signature, which can be viewed in the SMS console. Note: this parameter is required for Chinese Mainland SMS. |
| SMS_SDKAPPID | SMS `SdkAppid` actually generated after an application is added in the SMS console, such as 1400006666. |

3. Set the same VPC environment as the Redis database in **Advanced Configuration**.
4. Set the permissions of SCF **execution role** in **Advanced Configuration**.
You need to associate the `QcloudSMSFullAccess` policy with the `SCF_QcsRole` role in the CAM console.
In this way, the `TENCENTCLOUD_SECRETID` , `TENCENTCLOUD_SECRETKEY` , and `TENCENTCLOUD_SESSIONTOKEN` environment variables can be obtained in the code, which will be used by the SMS SDK.
5. Click **Complete** to deploy the function.
6. Create an SCF **API Gateway trigger** and request the trigger address to use SMS capabilities.

# Step 8. Use the features

Verification codes have a high requirement for timeliness. You can store verification codes in the memory or TencentDB for Redis and use the mobile number as a key to store information such as sending time, verification code, number of verification attempts, and verification result.

## Features

### Sending SMS verification code

Request parameters:

| Field | Type | Description |
| --- | --- | --- |
| method | string | Request method, whose value is `getSms` |
| phone | string | Mobile number in the format of area code + mobile number, such as 86185662466** |

**Verifying verification code (login)**

Request parameters:

| Field | Type | Description |
| --- | --- | --- |
| method | string | Request method, whose value is `login` |
| phone | string | Mobile number in the format of area code + mobile number, such as 86185662466** |
| code | string | 6-digit verification code |

## Error codes

| Field | Description |
| --- | --- |
| InValidParam | Missing parameter |
| MissingCode | Missing verification code parameter |
| CodeHasExpired | The verification code has expired |
| CodeHasValid | The verification code is invalid |
| CodeIsError | Please check whether the mobile number and verification code are correct |