



User Guide

# AWS End User Messaging Social



# AWS End User Messaging Social: User Guide

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# Table of Contents

<b>What is AWS End User Messaging Social? .....</b>	<b>1</b>
Are you a first-time AWS End User Messaging Social user? .....	1
Features of AWS End User Messaging Social .....	1
Related services .....	2
Accessing AWS End User Messaging Social .....	2
Regional availability .....	3
<b>Setting up AWS End User Messaging Social .....</b>	<b>6</b>
Sign up for an AWS account .....	6
Create a user with administrative access .....	6
Next steps .....	8
<b>Getting started .....</b>	<b>9</b>
Signing up for WhatsApp .....	9
Prerequisites .....	9
Sign up through the console .....	10
Next steps .....	14
<b>WhatsApp Business Account (WABA) .....</b>	<b>15</b>
View a WABA .....	16
Add a WABA .....	16
WhatsApp business account types .....	17
Additional resources .....	17
<b>Phone numbers .....</b>	<b>18</b>
Phone number considerations .....	18
Add a phone number .....	19
Prerequisites .....	19
Add a phone number to a WABA .....	19
View a phone number's status .....	21
View a phone number's ID .....	21
Increase messaging conversation limits .....	21
Increase message throughput .....	23
Understanding phone number quality rating .....	23
View a phone number quality rating .....	24
<b>Message templates .....</b>	<b>25</b>
Using message templates with WhatsApp Manager .....	25
Next steps .....	26

Template pacing .....	26
Get feedback on a templates lowered status .....	26
Template status and quality rating .....	27
Reasons why a template is rejected .....	29
<b>Message and event destinations .....</b>	<b>30</b>
Add an event destination .....	30
Prerequisites .....	30
Add a message and event destination .....	31
Encrypted Amazon SNS topic policies .....	31
Next steps .....	32
Message and event format .....	32
AWS End User Messaging Social event header .....	33
Example WhatsApp JSON for a text message .....	33
Example WhatsApp JSON for a media message .....	35
Message status .....	36
Message statuses .....	36
Additional resources .....	36
<b>Uploading media files .....</b>	<b>37</b>
Supported media file types .....	38
Media file types .....	38
<b>Message types .....</b>	<b>41</b>
Additional resources .....	41
<b>Sending messages .....</b>	<b>42</b>
Send a template message .....	43
Sending a media message .....	43
<b>Responding to a received message .....</b>	<b>45</b>
Change a message's status to read .....	45
Respond with a reaction .....	46
Download a media file to Amazon S3 from WhatsApp .....	46
Example of responding to a message .....	47
Prerequisites .....	47
Responding .....	47
Additional resources .....	49
<b>Understanding your bill .....</b>	<b>51</b>
Example 1: Sending a Marketing template message .....	55
Example 2: Opening a Service conversation .....	55

Billing ISO codes .....	55
<b>Monitoring .....</b>	<b>70</b>
Monitoring with CloudWatch .....	70
CloudTrail logs .....	71
AWS End User Messaging Social data events in CloudTrail .....	73
AWS End User Messaging Social management events in CloudTrail .....	74
AWS End User Messaging Social event examples .....	74
<b>Best practices .....</b>	<b>76</b>
Up-to-date business profile .....	76
Obtain permission .....	76
Prohibited message content .....	77
Audit your customer lists .....	79
Adjust your sending based on engagement .....	79
Send at appropriate times .....	79
<b>Security .....</b>	<b>80</b>
Data protection .....	81
Data encryption .....	82
Encryption in transit .....	82
Key management .....	82
Inter-network traffic privacy .....	83
Identity and access management .....	83
Audience .....	84
Authenticating with identities .....	84
Managing access using policies .....	88
How AWS End User Messaging Social works with IAM .....	90
Identity-based policy examples .....	97
AWS managed policies .....	99
Troubleshooting .....	101
Compliance validation .....	103
Resilience .....	104
Infrastructure Security .....	104
Cross-service confused deputy prevention .....	105
Security best practices .....	106
Using service-linked roles .....	106
Service-linked role permissions for AWS End User Messaging Social .....	107
Creating a service-linked role for AWS End User Messaging Social .....	107

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Editing a service-linked role for AWS End User Messaging Social .....	108
Deleting a service-linked role for AWS End User Messaging Social .....	108
Supported Regions for AWS End User Messaging Social service-linked roles .....	109
<b>Quotas .....</b>	<b>110</b>
<b>Document history .....</b>	<b>112</b>

# What is AWS End User Messaging Social?

AWS End User Messaging Social, also referred to as Social messaging, is a messaging service that allows developers to integrate WhatsApp into their applications. It provides access to WhatsApp's messaging capabilities, enabling the creation of branded, interactive content with images, videos, and buttons. By using this service, you can add WhatsApp messaging functionality to your applications alongside existing channels like SMS and push notifications. This allows you to engage with customers through their preferred communication channel.

To get started, either create a new WhatsApp Business Account (WABA) using the self-guided onboarding process in the AWS End User Messaging Social console, or link an existing WABA to the service.

## Topics

- [Are you a first-time AWS End User Messaging Social user?](#)
- [Features of AWS End User Messaging Social](#)
- [Related services](#)
- [Accessing AWS End User Messaging Social](#)
- [Regional availability](#)

## Are you a first-time AWS End User Messaging Social user?

If you are a first-time user of AWS End User Messaging Social, we recommend that you begin by reading the following sections:

- [Setting up AWS End User Messaging Social](#)
- [Getting started with AWS End User Messaging Social](#)
- [Best practices for AWS End User Messaging Social](#)

## Features of AWS End User Messaging Social

AWS End User Messaging Social provides the following features and capabilities:

- Design consistent messages and reuse content more effectively by [creating and using message templates](#). A message template contains content and settings that you want to reuse in messages that you send.
- Access to rich messaging capabilities for a more engaging experience. Beyond text and media, you can send locations and interactive messages.
- Receive incoming text and media messages from your customers.
- Build trust with your customers by verifying your business identity through Meta.

## Related services

AWS offers other messaging services that can be used together in a multi-channel workflow:

- Use [AWS End User Messaging SMS](#) to send SMS messages
- Use [AWS End User Messaging Push](#) to send push notifications
- Use [Amazon SES](#) to send email

## Accessing AWS End User Messaging Social

You can access AWS End User Messaging Social using the following:

### AWS End User Messaging Social console

The web interface where you [create](#) and manage resources.

### AWS Command Line Interface

Interact with AWS services using commands in your command line shell. The AWS Command Line Interface is supported on Windows, macOS, and Linux. For more information about the AWS CLI, see [AWS Command Line Interface User Guide](#). You can find the AWS SMS commands in the [AWS CLI Command Reference](#).

### AWS SDKs

If you prefer to build applications using language-specific APIs instead of submitting a request over HTTP or HTTPS, use the libraries, sample code, tutorials, and other resources provided by AWS. These libraries provide basic functions that automate tasks, such as cryptographically signing your requests, retrying requests, and handling error responses. These functions make it more efficient for you to get started. For more information, see [Tools to Build on AWS](#).



## Regional availability

AWS End User Messaging Social is available in several AWS Regions in North America, Europe, Asia, and Oceania. In each Region, AWS maintains multiple Availability Zones. These Availability Zones are physically isolated from each other, but are united by private, low-latency, high-throughput, and highly redundant network connections. These Availability Zones are used to provide high levels of availability and redundancy, while also minimizing latency.

To learn more about AWS Regions, see [Specify which AWS Regions your account can use](#) in the *Amazon Web Services General Reference*. For a list of all the Regions where AWS End User Messaging Social is currently available and the endpoint for each Region, see [Endpoints and quotas](#) for AWS End User Messaging Social API and [AWS service endpoints](#) in the *Amazon Web Services General Reference*, or the following table. To learn more about the number of Availability Zones that are available in each Region, see [AWS global infrastructure](#).

### Region availability

Region name	Region	Endpoint	WhatsApp API version
US East (N. Virginia)	us-east-1	social-messaging.us-east-1.amazonaws.com	Version 20 and later
		social-messaging-fips.us-east-1.api.aws	
		social-messaging.us-east-1.api.aws	
US East (Ohio)	us-east-2	social-messaging.us-east-2.amazonaws.com	Version 20 and later
		social-messaging-fips.us-east-2.api.aws	
		social-messaging.us-east-2.api.aws	

Region name	Region	Endpoint	WhatsApp API version
US West (Oregon)	us-west-2	social-messaging.us-west-2.amazonaws.com  social-messaging-fips.us-west-2.api.aws  social-messaging.us-west-2.api.aws	Version 20 and later
Asia Pacific (Mumbai)	ap-south-1	social-messaging.ap-south-1.amazonaws.com  social-messaging.ap-south-1.api.aws	Version 20 and later
Asia Pacific (Singapore)	ap-southeast-1	social-messaging.ap-southeast-1.amazonaws.com  social-messaging.ap-southeast-1.api.aws	Version 20 and later
Europe (Ireland)	eu-west-1	social-messaging.eu-west-1.amazonaws.com  social-messaging.eu-west-1.api.aws	Version 20 and later

Region name	Region	Endpoint	WhatsApp API version
Europe (London)	eu-west-2	social-messaging.eu-west-2.amazonaws.com social-messaging.eu-west-1.api.aws	Version 20 and later

# Setting up AWS End User Messaging Social

Before you can use AWS End User Messaging Social for the first time, you must complete the following steps.

## Topics

- [Sign up for an AWS account](#)
- [Create a user with administrative access](#)
- [Next steps](#)

## Sign up for an AWS account

If you do not have an AWS account, complete the following steps to create one.

### To sign up for an AWS account

1. Open <https://portal.aws.amazon.com/billing/signup>.
2. Follow the online instructions.

Part of the sign-up procedure involves receiving a phone call and entering a verification code on the phone keypad.

When you sign up for an AWS account, an *AWS account root user* is created. The root user has access to all AWS services and resources in the account. As a security best practice, assign administrative access to a user, and use only the root user to perform [tasks that require root user access](#).

AWS sends you a confirmation email after the sign-up process is complete. At any time, you can view your current account activity and manage your account by going to <https://aws.amazon.com/> and choosing **My Account**.

## Create a user with administrative access

After you sign up for an AWS account, secure your AWS account root user, enable AWS IAM Identity Center, and create an administrative user so that you don't use the root user for everyday tasks.

## Secure your AWS account root user

1. Sign in to the [AWS Management Console](#) as the account owner by choosing **Root user** and entering your AWS account email address. On the next page, enter your password.

For help signing in by using root user, see [Signing in as the root user](#) in the *AWS Sign-In User Guide*.

2. Turn on multi-factor authentication (MFA) for your root user.

For instructions, see [Enable a virtual MFA device for your AWS account root user \(console\)](#) in the *IAM User Guide*.

## Create a user with administrative access

1. Enable IAM Identity Center.

For instructions, see [Enabling AWS IAM Identity Center](#) in the *AWS IAM Identity Center User Guide*.

2. In IAM Identity Center, grant administrative access to a user.

For a tutorial about using the IAM Identity Center directory as your identity source, see [Configure user access with the default IAM Identity Center directory](#) in the *AWS IAM Identity Center User Guide*.

## Sign in as the user with administrative access

- To sign in with your IAM Identity Center user, use the sign-in URL that was sent to your email address when you created the IAM Identity Center user.

For help signing in using an IAM Identity Center user, see [Signing in to the AWS access portal](#) in the *AWS Sign-In User Guide*.

## Assign access to additional users

1. In IAM Identity Center, create a permission set that follows the best practice of applying least-privilege permissions.

For instructions, see [Create a permission set](#) in the *AWS IAM Identity Center User Guide*.

2. Assign users to a group, and then assign single sign-on access to the group.

For instructions, see [Add groups](#) in the *AWS IAM Identity Center User Guide*.

## Next steps

Now that you're prepared to work with AWS End User Messaging Social, see [Getting started with AWS End User Messaging Social](#) for creating your WhatsApp Business Account (WABA) or migrating your existing WhatsApp Business Account.

# Getting started with AWS End User Messaging Social

These topics guide you through the steps to link or migrate your WhatsApp Business Account (WABA) to AWS End User Messaging Social.

## Topics

- [Signing up for WhatsApp](#)

## Signing up for WhatsApp

A WhatsApp Business Account (WABA) allows your business to use the WhatsApp Business Platform to send messages directly to your customers. All of your WABAs are part of your Meta business portfolio. A WABA contains your customer facing assets, like phone number, templates, and WhatsApp Business Profile. A WhatsApp Business Profile contains your business's contact information that users see. For more information on WhatsApp Business Accounts, see [WhatsApp Business Account \(WABA\) in AWS End User Messaging Social](#).

Follow the steps in this section to get started with AWS End User Messaging Social. Use the embedded sign-up process to either create a new WhatsApp Business Account (WABA) or migrate an existing WABA to AWS End User Messaging Social.

## Prerequisites

### Important

#### Working with Meta/WhatsApp

- Your use of the WhatsApp Business Solution is subject to the terms and conditions of the [WhatsApp Business Terms of Service](#), the [WhatsApp Business Solution Terms](#), the [WhatsApp Business Messaging Policy](#), the [WhatsApp Messaging Guidelines](#), and all other terms, policies, or guidelines incorporated therein by reference (as each may be updated from time to time).
- Meta or WhatsApp may at any time prohibit your use of the WhatsApp Business Solution.
- You must create a WhatsApp Business Account ("WABA") with Meta and WhatsApp.
- You must create a Business Manager account with Meta and link it to your WABA.

- You must provide control of your WABA to us. At your request, we will transfer control of your WABA back to you in a reasonable and timely manner using the methods Meta makes available to us.
  - In connection with your use of the WhatsApp Business Solution, you will not submit any content, information, or data that is subject to safeguarding and/or limitations on distribution pursuant to applicable laws and/or regulation.
  - WhatsApp's pricing for use of the WhatsApp Business Solution can be found at [Conversation-Based Pricing](#).
- 
- To create a WhatsApp Business Account (WABA), your business needs a [Meta Business Account](#). Check if your company already has a Meta Business Account. If you don't have a Meta Business Account, you can create one during the sign-up process.
  - To use a phone number that's already in use with the WhatsApp Messenger application or WhatsApp Business application, you must delete it first.
  - A phone number that can receive either an SMS or a voice One-Time Passcode (OTP). The phone number used for sign-up becomes associated with your WhatsApp account and the phone number is used when you send messages. The phone number can still be used for SMS, MMS, and voice messaging.
  - If you are importing an existing WABA, you need the PINs for all the phone numbers associated with the imported WABA. To reset a lost or forgotten PIN, follow the directions in [Updating PIN](#) in the *WhatsApp Business Platform Cloud API Reference*.

## Sign up through the console

Follow these directions to create a new WhatsApp account, migrate your existing account, or add a phone number to an existing WABA. As part of the sign-up process, you give AWS End User Messaging Social access to your WhatsApp Business Account. You also allow AWS End User Messaging Social to bill you for messages. For more information on WhatsApp Business Accounts, see [Understanding WhatsApp business account types](#).

1. Open the AWS End User Messaging Social console at <https://console.aws.amazon.com/social-messaging/>.
2. Choose **Business accounts**.



3. On the **Link business account** page, choose **Launch Facebook portal**. A new login window from Meta will appear.
4. In the Meta login window, enter your Facebook account credentials.

On the **WhatsApp business account** page, choose **Add WhatsApp phone number**. On the **Add WhatsApp phone number** page, choose **Launch Facebook portal**. A new login window from Meta will appear.

5. In the Meta login window, enter your Facebook account credentials.
6. As part of the sign-up process, you give AWS End User Messaging Social access to your WhatsApp Business Account (WABA). You also allow AWS End User Messaging Social to bill you for messages. Choose **Continue**.
7. For **Meta Business account**, choose an existing Meta business account or **Create a Meta Business account**.
  - a. (Optional) If you need to create a Meta Business account, follow these steps:
  - b. For **Business name**, enter the name of your business.
  - c. For **Business website or profile page**, enter either the URL for your company's website, or if your company doesn't have a website, enter the URL to your social media page.
  - d. For **Country**, choose the country your business is located in.
  - e. (Optional) Choose **Add address** and enter your business's address.
8. Choose **Next**.
9. For **Choose a WhatsApp Business Account**, choose an existing WhatsApp Business Account (WABA), or if you need to create an account, choose **Create a WhatsApp Business Account**.

For **Create or Select a WhatsApp Business Profile**, choose an existing WhatsApp business profile, or **Create a new WhatsApp Business Profile**.

10. Choose **Next**.
11. For **Create a Business Profile**, enter the following information:
  - For **WhatsApp Business Account Name**, enter a name for your account. This field is not customer facing.
  - For **WhatsApp Business Profile display name**, enter the name to display to your customers when they receive a message from you. We recommend that you use your company name as the display name. The name is reviewed by Meta and must comply with [WhatsApp display name rules](#). To use a brand name that is different from your company name, there must be

an externally published association between your company and the brand. This association must be displayed on your website and on the brand represented by the display name's website.

Once you complete registration, Meta performs a review of your display name. Meta sends you an email telling you whether the display name has been approved or rejected. If your display name is rejected, your per day messaging limit is lowered and you could be disconnected from WhatsApp.

 **Important**

To change your display name, you have to create a ticket with Meta support.

- For **Timezone**, choose the time zone the business is located in.
  - For **Category**, choose a category that best aligns with your business. Customers can view the category you as part of your contact information.
  - For **Business Description**, enter a description of your company. Customers can view your business description as part of your contact information.
  - For **Website**, enter your company's website. Customers can view your website as part of your contact information.
  - Choose **Next**.
12. For **Add a phone number for WhatsApp**, enter a phone number to register. This phone number is displayed to your customers when you send them a message.
13. For **Choose how you would like to verify your number**, choose either **Text message** or **Phone call**.
- Once you are ready to receive the verification code, choose **Next**.
  - Enter the verification code, and then choose **Next**.
14. Once your number has been verified, you can choose **Next** to close the window from Meta.
15. For **WhatsApp business account** expand **Tags - optional** to add tags to your WhatsApp business account.
- Tags are pairs of keys and values that you can optionally apply to your AWS resources to control access or usage. Choose **Add new tag** and enter a key-value pair to attach.
16. A WhatsApp Business Account can have one message and event destination to log events for the WhatsApp Business Account and all resources associated to the WhatsApp Business

Account. To enable event logging in Amazon SNS, including logging of receiving a customer message, you must turn on **Message and event publishing**. For more information, see [Message and event destinations in AWS End User Messaging Social](#).

**⚠ Important**

To be able to respond to customer messages, you must enable **Message and event publishing**.

In the **Message and event destination details** section, turn on **Event publishing**. For Amazon SNS, choose either **New Amazon SNS standard topic** and enter a name in **Topic name**, or choose **Existing Amazon SNS standard topic** and choose a topic from the **Topic arn** dropdown list.

17. Under **Phone numbers**:

For each phone number under **WhatsApp Phone numbers**:

- a. For **Phone number verification**, enter the existing PIN or enter a new PIN code. To reset a lost or forgotten PIN, follow the directions in [Updating PIN](#) in the *WhatsApp Business Platform Cloud API Reference*.
- b. For **Additional setting**:
  - i. For **Data localization region - optional** choose one of Meta's regions in which to store your data at rest. For more information on Meta's data privacy policies, see [Data Privacy & Security](#) and [Cloud API Local Storage](#) in the *WhatsApp Business Platform Cloud API Reference*.
  - ii. Tags are pairs of keys and values that you can optionally apply to your AWS resources to control access or usage. Choose **Add new tag** and enter a key-value pair to attach.

18. A WhatsApp Business Account can have one message and event destination to log events for the WhatsApp Business Account and all resources associated to the WhatsApp Business Account. To enable event logging in Amazon SNS, including logging of receiving a customer message, you need to turn on **Message and event publishing**. For more information, see [Message and event destinations in AWS End User Messaging Social](#).

**⚠ Important**

You must enable **Message and event publishing** to be able to respond to customer messages.

In the **Message and event destination details** section, turn on **Event publishing**. For Amazon SNS, choose either **New Amazon SNS standard topic** and enter a name in **Topic name**, or choose **Existing Amazon SNS standard topic** and choose a topic from the **Topic arn** dropdown list.

19. To complete setup, choose **Add phone number**.

## Next steps

Once you've completed sign-up, you can start sending messages. When you're ready to start sending messages at scale, complete [Business Verification](#). Now that your WhatsApp Business Account and AWS End User Messaging Social accounts are linked, see the following topics:

- Learn about [event destination](#) to log events and receive incoming messages.
- Learn how to create [message templates](#).
- Learn how to [send a text or media message](#).
- Learn how to [receive a message](#).
- Learn about [Official Business Accounts](#) to have a green check mark beside your display name and increase your message throughput.

# WhatsApp Business Account (WABA) in AWS End User Messaging Social

With a WhatsApp Business Account (WABA), you can use the WhatsApp Business Platform to send messages directly to your customers. All of your WABAs are part of your [Meta Business Portfolio](#). A WhatsApp Business Account contains your customer facing assets like phone number, templates, and business contact information. A WABA can only exist in one AWS Region. For more information on WhatsApp Business Accounts, see [WhatsApp Business Accounts](#) in the *WhatsApp Business Platform Cloud API Reference*.

## Important

### Working with Meta/WhatsApp

- Your use of the WhatsApp Business Solution is subject to the terms and conditions of the [WhatsApp Business Terms of Service](#), the [WhatsApp Business Solution Terms](#), the [WhatsApp Business Messaging Policy](#), the [WhatsApp Messaging Guidelines](#), and all other terms, policies, or guidelines incorporated therein by reference. These might be updated from time to time.
- Meta or WhatsApp may at any time prohibit your use of the WhatsApp Business Solution.
- You must create a WhatsApp Business Account (WABA) with Meta and WhatsApp.
- You must create a Business Manager account with Meta and link it to your WABA.
- You must grant control of your WABA to us. At your request, we will transfer control of your WABA back to you in a reasonable and timely manner using the methods Meta makes available to us.
- In connection with your use of the WhatsApp Business Solution, you will not submit any content, information, or data that is subject to safeguarding or limitations on distribution pursuant to applicable laws or regulations.
- WhatsApp's pricing for use of the WhatsApp Business Solution can be found at <https://developers.facebook.com/docs/whatsapp/pricing>.

## Topics

- [View a WhatsApp Business Account \(WABA\) in AWS End User Messaging Social](#)

- [Add a WhatsApp Business Account \(WABA\) in AWS End User Messaging Social](#)
- [Understanding WhatsApp business account types](#)

## View a WhatsApp Business Account (WABA) in AWS End User Messaging Social

You can view the WABA associated with your AWS account.

### To view the WABA associated with your account

1. Open the AWS End User Messaging Social console at <https://console.aws.amazon.com/social-messaging/>.
2. In **Business accounts**, choose a WABA.
3. On the **Phone numbers** tab, view your phone number, display name, quality rating, and the number of business initiated conversations that you have left for the day.

On the **Event destinations** tab, view your event destination. To edit your event destination, follow the directions in [Message and event destinations in AWS End User Messaging Social](#).

On the **Templates** tab, choose **Manage message templates** to edit your WhatsApp templates through Meta. Each WABA has a 250 template limit.

On the **Tags** tab, you can manage your WABA resource tags.

## Add a WhatsApp Business Account (WABA) in AWS End User Messaging Social

Add a new WABA to your account if you already have a WhatsApp Business Profile. As part of creating a new WABA, you must add a [phone number](#) to the WABA.

- To add a new WABA to your account, follow the steps in [Getting started with AWS End User Messaging Social](#):
  - In step 8, choose your WhatsApp Business Profile, and then choose a **Create a new WhatsApp Business account**.

# Understanding WhatsApp business account types

Your WhatsApp business account determines how you appear to your customers. When you create a WhatsApp account, your account will be a *Business Account*. WhatsApp has two types of business accounts:

- *Business Account*: WhatsApp verifies the authenticity of every account on the WhatsApp Business Platform. If a business account has completed the Business Verification process, the business name will be visible to all users. This feature helps users identify verified business accounts on WhatsApp.
- *Official Business Account*: Along with the benefits of a *business account*, an official business account has a green checkmark badge in its profile and chat thread headers.

Approval for a WhatsApp Official Business Account (OBA) requires providing evidence that the business is well known and recognized by consumers, such as articles, blog posts, or independent reviews. Approval for a WhatsApp OBA is not guaranteed, even if the business provides the required documentation. The approval process is subject to review and approval by WhatsApp. WhatsApp does not publicly disclose the specific criteria they use to evaluate and approve applications for Official Business Accounts. The businesses seeking a WhatsApp OBA must demonstrate their reputation and recognition, but final approval is at the discretion of WhatsApp.

When you create a WhatsApp account, your account will be a *Business Account*. You can provide information to your customers about your business, such as website, address, and hours. For businesses that haven't completed WhatsApp Business Verification, the display name is shown in small text next to the phone number in the contacts view, not in the chat list or individual chat. Once the Meta Business Verification is completed, the WhatsApp Sender's display name will be shown in the chat list and individual chat threads.

## Additional resources

- For more information on *Business Account* and *Official Business Account*, see [Business Accounts](#) in the *WhatsApp Business Platform Cloud API Reference*.
- For more information on the Business Verification process, see [Business Verification](#) in the *WhatsApp Business Platform Cloud API Reference*.

# Phone numbers in AWS End User Messaging Social

All WhatsApp Business Accounts contain one or more phone numbers used to verify your identity with WhatsApp and are used as part of your sending identity. You can have multiple phone numbers associated with a WhatsApp Business Account (WABA) and use each phone number for a different brand.

## Topics

- [Phone number considerations for use with a WhatsApp Business Account](#)
- [Add a phone number to a WhatsApp Business Account \(WABA\)](#)
- [View a phone number's status](#)
- [View a phone number's ID in AWS End User Messaging Social](#)
- [Increase messaging conversation limits in WhatsApp](#)
- [Increase message throughput in WhatsApp](#)
- [Understanding phone number quality rating in WhatsApp](#)

## Phone number considerations for use with a WhatsApp Business Account

When you link a phone number with your WhatsApp Business Account (WABA), you should consider the following:

- Phone numbers can only be linked to one WABA at a time.
- The phone number can still be used for SMS, MMS, and voice calls.
- Each phone number has a quality rating from Meta.

You can obtain an SMS-capable phone number through AWS End User Messaging SMS by doing the following:

1. Make sure that the [country or region](#) for the phone number supports two-way SMS.
2. Request the [phone number](#). Depending on the country or region, you may be required to register the phone number.



3. [Enable two-way SMS messaging](#) for the phone number. Once setup is complete, your incoming SMS messages are sent to an event destination.

## Add a phone number to a WhatsApp Business Account (WABA)

You can add phone numbers to an existing WhatsApp Business Account (WABA) or create a new WABA for the phone number.

### Prerequisites

Before you begin, the following prerequisites must be met:

- The phone number must be able to receive either an SMS or a voice One-Time Passcode (OTP). This is the phone number that is added to your WABA.
- The phone number must not be associated with any other WABA.

## Add a phone number to a WABA

To add a new phone number to your existing WABA

1. Open the AWS End User Messaging Social console at <https://console.aws.amazon.com/social-messaging/>.
2. Choose **Business Accounts**, and then **Add WhatsApp phone number**.
3. On the **Add WhatsApp phone number** page, choose **Launch Facebook portal**. A new login window from Meta will appear.
4. In the Meta login window, enter your Meta developer account credentials and choose your business portfolio.
5. Choose the WABA and WhatsApp Business Profile that you want to add the phone number to.
6. Choose **Next**.
7. For **Add a phone number for WhatsApp**, enter a phone number to register. This phone number is displayed to your customers when you send them a message.
8. For **Choose how you would like to verify your number**, choose either **Text message** or **Phone call**.
9. Once you are ready to receive the verification code, choose **Next**

10. Enter the verification code, and then choose **Next**. Once your number has been verified, you can choose **Next** to close the window from Meta.
11. Under **WhatsApp Phone numbers**:
  - a. For **Phone number verification**, enter the existing PIN or enter a new PIN code. To reset a lost or forgotten PIN, follow the directions in [Updating PIN](#) in the *WhatsApp Business Platform Cloud API Reference*.
  - b. For **Additional setting**:
    - i. For **Data localization region - optional**, choose one of Meta's regions in which to store your data at rest. For more information on Meta's data privacy policies, see [Data Privacy & Security](#) and [Cloud API Local Storage](#) in the *WhatsApp Business Platform Cloud API Reference*.
    - ii. Tags are pairs of keys and values that you can optionally apply to your AWS resources to control access or usage. Choose **Add new tag** and enter a key-value pair to attach.
12. A WhatsApp Business Account can have one message and event destination to log events for the WhatsApp Business Account and all resources associated to the WhatsApp Business Account. To enable event logging in Amazon SNS, including logging of receiving a customer message, turn on **Message and event publishing**. For more information, see [Message and event destinations in AWS End User Messaging Social](#).

 **Important**

You must enable **Message and event publishing** to be able to respond to customer messages.

In the **Message and event destination details** section, turn on **Event publishing**. For Amazon SNS, either choose **New Amazon SNS standard topic** and enter a name in **Topic name**, or choose **Existing Amazon SNS standard topic** and choose a topic from the **Topic arn** dropdown list.

13. To complete setup, choose **Add phone number**.

## View a phone number's status

To be able to send messages in AWS End User Messaging Social, the phone number's **Status** must be *Active*.

1. Open the AWS End User Messaging Social console at <https://console.aws.amazon.com/social-messaging/>.
2. Choose **Phone numbers**.
3. In the **Phone numbers** section, the **Status** column has each phone number's status.

### Note

If a phone number's **Status** is **Incomplete setup**, you can choose the phone number and then choose **Complete setup** to finish setting up the phone number.

## View a phone number's ID in AWS End User Messaging Social

To be able to send messages with the AWS CLI, you need the **Phone number ID** to identify the phone number to use when sending.

1. Open the AWS End User Messaging Social console at <https://console.aws.amazon.com/social-messaging/>.
2. Choose **Phone numbers**.
3. In the **Phone numbers** section, choose a phone number.
4. The **Phone number details** section contains the **Phone number ID** of the phone number.

## Increase messaging conversation limits in WhatsApp

Messaging limits refer to the maximum number of business-initiated conversations a business phone number can open in a 24-hour period. Business phone numbers are initially limited to 250 business-initiated conversations in a 24-hour moving period. This limit can be increased by Meta based on the quality rating of your messages and how many messages you send. Business-initiated conversations can only use template messages.

When a customer messages you, this opens a 24-hour service window. During this time, you can send all [message types](#).

You can increase your messaging limit to 1,000 messages on your own by following these guidelines:

- Your business phone number must have an [Active status](#).
- If your business phone number has a [low quality rating](#), it may continue to be limited to 250 business-initiated conversations per day until its quality rating improves.
- Apply for [Business Verification](#). If your business is approved, the messaging quality will be analyzed to determine if your messaging activity warrants an increase to your messaging limit. Based on the analysis, your request for a messaging limit increase will either be approved or denied by Meta.
- Apply for [Identity Verification](#). If you complete identity verification and your identity is confirmed, Meta will approve a messaging limit increase.
- Open 1,000 or more business-initiated conversations in a 30-day moving period using a template with a high quality rating. Once you reach the 1,000 conversation threshold, your messaging quality will be analyzed to determine if your messaging activity warrants an increase to your messaging limit. The goal is to send high-quality messages consistently to potentially get your messaging limit increased.

If you completed Business Verification or Identity Verification, or opened 1,000 or more business conversations, and you are still limited to 250 business-initiated conversations, submit a request to Meta for a message tier upgrade.

If your business or identity verification is rejected, you can improve your chances of getting approved by sending high-quality messages. By sending high-quality, compliant, and opt-in messages, your messaging activity and quality may be reevaluated, potentially leading to an increase in your approved messaging capabilities.

Your messaging quality score on WhatsApp is calculated based on recent user feedback and interactions, with more weight given to more recent data. This helps assess the overall quality and reliability of your messaging on the platform.

### Message limits level increases

- 1K business-initiated conversations
- 10K business-initiated conversations
- 100K business-initiated conversations
- An unlimited number of business-initiated conversations

## Increase message throughput in WhatsApp

Message throughput is the number of incoming and outgoing messages per second (MPS) for a phone number. By default, each phone number has an MPS of 80. Meta can increase your MPS to 1,000 if you meet the following requirements:

- The phone number must be able to send an unlimited number of [business-initiated conversations](#)
- The phone number must have a [quality rating](#) of medium or higher.

## Understanding phone number quality rating in WhatsApp

The quality of your phone number and messages is determined by Meta. Your messaging quality score is based on how your messages have been received by customers over the past seven days, with more recent messages weighted more heavily. The messaging quality score is calculated based on a combination of quality signals from the conversations between you and your WhatsApp users. These signals include user feedback like blocks, reports, and the reasons users provide when they block a business. Meta evaluates the quality of your messages based on how well they are received by your customers on WhatsApp, with a focus on recent feedback and interactions.

### WhatsApp phone number quality ratings

- Green: High quality
- Yellow: Medium quality
- Red: Low quality

### WhatsApp phone number status

- *Connected*: You can send messages within your message quota.
- *Flagged*: Your phone number quality is low and needs to be improved. If your quality doesn't improve in seven days, your phone number status is changed to Connected but your business-initiated conversation limit is lowered one tier.
- *Restricted*: You have reached your business-initiated conversation limit for the current 24-hour period. You can still respond to incoming messages. Once the 24-hour period is over, you can send messages again.

## View a phone number quality rating

Follow these directions to view a phone numbers quality.

1. Open the AWS End User Messaging Social console at <https://console.aws.amazon.com/social-messaging/>.
2. In **Business accounts**, choose a WhatsApp Business Account (WABA).
3. On the **Phone numbers** tab, view your phone number, display name, quality rating, and the number of business-initiated conversations that you have left for the day.

# Using message templates in AWS End User Messaging Social

You can use message templates for message types that you use frequently, such as weekly newsletters or appointment reminders. Template messages are the only type of message that can be sent to customers who have yet to message you, or who have not sent you a message in the last 24 hours.

Meta assigns each template a quality rating and status. The quality rating impacts a template's status and lowers a template's pacing or sending rate.

Templates are associated with your WhatsApp Business Account (WABA), managed through the WhatsApp Manager, and reviewed by WhatsApp.

You can send the following template types:

- Text-based
- Media-based
- Interactive message
- Location-based
- Authentication templates with one-time password buttons
- Multi-Product Message templates

Meta provides pre-approved sample templates. To learn more, see [Sample message templates](#).

For more information on the types of message templates, see [Message template](#) in the *WhatsApp Business Platform Cloud API Reference*.

## Using message templates with WhatsApp Manager

Use the [WhatsApp Manager](#) to create, modify, or check a templates status.

1. Open the AWS End User Messaging Social console at <https://console.aws.amazon.com/social-messaging/>.
2. Choose **Business account**, and then choose a WABA.

3. On the **Message templates** tab, choose **Manage message templates**. The [WhatsApp manager](#) opens in a new window where you can manage your templates by choosing **Message templates**.

## Next steps

Once you've created or edited a template, you must submit it for review with WhatsApp. Meta's review can take up to 24 hours. Meta sends an email to your Business Manager admin and updates the template status in WhatsApp manager. Use the [WhatsApp manager](#) to check the status of your template.

## Understanding template pacing in WhatsApp

Template pacing is a method, used by Meta, that allows time for early customer feedback on new or modified templates. It identifies and pauses templates that receive poor engagement or feedback, giving you time to adjust the template content before sending it to too many customers. This reduces the risk of negative customer feedback impacting the business. For example, if too many customers "block" your message, or if your template has low read rates, then your template quality rating can be lowered.

Template pacing affects newly created templates, templates that have been unpaused, and templates without a high quality rating. Template pacing is often started by a previous history of low quality or paused templates. When a template is paced, messages using that template are sent normally up to a certain threshold determined by Meta. After that, subsequent messages are held to allow time for customer feedback. If the feedback is positive, the template pacing is then scaled up. If the feedback is negative, the template pacing is lowered, allowing you to adjust the template content. For more information, see [Template pacing](#) in the *WhatsApp Business Platform Cloud API Reference*.

## Get feedback on a template's lowered status with WhatsApp Manager

Meta provides information on the reason a template's status was lowered. Use the feedback from Meta to edit the template and submit it for reapproval, use a different template, or change your application's behavior. If you edit the message template and it is reapproved, its quality rating will gradually improve as long as it doesn't receive frequent negative feedback or low read rates.



1. Open the AWS End User Messaging Social console at <https://console.aws.amazon.com/social-messaging/>.
2. Choose **Business account**, and then choose a WABA.
3. On the **Message templates** tab, choose **Manage message templates**. The [WhatsApp manager](#) opens in a new window.
4. Choose **Message templates**, and hover over the template. A tooltip should appear with feedback on why the rating was lowered.

## Understanding a template's status and quality rating in WhatsApp

Each message template is assigned a quality rating based on usage, customer feedback, and customer engagement. A template can be used only if the status is Active, but the quality determines the template pacing. If a message template consistently receives negative feedback or experiences low engagement, it will cause a change in the template's status.

Meta changes a template's status or quality rating automatically based on negative or positive feedback and engagement. If your template status changes, you will receive a WhatsApp Manager notification, email, and event notification. Use the [WhatsApp manager](#) to check the status of your template.

If your template is rejected by WhatsApp, you can edit the template and resubmit for approval or file an appeal with WhatsApp. To learn more, see [Appeals](#) in the *WhatsApp Business Platform Cloud API Reference*.

Template status	Quality rating	Meaning
In-Review		The message template is being reviewed. This can take up to 24 hours to complete.
Rejected		The message template was rejected, and you can file an appeal.
Active	Pending	The message template hasn't receive quality feedback or

Template status	Quality rating	Meaning
		read rate information from customers, but the template can still be used to send messages.
Active	High	The message template has received little to no negative customer feedback and can be used to send messages.
Active	Medium	The message template has received negative feedback from customers, or low read rates, and may be paused or turned off.
Active	Low	<p>The message template has received negative feedback from customers, or low read rates. Message templates with this status can be used, but are at risk of being paused or disabled.</p> <p>When a template moves to the Active-Low status, its sending is paused. The first pause is three hours, the second pause is six hours, and the next pause disables the template.</p>
Paused		The message template has been paused due to recurring negative feedback from customers, or low read rates.

Template status	Quality rating	Meaning
Disabled		The message template has been disabled due to recurring negative feedback from customers.
Appeal Requested		An appeal has been requested .

## Reasons why a template is rejected in WhatsApp

If your message template is reviewed and rejected by Meta, you will receive an email explaining why the template was rejected. You can appeal the rejection or modify your message template. These are some of the common reasons Meta might reject a message template:

- Variable parameters contain special characters, such as a #, \$, or %.
- Variable parameters are missing, have mismatched curly braces, or are not sequential.
- The message template contains content that violates either [WhatsApp Commerce Policy](#) or [WhatsApps Business Policy](#).

For more information, see [Common Rejection Reasons](#) in the *WhatsApp Business Platform Cloud API Reference*.

# Message and event destinations in AWS End User Messaging Social

An event destination is an Amazon SNS topic that WhatsApp events are sent to. When you turn on event publishing to an Amazon SNS topic, all of your send and receive events are sent to the Amazon SNS topic. Use events to monitor, track, and analyze the status of outbound messages and incoming customer communications.

Each WhatsApp Business Account (WABA) can have one event destination. All events from all resources associated to the WhatsApp Business Account are logged to that event destination. For example, you could have a WhatsApp Business Account with three phone numbers associated to it and all events from those phone numbers are logged to the one event destination.

## Topics

- [Add a message and event destination to AWS End User Messaging Social](#)
- [Message and event format in AWS End User Messaging Social](#)
- [WhatsApp message status](#)

## Add a message and event destination to AWS End User Messaging Social

When you turn on message and event publishing, all of the events generated by your WhatsApp Business Account (WABA) are sent to the Amazon SNS topic. This includes events for each phone number associated to a WhatsApp Business Account. Your WABA can have one Amazon SNS topic associated with it.

## Prerequisites

Before you begin, the following prerequisites should be met.

- **(Optional)** To use an Amazon SNS topic that is encrypted using AWS KMS keys you have to grant AWS End User Messaging Social permissions to the [existing key policy](#).

## Add a message and event destination

1. Open the AWS End User Messaging Social console at <https://console.aws.amazon.com/social-messaging/>.
2. Choose **Business account**, and then choose a WABA.
3. On the **Event destination** tab, choose **Edit destination**.
4. To turn on an event destination, choose **Enable**.
5. To send your events to a new Amazon SNS destination, choose **New SNS stand topic**, and enter a name in **Topic name**. The Amazon SNS topic is created with permissions to allow AWS End User Messaging Social to access the topic.

To send your events to an existing Amazon SNS destination, choose **Existing SNS standard topic**, and choose a topic form **Topic arn**. You have to apply the following permissions to the Amazon SNS topic:

```
{
  "Effect": "Allow",
  "Principal": {
    "Service": [
      "social-messaging.amazonaws.com"
    ]
  },
  "Action": "sns:Publish",
  "Resource": "arn:{PARTITION}:sns:{REGION}:{ACCOUNT}:{TOPIC_NAME}"
}
```

6. Choose **Save changes**.

## Encrypted Amazon SNS topic policies

You can use Amazon SNS topics that are encrypted using AWS KMS keys for an additional level of security. This added security can be helpful if your application handles private or sensitive data. For more information about encrypting Amazon SNS topics using AWS KMS keys, see [Enable compatibility between event sources from AWS services and encrypted topics](#) in the *Amazon Simple Notification Service Developer Guide*.

The example statement uses the, optional but recommended, `SourceAccount` and `SourceArn` conditions to avoid the confused deputy problem and only the AWS End User Messaging Social

owner account has access. For more information on the confused deputy problem, see [The confused deputy problem](#) in the *IAM user guide*.

The key that you use must be *symmetric*. Encrypted Amazon SNS topics don't support asymmetric AWS KMS keys.

The key policy must be modified to allow AWS End User Messaging Social to use the key. Follow the directions in [Changing a key policy](#), in the *AWS Key Management Service Developer Guide*, to add the following permissions to the existing key policy:

```
{
  "Effect": "Allow",
  "Principal": {
    "Service": "social-messaging.amazonaws.com"
  },
  "Action": [
    "kms:GenerateDataKey*",
    "kms:Decrypt"
  ],
  "Resource": "*",
  "Condition": {
    "StringEquals": {
      "aws:SourceAccount": "{ACCOUNT_ID}"
    },
    "ArnLike": {
      "aws:SourceArn": "arn:{PARTITION}:social-messaging:{REGION}:{ACCOUNT_ID}:*"
    }
  }
}
```

## Next steps

Once you have set up your Amazon SNS topic, you must subscribe an endpoint to the topic. The endpoint will start to receive messages published to the associated topic. For more information on subscribing to a topic, see [Subscribing to an Amazon SNS topic](#) in the *Amazon SNS Developer Guide*.

## Message and event format in AWS End User Messaging Social

The JSON object for an event contains the AWS event header and WhatsApp JSON payload. For a list of the JSON WhatsApp notification payload and values, see [Webhooks Notification Payload Reference](#) and [Message Status](#) in the *WhatsApp Business Platform Cloud API Reference*.

## AWS End User Messaging Social event header

The JSON object for an event contains the AWS event header and WhatsApp JSON. The header contains the AWS identifiers and ARNs of your WhatsApp Business Account (WABA) and phone number.

```
{
  "MetaWabaIds": [
    {
      "wabaId": "1234567890abcde",
      "arn": "arn:aws:social-messaging:us-
east-1:123456789012:waba/fb2594b8a7974770b128a409e2example"
    }
  ],
  "MetaPhoneNumberIds": [
    {
      "metaPhoneNumberId": "abcde1234567890",
      "arn": "arn:aws:social-messaging:us-east-1:123456789012:phone-number-
id/976c72a700aac43eaf573ae050example"
    }
  ]
}
{
  //WhatsApp notification payload
}
```

In the preceding example event:

- *1234567890abcde* is the WABA id from Meta.
- *abcde1234567890* is the phone number id from Meta.
- *fb2594b8a7974770b128a409e2example* is the ID of the WhatsApp Business Account (WABA).
- *976c72a700aac43eaf573ae050example* is the ID of the phone number.

## Example WhatsApp JSON for receiving a text message

The following shows the event record for an incoming text message from WhatsApp. The JSON is generated by WhatsApp. For a list of fields and their meaning, see [Webhooks Notification Payload Reference](#) in the *WhatsApp Business Platform Cloud API Reference*.

```
{
//AWS End User Messaging Social header
}
{
  "id": "365731266123456",
  "changes": [
    {
      "value": {
        "messaging_product": "whatsapp",
        "metadata": {
          "display_phone_number": "12065550100",
          "phone_number_id": "321010217760100"
        },
        "contacts": [
          {
            "profile": {
              "name": "Diego"
            },
            "wa_id": "12065550102"
          }
        ],
        "messages": [
          {
            "from": "14255550150",
            "id":
"wamid.HBgLMTQyNTY5ODgzMDIVAgASGCBDNzBDRjM5MDU2ODEwMDkwREY4ODBDRE0RjVGRkexample",
            "timestamp": "1723506035",
            "text": {
              "body": "Hi"
            },
            "type": "text"
          }
        ]
      },
      "field": "messages"
    }
  ]
}
```



## Example WhatsApp JSON for receiving a media message

The following shows the event record for an incoming media message. To retrieve the media file, use the `GetWhatsAppMessageMedia` API command. For a list of fields and their meaning, see [Webhooks Notification Payload Reference](#)

```
{
//AWS End User Messaging Social header
}
{
  "id": "365731266123456",
  "changes": [
    {
      "value": {
        "messaging_product": "whatsapp",
        "metadata": {
          "display_phone_number": "12065550100",
          "phone_number_id": "321010217760100"
        },
        "contacts": [
          {
            "profile": {
              "name": "Diego"
            },
            "wa_id": "12065550102"
          }
        ],
        "messages": [
          {
            "from": "14255550150",
            "id":
"wamid.HBgLMTQyNTY5ODgzMDIVAgASGCBDNzBDRjM5MDU2ODEwMDkwREY4ODBDRE0RjVGRkexample",
            "timestamp": "1723506230",
            "type": "image",
            "image": {
              "mime_type": "image/jpeg",
              "sha256": "BTD0xlqSZ7l02o+/upusiNStlEZhA/urkvKf143Uqjk=",
              "id": "530339869524171"
            }
          }
        ]
      },
      "field": "messages"
    }
  ]
}
```

```
}  
]  
}
```

## WhatsApp message status

When you send a message, you receive status updates about the message. You have to enable event logging to receive these notifications, see [Message and event destinations in AWS End User Messaging Social](#).

### Message statuses

The following table contains possible message statuses.

Status name	Description
deleted	The customer deleted the message, and you should also delete the message if it was downloaded to your server.
delivered	The message was successfully delivered to the customer.
failed	The message failed to send.
read	The customer read the message. This status is only sent if the customer has read receipts turned on.
sent	The message has been sent but is still in transit.
warning	The message contains an item that is unavailable or doesn't exist.

### Additional resources

For more information, see [Message Status](#) in the *WhatsApp Business Platform Cloud API Reference*.

## Uploading media files to send with WhatsApp

When you send or receive a media file, it has to be stored in an Amazon S3 bucket. The Amazon S3 bucket must be in the same AWS account and AWS Region as your WhatsApp Business Account (WABA). These directions show how to create an Amazon S3 bucket, upload a file, and build the URL to the file. For more information on Amazon S3 commands, see [Use high-level \(s3\) commands with the AWS CLI](#). For more information on configuring the AWS CLI, see [Configure the AWS CLI](#) in the [AWS Command Line Interface User Guide](#), and [Creating a bucket](#), and [Uploading objects](#) in the [Amazon S3 User Guide](#).

You can also create a [presigned URL](#) to the media file. With a presigned URL, you can grant time-limited access to objects and upload them without requiring another party to have AWS security credentials or permissions.

To create an Amazon S3 bucket, use the [create-bucket](#) AWS CLI command. At the command line, enter the following command:

```
aws s3api create-bucket --region 'us-east-1' --bucket BucketName
```

In the preceding command:

- Replace *us-east-1* with the AWS Region that your WABA is in.
- Replace *BucketName* with the name of the new bucket.

To copy a file to the Amazon S3 bucket, use the [cp](#) AWS CLI command. At the command line, enter the following command:

```
aws s3 cp SourceFilePathAndName s3://BucketName/FileName
```

In the preceding command:

- Replace *SourceFilePathAndName* with the file path and name of the file to copy.
- Replace *BucketName* with the name of the bucket.
- Replace *FileName* with the name to use for the file.

The url to use when sending is:

```
s3://BucketName/FileName
```

To create a [presigned URL](#), replace the *user input placeholders* with your own information.

```
aws s3 presign s3://amzn-s3-demo-bucket1/mydoc.txt --expires-in 604800 --region af-south-1 --endpoint-url https://s3.af-south-1.amazonaws.com
```

The returned URL will be: `https://amzn-s3-demo-bucket1.s3.af-south-1.amazonaws.com/mydoc.txt?{Headers}`

## Supported media file types and sizes in WhatsApp

When sending or receiving a media message, the file type must be supported and under the maximum file size. For more information, see [Supported Media Types](#) in the *WhatsApp Business Platform Cloud API Reference*.

### Media file types

#### Audio formats

Audio Type	Extension	MIME Type	Max Size
AAC	.aac	audio/aac	16 MB
AMR	.amr	audio/amr	16 MB
MP3	.mp3	audio/mpeg	16 MB
MP4 Audio	.m4a	audio/mp4	16 MB
OGG Audio	.ogg	audio/ogg	16 MB

#### Document formats

Document Type	Extension	MIME Type	Max Size
Text	.text	text/plain	100 MB
Microsoft Excel	.xls, .xlsx	application/vnd.ms-excel, application/	100 MB

Document Type	Extension	MIME Type	Max Size
		vnd.openxmlformats-officedocument.spreadsheetml.sheet	
Microsoft Word	.doc, .docx	application/msword, application/vnd.openxmlformats-officedocument.wordprocessingml.document	100 MB
Microsoft PowerPoint	.ppt, .pptx	application/vnd.ms-powerpoint, application/vnd.openxmlformats-officedocument.presentationml.presentation	100 MB
PDF	.pdf	application/pdf	100 MB

### Image formats

Image Type	Extension	MIME Type	Max Size
JPEG	.jpeg	image/jpeg	5 MB
PNG	.png	image/png	5 MB

### Sticker formats

Sticker Type	Extension	MIME Type	Max Size
Animated sticker	.webp	image/webp	500 KB
Static sticker	.webp	image/webp	100 KB

## Video formats

Video Type	Extension	MIME Type	Max Size
3GPP	.3gp	video/3gp	16 MB
MP4 Video	.mp4	video/mp4	16 MB

## WhatsApp message types

This topic lists the supported message types and a description of their use. For a list of message types, see [Messages](#) in the *WhatsApp Business Platform Cloud API Reference*.

Message Type	Description
Text	Send a text message or URL to your customer.
Media	Send an audio, document, image, sticker, or video file. You can also send links of the media file.
Reaction	Send an emoji as a reaction to a message, like a thumbs up.
Template	Send a template message.
Location	Send a location.
Contacts	Send a contact card.
Interactive	Send an interactive message.

## Additional resources

For a list of WhatsApp message objects, see [Messages](#) in the *WhatsApp Business Platform Cloud API Reference*.

# Sending messages through WhatsApp with AWS End User Messaging Social

Before sending a message, you must set up your WhatsApp Business Account (WABA), and your user must opt in to receive messages from you. For more information, see [Obtain permission](#).

When a user messages you, a 24-hour timer called a customer service window starts or refreshes. All message types, except for template messages, can only be sent when a customer service window is open between you and the user. Template messages can be sent at any time, as long as the user has opted in to receive messages from you.

For each message that you send or receive, a message status is generated and sent to the event destination. If your customer has not signed up for WhatsApp, an event is generated with a message status of `fail`. You must turn on a [message and event destination](#) to receive the [message status](#).

## Important

### Working with Meta/WhatsApp

- Your use of the WhatsApp Business Solution is subject to the terms and conditions of the [WhatsApp Business Terms of Service](#), the [WhatsApp Business Solution Terms](#), the [WhatsApp Business Messaging Policy](#), the [WhatsApp Messaging Guidelines](#), and all other terms, policies, or guidelines incorporated therein by reference. These might be updated from time to time.
- Meta or WhatsApp may at any time prohibit your use of the WhatsApp Business Solution.
- In connection with your use of the WhatsApp Business Solution, you will not submit any content, information, or data that is subject to safeguarding or limitations on distribution pursuant to applicable laws or regulations.

## Topics

- [Example of sending a template message in AWS End User Messaging Social](#)
- [Example of sending a media message in AWS End User Messaging Social](#)



## Example of sending a template message in AWS End User Messaging Social

The following example shows how to use a template to [send a message](#) to your customer using the AWS CLI. For more information on configuring the AWS CLI, see [Configure the AWS CLI](#) in the [AWS Command Line Interface User Guide](#).

```
aws socialmessaging send-whatsapp-message --message
 '{"messaging_product":"whatsapp","to":"' {PHONE_NUMBER} ','type":"template","template":
 {"name":"statement","language":{"code":"en_US"},"components":
 [{"type":"body","parameters":[{"type":"text","text":"1000"}]}]}' --origination-phone-
 number-id {ORIGINATION_PHONE_NUMBER_ID} --meta-api-version v20.0
```

In the preceding command, do the following:

- Replace `{PHONE_NUMBER}` with your customer's phone number.
- Replace `{ORIGINATION_PHONE_NUMBER_ID}` with your phone number's ID.

## Example of sending a media message in AWS End User Messaging Social

The following example shows how to send a media message to your customer using the AWS CLI. For more information on configuring the AWS CLI, see [Configure the AWS CLI](#) in the [AWS Command Line Interface User Guide](#). For a list of supported media file types, see [Supported media file types and sizes in WhatsApp](#).

1. Upload the media file to an Amazon S3 bucket. For more information, see [Uploading media files to send with WhatsApp](#).
2. Upload the media file to WhatsApp using the [post-whatsapp-message-media](#) command. On successful completion, the command will return the `{MEDIA_ID}`, which is required for sending the media message.

```
aws socialmessaging post-whatsapp-message-media --origination-
 phone-number-id {ORIGINATION_PHONE_NUMBER_ID} --source-s3-file
 bucketName={BUCKET},key={MEDIA_FILE}
```

In the preceding command, do the following:

- Replace `{ORIGINATION_PHONE_NUMBER_ID}` with your phone number's ID.
- Replace `{BUCKET}` with the name of the Amazon S3 bucket.
- Replace `{MEDIA_FILE}` with the name of the media file.

You can also upload using a [presign url](#) by using `--source-s3-presigned-url` instead of `--source-s3-file`. You must add Content-Type in the headers field. If you use both then an `InvalidParameterException` is returned.

```
--source-s3-presigned-url headers={"Name":"Value"},url=https://BUCKET.s3.REGION/MEDIA_FILE
```

3. Use the [send-whatsapp-message](#) command to send the media message.

```
aws socialmessaging send-whatsapp-message --message  
'{"messaging_product":"whatsapp","to":"' {PHONE_NUMBER} "',"type":"image","image":  
{"id":"' {MEDIA_ID} '"}' --origination-phone-number-id {ORIGINATION_PHONE_NUMBER_ID}  
--meta-api-version v20.0
```

In the preceding command, do the following:

- Replace `{PHONE_NUMBER}` with your customer's phone number.
  - Replace `{ORIGINATION_PHONE_NUMBER_ID}` with your phone number's ID.
  - Replace `{MEDIA_ID}` with the media ID returned from the previous step.
4. When you no longer need the media file, you can delete it from WhatsApp using the [delete-whatsapp-message-media](#) command. This only removes the media file from WhatsApp and not your Amazon S3 bucket.

```
aws socialmessaging delete-whatsapp-message-media --media-id {MEDIA_ID} --  
origination-phone-number-id {ORIGINATION_PHONE_NUMBER_ID}
```

In the preceding command, do the following:

- Replace `{ORIGINATION_PHONE_NUMBER_ID}` with your phone number's ID.
- Replace `{MEDIA_ID}` with the media ID.

# Responding to a message in AWS End User Messaging Social

Before you can receive a text or media message, you must have set up your WhatsApp Business Account (WABA) and an event destination. When you receive an incoming message, an event is saved in the event destination Amazon SNS topic. To receive a notification, you must subscribe to the Amazon SNS topics endpoint.

For an example event of a received media message, see [Example WhatsApp JSON for receiving a media message](#). For more information on configuring the AWS CLI, see [Configure the AWS CLI](#) in the [AWS Command Line Interface User Guide](#). For a list of supported media file types, see [Supported media file types and sizes in WhatsApp](#).

## Important

To receive incoming messages, you must have [event destinations](#) enabled for the WABA. For more information, see [Add a message and event destination to AWS End User Messaging Social](#).

## Example of changing a message's status to read in AWS End User Messaging Social

You can set the [status of the message](#) to read to show the end user two blue check marks on their screen.

```
aws socialmessaging send-whatsapp-message --message
 '{"messaging_product":"whatsapp","message_id":"' {MESSAGE_ID} "',"status":"read"}' --
 origination-phone-number-id {ORIGINATION_PHONE_NUMBER_ID} --meta-api-version v20.0
```

In the preceding command, do the following:

- Replace `{ORIGINATION_PHONE_NUMBER_ID}` with your phone number's ID.
- Replace `{MESSAGE_ID}` with the unique identifier of the message. Use the value of the `id` field in the message object of the Amazon SNS topic.

## Example of responding to a message with a reaction in AWS End User Messaging Social

You can add a reaction to the message, like a thumbs up.

```
aws socialmessaging send-whatsapp-message --message
 '{"messaging_product":"whatsapp","recipient_type":"individual","to":"' {PHONE_NUMBER} ','type":
 "reaction","reaction": {"message_id": "' {MESSAGE_ID} ','emoji":"\uD83D\uDC4D"}}' --
 origination-phone-number-id {ORIGINATION_PHONE_NUMBER_ID} --meta-api-version v20.0
```

In the preceding command, do the following:

- Replace `{PHONE_NUMBER}` with your customer's phone number.
- Replace `{MESSAGE_ID}` with the unique identifier of the message. Use the value of the `id` field in the message object of the Amazon SNS topic.
- Replace `{ORIGINATION_PHONE_NUMBER_ID}` with your phone number's ID.

## Download a media file from WhatsApp to Amazon S3

To retrieve a media file and save it to an Amazon S3 bucket, use the [get-whatsapp-message-media](#) command.

```
aws socialmessaging get-whatsapp-message-media --media-id {MEDIA_ID} --
 origination-phone-number-id {ORIGINATION_PHONE_NUMBER_ID} --destination-s3-file
 bucketName={BUCKET},key=inbound_
 {
   "mimeType": "image/jpeg",
   "fileSize": 78144
 }
```

In the preceding command, do the following:

- Replace `{BUCKET}` with the name of the Amazon S3 bucket.
- Replace `{MEDIA_ID}` with the value of the `id` field from the received event. For an example incoming media event, see [Example WhatsApp JSON for receiving a media message](#).
- Replace `{ORIGINATION_PHONE_NUMBER_ID}` with your phone number's ID.

To retrieve the media from the Amazon S3 bucket, use the following command:

```
aws s3 cp s3://{BUCKET}/inbound_{MEDIA_ID}.jpeg
```

In the preceding command, do the following:

- Replace `{BUCKET}` with the name of the Amazon S3 bucket.
- Replace `{MEDIA_ID}` with the MEDIA\_ID returned from the previous step.

## Example of responding to a message with a read receipt and reaction

In this example, your customer, Diego, sent you a message saying "Hi" and you respond to him with a read receipt and hand wave emoji.

### Prerequisites

To receive a notification that Diego sent a message, you must have set up an event destination Amazon SNS topic and subscribed to a topic endpoint.

### Responding

1. When the message from Diego is received, an event is published to the endpoints of the topic. The following is a snippet of what the topic publishes.

#### Note

Because Diego initiated the conversation, it doesn't count against the quota for your business initiated conversations.

```
{
  "MetaWabaIds": [
    {
      "wabaId": "1234567890abcde",
      "arn": "arn:aws:social-messaging:us-east-1:123456789012:waba/fb2594b8a7974770b128a409e2example"
    }
  ]
}
```

```
],
  "MetaPhoneNumberIds": [
    {
      "metaPhoneNumberId": "abcde1234567890",
      "arn": "arn:aws:social-messaging:us-east-1:123456789012:phone-number-
id/976c72a700aac43eaf573ae050example"
    }
  ]
}
{
  "id": "365731266123456",
  "changes": [
    {
      "value": {
        "messaging_product": "whatsapp",
        "metadata": {
          "display_phone_number": "12065550100",
          "phone_number_id": "321010217712345"
        },
        "contacts": [
          {
            "profile": {
              "name": "Diego"
            },
            "wa_id": "12065550102"
          }
        ],
        "messages": [
          {
            "from": "14255550150",
            "id":
"wamid.HBgLMTQyNTY5ODgzMDIVAgASGCBDNzBDRjM5MDU2ODEwMDkwREY4ODBDRE0RjVGRkexample",
            "timestamp": "1723506035",
            "text": {
              "body": "Hi"
            },
            "type": "text"
          }
        ]
      },
      "field": "messages"
    }
  ]
}
```

```
}
```

- To show Diego you received the message, set the status to read. Diego will see two blue check marks next to the message on his device.

```
aws socialmessaging send-whatsapp-message --message
 '{"messaging_product":"whatsapp","message_id":"' {MESSAGE_ID} "',"status":"read"}'
 --origination-phone-number-id {ORIGINATION_PHONE_NUMBER_ID} --meta-api-version
 v20.0
```

In the preceding command, do the following:

- Replace `{ORIGINATION_PHONE_NUMBER_ID}` with the phone number ID that Diego sent his message to `phone-number-id-976c72a700aac43eaf573ae050example`.
- Replace `{MESSAGE_ID}` with the unique identifier of the message. This is the same value of the `id` field in the received message `wamid.HBgLMTQyNTY5ODgzMDIVAgASGCBDNzBDRjM5MDU2ODEwMDkwREY4ODBDRDE0RjVGRkexa`

- You can send Diego a hand wave reaction.

```
aws socialmessaging send-whatsapp-message --message
 '{"messaging_product":"whatsapp","recipient_type":"individual","to":"' {PHONE_NUMBER} "',"ty
 "reaction","reaction": {"message_id": "' {MESSAGE_ID} "',"emoji":"\uD83D\uDC4B"}'
 --origination-phone-number-id {ORIGINATION_PHONE_NUMBER_ID} --meta-api-version
 v20.0
```

In the preceding command, do the following:

- Replace `{PHONE_NUMBER}` with Diego's phone number, `14255550150`.
- Replace `{MESSAGE_ID}` with the unique identifier of the message. This is the same value of the `id` field in the received message `wamid.HBgLMTQyNTY5ODgzMDIVAgASGCBDNzBDRjM5MDU2ODEwMDkwREY4ODBDRDE0RjVGRkexa`
- Replace `{ORIGINATION_PHONE_NUMBER_ID}` with the phone number ID that Diego sent his message to: `phone-number-id-976c72a700aac43eaf573ae050example`.

## Additional resources

- Enable [event destinations](#) to log events and receive incoming messages.

- For a list of WhatsApp message objects, see [Messages](#) in the *WhatsApp Business Platform Cloud API Reference*.



# Understanding WhatsApp billing and usage reports for AWS End User Messaging Social

The AWS End User Messaging Social channel generates a usage type that contains five fields in the following format: *Region code-MessagingType-ISO-FeeDescription-FeeType*. There are two possible billing items for each WhatsApp conversation the WhatsApp ConversationFee, and the AWS per MessageFee.

When you initiate a conversation by sending a template message, you are billed for one WhatsApp ConversationFee and one AWS per MessageFee. This opens a 24-hour window where each message that you send or receive from the same customer is billed as an AWS per MessageFee.

The WhatsApp Conversation type and pricing detail can be found at [Conversation-Based Pricing](#) in the *WhatsApp Business Platform Developer Guide*.

The following table displays the possible values and descriptions for the fields in the usage type. For more information about AWS End User Messaging Social pricing, see [AWS End User Messaging Pricing](#).

Field	Options	Description
<i>Region code</i>	<ul style="list-style-type: none"> <li>• <b>USE1</b> – US East (N. Virginia) Region</li> <li>• <b>USE2</b> – US East (Ohio) Region</li> <li>• <b>USW1</b> – US West (Oregon) Region</li> <li>• <b>APS1</b> – Asia Pacific (Mumbai) Region</li> <li>• <b>APSE1</b> – Asia Pacific (Singapore) Region</li> <li>• <b>EUW1</b> – Europe (Ireland) Region</li> <li>• <b>EUW2</b> – Europe (London) Region</li> </ul>	The AWS Region prefix that indicates where the WhatsApp message was sent or received from.

Field	Options	Description
<i>MessagingType</i>	WhatsApp	This field identifies the message type being sent.
<i>ISO</i>	See <a href="#">supported countries</a>	The two-digit ISO country code that the message was sent to.
<i>FeeDescription</i>	ConversationFee , MessageFee	This field specifies either the WhatsApp ConversationFee or the AWS per MessageFee .

Field	Options	Description
<i>FeeType</i>	Authentication , Marketing , Service, Utility, Standard	<p>This field displays the type of conversation type was used, or specifies standard for the per message fee</p> <p><b>Business initiated ConversationFee categories</b></p> <ul style="list-style-type: none"> <li>• <b>Marketing</b> – Used to achieve a wide range of goals, from generating awareness to driving sales and retargeting customers . Examples include new product, service, or feature announcements, targeted promotions/offers, and cart abandonment reminders.</li> <li>• <b>Utility</b> – Used to follow up on user actions or requests. Examples include opt-in confirmation, order/delivery management (for example a delivery update); account updates or alerts (for example a payment reminder); or feedback surveys.</li> <li>• <b>Authentication</b> – Used to authenticate users with one-time passcodes , potentially at multiple steps in the login process (for example account</li> </ul>

Field	Options	Description
		<p>verification, account recovery, and integrity challenges).</p> <ul style="list-style-type: none"> <li>• Service – Used to resolve customer inquiries.</li> </ul> <p><b>User initiated ConversationFee categories</b></p> <ul style="list-style-type: none"> <li>• Service – Used to resolve customer inquiries.</li> </ul> <p><b>MessageFee categories</b></p> <ul style="list-style-type: none"> <li>• Standard – Per message sent or received fee.</li> </ul>

When you initiate a conversation by sending a template message, you are billed for one ConversationFee and one MessageFee. This opens a 24-hour window where each template message that you send to the same customer is billed as an individual MessageFee. During the 24-hour window, the template messages must be the same type or a new conversation is started.

For example, if you send a marketing template message to a customer you are billed for the ConversationFee and MessageFee.

```
Marketing Template Message 1: APS1-WhatsApp-CA-ConversationFee-Marketing
Marketing Template Message 1: APS1-WhatsApp-CA-MessageFee-Standard
Marketing Template Message 2: APS1-WhatsApp-CA-MessageFee-Standard
```

If the customer sends you a message and you respond, then you are billed for opening a new Service conversation and message.

```
Service Message 1: APS1-WhatsApp-CA-ConversationFee-Service
Service Message 1: APS1-WhatsApp-CA-MessageFee-Standard
Service Message 2: APS1-WhatsApp-CA-MessageFee-Standard
```

Service Message 3: APS1-WhatsApp-CA-MessageFee-Standard

## Example 1: Sending a Marketing template message

For example, if you send a marketing template message to a customer, you are billed for one WhatsApp ConversationFee and one AWS per MessageFee.

Marketing Template Message 1: APS1-WhatsApp-CA-ConversationFee-Marketing  
 Marketing Template Message 1: APS1-WhatsApp-CA-MessageFee-Standard

## Example 2: Opening a Service conversation

A service conversation fee applies when a business responds to a user's inbound message that falls outside of any active 24-hour conversation window initiated by the business. In this scenario, you are billed one WhatsApp ConversationFee and an AWS MessageFee for each inbound and outbound message.

Service Message 1: APS1-WhatsApp-CA-ConversationFee-Service  
 Service Message 1: APS1-WhatsApp-CA-MessageFee-Standard  
 Service Message 2: APS1-WhatsApp-CA-MessageFee-Standard  
 Service Message 3: APS1-WhatsApp-CA-MessageFee-Standard

## AWS End User Messaging Social billing ISO codes and WhatsApp Conversation Fee mapping

### Supported countries

Two-digit ISO country code	Country name	WhatsApp conversation billing region
AF	Afghanistan	Rest of Asia Pacific
AX	Aland Islands	Other
AL	Albania	Rest of Central & Eastern Europe

Two-digit ISO country code	Country name	WhatsApp conversation billing region
DZ	Algeria	Rest of Africa
AS	American Samoa	Other
AD	Andorra	Other
AO	Angola	Rest of Africa
AI	Anguilla	Other
AQ	Antarctica	Other
AG	Antigua and Barbuda	Other
AR	Argentina	Argentina
AM	Armenia	Rest of Central & Eastern Europe
AW	Aruba	Other
AC	Ascension Island	Other
AU	Australia	Rest of Asia Pacific
AT	Austria	Rest of Western Europe
AZ	Azerbaijan	Rest of Central & Eastern Europe
BS	Bahamas	Other
BH	Bahrain	Rest of Middle East
BD	Bangladesh	Rest of Asia Pacific
BB	Barbados	Other

Two-digit ISO country code	Country name	WhatsApp conversation billing region
BY	Belarus	Rest of Central & Eastern Europe
BE	Belgium	Rest of Western Europe
BZ	Belize	Other
BJ	Benin	Rest of Africa
BM	Bermuda	Other
BT	Bhutan	Other
BO	Bolivia	Rest of Latin America
BQ	Bonaire	Other
BA	Bosnia and Herzegovina	Other
BW	Botswana	Rest of Africa
BV	Bouvet Island	Other
BR	Brazil	Brazil
IO	British Indian Ocean Territory	Other
VG	British Virgin Islands	Other
BN	Brunei Darussalam	Other
BG	Bulgaria	Rest of Central & Eastern Europe
BF	BurkinaFaso	Rest of Africa
BI	Burundi	Rest of Africa
KH	Cambodia	Rest of Asia Pacific

<b>Two-digit ISO country code</b>	<b>Country name</b>	<b>WhatsApp conversation billing region</b>
CM	Cameroon	Rest of Africa
CA	Canada	North America
CV	Cape Verde	Other
KY	Cayman Islands	Other
CF	Central African Republic	Other
TD	Chad	Rest of Africa
CL	Chile	Chile
CN	China	Rest of Asia Pacific
CX	Christmas Island	Other
CC	Cocos(Keeling) Islands	Other
CO	Colombia	Colombia
KM	Comoros	Other
CG	Congo	Other
CD	Congo	Rest of Africa
CK	Cook Islands	Other
CR	Costa Rica	Rest of Latin America
CI	Cote d'Ivoire	Rest of Africa
HR	Croatia	Rest of Central & Eastern Europe
CW	Curacao	Other



Two-digit ISO country code	Country name	WhatsApp conversation billing region
CY	Cyprus	Other
CZ	Czech Republic	Rest of Central & Eastern Europe
DK	Denmark	Rest of Western Europe
DJ	Djibouti	Other
DM	Dominica	Other
DO	Dominican Republic	Rest of Latin America
EC	Ecuador	Rest of Latin America
EG	Egypt	Egypt
SV	El Salvador	Rest of Latin America
GQ	Equatorial Guinea	Other
ER	Eritrea	Rest of Africa
EE	Estonia	Other
ET	Ethiopia	Rest of Africa
FK	Falkland Islands	Other
FO	Faroe Islands	Other
FJ	Fiji	Other
FI	Finland	Rest of Western Europe
FR	France	France
GF	French Guiana	Other

Two-digit ISO country code	Country name	WhatsApp conversation billing region
PF	French Polynesia	Other
TF	French Southern Territories	Other
GA	Gabon	Rest of Africa
GM	Gambia	Rest of Africa
GE	Georgia	Rest of Central & Eastern Europe
DE	Germany	Germany
GH	Ghana	Rest of Africa
GI	Gibraltar	Other
GR	Greece	Rest of Central & Eastern Europe
GL	Greenland	Other
GD	Grenada	Other
GP	Guadeloupe	Other
GU	Guam	Other
GT	Guatemala	Rest of Latin America
GG	Guernsey	Other
GN	Guinea	Other
GW	Guinea-Bissau	Rest of Africa
GY	Guyana	Other
HT	Haiti	Rest of Latin America

Two-digit ISO country code	Country name	WhatsApp conversation billing region
HM	Heard and McDonald Islands	Other
HN	Honduras	Rest of Latin America
HK	Hong Kong	Rest of Asia Pacific
HU	Hungary	Rest of Central & Eastern Europe
IS	Iceland	Other
IN	India	India
IN	India International	India International
ID	Indonesia	Indonesia
ID	Indonesia International	Indonesia International
IQ	Iraq	Rest of Middle East
IE	Ireland	Rest of Western Europe
IM	Isle of Man	Other
IL	Israel	Israel
IT	Italy	Italy
JM	Jamaica	Rest of Latin America
JP	Japan	Rest of Asia Pacific
JE	Jersey	Other
JO	Jordan	Rest of Middle East
KZ	Kazakhstan	Other

Two-digit ISO country code	Country name	WhatsApp conversation billing region
KE	Kenya	Rest of Africa
KI	Kiribati	Other
XK	Kosovo	Other
KW	Kuwait	Rest of Middle East
KG	Kyrgyzstan	Other
LA	Lao PDR	Rest of Asia Pacific
LV	Latvia	Rest of Central & Eastern Europe
LB	Lebanon	Rest of Middle East
LS	Lesotho	Rest of Africa
LR	Liberia	Rest of Africa
LY	Libya	Rest of Africa
LI	Liechtenstein	Other
LT	Lithuania	Rest of Central & Eastern Europe
LU	Luxembourg	Other
MO	Macao	Other
MK	Macedonia	Rest of Central & Eastern Europe
MG	Madagascar	Rest of Africa
MW	Malawi	Rest of Africa

Two-digit ISO country code	Country name	WhatsApp conversation billing region
MY	Malaysia	Malaysia
MV	Maldives	Other
ML	Mali	Rest of Africa
MT	Malta	Other
MH	Marshall Islands	Other
MQ	Martinique	Other
MR	Mauritania	Rest of Africa
MU	Mauritius	Other
YT	Mayotte	Other
MX	Mexico	Mexico
FM	Micronesia	Other
MD	Moldova	Rest of Central & Eastern Europe
MC	Monaco	Other
MN	Mongolia	Rest of Asia Pacific
ME	Montenegro	Other
MS	Montserrat	Other
MA	Morocco	Rest of Africa
MZ	Mozambique	Rest of Africa
MM	Myanmar	Other

Two-digit ISO country code	Country name	WhatsApp conversation billing region
NA	Namibia	Rest of Africa
NR	Nauru	Other
NP	Nepal	Rest of Asia Pacific
NL	Netherlands	Netherlands
NC	New Caledonia	Other
NZ	New Zealand	Rest of Asia Pacific
NI	Nicaragua	Rest of Latin America
NE	Niger	Rest of Africa
NG	Nigeria	Nigeria
NU	Niue	Other
NF	Norfolk Island	Other
MP	Northern Mariana Islands	Other
NO	Norway	Rest of Western Europe
OM	Oman	Rest of Middle East
PK	Pakistan	Pakistan
PW	Palau	Other
PS	Palestinian Territory	Other
PA	Panama	Rest of Latin America
PG	Papua New Guinea	Rest of Asia Pacific
PY	Paraguay	Rest of Latin America

<b>Two-digit ISO country code</b>	<b>Country name</b>	<b>WhatsApp conversation billing region</b>
PE	Peru	Peru
PH	Philippines	Rest of Asia Pacific
PN	Pitcairn	Other
PL	Poland	Rest of Central & Eastern Europe
PT	Portugal	Rest of Western Europe
PR	Puerto Rico	Rest of Latin America
QA	Qatar	Rest of Middle East
RE	Reunion	Other
RO	Romania	Rest of Central & Eastern Europe
RU	Russian Federation	Russia
RW	Rwanda	Rest of Africa
SH	Saint Helena	Other
KN	Saint Kitts and Nevis	Other
LC	Saint Lucia	Other
PM	Saint Pierre and Miquelon	Other
VC	Saint Vincent and Grenadines	Other
BL	Saint-Barthelemy	Other
MF	Saint-Martin	Other
WS	Samoa	Other

Two-digit ISO country code	Country name	WhatsApp conversation billing region
SM	San Marino	Other
ST	Sao Tome and Principe	Other
SA	Saudi Arabia	Saudi Arabia
SN	Senegal	Rest of Africa
RS	Serbia	Rest of Central & Eastern Europe
SC	Seychelles	Other
SL	Sierra Leone	Rest of Africa
SG	Singapore	Rest of Asia Pacific
SX	Sint Maarten	Other
SK	Slovakia	Rest of Central & Eastern Europe
SI	Slovenia	Rest of Central & Eastern Europe
SB	Solomon Islands	Other
SO	Somalia	Rest of Africa
ZA	South Africa	South Africa
GS	South Georgia and the South Sandwich Islands	Other
KR	South Korea	Other
SS	South Sudan	Rest of Africa



Two-digit ISO country code	Country name	WhatsApp conversation billing region
ES	Spain	Spain
LK	Sri Lanka	Rest of Asia Pacific
SR	Suriname	Other
SJ	Svalbard and Jan Mayen Islands	Other
SZ	Swaziland	Rest of Africa
SE	Sweden	Rest of Western Europe
CH	Switzerland	Rest of Western Europe
TW	Taiwan	Rest of Asia Pacific
TJ	Tajikistan	Rest of Asia Pacific
TZ	Tanzania	Rest of Africa
TH	Thailand	Rest of Asia Pacific
TL	Timor-Leste	Other
TG	Togo	Rest of Africa
TK	Tokelau	Other
TO	Tonga	Other
TT	Trinidad and Tobago	Other
TA	Trist and a Cunha	Other
TN	Tunisia	Rest of Africa
TR	Turkey	Turkey

Two-digit ISO country code	Country name	WhatsApp conversation billing region
TM	Turkmenistan	Rest of Asia Pacific
TC	Turks and Caicos Islands	Other
TV	Tuvalu	Other
UG	Uganda	Rest of Africa
UA	Ukraine	Rest of Central & Eastern Europe
AE	United Arab Emirates	United Arab Emirates
GB	United Kingdom	United Kingdom
US	United States	North America
UY	Uruguay	Rest of Latin America
UM	US Minor Outlying Islands	Other
UZ	Uzbekistan	Rest of Asia Pacific
VU	Vanuatu	Other
VA	Vatican City State	Other
VE	Venezuela	Rest of Latin America
VN	Vietnam	Rest of Asia Pacific
VI	Virgin Islands	Other
WF	Wallis and Futuna Islands	Other
EH	Western Sahara	Other
YE	Yemen	Rest of Middle East

Two-digit ISO country code	Country name	WhatsApp conversation billing region
ZM	Zambia	Rest of Africa
ZW	Zimbabwe	Other

# Monitoring AWS End User Messaging Social

Monitoring is an important part of maintaining the reliability, availability, and performance of AWS End User Messaging Social and your other AWS solutions. AWS provides the following monitoring tools to watch AWS End User Messaging Social, report when something is wrong, and take automatic actions when appropriate:

- *Amazon CloudWatch* monitors your AWS resources and the applications you run on AWS in real time. You can collect and track metrics, create customized dashboards, and set alarms that notify you or take actions when a specified metric reaches a threshold that you specify. For example, you can have CloudWatch track CPU usage or other metrics of your Amazon EC2 instances and automatically launch new instances when needed. For more information, see the [Amazon CloudWatch User Guide](#).
- *Amazon CloudWatch Logs* enables you to monitor, store, and access your log files from Amazon EC2 instances, CloudTrail, and other sources. CloudWatch Logs can monitor information in the log files and notify you when certain thresholds are met. You can also archive your log data in highly durable storage. For more information, see the [Amazon CloudWatch Logs User Guide](#).
- *AWS CloudTrail* captures API calls and related events made by or on behalf of your AWS account and delivers the log files to an Amazon S3 bucket that you specify. You can identify which users and accounts called AWS, the source IP address from which the calls were made, and when the calls occurred. For more information, see the [AWS CloudTrail User Guide](#).

## Monitoring AWS End User Messaging Social with Amazon CloudWatch

You can monitor AWS End User Messaging Social using CloudWatch, which collects raw data and processes it into readable, near real-time metrics. These statistics are kept for 15 months, so that you can access historical information and gain a better perspective on how your web application or service is performing. You can also set alarms that watch for certain thresholds, and send notifications or take actions when those thresholds are met. For more information, see the [Amazon CloudWatch User Guide](#).

For AWS End User Messaging Social, you might want to watch for `WhatsAppMessageFeeCount`, and also watch `WhatsAppConversationFeeCount` and trigger an alarm when a spend threshold has been reached.

The following tables list the metrics and dimensions that AWS End User Messaging Social exports to the `AWS/SocialMessaging` namespace.

Metric	Unit	Description
WhatsAppConversationFeeCount	Count	The count of WhatsApp conversation fees
WhatsAppMessageFeeCount	Count	The count of WhatsApp message fees

Dimension	Description
MessageFeeType	Valid fee types are Service, Marketing, Utility, and Authentication
DestinationCountryCode	The two letter ISO code for the country
WhatsAppPhoneNumberArn	The arn of the phone number

## Logging AWS End User Messaging Social API calls using AWS CloudTrail

AWS End User Messaging Social is integrated with [AWS CloudTrail](#), a service that provides a record of actions taken by a user, role, or an AWS service. CloudTrail captures all API calls for AWS End User Messaging Social as events. The calls captured include calls from the AWS End User Messaging Social console and code calls to the AWS End User Messaging Social API operations. Using the information collected by CloudTrail, you can determine the request that was made to AWS End User Messaging Social, the IP address from which the request was made, when it was made, and additional details.

Every event or log entry contains information about who generated the request. The identity information helps you determine the following:

- Whether the request was made with root user or user credentials.
- Whether the request was made on behalf of an IAM Identity Center user.

- Whether the request was made with temporary security credentials for a role or federated user.
- Whether the request was made by another AWS service.

CloudTrail is active in your AWS account when you create the account and you automatically have access to the CloudTrail **Event history**. The CloudTrail **Event history** provides a viewable, searchable, downloadable, and immutable record of the past 90 days of recorded management events in an AWS Region. For more information, see [Working with CloudTrail Event history](#) in the *AWS CloudTrail User Guide*. There are no CloudTrail charges for viewing the **Event history**.

For an ongoing record of events in your AWS account past 90 days, create a trail or a [CloudTrail Lake](#) event data store.

## CloudTrail trails

A *trail* enables CloudTrail to deliver log files to an Amazon S3 bucket. All trails created using the AWS Management Console are multi-Region. You can create a single-Region or a multi-Region trail by using the AWS CLI. Creating a multi-Region trail is recommended because you capture activity in all AWS Regions in your account. If you create a single-Region trail, you can view only the events logged in the trail's AWS Region. For more information about trails, see [Creating a trail for your AWS account](#) and [Creating a trail for an organization](#) in the *AWS CloudTrail User Guide*.

You can deliver one copy of your ongoing management events to your Amazon S3 bucket at no charge from CloudTrail by creating a trail, however, there are Amazon S3 storage charges. For more information about CloudTrail pricing, see [AWS CloudTrail Pricing](#). For information about Amazon S3 pricing, see [Amazon S3 Pricing](#).

## CloudTrail Lake event data stores

*CloudTrail Lake* lets you run SQL-based queries on your events. CloudTrail Lake converts existing events in row-based JSON format to [Apache ORC](#) format. ORC is a columnar storage format that is optimized for fast retrieval of data. Events are aggregated into *event data stores*, which are immutable collections of events based on criteria that you select by applying [advanced event selectors](#). The selectors that you apply to an event data store control which events persist and are available for you to query. For more information about CloudTrail Lake, see [Working with AWS CloudTrail Lake](#) in the *AWS CloudTrail User Guide*.

CloudTrail Lake event data stores and queries incur costs. When you create an event data store, you choose the [pricing option](#) you want to use for the event data store. The pricing

option determines the cost for ingesting and storing events, and the default and maximum retention period for the event data store. For more information about CloudTrail pricing, see [AWS CloudTrail Pricing](#).

## AWS End User Messaging Social data events in CloudTrail

[Data events](#) provide information about the resource operations performed on or in a resource (for example, reading or writing to an Amazon S3 object). These are also known as data plane operations. Data events are often high-volume activities. By default, CloudTrail doesn't log data events. The CloudTrail **Event history** doesn't record data events.

Additional charges apply for data events. For more information about CloudTrail pricing, see [AWS CloudTrail Pricing](#).

You can log data events for the AWS End User Messaging Social resource types by using the CloudTrail console, AWS CLI, or CloudTrail API operations. For more information about how to log data events, see [Logging data events with the AWS Management Console](#) and [Logging data events with the AWS Command Line Interface](#) in the *AWS CloudTrail User Guide*.

The following table lists the AWS End User Messaging Social resource types for which you can log data events. The **Data event type (console)** column shows the value to choose from the **Data event type** list on the CloudTrail console. The **resources.type value** column shows the `resources.type` value, which you would specify when configuring advanced event selectors using the AWS CLI or CloudTrail APIs. The **Data APIs logged to CloudTrail** column shows the API calls logged to CloudTrail for the resource type.

Data event type (console)	resources.type value	Data APIs logged to CloudTrail
<b>Social-Messaging Phone Number ID</b>	<code>AWS::SocialMessaging::PhoneNumberId</code>	<ul style="list-style-type: none"> <li><a href="#">DeleteWhatsAppMessageMedia</a></li> <li><a href="#">GetWhatsAppMessageMedia</a></li> <li><a href="#">PostWhatsAppMessageMedia</a></li> <li><a href="#">SendWhatsAppMessage</a></li> </ul>

You can configure advanced event selectors to filter on the `eventName`, `readOnly`, and `resources.ARN` fields to log only those events that are important to you. For more information about these fields, see [AdvancedFieldSelector](#) in the *AWS CloudTrail API Reference*.

## AWS End User Messaging Social management events in CloudTrail

[Management events](#) provide information about management operations that are performed on resources in your AWS account. These are also known as control plane operations. By default, CloudTrail logs management events.

AWS End User Messaging Social logs all AWS End User Messaging Social control plane operations as management events. For a list of the AWS End User Messaging Social control plane operations that AWS End User Messaging Social logs to CloudTrail, see the [AWS End User Messaging Social API Reference](#).

## AWS End User Messaging Social event examples

An event represents a single request from any source and includes information about the requested API operation, the date and time of the operation, request parameters, and so on. CloudTrail log files aren't an ordered stack trace of the public API calls, so events don't appear in any specific order.

The following example shows a CloudTrail event that demonstrates the operation.

```
{
  "eventVersion": "1.09",
  "userIdentity": {
    "type": "AssumedRole",
    "principalId": "GR632462JDSBDSHHGS39:session",
    "arn": "arn:aws:sts::123456789101:assumed-role/Role_name/Session_name",
    "accountId": "123456789101",
    "accessKeyId": "12345678901234567890",
    "sessionContext": {
      "sessionIssuer": {
        "type": "Role",
        "principalId": "GR632462JDSBDEXAMPLE",
        "arn": "arn:aws:sts::123456789101:assumed-role/Role_name/
Session_name",
        "accountId": "123456789101",
        "userName": "user"
      }
    }
  },
```



```
        "attributes": {
            "creationDate": "2024-10-03T17:25:08Z",
            "mfaAuthenticated": "false"
        }
    },
    "eventTime": "2024-10-03T17:25:23Z",
    "eventSource": "social-messaging.amazonaws.com",
    "eventName": "SendWhatsAppMessage",
    "awsRegion": "us-east-1",
    "sourceIPAddress": "1.x.x.x",
    "userAgent": "agent",
    "requestParameters": {
        "originationPhoneNumberId": "phone-number-id-aa012345678901234567890123456789",
        "metaApiVersion": "v20.0",
        "message": "Hi"
    },
    "responseElements": {
        "messageId": "message_id"
    },
    "requestID": "request_id",
    "eventID": "event_id",
    "readOnly": false,
    "resources": [{
        "accountId": "123456789101",
        "type": "AWS::SocialMessaging::PhoneNumberId",
        "ARN": "arn:aws:social-messaging:us-east-1:123456789101:phone-number-id/phone-number-id-aa012345678901234567890123456789"
    }],
    "eventType": "AwsApiCall",
    "managementEvent": false,
    "recipientAccountId": "123456789101",
    "eventCategory": "Data",
    "tlsDetails": {
        "clientProvidedHostHeader": "social-messaging.us-east-1.amazonaws.com"
    }
}
```

For information about CloudTrail record contents, see [CloudTrail record contents](#) in the *AWS CloudTrail User Guide*.

# Best practices for AWS End User Messaging Social

This section describes several best practices that might help you improve your customer engagement and avoid account suspension. However, note that this section doesn't contain legal advice. Always consult an attorney to obtain legal advice.

For the most recent list of WhatsApp best practices, see the [WhatsApp Business Messaging Policy](#).

## Topics

- [Up-to-date business profile](#)
- [Obtain permission](#)
- [Prohibited message content](#)
- [Audit your customer lists](#)
- [Adjust your sending based on engagement](#)
- [Send at appropriate times](#)

## Up-to-date business profile

Maintain an accurate and up-to-date WhatsApp Business profile that includes customer support contact information, such as an email address, website address, or telephone number. Ensure that the information provided is truthful and does not misrepresent or impersonate another business.

## Obtain permission

Never send messages to recipients who haven't explicitly asked to receive the specific types of messages that you plan to send. Maintain the following opt-in information:

- The opt-in process must clearly inform the person that they are consenting to receive messages or calls from your business over WhatsApp. You must explicitly state the name of your business.
- You are solely responsible for determining the method of obtaining opt-in consent. Ensure that the opt-in process complies with all applicable laws governing your communications. Provide all required notices and obtain all necessary permissions under relevant laws.

For more information on WhatsApp Opt-in requirements, see [Get Opt-in for WhatsApp](#)

If recipients can sign up to receive your messages by using an online form, prevent automated scripts from subscribing people without their knowledge. Also limit the number of times a user can submit a phone number in a single session.

Respect all requests made by a person, whether on or off WhatsApp, to block, discontinue, or otherwise opt out of communications, including removing that person from your contacts list.

Maintain records that include the date, time, and source of each opt-in request and confirmation. This can also help you perform routine audits of your customer list.

## Prohibited message content

### Important

#### Working with Meta/WhatsApp

- Your use of the WhatsApp Business Solution is subject to the terms and conditions of the [WhatsApp Business Terms of Service](#), the [WhatsApp Business Solution Terms](#), the [WhatsApp Business Messaging Policy](#), the [WhatsApp Messaging Guidelines](#), and all other terms, policies, or guidelines incorporated therein by reference (as each may be updated from time to time).
- Meta or WhatsApp may at any time prohibit your use of the WhatsApp Business Solution.
- In connection with your use of the WhatsApp Business Solution, you will not submit any content, information, or data that is subject to safeguarding or limitations on distribution according to applicable laws or regulation.

If you violate the WhatsApp policy your account could be blocked from sending messages for a period of time, locked until you file an appeal, or permanently blocked. Meta will inform you if any of your accounts or assets have violated the policy, through email and the WhatsApp Business Manager. All appeals must be made to Meta. To view a policy violation or file an appeal with Meta, see [View policy violation details for your WhatsApp Business account](#) in the *Meta Business Help Center*. For the most recent list of prohibited message content, see the [WhatsApp Business Messaging Policy](#).

The following are prohibited content categories for all message types globally. When sending a message with WhatsApp, follow these guidelines:

Category	Examples
Gambling	<ul style="list-style-type: none"> <li>• Casinos</li> <li>• Sweepstakes</li> <li>• App/Websites</li> </ul>
High-risk financial services	<ul style="list-style-type: none"> <li>• Payday loans</li> <li>• Short-term high-interest loans</li> <li>• Auto loans</li> <li>• Mortgage loans</li> <li>• Student loans</li> <li>• Debt collection</li> <li>• Stock alerts</li> <li>• Cryptocurrency</li> </ul>
Debt forgiveness	<ul style="list-style-type: none"> <li>• Debt consolidation</li> <li>• Debt reduction</li> <li>• Credit repair programs</li> </ul>
Get-rich-quick schemes	<ul style="list-style-type: none"> <li>• Work-from-home programs</li> <li>• Risk-investment opportunities</li> <li>• Pyramid or multi-level marketing schemes</li> </ul>
Illegal substances	<ul style="list-style-type: none"> <li>• Cannabis/CBD</li> </ul>
Phishing/smishing	<ul style="list-style-type: none"> <li>• Attempts to get users to reveal personal information or website login information.</li> </ul>
S.H.A.F.T.	<ul style="list-style-type: none"> <li>• Sex</li> <li>• Hate</li> <li>• Alcohol</li> <li>• Firearms</li> <li>• Tobacco/Vape</li> </ul>

Category	Examples
Third-Party Lead Generation	<ul style="list-style-type: none"><li>Companies that buy, sell, or share consumer information</li></ul>

## Audit your customer lists

If you send recurring WhatsApp messages, audit your customer lists on a regular basis. Auditing your customer lists helps to make sure that the only customers who receive your messages are those who want to receive them.

When you audit your list, send each opted-in customer a message that reminds them that they're subscribed, and provides them with information about unsubscribing.

## Adjust your sending based on engagement

Your customers' priorities can change over time. If customers no longer find your messages to be useful, they might opt out of your messages entirely, or even report your messages as unsolicited. For these reasons, it's important that you adjust your sending practices based on customer engagement.

For customers who rarely engage with your messages, you should adjust the frequency of your messages. For example, if you send weekly messages to engaged customers, you could create a separate monthly digest for customers who are less engaged.

Finally, remove customers who are completely unengaged from your customer lists. This step prevents customers from becoming frustrated with your messages. It also saves you money and helps protect your reputation as a sender.

## Send at appropriate times

Send messages during normal daytime business hours. If you send messages at dinner time or in the middle of the night, there's a good chance that your customers will unsubscribe from your lists to avoid being disturbed. You might want to avoid sending WhatsApp messages when your customers can't respond to them immediately.

# Security in AWS End User Messaging Social

Cloud security at AWS is the highest priority. As an AWS customer, you benefit from data centers and network architectures that are built to meet the requirements of the most security-sensitive organizations.

Security is a shared responsibility between AWS and you. The [shared responsibility model](#) describes this as security *of* the cloud and security *in* the cloud:

- **Security of the cloud** – AWS is responsible for protecting the infrastructure that runs AWS services in the AWS Cloud. AWS also provides you with services that you can use securely. Third-party auditors regularly test and verify the effectiveness of our security as part of the [AWS Compliance Programs](#). To learn about the compliance programs that apply to AWS End User Messaging Social, see [AWS Services in Scope by Compliance Program](#).
- **Security in the cloud** – Your responsibility is determined by the AWS service that you use. You are also responsible for other factors including the sensitivity of your data, your company's requirements, and applicable laws and regulations.

This documentation helps you understand how to apply the shared responsibility model when using AWS End User Messaging Social. The following topics show you how to configure AWS End User Messaging Social to meet your security and compliance objectives. You also learn how to use other AWS services that help you to monitor and secure your AWS End User Messaging Social resources.

## Topics

- [Data protection in AWS End User Messaging Social](#)
- [Identity and access management for AWS End User Messaging Social](#)
- [Compliance validation for AWS End User Messaging Social](#)
- [Resilience in AWS End User Messaging Social](#)
- [Infrastructure Security in AWS End User Messaging Social](#)
- [Cross-service confused deputy prevention](#)
- [Security best practices](#)
- [Using service-linked roles for AWS End User Messaging Social](#)

# Data protection in AWS End User Messaging Social

The AWS [shared responsibility model](#) applies to data protection in AWS End User Messaging Social. As described in this model, AWS is responsible for protecting the global infrastructure that runs all of the AWS Cloud. You are responsible for maintaining control over your content that is hosted on this infrastructure. You are also responsible for the security configuration and management tasks for the AWS services that you use. For more information about data privacy, see the [Data Privacy FAQ](#). For information about data protection in Europe, see the [AWS Shared Responsibility Model and GDPR](#) blog post on the *AWS Security Blog*.

For data protection purposes, we recommend that you protect AWS account credentials and set up individual users with AWS IAM Identity Center or AWS Identity and Access Management (IAM). That way, each user is given only the permissions necessary to fulfill their job duties. We also recommend that you secure your data in the following ways:

- Use multi-factor authentication (MFA) with each account.
- Use SSL/TLS to communicate with AWS resources. We require TLS 1.2 and recommend TLS 1.3.
- Set up API and user activity logging with AWS CloudTrail. For information about using CloudTrail trails to capture AWS activities, see [Working with CloudTrail trails](#) in the *AWS CloudTrail User Guide*.
- Use AWS encryption solutions, along with all default security controls within AWS services.
- Use advanced managed security services such as Amazon Macie, which assists in discovering and securing sensitive data that is stored in Amazon S3.
- If you require FIPS 140-3 validated cryptographic modules when accessing AWS through a command line interface or an API, use a FIPS endpoint. For more information about the available FIPS endpoints, see [Federal Information Processing Standard \(FIPS\) 140-3](#).

We strongly recommend that you never put confidential or sensitive information, such as your customers' email addresses, into tags or free-form text fields such as a **Name** field. This includes when you work with AWS End User Messaging Social or other AWS services using the console, API, AWS CLI, or AWS SDKs. Any data that you enter into tags or free-form text fields used for names may be used for billing or diagnostic logs. If you provide a URL to an external server, we strongly recommend that you do not include credentials information in the URL to validate your request to that server.

**⚠ Important**

WhatsApp uses the Signal protocol for secure communications. However, because AWS End User Messaging Social is a third party, WhatsApp does not consider these messages end-to-end encrypted. For more information on WhatsApp data protection, see [Data Privacy & Security](#) and [WhatsApp Encryption Overview](#) whitepaper.

## Data encryption

AWS End User Messaging Social data is encrypted in transit and at rest within the AWS boundary. When you submit data to AWS End User Messaging Social, it encrypts the data as it's received and stores it. When you retrieve data from AWS End User Messaging Social, it transmits the data to you by using current security protocols.

### Encryption at rest

AWS End User Messaging Social encrypts all the data that it stores for you within the AWS boundary. This includes configuration data, registration data, and any data that you add into AWS End User Messaging Social. To encrypt your data, AWS End User Messaging Social uses internal AWS Key Management Service (AWS KMS) keys that the service owns and maintains on your behalf. For information about AWS KMS, see the [AWS Key Management Service Developer Guide](#).

### Encryption in transit

AWS End User Messaging Social uses HTTPS and Transport Layer Security (TLS) 1.2 to communicate with your clients, applications, and Meta. To communicate with other AWS services, AWS End User Messaging Social uses HTTPS and TLS 1.2. In addition, when you create and manage AWS SMS resources by using the console, an AWS SDK, or the AWS Command Line Interface, all communications are secured using HTTPS and TLS 1.2.

## Key management

To encrypt your data, AWS End User Messaging Social uses internal AWS KMS keys that the service owns and maintains on your behalf. We rotate these keys on a regular basis. You can't provision and use your own AWS KMS or other keys to encrypt data that you store in AWS End User Messaging Social.



## Inter-network traffic privacy

*Internetwork traffic privacy* refers to securing connections and traffic between AWS End User Messaging Social and your on-premises clients and applications, and between AWS End User Messaging Social and other AWS resources in the same AWS Region. The following features and practices can help you secure internetwork traffic privacy for AWS End User Messaging Social.

### Traffic between AWS SMS and on-premises clients and applications

To establish a private connection between AWS End User Messaging Social and clients and applications on your on-premises network, you can use AWS Direct Connect. This enables you to link your network to an AWS Direct Connect location by using a standard, fiber-optic Ethernet cable. One end of the cable is connected to your router. The other end is connected to an AWS Direct Connect router. For more information, see [What is AWS Direct Connect?](#) in the *AWS Direct Connect User Guide*.

To help secure access to AWS End User Messaging Social through published APIs, we recommend that you comply with AWS End User Messaging Social requirements for API calls. AWS End User Messaging Social requires clients to use Transport Layer Security (TLS) 1.2 or later. Clients must also support cipher suites with perfect forward secrecy (PFS), such as Ephemeral Diffie-Hellman (DHE) or Elliptic Curve Diffie-Hellman Ephemeral (ECDHE). Most modern systems such as Java 7 and later support these modes.

In addition, requests must be signed using an access key ID and a secret access key that's associated with an AWS Identity and Access Management (IAM) principal for your AWS account. Alternatively, you can use the [AWS Security Token Service](#) (AWS STS) to generate temporary security credentials to sign requests.

## Identity and access management for AWS End User Messaging Social

AWS Identity and Access Management (IAM) is an AWS service that helps an administrator securely control access to AWS resources. IAM administrators control who can be *authenticated* (signed in) and *authorized* (have permissions) to use AWS End User Messaging Social resources. IAM is an AWS service that you can use with no additional charge.

### Topics

- [Audience](#)

- [Authenticating with identities](#)
- [Managing access using policies](#)
- [How AWS End User Messaging Social works with IAM](#)
- [Identity-based policy examples for AWS End User Messaging Social](#)
- [AWS managed policies for AWS End User Messaging Social](#)
- [Troubleshooting AWS End User Messaging Social identity and access](#)

## Audience

How you use AWS Identity and Access Management (IAM) differs, depending on the work that you do in AWS End User Messaging Social.

**Service user** – If you use the AWS End User Messaging Social service to do your job, then your administrator provides you with the credentials and permissions that you need. As you use more AWS End User Messaging Social features to do your work, you might need additional permissions. Understanding how access is managed can help you request the right permissions from your administrator. If you cannot access a feature in AWS End User Messaging Social, see [Troubleshooting AWS End User Messaging Social identity and access](#).

**Service administrator** – If you're in charge of AWS End User Messaging Social resources at your company, you probably have full access to AWS End User Messaging Social. It's your job to determine which AWS End User Messaging Social features and resources your service users should access. You must then submit requests to your IAM administrator to change the permissions of your service users. Review the information on this page to understand the basic concepts of IAM. To learn more about how your company can use IAM with AWS End User Messaging Social, see [How AWS End User Messaging Social works with IAM](#).

**IAM administrator** – If you're an IAM administrator, you might want to learn details about how you can write policies to manage access to AWS End User Messaging Social. To view example AWS End User Messaging Social identity-based policies that you can use in IAM, see [Identity-based policy examples for AWS End User Messaging Social](#).

## Authenticating with identities

Authentication is how you sign in to AWS using your identity credentials. You must be *authenticated* (signed in to AWS) as the AWS account root user, as an IAM user, or by assuming an IAM role.

You can sign in to AWS as a federated identity by using credentials provided through an identity source. AWS IAM Identity Center (IAM Identity Center) users, your company's single sign-on authentication, and your Google or Facebook credentials are examples of federated identities. When you sign in as a federated identity, your administrator previously set up identity federation using IAM roles. When you access AWS by using federation, you are indirectly assuming a role.

Depending on the type of user you are, you can sign in to the AWS Management Console or the AWS access portal. For more information about signing in to AWS, see [How to sign in to your AWS account](#) in the *AWS Sign-In User Guide*.

If you access AWS programmatically, AWS provides a software development kit (SDK) and a command line interface (CLI) to cryptographically sign your requests by using your credentials. If you don't use AWS tools, you must sign requests yourself. For more information about using the recommended method to sign requests yourself, see [Signing AWS API requests](#) in the *IAM User Guide*.

Regardless of the authentication method that you use, you might be required to provide additional security information. For example, AWS recommends that you use multi-factor authentication (MFA) to increase the security of your account. To learn more, see [Multi-factor authentication](#) in the *AWS IAM Identity Center User Guide* and [Using multi-factor authentication \(MFA\) in AWS](#) in the *IAM User Guide*.

## **AWS account root user**

When you create an AWS account, you begin with one sign-in identity that has complete access to all AWS services and resources in the account. This identity is called the AWS account *root user* and is accessed by signing in with the email address and password that you used to create the account. We strongly recommend that you don't use the root user for your everyday tasks. Safeguard your root user credentials and use them to perform the tasks that only the root user can perform. For the complete list of tasks that require you to sign in as the root user, see [Tasks that require root user credentials](#) in the *IAM User Guide*.

## **Federated identity**

As a best practice, require human users, including users that require administrator access, to use federation with an identity provider to access AWS services by using temporary credentials.

A *federated identity* is a user from your enterprise user directory, a web identity provider, the AWS Directory Service, the Identity Center directory, or any user that accesses AWS services by using

credentials provided through an identity source. When federated identities access AWS accounts, they assume roles, and the roles provide temporary credentials.

For centralized access management, we recommend that you use AWS IAM Identity Center. You can create users and groups in IAM Identity Center, or you can connect and synchronize to a set of users and groups in your own identity source for use across all your AWS accounts and applications. For information about IAM Identity Center, see [What is IAM Identity Center?](#) in the *AWS IAM Identity Center User Guide*.

## IAM users and groups

An [IAM user](#) is an identity within your AWS account that has specific permissions for a single person or application. Where possible, we recommend relying on temporary credentials instead of creating IAM users who have long-term credentials such as passwords and access keys. However, if you have specific use cases that require long-term credentials with IAM users, we recommend that you rotate access keys. For more information, see [Rotate access keys regularly for use cases that require long-term credentials](#) in the *IAM User Guide*.

An [IAM group](#) is an identity that specifies a collection of IAM users. You can't sign in as a group. You can use groups to specify permissions for multiple users at a time. Groups make permissions easier to manage for large sets of users. For example, you could have a group named *IAMAdmins* and give that group permissions to administer IAM resources.

Users are different from roles. A user is uniquely associated with one person or application, but a role is intended to be assumable by anyone who needs it. Users have permanent long-term credentials, but roles provide temporary credentials. To learn more, see [When to create an IAM user \(instead of a role\)](#) in the *IAM User Guide*.

## IAM roles

An [IAM role](#) is an identity within your AWS account that has specific permissions. It is similar to an IAM user, but is not associated with a specific person. You can temporarily assume an IAM role in the AWS Management Console by [switching roles](#). You can assume a role by calling an AWS CLI or AWS API operation or by using a custom URL. For more information about methods for using roles, see [Methods to assume a role](#) in the *IAM User Guide*.

IAM roles with temporary credentials are useful in the following situations:

- **Federated user access** – To assign permissions to a federated identity, you create a role and define permissions for the role. When a federated identity authenticates, the identity

is associated with the role and is granted the permissions that are defined by the role. For information about roles for federation, see [Creating a role for a third-party Identity Provider](#) in the *IAM User Guide*. If you use IAM Identity Center, you configure a permission set. To control what your identities can access after they authenticate, IAM Identity Center correlates the permission set to a role in IAM. For information about permissions sets, see [Permission sets](#) in the *AWS IAM Identity Center User Guide*.

- **Temporary IAM user permissions** – An IAM user or role can assume an IAM role to temporarily take on different permissions for a specific task.
- **Cross-account access** – You can use an IAM role to allow someone (a trusted principal) in a different account to access resources in your account. Roles are the primary way to grant cross-account access. However, with some AWS services, you can attach a policy directly to a resource (instead of using a role as a proxy). To learn the difference between roles and resource-based policies for cross-account access, see [Cross account resource access in IAM](#) in the *IAM User Guide*.
- **Cross-service access** – Some AWS services use features in other AWS services. For example, when you make a call in a service, it's common for that service to run applications in Amazon EC2 or store objects in Amazon S3. A service might do this using the calling principal's permissions, using a service role, or using a service-linked role.
  - **Forward access sessions (FAS)** – When you use an IAM user or role to perform actions in AWS, you are considered a principal. When you use some services, you might perform an action that then initiates another action in a different service. FAS uses the permissions of the principal calling an AWS service, combined with the requesting AWS service to make requests to downstream services. FAS requests are only made when a service receives a request that requires interactions with other AWS services or resources to complete. In this case, you must have permissions to perform both actions. For policy details when making FAS requests, see [Forward access sessions](#).
- **Service role** – A service role is an [IAM role](#) that a service assumes to perform actions on your behalf. An IAM administrator can create, modify, and delete a service role from within IAM. For more information, see [Creating a role to delegate permissions to an AWS service](#) in the *IAM User Guide*.
- **Service-linked role** – A service-linked role is a type of service role that is linked to an AWS service. The service can assume the role to perform an action on your behalf. Service-linked roles appear in your AWS account and are owned by the service. An IAM administrator can view, but not edit the permissions for service-linked roles.
- **Applications running on Amazon EC2** – You can use an IAM role to manage temporary credentials for applications that are running on an EC2 instance and making AWS CLI or AWS API

requests. This is preferable to storing access keys within the EC2 instance. To assign an AWS role to an EC2 instance and make it available to all of its applications, you create an instance profile that is attached to the instance. An instance profile contains the role and enables programs that are running on the EC2 instance to get temporary credentials. For more information, see [Using an IAM role to grant permissions to applications running on Amazon EC2 instances](#) in the *IAM User Guide*.

To learn whether to use IAM roles or IAM users, see [When to create an IAM role \(instead of a user\)](#) in the *IAM User Guide*.

## Managing access using policies

You control access in AWS by creating policies and attaching them to AWS identities or resources. A policy is an object in AWS that, when associated with an identity or resource, defines their permissions. AWS evaluates these policies when a principal (user, root user, or role session) makes a request. Permissions in the policies determine whether the request is allowed or denied. Most policies are stored in AWS as JSON documents. For more information about the structure and contents of JSON policy documents, see [Overview of JSON policies](#) in the *IAM User Guide*.

Administrators can use AWS JSON policies to specify who has access to what. That is, which **principal** can perform **actions** on what **resources**, and under what **conditions**.

By default, users and roles have no permissions. To grant users permission to perform actions on the resources that they need, an IAM administrator can create IAM policies. The administrator can then add the IAM policies to roles, and users can assume the roles.

IAM policies define permissions for an action regardless of the method that you use to perform the operation. For example, suppose that you have a policy that allows the `iam:GetRole` action. A user with that policy can get role information from the AWS Management Console, the AWS CLI, or the AWS API.

### Identity-based policies

Identity-based policies are JSON permissions policy documents that you can attach to an identity, such as an IAM user, group of users, or role. These policies control what actions users and roles can perform, on which resources, and under what conditions. To learn how to create an identity-based policy, see [Creating IAM policies](#) in the *IAM User Guide*.

Identity-based policies can be further categorized as *inline policies* or *managed policies*. Inline policies are embedded directly into a single user, group, or role. Managed policies are standalone policies that you can attach to multiple users, groups, and roles in your AWS account. Managed policies include AWS managed policies and customer managed policies. To learn how to choose between a managed policy or an inline policy, see [Choosing between managed policies and inline policies](#) in the *IAM User Guide*.

## Resource-based policies

Resource-based policies are JSON policy documents that you attach to a resource. Examples of resource-based policies are IAM *role trust policies* and Amazon S3 *bucket policies*. In services that support resource-based policies, service administrators can use them to control access to a specific resource. For the resource where the policy is attached, the policy defines what actions a specified principal can perform on that resource and under what conditions. You must [specify a principal](#) in a resource-based policy. Principals can include accounts, users, roles, federated users, or AWS services.

Resource-based policies are inline policies that are located in that service. You can't use AWS managed policies from IAM in a resource-based policy.

## Access control lists (ACLs)

Access control lists (ACLs) control which principals (account members, users, or roles) have permissions to access a resource. ACLs are similar to resource-based policies, although they do not use the JSON policy document format.

Amazon S3, AWS WAF, and Amazon VPC are examples of services that support ACLs. To learn more about ACLs, see [Access control list \(ACL\) overview](#) in the *Amazon Simple Storage Service Developer Guide*.

## Other policy types

AWS supports additional, less-common policy types. These policy types can set the maximum permissions granted to you by the more common policy types.

- **Permissions boundaries** – A permissions boundary is an advanced feature in which you set the maximum permissions that an identity-based policy can grant to an IAM entity (IAM user or role). You can set a permissions boundary for an entity. The resulting permissions are the intersection of an entity's identity-based policies and its permissions boundaries. Resource-based

policies that specify the user or role in the `Principal` field are not limited by the permissions boundary. An explicit deny in any of these policies overrides the allow. For more information about permissions boundaries, see [Permissions boundaries for IAM entities](#) in the *IAM User Guide*.

- **Service control policies (SCPs)** – SCPs are JSON policies that specify the maximum permissions for an organization or organizational unit (OU) in AWS Organizations. AWS Organizations is a service for grouping and centrally managing multiple AWS accounts that your business owns. If you enable all features in an organization, then you can apply service control policies (SCPs) to any or all of your accounts. The SCP limits permissions for entities in member accounts, including each AWS account root user. For more information about Organizations and SCPs, see [Service control policies](#) in the *AWS Organizations User Guide*.
- **Session policies** – Session policies are advanced policies that you pass as a parameter when you programmatically create a temporary session for a role or federated user. The resulting session's permissions are the intersection of the user or role's identity-based policies and the session policies. Permissions can also come from a resource-based policy. An explicit deny in any of these policies overrides the allow. For more information, see [Session policies](#) in the *IAM User Guide*.

## Multiple policy types

When multiple types of policies apply to a request, the resulting permissions are more complicated to understand. To learn how AWS determines whether to allow a request when multiple policy types are involved, see [Policy evaluation logic](#) in the *IAM User Guide*.

## How AWS End User Messaging Social works with IAM

Before you use IAM to manage access to AWS End User Messaging Social, learn what IAM features are available to use with AWS End User Messaging Social.

### IAM features you can use with AWS End User Messaging Social

IAM feature	AWS End User Messaging Social support
<a href="#">Identity-based policies</a>	Yes
<a href="#">Resource-based policies</a>	No
<a href="#">Policy actions</a>	Yes



IAM feature	AWS End User Messaging Social support
<a href="#">Policy resources</a>	Yes
<a href="#">Policy condition keys</a>	Yes
<a href="#">ACLs</a>	No
<a href="#">ABAC (tags in policies)</a>	Partial
<a href="#">Temporary credentials</a>	Yes
<a href="#">Principal permissions</a>	Yes
<a href="#">Service roles</a>	Yes
<a href="#">Service-linked roles</a>	Yes

To get a high-level view of how AWS End User Messaging Social and other AWS services work with most IAM features, see [AWS services that work with IAM](#) in the *IAM User Guide*.

## Identity-based policies for AWS End User Messaging Social

**Supports identity-based policies:** Yes

Identity-based policies are JSON permissions policy documents that you can attach to an identity, such as an IAM user, group of users, or role. These policies control what actions users and roles can perform, on which resources, and under what conditions. To learn how to create an identity-based policy, see [Creating IAM policies](#) in the *IAM User Guide*.

With IAM identity-based policies, you can specify allowed or denied actions and resources as well as the conditions under which actions are allowed or denied. You can't specify the principal in an identity-based policy because it applies to the user or role to which it is attached. To learn about all of the elements that you can use in a JSON policy, see [IAM JSON policy elements reference](#) in the *IAM User Guide*.

### Identity-based policy examples for AWS End User Messaging Social

To view examples of AWS End User Messaging Social identity-based policies, see [Identity-based policy examples for AWS End User Messaging Social](#).

## Resource-based policies within AWS End User Messaging Social

### Supports resource-based policies: No

Resource-based policies are JSON policy documents that you attach to a resource. Examples of resource-based policies are IAM *role trust policies* and Amazon S3 *bucket policies*. In services that support resource-based policies, service administrators can use them to control access to a specific resource. For the resource where the policy is attached, the policy defines what actions a specified principal can perform on that resource and under what conditions. You must [specify a principal](#) in a resource-based policy. Principals can include accounts, users, roles, federated users, or AWS services.

To enable cross-account access, you can specify an entire account or IAM entities in another account as the principal in a resource-based policy. Adding a cross-account principal to a resource-based policy is only half of establishing the trust relationship. When the principal and the resource are in different AWS accounts, an IAM administrator in the trusted account must also grant the principal entity (user or role) permission to access the resource. They grant permission by attaching an identity-based policy to the entity. However, if a resource-based policy grants access to a principal in the same account, no additional identity-based policy is required. For more information, see [Cross account resource access in IAM](#) in the *IAM User Guide*.

## Policy actions for AWS End User Messaging Social

### Supports policy actions: Yes

Administrators can use AWS JSON policies to specify who has access to what. That is, which **principal** can perform **actions** on what **resources**, and under what **conditions**.

The `Action` element of a JSON policy describes the actions that you can use to allow or deny access in a policy. Policy actions usually have the same name as the associated AWS API operation. There are some exceptions, such as *permission-only actions* that don't have a matching API operation. There are also some operations that require multiple actions in a policy. These additional actions are called *dependent actions*.

Include actions in a policy to grant permissions to perform the associated operation.

To see a list of AWS End User Messaging Social actions, see [Actions Defined by AWS End User Messaging Social](#) in the *Service Authorization Reference*.

Policy actions in AWS End User Messaging Social use the following prefix before the action:

```
social-messaging
```

To specify multiple actions in a single statement, separate them with commas.

```
"Action": [  
  "social-messaging:action1",  
  "social-messaging:action2"  
]
```

To view examples of AWS End User Messaging Social identity-based policies, see [Identity-based policy examples for AWS End User Messaging Social](#).

## Policy resources for AWS End User Messaging Social

**Supports policy resources:** Yes

Administrators can use AWS JSON policies to specify who has access to what. That is, which **principal** can perform **actions** on what **resources**, and under what **conditions**.

The Resource JSON policy element specifies the object or objects to which the action applies. Statements must include either a Resource or a NotResource element. As a best practice, specify a resource using its [Amazon Resource Name \(ARN\)](#). You can do this for actions that support a specific resource type, known as *resource-level permissions*.

For actions that don't support resource-level permissions, such as listing operations, use a wildcard (\*) to indicate that the statement applies to all resources.

```
"Resource": "*"
```

To see a list of AWS End User Messaging Social resource types and their ARNs, see [Resources Defined by AWS End User Messaging Social](#) in the *Service Authorization Reference*. To learn with which actions you can specify the ARN of each resource, see [Actions Defined by AWS End User Messaging Social](#).

To view examples of AWS End User Messaging Social identity-based policies, see [Identity-based policy examples for AWS End User Messaging Social](#).

## Policy condition keys for AWS End User Messaging Social

### Supports service-specific policy condition keys: Yes

Administrators can use AWS JSON policies to specify who has access to what. That is, which **principal** can perform **actions** on what **resources**, and under what **conditions**.

The `Condition` element (or *Condition block*) lets you specify conditions in which a statement is in effect. The `Condition` element is optional. You can create conditional expressions that use [condition operators](#), such as equals or less than, to match the condition in the policy with values in the request.

If you specify multiple `Condition` elements in a statement, or multiple keys in a single `Condition` element, AWS evaluates them using a logical AND operation. If you specify multiple values for a single condition key, AWS evaluates the condition using a logical OR operation. All of the conditions must be met before the statement's permissions are granted.

You can also use placeholder variables when you specify conditions. For example, you can grant an IAM user permission to access a resource only if it is tagged with their IAM user name. For more information, see [IAM policy elements: variables and tags](#) in the *IAM User Guide*.

AWS supports global condition keys and service-specific condition keys. To see all AWS global condition keys, see [AWS global condition context keys](#) in the *IAM User Guide*.

To see a list of AWS End User Messaging Social condition keys, see [Condition Keys for AWS End User Messaging Social](#) in the *Service Authorization Reference*. To learn with which actions and resources you can use a condition key, see [Actions Defined by AWS End User Messaging Social](#).

To view examples of AWS End User Messaging Social identity-based policies, see [Identity-based policy examples for AWS End User Messaging Social](#).

## ACLs in AWS End User Messaging Social

### Supports ACLs: No

Access control lists (ACLs) control which principals (account members, users, or roles) have permissions to access a resource. ACLs are similar to resource-based policies, although they do not use the JSON policy document format.

## ABAC with AWS End User Messaging Social

### Supports ABAC (tags in policies): Partial

Attribute-based access control (ABAC) is an authorization strategy that defines permissions based on attributes. In AWS, these attributes are called *tags*. You can attach tags to IAM entities (users or roles) and to many AWS resources. Tagging entities and resources is the first step of ABAC. Then you design ABAC policies to allow operations when the principal's tag matches the tag on the resource that they are trying to access.

ABAC is helpful in environments that are growing rapidly and helps with situations where policy management becomes cumbersome.

To control access based on tags, you provide tag information in the [condition element](#) of a policy using the `aws:ResourceTag/key-name`, `aws:RequestTag/key-name`, or `aws:TagKeys` condition keys.

If a service supports all three condition keys for every resource type, then the value is **Yes** for the service. If a service supports all three condition keys for only some resource types, then the value is **Partial**.

For more information about ABAC, see [What is ABAC?](#) in the *IAM User Guide*. To view a tutorial with steps for setting up ABAC, see [Use attribute-based access control \(ABAC\)](#) in the *IAM User Guide*.

## Using temporary credentials with AWS End User Messaging Social

### Supports temporary credentials: Yes

Some AWS services don't work when you sign in using temporary credentials. For additional information, including which AWS services work with temporary credentials, see [AWS services that work with IAM](#) in the *IAM User Guide*.

You are using temporary credentials if you sign in to the AWS Management Console using any method except a user name and password. For example, when you access AWS using your company's single sign-on (SSO) link, that process automatically creates temporary credentials. You also automatically create temporary credentials when you sign in to the console as a user and then switch roles. For more information about switching roles, see [Switching to a role \(console\)](#) in the *IAM User Guide*.

You can manually create temporary credentials using the AWS CLI or AWS API. You can then use those temporary credentials to access AWS. AWS recommends that you dynamically generate temporary credentials instead of using long-term access keys. For more information, see [Temporary security credentials in IAM](#).

## Cross-service principal permissions for AWS End User Messaging Social

### Supports forward access sessions (FAS): Yes

When you use an IAM user or role to perform actions in AWS, you are considered a principal. When you use some services, you might perform an action that then initiates another action in a different service. FAS uses the permissions of the principal calling an AWS service, combined with the requesting AWS service to make requests to downstream services. FAS requests are only made when a service receives a request that requires interactions with other AWS services or resources to complete. In this case, you must have permissions to perform both actions. For policy details when making FAS requests, see [Forward access sessions](#).

## Service roles for AWS End User Messaging Social

### Supports service roles: Yes

A service role is an [IAM role](#) that a service assumes to perform actions on your behalf. An IAM administrator can create, modify, and delete a service role from within IAM. For more information, see [Creating a role to delegate permissions to an AWS service](#) in the *IAM User Guide*.

#### Warning

Changing the permissions for a service role might break AWS End User Messaging Social functionality. Edit service roles only when AWS End User Messaging Social provides guidance to do so.

## Service-linked roles for AWS End User Messaging Social

### Supports service-linked roles: Yes

A service-linked role is a type of service role that is linked to an AWS service. The service can assume the role to perform an action on your behalf. Service-linked roles appear in your AWS account and are owned by the service. An IAM administrator can view, but not edit the permissions for service-linked roles.

For details about creating or managing service-linked roles, see [AWS services that work with IAM](#). Find a service in the table that includes a Yes in the **Service-linked role** column. Choose the **Yes** link to view the service-linked role documentation for that service.

## Identity-based policy examples for AWS End User Messaging Social

By default, users and roles don't have permission to create or modify AWS End User Messaging Social resources. They also can't perform tasks by using the AWS Management Console, AWS Command Line Interface (AWS CLI), or AWS API. To grant users permission to perform actions on the resources that they need, an IAM administrator can create IAM policies. The administrator can then add the IAM policies to roles, and users can assume the roles.

To learn how to create an IAM identity-based policy by using these example JSON policy documents, see [Creating IAM policies](#) in the *IAM User Guide*.

For details about actions and resource types defined by AWS End User Messaging Social, including the format of the ARNs for each of the resource types, see [Actions, Resources, and Condition Keys for AWS End User Messaging Social](#) in the *Service Authorization Reference*.

### Topics

- [Policy best practices](#)
- [Using the AWS End User Messaging Social console](#)
- [Allow users to view their own permissions](#)

### Policy best practices

Identity-based policies determine whether someone can create, access, or delete AWS End User Messaging Social resources in your account. These actions can incur costs for your AWS account. When you create or edit identity-based policies, follow these guidelines and recommendations:

- **Get started with AWS managed policies and move toward least-privilege permissions** – To get started granting permissions to your users and workloads, use the *AWS managed policies* that grant permissions for many common use cases. They are available in your AWS account. We recommend that you reduce permissions further by defining AWS customer managed policies that are specific to your use cases. For more information, see [AWS managed policies](#) or [AWS managed policies for job functions](#) in the *IAM User Guide*.
- **Apply least-privilege permissions** – When you set permissions with IAM policies, grant only the permissions required to perform a task. You do this by defining the actions that can be taken on specific resources under specific conditions, also known as *least-privilege permissions*. For more information about using IAM to apply permissions, see [Policies and permissions in IAM](#) in the *IAM User Guide*.

- **Use conditions in IAM policies to further restrict access** – You can add a condition to your policies to limit access to actions and resources. For example, you can write a policy condition to specify that all requests must be sent using SSL. You can also use conditions to grant access to service actions if they are used through a specific AWS service, such as AWS CloudFormation. For more information, see [IAM JSON policy elements: Condition](#) in the *IAM User Guide*.
- **Use IAM Access Analyzer to validate your IAM policies to ensure secure and functional permissions** – IAM Access Analyzer validates new and existing policies so that the policies adhere to the IAM policy language (JSON) and IAM best practices. IAM Access Analyzer provides more than 100 policy checks and actionable recommendations to help you author secure and functional policies. For more information, see [IAM Access Analyzer policy validation](#) in the *IAM User Guide*.
- **Require multi-factor authentication (MFA)** – If you have a scenario that requires IAM users or a root user in your AWS account, turn on MFA for additional security. To require MFA when API operations are called, add MFA conditions to your policies. For more information, see [Configuring MFA-protected API access](#) in the *IAM User Guide*.

For more information about best practices in IAM, see [Security best practices in IAM](#) in the *IAM User Guide*.

## Using the AWS End User Messaging Social console

To access the AWS End User Messaging Social console, you must have a minimum set of permissions. These permissions must allow you to list and view details about the AWS End User Messaging Social resources in your AWS account. If you create an identity-based policy that is more restrictive than the minimum required permissions, the console won't function as intended for entities (users or roles) with that policy.

You don't need to allow minimum console permissions for users that are making calls only to the AWS CLI or the AWS API. Instead, allow access to only the actions that match the API operation that they're trying to perform.

To ensure that users and roles can still use the AWS End User Messaging Social console, also attach the AWS End User Messaging Social *ConsoleAccess* or *ReadOnly* AWS managed policy to the entities. For more information, see [Adding permissions to a user](#) in the *IAM User Guide*.



## Allow users to view their own permissions

This example shows how you might create a policy that allows IAM users to view the inline and managed policies that are attached to their user identity. This policy includes permissions to complete this action on the console or programmatically using the AWS CLI or AWS API.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "ViewOwnUserInfo",
      "Effect": "Allow",
      "Action": [
        "iam:GetUserPolicy",
        "iam:ListGroupsWithUser",
        "iam:ListAttachedUserPolicies",
        "iam:ListUserPolicies",
        "iam:GetUser"
      ],
      "Resource": ["arn:aws:iam::*:user/${aws:username}"]
    },
    {
      "Sid": "NavigateInConsole",
      "Effect": "Allow",
      "Action": [
        "iam:GetGroupPolicy",
        "iam:GetPolicyVersion",
        "iam:GetPolicy",
        "iam:ListAttachedGroupPolicies",
        "iam:ListGroupPolicies",
        "iam:ListPolicyVersions",
        "iam:ListPolicies",
        "iam:ListUsers"
      ],
      "Resource": "*"
    }
  ]
}
```

## AWS managed policies for AWS End User Messaging Social

To add permissions to users, groups, and roles, it is easier to use AWS managed policies than to write policies yourself. It takes time and expertise to [create IAM customer managed policies](#) that provide your team with only the permissions they need. To get started quickly, you can use our AWS managed policies. These policies cover common use cases and are available in your AWS account. For more information about AWS managed policies, see [AWS managed policies](#) in the *IAM User Guide*.

AWS services maintain and update AWS managed policies. You can't change the permissions in AWS managed policies. Services occasionally add additional permissions to an AWS managed policy to support new features. This type of update affects all identities (users, groups, and roles) where the policy is attached. Services are most likely to update an AWS managed policy when a new feature is launched or when new operations become available. Services do not remove permissions from an AWS managed policy, so policy updates won't break your existing permissions.

Additionally, AWS supports managed policies for job functions that span multiple services. For example, the **ReadOnlyAccess** AWS managed policy provides read-only access to all AWS services and resources. When a service launches a new feature, AWS adds read-only permissions for new operations and resources. For a list and descriptions of job function policies, see [AWS managed policies for job functions](#) in the *IAM User Guide*.

## AWS End User Messaging Social updates to AWS managed policies

View details about updates to AWS managed policies for AWS End User Messaging Social since this service began tracking these changes. For automatic alerts about changes to this page, subscribe to the RSS feed on the [AWS End User Messaging Social Document history page](#).

Change	Description	Date
AWS End User Messaging Social started tracking changes	AWS End User Messaging Social started tracking	September 26, 2024

Change	Description	Date
	changes for its AWS managed policies.	

## Troubleshooting AWS End User Messaging Social identity and access

Use the following information to help you diagnose and fix common issues that you might encounter when working with AWS End User Messaging Social and IAM.

### Topics

- [I am not authorized to perform an action in AWS End User Messaging Social](#)
- [I am not authorized to perform iam:PassRole](#)
- [I want to allow people outside of my AWS account to access my AWS End User Messaging Social resources](#)

### I am not authorized to perform an action in AWS End User Messaging Social

If you receive an error that you're not authorized to perform an action, your policies must be updated to allow you to perform the action.

The following example error occurs when the `mateojackson` IAM user tries to use the console to view details about a fictional `my-example-widget` resource but doesn't have the fictional `social-messaging:GetWidget` permissions.

```
User: arn:aws:iam::123456789012:user/mateojackson is not authorized to perform: social-messaging:GetWidget on resource: my-example-widget
```

In this case, the policy for the `mateojackson` user must be updated to allow access to the `my-example-widget` resource by using the `social-messaging:GetWidget` action.

If you need help, contact your AWS administrator. Your administrator is the person who provided you with your sign-in credentials.

### I am not authorized to perform iam:PassRole

If you receive an error that you're not authorized to perform the `iam:PassRole` action, your policies must be updated to allow you to pass a role to AWS End User Messaging Social.

Some AWS services allow you to pass an existing role to that service instead of creating a new service role or service-linked role. To do this, you must have permissions to pass the role to the service.

The following example error occurs when an IAM user named `marymajor` tries to use the console to perform an action in AWS End User Messaging Social. However, the action requires the service to have permissions that are granted by a service role. Mary does not have permissions to pass the role to the service.

```
User: arn:aws:iam::123456789012:user/marymajor is not authorized to perform:
iam:PassRole
```

In this case, Mary's policies must be updated to allow her to perform the `iam:PassRole` action.

If you need help, contact your AWS administrator. Your administrator is the person who provided you with your sign-in credentials.

## I want to allow people outside of my AWS account to access my AWS End User Messaging Social resources

You can create a role that users in other accounts or people outside of your organization can use to access your resources. You can specify who is trusted to assume the role. For services that support resource-based policies or access control lists (ACLs), you can use those policies to grant people access to your resources.

To learn more, consult the following:

- To learn whether AWS End User Messaging Social supports these features, see [How AWS End User Messaging Social works with IAM](#).
- To learn how to provide access to your resources across AWS accounts that you own, see [Providing access to an IAM user in another AWS account that you own](#) in the *IAM User Guide*.
- To learn how to provide access to your resources to third-party AWS accounts, see [Providing access to AWS accounts owned by third parties](#) in the *IAM User Guide*.
- To learn how to provide access through identity federation, see [Providing access to externally authenticated users \(identity federation\)](#) in the *IAM User Guide*.
- To learn the difference between using roles and resource-based policies for cross-account access, see [Cross account resource access in IAM](#) in the *IAM User Guide*.

# Compliance validation for AWS End User Messaging Social

To learn whether an AWS service is within the scope of specific compliance programs, see [AWS services in Scope by Compliance Program](#) and choose the compliance program that you are interested in. For general information, see [AWS Compliance Programs](#).

You can download third-party audit reports using AWS Artifact. For more information, see [Downloading Reports in AWS Artifact](#).

Your compliance responsibility when using AWS services is determined by the sensitivity of your data, your company's compliance objectives, and applicable laws and regulations. AWS provides the following resources to help with compliance:

- [Security and Compliance Quick Start Guides](#) – These deployment guides discuss architectural considerations and provide steps for deploying baseline environments on AWS that are security and compliance focused.
- [Architecting for HIPAA Security and Compliance on Amazon Web Services](#) – This whitepaper describes how companies can use AWS to create HIPAA-eligible applications.

## Note

Not all AWS services are HIPAA eligible. For more information, see the [HIPAA Eligible Services Reference](#).

- [AWS Compliance Resources](#) – This collection of workbooks and guides might apply to your industry and location.
- [AWS Customer Compliance Guides](#) – Understand the shared responsibility model through the lens of compliance. The guides summarize the best practices for securing AWS services and map the guidance to security controls across multiple frameworks (including National Institute of Standards and Technology (NIST), Payment Card Industry Security Standards Council (PCI), and International Organization for Standardization (ISO)).
- [Evaluating Resources with Rules](#) in the *AWS Config Developer Guide* – The AWS Config service assesses how well your resource configurations comply with internal practices, industry guidelines, and regulations.
- [AWS Security Hub](#) – This AWS service provides a comprehensive view of your security state within AWS. Security Hub uses security controls to evaluate your AWS resources and to check your

compliance against security industry standards and best practices. For a list of supported services and controls, see [Security Hub controls reference](#).

- [Amazon GuardDuty](#) – This AWS service detects potential threats to your AWS accounts, workloads, containers, and data by monitoring your environment for suspicious and malicious activities. GuardDuty can help you address various compliance requirements, like PCI DSS, by meeting intrusion detection requirements mandated by certain compliance frameworks.
- [AWS Audit Manager](#) – This AWS service helps you continuously audit your AWS usage to simplify how you manage risk and compliance with regulations and industry standards.

## Resilience in AWS End User Messaging Social

The AWS global infrastructure is built around AWS Regions and Availability Zones. AWS Regions provide multiple physically separated and isolated Availability Zones, which are connected with low-latency, high-throughput, and highly redundant networking. With Availability Zones, you can design and operate applications and databases that automatically fail over between zones without interruption. Availability Zones are more highly available, fault tolerant, and scalable than traditional single or multiple data center infrastructures.

For more information about AWS Regions and Availability Zones, see [AWS Global Infrastructure](#).

In addition to the AWS global infrastructure, AWS End User Messaging Social offers several features to help support your data resiliency and backup needs.

## Infrastructure Security in AWS End User Messaging Social

As a managed service, AWS End User Messaging Social is protected by the AWS global network security procedures that are described in the [Amazon Web Services: Overview of Security Processes](#) whitepaper.

You use AWS published API calls to access AWS End User Messaging Social through the network. Clients must support Transport Layer Security (TLS) 1.0 or later. We recommend TLS 1.2 or later. Clients must also support cipher suites with perfect forward secrecy (PFS) such as DHE (Ephemeral Diffie-Hellman) or ECDHE (Elliptic Curve Ephemeral Diffie-Hellman). Most modern systems such as Java 7 and later support these modes.

Additionally, requests must be signed by using an access key ID and a secret access key that is associated with an IAM principal. Or you can use the [AWS Security Token Service](#) (AWS STS) to generate temporary security credentials to sign requests.

## Cross-service confused deputy prevention

The confused deputy problem is a security issue where an entity that doesn't have permission to perform an action can coerce a more-privileged entity to perform the action. In AWS, cross-service impersonation can result in the confused deputy problem. Cross-service impersonation can occur when one service (the *calling service*) calls another service (the *called service*). The calling service can be manipulated to use its permissions to act on another customer's resources in a way it should not otherwise have permission to access. To prevent this, AWS provides tools that help you protect your data for all services with service principals that have been given access to resources in your account.

We recommend using the [aws:SourceArn](#) and [aws:SourceAccount](#) global condition context keys in resource policies to limit the permissions that Social Messaging gives another service to the resource. Use `aws:SourceArn` if you want only one resource to be associated with the cross-service access. Use `aws:SourceAccount` if you want to allow any resource in that account to be associated with the cross-service use.

The most effective way to protect against the confused deputy problem is to use the `aws:SourceArn` global condition context key with the full ARN of the resource. If you don't know the full ARN of the resource or if you are specifying multiple resources, use the `aws:SourceArn` global condition context key with wildcard characters (\*) for the unknown portions of the ARN. For example, `arn:aws:social-messaging:*:123456789012:*`.

If the `aws:SourceArn` value does not contain the account ID, such as an Amazon S3 bucket ARN, you must use both global condition context keys to limit permissions.

The value of `aws:SourceArn` must be `ResourceDescription`.

The following example shows how you can use the `aws:SourceArn` and `aws:SourceAccount` global condition context keys in Social Messaging to prevent the confused deputy problem.

```
{
  "Version": "2012-10-17",
  "Statement": {
    "Sid": "ConfusedDeputyPreventionExamplePolicy",
    "Effect": "Allow",
    "Principal": {
      "Service": "social-messaging.amazonaws.com"
    }
  },
}
```

```
"Action": "social-messaging:ActionName",
"Resource": [
  "arn:aws:social-messaging::ResourceName/*"
],
"Condition": {
  "ArnLike": {
    "aws:SourceArn": "arn:aws:social-messaging:*:123456789012:"
  },
  "StringEquals": {
    "aws:SourceAccount": "123456789012"
  }
}
}
```

## Security best practices

AWS End User Messaging Social provides a number of security features to consider as you develop and implement your own security policies. The following best practices are general guidelines and don't represent a complete security solution. Because these best practices might not be appropriate or sufficient for your environment, treat them as helpful considerations rather than prescriptions.

- Create an individual user for each person who manages AWS SMS resources, including yourself. Don't use AWS root credentials to manage AWS SMS resources.
- Grant each user the minimum set of permissions required to perform his or her duties.
- Use IAM groups to effectively manage permissions for multiple users.
- Rotate your IAM credentials regularly.

## Using service-linked roles for AWS End User Messaging Social

AWS End User Messaging Social uses AWS Identity and Access Management (IAM) [service-linked roles](#). A service-linked role is a unique type of IAM role that is linked directly to AWS End User Messaging Social. Service-linked roles are predefined by AWS End User Messaging Social and include all the permissions that the service requires to call other AWS services on your behalf.

A service-linked role makes setting up AWS End User Messaging Social easier because you don't have to manually add the necessary permissions. AWS End User Messaging Social defines the



permissions of its service-linked roles, and unless defined otherwise, only AWS End User Messaging Social can assume its roles. The defined permissions include the trust policy and the permissions policy, and that permissions policy cannot be attached to any other IAM entity.

You can delete a service-linked role only after first deleting their related resources. This protects your AWS End User Messaging Social resources because you can't inadvertently remove permission to access the resources.

For information about other services that support service-linked roles, see [AWS services that work with IAM](#) and look for the services that have **Yes** in the **Service-linked roles** column. Choose a **Yes** with a link to view the service-linked role documentation for that service.

## Service-linked role permissions for AWS End User Messaging Social

AWS End User Messaging Social uses the service-linked role named **AWSServiceRoleForSocialMessaging** – To publish metrics and provide insights for your social message sending.

The AWSServiceRoleForSocialMessaging service-linked role trusts the following services to assume the role:

- `social-messaging.amazonaws.com`

The role permissions policy named AWSSocialMessagingServiceRolePolicy allows AWS End User Messaging Social to complete the following actions on the specified resources:

- Action: "cloudwatch:PutMetricData" on all AWS resources in the AWS/SocialMessaging namespace.

You must configure permissions to allow your users, groups, or roles to create, edit, or delete a service-linked role. For more information, see [Service-linked role permissions](#) in the *IAM User Guide*.

For updates to the policy, see [AWS End User Messaging Social updates to AWS managed policies](#).

## Creating a service-linked role for AWS End User Messaging Social

You can use the IAM console to create a service-linked role with the **AWSEndUserMessagingSocial - Metrics** use case. In the AWS CLI or the AWS API, create a service-linked role with the `social-messaging.amazonaws.com` service name. For more information, see [Creating a service-linked](#)

[role](#) in the *IAM User Guide*. If you delete this service-linked role, you can use this same process to create the role again.

## Editing a service-linked role for AWS End User Messaging Social

AWS End User Messaging Social does not allow you to edit the `AWSServiceRoleForSocialMessaging` service-linked role. After you create a service-linked role, you cannot change the name of the role because various entities might reference the role. However, you can edit the description of the role using IAM. For more information, see [Editing a service-linked role](#) in the *IAM User Guide*.

## Deleting a service-linked role for AWS End User Messaging Social

If you no longer need to use a feature or service that requires a service-linked role, we recommend that you delete that role. That way you don't have an unused entity that is not actively monitored or maintained. However, you must clean up the resources for your service-linked role before you can manually delete it.

### Note

If the AWS End User Messaging Social service is using the role when you try to delete the resources, then the deletion might fail. If that happens, wait for a few minutes and try the operation again.

### To remove AWS End User Messaging Social resources used by the `AWSServiceRoleForSocialMessaging`

1. Call `list-linked-whatsapp-business-accounts` API to see the resources you have.
2. For each linked whatsapp business account, call the `disassociate-whatsapp-business-account` API to remove the resource from SocialMessaging service.
3. Verify no resources are returned by calling the `list-linked-whatsapp-business-accounts` API again.

### To manually delete the service-linked role using IAM

Use the IAM console, the AWS CLI, or the AWS API to delete the `AWSServiceRoleForSocialMessaging` service-linked role. For more information, see [Deleting a service-linked role](#) in the *IAM User Guide*.

## Supported Regions for AWS End User Messaging Social service-linked roles

AWS End User Messaging Social supports using service-linked roles in all of the Regions where the service is available. For more information, see [AWS Regions and endpoints](#).

# Quotas for AWS End User Messaging Social

Your AWS account has default quotas, formerly referred to as limits, for each AWS service. Unless otherwise noted, each quota is Region-specific. You can request increases for some quotas, and other quotas cannot be increased.

To view the quotas for AWS End User Messaging Social, open the [Service Quotas console](#). In the navigation pane, choose **AWS services** and select **AWS End User Messaging Social**.

To request a quota increase, see [Requesting a Quota Increase](#) in the *Service Quotas User Guide*. If the quota is not yet available in Service Quotas, use the [limit increase form](#).

Your AWS account has the following quotas related to AWS End User Messaging Social.

Resource	Default
WhatsApp Business Account (WABA)	25 per Region

AWS End User Messaging Social implements quotas that restrict the number of requests that you can make to the AWS End User Messaging Social API from your AWS account.

Operation	Rate
SendWhatsAppMessage	1,000
PostWhatsAppMessageMedia	100
GetWhatsAppMessageMedia	100
DeleteWhatsAppMessageMedia	100
DisassociateWhatsAppBusinessAccount	10
ListWhatsAppBusinessAccount	10
TagResource	10
UntagResourceRate	10

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Operation	Rate
ListTagsForResourceRate	10

# Document history for the AWS End User Messaging Social User Guide

The following table describes the documentation releases for AWS End User Messaging Social.

Change	Description	Date
<a href="#">Initial release</a>	Initial release of the AWS End User Messaging Social User Guide	October 10, 2024