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# **AWS Billing**

## **User Guide**

### **Version 2.0**



## **AWS Billing: User Guide**

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# What is AWS Billing?

Welcome to the Billing User Guide.

The AWS Billing console contains features to pay your AWS bills, organize and report your AWS cost and usage, and manage your consolidated billing if you're a part of AWS Organizations.

The Billing console works closely with the AWS Cost Management console. You can use both for a holistic approach to managing your costs. The Billing console contains resources to manage your ongoing payments and payment methods registered to your AWS account. Next, you can use the features in the AWS Cost Management console to optimize your future costs. For information about AWS resources to optimize your costs, see the [AWS Cost Management User Guide](#).

Amazon Web Services automatically charges the credit card that you provided when you sign up for an AWS account. You can view or update your credit card information at any time, including designating a different credit card for AWS to charge. You can do this on the [Payment Methods](#) page in the Billing console. For more details on Billing features, see [Features of Billing \(p. 2\)](#).

With the AWS Cost Management console and the Billing console, you can do the following tasks:

Use cases	Description	AWS Cost Management feature names	Billing console feature names
Organize	Construct your cost allocation and governance foundation with your own tagging strategy.	-	<a href="#">AWS Cost Categories</a> <a href="#">AWS Cost Allocation Tags</a>
Report	Raise awareness and accountability of your cloud spend with the detailed, allocable cost data.	<a href="#">AWS Cost Explorer</a>	<a href="#">AWS Cost and Usage Reports</a>
Access	Track billing information across the organization in one consolidated view.	-	<a href="#">AWS Consolidated Billing</a> <a href="#">AWS Purchase Order Management</a> <a href="#">AWS Credits</a>
Control	Establish effective governance mechanisms with the right guardrails in place.	<a href="#">AWS Cost Anomaly Detection</a>	-
Forecast	Estimate your resource utilization and spend with forecast dashboards that you create.	<a href="#">AWS Cost Explorer</a> <a href="#">AWS Budgets</a>	-

Use cases	Description	AWS Cost Management feature names	Billing console feature names
Budget	Keep your spend in check with custom budget threshold and auto alert notification.	<a href="#">AWS Budgets</a> <a href="#">AWS Budgets Actions</a>	-
Purchase	Use free trials and programmatic discounts based on your workload pattern and needs.	<a href="#">Savings Plans</a> <a href="#">AWS Reserved Instances</a>	<a href="#">AWS Free Tier</a>
Rightsize	Align your service allocation size to your actual workload demand.	<a href="#">Rightsizing Recommendations</a>	-
Inspect	Stay up-to-date with your resource deployment and cost optimization opportunities.	<a href="#">AWS Cost Explorer</a>	-

## Features of Billing

### Manage your account

Manage your account settings using the AWS Management Console and Billing console. This includes designating your default currency, editing alternate contacts, adding or removing Regions, updating your tax information, and closing your AWS account. The [close your account \(p. 21\)](#) section calls out considerations such as terminating resources before you proceed with closing an account. This way, you aren't charged for unused services.

**Documentation:** [Managing your account \(p. 13\)](#)

### View your bill

You can use the Billing console to view your past bill details or your estimated charges for your current month at any time. This section outlines how you can view your bills, download PDF copies of your charges, and set up monthly emails to receive your invoices. It also covers how you can use other resources such as [AWS Cost and Usage Reports](#).

**Documentation:** [Viewing your bill \(p. 28\)](#)

### Managing your payments

You can view your estimated bills and pay your AWS invoices in your preferred currency by setting a payment currency. AWS converts your bill to your preferred currency after your bill is finalized. Until then, all of the preferred currency amounts shown in the console are estimated in USD. AWS guarantees your exchange rate. This is so that refunds use the same exchange rate as your original transaction.

#### Note

- AWS Marketplace invoices aren't eligible for this service and are processed in US dollar.
- This service is available only if your default payment method is Visa or MasterCard.
- The rates change daily. The rate that's applied to your invoice is the current rate at the time when your invoice was created. You can check the current rate on the Billing console.



- Currency conversion is provided by Amazon Services LLC.

**Documentation:** [Managing Your Payments \(p. 32\)](#).

### **AWS Purchase Order Management**

Manage your AWS purchase orders in a self-service fashion by taking care of multiple purchase orders all in one place. This can help to reduce your overhead costs and increase the accuracy and efficiency in your overall procure-to-pay process. Use the Billing console to manage your purchase orders and configure how they reflect on your invoices. In this chapter, learn how to add, edit, view details, and set up notifications regarding your purchase orders in the console.

**Documentation:** [Managing your purchase orders \(p. 59\)](#)

### **AWS Cost Categories**

Manage your AWS costs with AWS Cost Categories by mapping your cost and usage into meaningful categories. This section defines terms that are used in the console for supported dimensions, operations, rule types, and status. The section also provides more information on how you can create, edit, delete, and split the charges within cost categories.

**Documentation:** [Managing your costs with AWS Cost Categories \(p. 68\)](#)

### **Payment profile**

You can use payment profiles to assign more than one payment method to your automatic payments. If you receive invoices from more than one AWS service provider ("seller of record"), you can use payment profiles to assign a unique payment method for each one. After you create a payment profile for a service provider, your payment profile pays your AWS bills automatically. In this section, learn how to use the Billing console to set up custom payment profile.

**Documentation:** [Managing your payment profiles \(p. 52\)](#)

### **Consolidate billing for AWS Organizations**

Use the consolidated billing feature for AWS Organizations to combine your billing for multiple AWS accounts. This chapter outlines the consolidated billing process, differences for Amazon Web Services India Private Limited accounts, and details for discounts.

**Documentation:** [Consolidated billing for AWS Organizations \(p. 106\)](#)

## **Related services**

### **AWS Billing Conductor**

AWS Billing Conductor is a custom billing service to group your accounts by financial owner, configure billing parameters, and generate AWS Cost and Usage Reports per group. AWS Billing Conductor is a fully managed service that can support the showback and chargeback workflows of AWS Solution Providers and Enterprise customers. For more information, see [What is AWS Billing Conductor?](#) in the *AWS Billing Conductor User Guide*.

### **IAM**

The Billing service and AWS Cost Management service is closely integrated with AWS Identity and Access Management (IAM). You can use IAM with Billing to ensure that other people who work in your account have as much access as they need to get their jobs done.

You also use IAM to control access to all of your AWS resources, not only your billing information. It's important that you familiarize yourself with the major concepts and best practices of IAM before you get too far along with setting up the structure of your AWS account.

For information about how to work with IAM and why it's important to do so, see [IAM Concepts](#) and [IAM Best Practices](#) in the *IAM User Guide*.

### **AWS Organizations (Consolidated Billing)**

You can use AWS products and services to accommodate a company of any size, from small start-ups to enterprises. If your company is large or likely to grow, you might want to set up multiple AWS accounts that reflect your company's specific structure. For example, you can have one account for the entire company and accounts for each employee, or an account for the entire company with IAM users for each employee. You can have an account for the entire company, accounts for each department or team within the company, and accounts for each employee.

If you create multiple accounts, you can use the consolidated billing feature of AWS Organizations to combine all member accounts under a management account. That way, you can receive a single bill for all of your member accounts. For more information, see [Consolidated billing for AWS Organizations](#) (p. 106).

# Getting started

This section provides information that you need to get started with using the Billing console.

## Topics

- [Step 1: Sign up for AWS \(p. 5\)](#)
- [Step 2: Attach the required IAM policy to an IAM identity \(p. 5\)](#)
- [Step 3: Review your bills and usage \(p. 5\)](#)
- [Step 4: Download or print your bill \(p. 6\)](#)
- [Step 5: Learn more about the Billing features \(p. 6\)](#)
- [What do I do next? \(p. 6\)](#)

## Step 1: Sign up for AWS

If you're new to AWS, create an AWS account. For more information, see [Getting Started with AWS](#).

## Step 2: Attach the required IAM policy to an IAM identity

AWS account owners can delegate access to specific IAM users who need to view or manage the Billing data for an AWS account. To start activating access to the Billing console and AWS Cost Management console, see [IAM tutorial: Delegate access to the billing console](#) in the *IAM User Guide*.

For detailed information about IAM policies specific for Billing, see [Using identity-based policies \(IAM policies\) for AWS Billing \(p. 126\)](#).

To reference a list of Billing policy examples, see [AWS Billing policy examples \(p. 132\)](#).

## Step 3: Review your bills and usage

Use features in the Billing console to view your current AWS charges and AWS usage.

### To open the Billing console and view your usage and charges

1. Sign into the AWS Management Console and open the Billing console at <https://console.aws.amazon.com/billing/>.
2. Choose **Bills** to see details about your current charges.

Choose **Payments** to see your historical payment transactions.

Choose **AWS Cost and Usage Reports** to see reports that break down your costs.

For more information about setting up and using AWS Cost and Usage Reports, see the [AWS Cost and Usage Reports User Guide](#).

## Step 4: Download or print your bill

AWS Billing closes the billing period at midnight on the last day of each month and calculates your bill. Most bills are ready for you to download by the seventh accounting day of the month.

### To download your bill

1. Sign into the AWS Management Console and open the Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation pane, choose **Bills**.
3. For **Date**, choose the month of the bill you want to work with.
4. Choose **Download CSV** to download a comma-separated variable file or choose **Print**.

## Step 5: Learn more about the Billing features

Understand the features available to you in the Billing console.

- **Account settings:** [Managing your account \(p. 13\)](#)
- **AWS Free Tier:** [Using the AWS Free Tier \(p. 86\)](#)
- **Payments:** [Managing Your Payments \(p. 32\)](#)
- **Viewing your bills:** [Viewing your bill \(p. 28\)](#)
- **AWS Cost Categories:** [Managing your costs with AWS Cost Categories \(p. 68\)](#)
- **Cost Allocation Tags:** [Using AWS cost allocation tags \(p. 77\)](#)
- **AWS Purchase Orders:** [Managing your purchase orders \(p. 59\)](#)
- **AWS Cost and Usage Reports:** [Using AWS Cost and Usage Reports](#)
- **Using AWS CloudTrail:** [Logging Billing and Cost Management API calls with AWS CloudTrail \(p. 147\)](#)
- **Consolidated billing:** [Consolidated billing for AWS Organizations \(p. 106\)](#)

## What do I do next?

Now that you can view and pay your AWS bill, you're ready to use the features available to you. The rest of this guide helps you navigate your journey using the console.

## Optimize your spending using AWS Cost Management features

Use the AWS Cost Management features to budget and forecast costs so you can optimize your AWS spends and reduce your overall AWS bill. Combine and use the Billing console resources to manage your payments, while using AWS Cost Management features to optimize your future costs.

For more information about AWS Cost Management features, see the [AWS Cost Management User Guide](#).

## Using the Billing and Cost Management API

Use the [AWS Billing and Cost Management API Reference](#) to programmatically use some AWS Cost Management features.

## Learn more

You can find more information about Billing features including presentations, virtual workshops, and blog posts on the marketing page [Cloud Financial Management with AWS](#).

You can find virtual workshops by choosing the **Services** drop-down and selecting your feature.

## Get help

If you have questions about any Billing features, there are many resources available for you. To learn more, see [Getting help with AWS Billing and Cost Management \(p. 8\)](#).

# Getting help with AWS Billing and Cost Management

There are many resources available for you if you have any questions about your AWS Billing and Cost Management console tools, your charges, or payment methods.

## Topics

- [AWS Knowledge Center](#) (p. 8)
- [Contacting AWS Support](#) (p. 8)
- [Understanding your charged usage](#) (p. 9)
- [Monitoring your Free Tier usage](#) (p. 9)
- [Avoiding unexpected charges](#) (p. 9)

## AWS Knowledge Center

All AWS account owners have access to account and billing support free of charge. You can find answers to your questions quickly by visiting the AWS Knowledge Center.

### To find your question or request

1. Open [AWS Knowledge Center](#).
2. Choose **Billing Management**.
3. Scan the list of topics to locate a question that is similar to yours.

## Contacting AWS Support

Contacting AWS Support is the fastest and most direct method for communicating with an AWS associate about your questions. AWS Support does not publish a direct phone number for reaching a support representative. You can use the following process to have an associate contact to you by email or phone instead.

Only personalized technical support requires a support plan. For more information, visit [AWS Support](#).

To open an AWS Support case where you specify *Regarding: Account and Billing Support*, you must either be signed into AWS as the root account owner, or have IAM permissions to open a support case. For more information, see [Accessing AWS Support](#) in the *AWS Support User Guide*.

If you have closed your AWS account, you can still sign in to AWS Support and view past bills.

### To contact AWS Support

1. Sign in and navigate to the [AWS Support Center](#). If prompted, enter the email address and password for your account.
2. Choose **Create case**.
3. On the **Create case** page, choose **Account and billing support** and fill in the required fields on the form.

4. After you complete the form, under **Contact options**, choose either **Web** for an email response, or **Phone** to request a telephone call from an AWS Support representative. Instant messaging support is not available for billing inquiries.

#### To contact AWS Support when you can't sign in to AWS

1. Recover your password or submit a form at [AWS account support](#).
2. Choose an inquiry type in the **Request information** section.
3. Fill out the **How can we help you?** section.
4. Choose **Submit**.

## Understanding your charged usage

If you want to see the usage behind your charged amount, you can check your usage yourself by enabling Cost Explorer. This tool enables you to analyze your costs in depth by providing you with premade reports and graphs.

Cost Explorer is available 24 hours after you activate the feature.

For more information about Cost Explorer, see [Analyzing your costs with AWS Cost Explorer](#).

## Monitoring your Free Tier usage

You can track your AWS Free Tier usage to keep you under the Free Tier limits. You can set up alerts on your AWS account when your Free Tier limits reach a threshold, and monitor your usage through the Billing and Cost Management console.

For more information about using these features, see [Tracking your AWS Free Tier usage \(p. 87\)](#).

To see details for usage that was charged beyond your Free Tier limit, see the [Understanding your charged usage \(p. 9\)](#) section.

## Avoiding unexpected charges

Here are some suggestions to help you avoid unexpected charges on your bill. The next items address specific features or behaviors within individual services from AWS that can sometimes result in unexpected charges, particularly if you unsubscribe from the service or close your account.

#### Note

If you close your account or unsubscribe from a service, make sure that you take the appropriate steps for every region in which you've allocated AWS resources.

#### Topics

- [Usage exceeds AWS Free Tier \(p. 10\)](#)
- [Bill received after account closure \(p. 10\)](#)
- [Disabled regions \(p. 10\)](#)
- [Elastic Beanstalk environments \(p. 10\)](#)
- [Elastic Load Balancing \(ELB\) \(p. 10\)](#)
- [Services started in AWS OpsWorks \(p. 10\)](#)
- [Amazon EC2 instances \(p. 10\)](#)

- [Amazon Elastic Block Store volumes and snapshots \(p. 11\)](#)
- [Elastic IP addresses \(p. 12\)](#)
- [Services launched by other services \(p. 12\)](#)
- [Storage services \(p. 12\)](#)

## Usage exceeds AWS Free Tier

For more information on avoiding unexpected charges related to the AWS Free Tier, see [Avoiding unexpected charges after the AWS Free Tier \(p. 86\)](#).

## Bill received after account closure

Each month's usage is calculated and billed at the beginning of the following month. If you close your account but use opt-in services during the month, you receive a bill for the opt-in service usage at the beginning of the following month.

## Disabled regions

If you disable a Region and you still have resources in that Region, you continue to incur charges for those resources. (There is no charge for enabling a Region, only charges for the resources that you create in a Region.) For more information, see [Enabling and disabling regions \(p. 15\)](#).

## Elastic Beanstalk environments

Elastic Beanstalk is designed to ensure that all the resources that you need are running, which means that it automatically relaunches any services that you stop. To avoid this, you must terminate your Elastic Beanstalk environment before you terminate resources that Elastic Beanstalk has created. For more information, see [Terminating an Environment](#) in the *AWS Elastic Beanstalk Developer Guide*.

## Elastic Load Balancing (ELB)

Like Elastic Beanstalk environments, ELB load balancers are designed to keep a minimum number of Amazon Elastic Compute Cloud (Amazon EC2) instances running. You must terminate your load balancer before you delete the Amazon EC2 instances that are registered with it. For more information, see [Delete Your Load Balancer](#) in the *Elastic Load Balancing User Guide*.

## Services started in AWS OpsWorks

If you use the AWS OpsWorks environment to create AWS resources, you must use AWS OpsWorks to terminate those resources or AWS OpsWorks restarts them. For example, if you use AWS OpsWorks to create an Amazon EC2 instance, but then terminate it by using the Amazon EC2 console, the AWS OpsWorks auto healing feature categorizes the instance as failed and restarts it. For more information, see [AWS OpsWorks User Guide](#).

## Amazon EC2 instances

After you remove load balancers and Elastic Load Balancing environments, you can stop or terminate Amazon EC2 instances. Stopping an instance allows you to start it again later, but you might be charged for storage. Terminating an instance permanently deletes it. For more information, see [Instance Lifecycle](#) in the *Amazon EC2 User Guide for Linux Instances*, particularly [Stop and Start Your Instance](#) and [Terminate Your Instance](#).



**Note**

Amazon EC2 instances serve as the foundation for multiple AWS services. They can appear in the Amazon EC2 console Instances list even if they were started by other services. For example, Amazon Relational Database Service (Amazon RDS) instances run on Amazon EC2 instances. If you terminate an underlying Amazon EC2 instance, the service that started it might interpret the termination as a failure and restart the instance. For example, the AWS OpsWorks service has a feature called *auto healing* that restarts resources when it detects failures. In general, it is a best practice to delete resources through the services that started them.

Additionally, if you create Amazon EC2 instances from an Amazon Machine Image (AMI) that is backed by an instance store, check Amazon S3 for the related bundle. Deregistering an AMI does not delete the bundle. For more information, see [Deregistering Your AMI](#).

## Amazon Elastic Block Store volumes and snapshots

Most Amazon EC2 instances are configured so that their associated Amazon EBS volumes are deleted when they are terminated, but it is possible to set up an instance that preserves its volume and the data. Check the **Volumes** pane in the Amazon EC2 console for volumes that you don't need anymore. For more information, see [Deleting an Amazon EBS Volume](#) in the *Amazon EC2 User Guide for Linux Instances*.

If you have stored snapshots of your Amazon EBS volumes and no longer need them, you should delete them as well. Deleting a volume does not automatically delete the associated snapshots.

For more information about deleting snapshots, see [Deleting an Amazon EBS Snapshot](#).

**Note**

Deleting a snapshot might not reduce your organization's data storage costs. Other snapshots might reference that snapshot's data, and referenced data is always preserved.

For example, when you take the first snapshot of a volume with 10 GiB of data, the size of the snapshot is also 10 GiB. Because snapshots are incremental, the second snapshot that you take of the same volume contains only blocks of data that changed since the first snapshot was taken. The second snapshot also references the data in the first snapshot. That is, if you modify 4 GiB of data and take a second snapshot, the size of the second snapshot is 4 GiB. In addition, the second snapshot references the unchanged 6 GiB in the first snapshot. For more information, see [How Incremental Snapshots Work](#).

The previous example will show two entries in your daily AWS Cost and Usage Reports (AWS CUR). AWS CUR captures the snapshot usage amount for a single day. In this example, the usage is 0.33 GiB (10 GiB / 30 days) for snap-A, and 0.1333 GiB (4 GiB / 30 days) for snap-B. Using the rate of \$0.05 per GB month, snap-A costs you  $0.33 \text{ GiB} \times \$0.05 = \$0.0165$ . Snap-B costs you  $0.133 \text{ GiB} \times \$0.05 = \$0.0066$ , and you are charged \$0.0231 per day for both snapshots. For more information about AWS Cost and Usage Reports, see the [AWS Cost and Usage Reports user guide](#).

lineItem/ Operation	lineItem/ ResourceId	lineItem/ UsageAmount	lineItem/ UnblendedCost	resourceTags/ user:usage
CreateSnapshot	arn:aws:ec2:us-east-1:123:snapshot/snap-A	0.33	0.0165	dev
CreateSnapshot	arn:aws:ec2:us-east-1:123:snapshot/snap-B	0.133	0.0066	dev

If you delete the first snapshot (snap-A in the first row of the preceding table), any data that is referenced by the second snapshot (snap-B in the second row of the preceding table) is preserved. Remember that the second snapshot contains the 4 GiB of incremental data, and

references 6 GiB from the first snapshot. Once you delete snap-A, the size of snap-B becomes 10 GiB (4 changed GiB from the snap-B and 6 unchanged GiB from snap-A). In your daily AWS CUR, you will then see the usage amount for snap-B as 0.33 GiB (10 GiB / 30 days), charged at \$0.0165 per day. When you delete a snapshot, the charges for the remaining snapshots are recalculated daily, resulting in the possibility that the cost for each snapshot can change daily as well. For more information, see [Cost Allocation for EBS Snapshots](#).

lineItem/ Operation	lineItem/ ResourceId	lineItem/ UsageAmount	lineItem/ UnblendedCost	resourceTags/ user:usage
CreateSnapshot	arn:aws:ec2:us-east-1:123:snapshot/snap-B	0.33	0.0165	dev

## Elastic IP addresses

Any Elastic IP addresses that are attached to an instance that you terminate are unattached, but they are still allocated to you. If you don't need that IP address anymore, release it to avoid additional charges. For more information, see [Releasing an Elastic IP Address](#) in the *Amazon EC2 User Guide for Linux Instances*.

## Services launched by other services

A number of AWS services can launch resources, so be sure to check for anything that might have launched through any service that you've used.

## Storage services

When you are minimizing costs for AWS resources, keep in mind that many services might incur storage costs, such as Amazon RDS and Amazon S3.

# Managing your account

Use the procedures in this chapter to manage your account settings, your default currency, your alternate contacts, and more.

## Topics

- [Managing an AWS account \(p. 13\)](#)
- [Managing an account in India \(p. 18\)](#)
- [Closing an account \(p. 21\)](#)

## Managing an AWS account

You can use the Billing and Cost Management console to change account settings, including your contact and alternate contact information, the currency that you pay your bills in, the Regions that you can create resources in, and your tax registration numbers.

### Note

Some sections can only be edited by the AWS account root user. If you do not see the **Edit** option, switch to the root user.

## Topics

- [Editing Your Account name, root user password, and root user email address \(p. 13\)](#)
- [Editing contact information \(p. 14\)](#)
- [Adding, changing, or removing alternate contacts \(p. 14\)](#)
- [Enabling and disabling regions \(p. 15\)](#)
- [Updating and deleting tax registration numbers \(p. 16\)](#)
- [Turning on tax setting inheritance \(p. 16\)](#)
- [Managing your US tax exemptions \(p. 17\)](#)

## Editing Your Account name, root user password, and root user email address

To edit your account name, root user password, or email address, perform the following procedure. Email in this case refers to the AWS account root user email address. This is the email address you use to sign in.

### To edit your account name, root user password, or root user email address

1. Sign in to the **Account Settings** page in the Billing and Cost Management console at <https://console.aws.amazon.com/billing/home?#/account>.  
  
You can also find this by signing into the Billing and Cost Management console (<https://console.aws.amazon.com/billing/>), selecting your account name on the top right, and choose **Account**.
2. On the **Account Settings** page, next to **Account Settings**, choose **Edit**.
3. Next to the field to update, choose **Edit**.
4. After you have entered your changes, choose **Save changes**.
5. After you have made all of your changes, choose **Done**.

## Editing contact information

You can change the contact information associated with your account, including your mailing address, telephone number, and website address. To edit your contact information, perform the following procedure.

### To edit your contact information

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation bar in the upper-right corner, choose your account name (or alias), and choose **Account**.
3. Under **Contact Information**, choose **Edit**.
4. For the fields to change, enter your updated information and then choose **Update**.

#### Note

You can add an email address for billing in the **Alternate Contacts** section to have AWS send a copy of billing-related emails to that email address. For example, AWS sends your **Billing contact address** a message that your monthly bill is ready.

## Adding, changing, or removing alternate contacts

Alternate contacts allows AWS to contact another person about issues with your account, even if you're unavailable. The alternate contact doesn't have to be a specific person. You could instead add an email distribution list if you have a team that is responsible for managing billing, operations and security related issues. To add, change, or delete alternate contacts for your account, perform the following procedure.

### To add, update, or remove alternate contacts

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation bar in the upper-right corner, choose your account name (or alias), and choose **Account**.
3. Scroll down to the **Alternate Contacts** section and choose **Edit**.
4. For the fields to change, enter your updated information and choose **Update**.

## Examples for alternate contacts

We would reach out to each contact type in the following scenarios:

- **Billing** - When your monthly invoice is available, or your payment method needs to be updated. If your **Receive PDF Invoice By Email** is turned on in your **Billing preferences**, your alternate billing contact will receive the PDF invoices as well. Notifications can be from AWS Support, or other AWS service teams.
- **Operations** - When your service is, or will be, temporarily unavailable in one of more Regions. Any notification related to operations. Notifications can be from AWS Support, or other AWS service teams
- **Security** - When you have notifications from the AWS Security, AWS Trust and Safety, or AWS service teams. These notifications might include security issues or potential abusive or fraudulent activities on your AWS account. Notifications can be from AWS Support, or other AWS service teams concerning security related topics associated with your AWS account usage. Do not include sensitive information in the subject line or full name fields since this might be used in email communications to you.

## Enabling and disabling regions

AWS originally activates all new Regions by default, which allows your users to create resources in any Region. Now when AWS adds a Region, the new Region is deactivated by default. If you want your users to be able to create resources in a new Region, you activate the Region.

Note the following about activating and deactivating Regions:

### You can use IAM permissions to control access to Regions

IAM added three new permissions, which let you control which users can activate, deactivate, and list Regions. For more information, see [AWS Billing actions policies \(p. 126\)](#).

### Activating a Region is free

There is no charge to activate a Region. You're only charged for resources that you create in the new Region.

### Deactivating a Region removes access to resources in the Region

If you deactivate a Region that still includes AWS resources, such as Amazon EC2 instances, you can't access the resources in that Region. For example, you can't use the AWS Management Console or any programmatic method to view or change the configuration of any EC2 instances in that Region.

### Charges continue if you deactivate a Region

If you deactivate a Region that still includes AWS resources, charges for those resources (if any) continue to accrue at the standard rate. For example, if you deactivate a Region that contains Amazon EC2 instances, you still have to pay the charges for those instances even though the instances are inaccessible.

### Deactivate a Region isn't always immediately visible

If you deactivate a Region, the change takes time to become visible in all possible endpoints. Deactivating a Region can take between a few seconds to minutes to take effect.

### Existing Regions are active by default

The original Regions (the Regions that existed before we added the ability to activate and deactivate Regions) are all activated by default and can't be deactivated.

### Activating a Region takes a few minutes for most accounts

Activating a Region generally takes effect in a few minutes, although it can take longer for some accounts. If activating a Region takes longer than nine hours, sign in to the AWS Support Center and open a case with AWS Support.

Perform the applicable procedure:

- [Enable a Region \(p. 15\)](#)
- [Disable a region \(p. 16\)](#)

### To activate a Region

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation bar in the upper-right corner, choose your account name (or alias), and choose **Account**.
3. Under **AWS Regions**, next to the Region to activate, choose **Enable**.

Older Regions are activated by default.

4. In the dialog box, choose **Enable region**.

For more information about enabling a Region, including the permissions required, see [Managing AWS Regions](#).

### To deactivate a Region

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation bar in the upper-right corner, choose your account name (or alias), and choose **Account**.
3. Under **AWS Regions**, next to the Region to deactivate, choose **Disable**.

Not all Regions can be deactivated.

4. In the dialog box, for **To confirm disabling in this region**, enter **disable** and choose **Disable region**.

## Updating and deleting tax registration numbers

Use the following steps to update or delete one or more tax registration numbers.

### To update tax registration numbers

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Tax Settings**.
3. Under **Manage Tax Registration Numbers**, select the numbers to edit.
4. For **Manage Tax Registration**, choose **Edit**.
5. Update the fields to change and choose **Update**.

### To delete tax registration numbers

You can remove one or more tax registration numbers.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Tax Settings**.
3. Under **Manage Tax Registration Numbers**, select the tax registration numbers to delete.
4. For **Manage Tax Registration**, choose **Delete**.
5. In the **Delete tax registration** dialog box, choose **Delete**.

## Turning on tax setting inheritance

You can use your tax registration information with your member accounts by turning on your **Tax Settings Inheritance**. After you activate it, your tax registration information is added to your other AWS Organizations accounts, saving you the effort of registering redundant information. Tax invoices are processed with the consistent tax information, and your usage from member accounts will consolidate to a single tax invoice.

### Note

Tax inheritance settings are only available to accounts after a member account is added.

If you turn off tax inheritance, the member accounts revert to the account's original TRN setting. If there was no TRN originally set for the account, no TRN will be assigned.

Tax registration information includes:

- Business legal name
- Tax address
- Tax registration number
- Special exemptions (does not apply for US sales tax exemptions)

### To turn on tax setting inheritance

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Tax Settings**.
3. Under **Manage Tax Registration Numbers**, select **Enable Tax Settings Inheritance**.
4. Choose **Continue**.

## Managing your US tax exemptions

If your state is eligible, you can manage your US tax exemptions on the **Tax Settings** page. The documents you upload for the exemption are reviewed by AWS Support within 24 hours.

### To upload or add your US tax exemption

1. (Prerequisite) Ensure you have the IAM permissions to view the **Tax exemptions** tab on the **Tax Settings** page in the Billing console.  
  
For an example IAM policy, see [Allow IAM users to view US tax exemptions and create AWS Support cases \(p. 146\)](#).
2. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
3. In the navigation pane, choose **Tax Settings**.
4. Choose all of the accounts to add the tax exemption. Choose **Manage tax exemption** and select **Add tax exemption**.
  - a. If you're logged in as a linked account, you can add tax exemptions to only the linked account.
  - b. If you're logged in as a payer account, you can add tax exemptions to both payer and linked accounts.
5. Specify your exemption type and jurisdiction.
6. Upload certificate documents.
7. Review your information, and choose **Submit**.

Within 24 hours, AWS Support will notify you through a support case if they need additional information, or if any of your documents weren't valid.

Once the exemption is approved, you'll see it under the **Tax exemption** tab with an **Active** validity period.

You'll be notified through a support case contact if your exemption was rejected.

## Managing an account in India

If you sign up for a new account and choose India for your contact address, your user agreement is with Amazon Web Services India Private Limited (AWS India), a local AWS seller in India. AWS India manages your billing, and your invoice total is listed in rupees instead of dollars. After you create an account with AWS India, you can't change the country in your contact information.

If you have an existing account with an India address, your account is either with AWS or AWS India, depending on when you opened the account. To learn whether your account is with AWS or AWS India, see the procedure [Determining Which Company Your Account is With](#) (p. 18). If you're an existing AWS customer, you can continue to use your AWS account. You also can choose to have both an AWS account and an AWS India account, though they can't be consolidated into the same payment family. For information about managing an AWS account, see [Managing an AWS account](#) (p. 13).

If your account is with AWS India, follow the procedures in this chapter to manage your account. This chapter explains how to sign up for an AWS India account, edit information about your AWS India account, and add or edit your Permanent Account Number (PAN).

As part of the credit card verification during signup, AWS India charges your credit card 2 INR. AWS India refunds the 2 INR after verification is done. You might be redirected to your bank as part of the verification process.

### Topics

- [Determining which company your account is with](#) (p. 18)
- [Signing up for AWS India](#) (p. 18)
- [Managing your AWS India account](#) (p. 19)

## Determining which company your account is with

AWS services are provided by both AWS and AWS India. Use this procedure to determine which seller your account is with.

### To determine which company your account is with

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the page footer, look at the copyright notice. If the copyright is for Amazon Web Services, then your account is with AWS. If the copyright is for Amazon Internet Services Private Ltd., then your account is with AWS India.

## Signing up for AWS India

AWS India is a local seller of AWS. Use the following procedure to sign up for an AWS India account if your contact address is in India.

### To sign up for an AWS India account

If your contact address is in India and you want to open an account, you sign up with AWS India instead of AWS.

1. Go to <https://console.aws.amazon.com/>, and then choose **Sign In to the Console**.
2. On the **Sign In** page, type the email address that you want to use.
3. Under your email address, select **I am a new user**, and then choose **Sign in using our secure server**.



4. For each of the login credential fields, type your information, and then choose **Create account**.
5. For each of the contact information fields, type your information.
6. After you have read the customer agreement, select the terms and conditions check box, and then choose **Create Account and Continue**.
7. On the **Payment Information** page, enter the payment method that you want to use.
8. Under **PAN Information**, choose **No** if you do not have a Permanent Account Number (PAN) or want to add it later. If you have a PAN and want to add it now, choose **Yes**, and in the **PAN** field type your PAN.
9. Choose **Verify Card and Continue**. You must provide your CVV as part of the verification process. AWS India charges your card 2 INR as part of the verification process. AWS India refunds the 2 INR after verification is done.
10. For **Provide a telephone number**, type your phone number. If you have a phone extension, for **Ext**, type your phone extension.
11. Choose **Call Me Now**. After a few moments, a four-digit pin will appear on your screen.
12. Accept the automated call from AWS India. On your phone keypad, type the four-digit pin displayed on your screen.
13. Once the automated call verifies your contact number, choose **Continue to Select Your Support Plan**.
14. On the **Support Plan** page, select your support plan, and then choose **Continue**. After your payment method is verified and your account is activated, you receive an email confirming the activation of your account.

## Managing your AWS India account

Use the [Account Settings](#) and [Tax Settings](#) pages of the Billing and Cost Management console to perform the following tasks:

### To edit your user name, password, or email address

You can change the name, password, and email address associated with your AWS India account.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation bar in the upper-right corner, choose your account name (or alias), and choose **Account**.
3. Next to **Account Settings**, choose **Edit**.
4. Next to the field that you want to update, choose **Edit**.
5. After you have entered your changes, choose **Save changes**.
6. After you have made your changes, choose **Done**.

### To edit your contact information

You can change the contact information associated with your AWS India account, including your mailing address, telephone number, and website address. You cannot change your country.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation bar in the upper-right corner, choose your account name (or alias), and choose **Account**.
3. Under **Contact Information**, choose **Edit**.
4. For the fields that you want to change, type your updated information, and then choose **Update**.

### Note

You can choose to add an email address for billing in the **Alternate Contacts** section to have AWS India send a copy of billing-related emails to that email address. For example, AWS India sends a copy of your monthly bill to your Billing contact address.

### To add, update, or remove alternate contacts

You can add alternate contacts to your account. Alternate contacts enable AWS India to contact another person about issues with your account. This is even the case if you're unavailable.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation bar in the upper-right corner, choose your account name (or alias), and choose **Account**.
3. Scroll down to the **Alternate Contacts** section, and then choose **Edit**.
4. For the fields that you want to change, type your updated information, and then choose **Update**.

### To add or edit a PAN

You can add your Permanent Account Number (PAN) to your account and edit it.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Tax Settings**.
3. On the **Tax Settings** navigation bar, choose **Edit**.
4. For **Permanent Account Number (PAN)**, enter your PAN, and then choose **Update**.

### To remove a PAN

You can remove your Permanent Account Number (PAN) in your account.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Tax Settings**.
3. Choose the **Account ID** you want to remove the PAN from.
4. Choose **manage tax registration**.
5. Choose **Delete TRN**.

### To edit multiple PAN numbers

You can edit multiple Permanent Account Numbers (PANs) in your account.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Tax Settings**.
3. Under **Manage Tax Registration Numbers**, select the PAN numbers that you want to edit.
4. For **Manage Tax Registration**, choose **Edit**.
5. Update the fields that you want to change, and then choose **Update**.

### To edit multiple GST numbers

You can edit multiple Goods and Services Tax numbers (GSTs) in your account.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation pane, choose **Tax Settings**.
3. Under **Manage Tax Registration Numbers**, select the GST numbers that you want to edit or choose **Edit all**.
4. For **Manage Tax Registration**, choose **Edit**.
5. Update the fields that you want to change and choose **Update**.

### To view a tax invoice

You can view your tax invoices in the console.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation pane, choose **Bills**.
3. Under **Summary**, under **Credits and Tax Invoices**, choose **Tax Invoices**.
4. Choose an invoice hyperlink.

#### Note

The **Tax Invoices** is only visible if there are tax invoices available.

## Closing an account

This page highlights some key concepts for those considering closing your AWS account. If you have any questions throughout the process, you can contact your account representative or contact AWS Support for assistance. For more information about contacting AWS Support, see [Contacting AWS Support \(p. 8\)](#).

For details about closing your AWS Organizations accounts, see [Closing an AWS account](#) in the *AWS Organizations User Guide*.

### Topics

- [Considerations before you close your AWS account \(p. 21\)](#)
- [Troubleshooting errors when closing an AWS account \(p. 24\)](#)
- [Closing your AWS account \(p. 24\)](#)
- [Accessing your AWS account after closure \(p. 25\)](#)
- [After the post-closure period \(p. 25\)](#)

## Considerations before you close your AWS account

Before closing your AWS account, consider the following:

### Topics

- [Your agreement with AWS services \(p. 22\)](#)
- [AWS management console access \(p. 22\)](#)
- [Existing content and services still in use \(p. 22\)](#)
- [Your payment method \(p. 22\)](#)
- [Accounts protected by MFA \(p. 23\)](#)
- [On-Demand charges \(p. 23\)](#)

- [Domains registered with Amazon Route 53 \(p. 23\)](#)
- [Charges if you reopen your AWS account \(p. 23\)](#)
- [Closing a member account \(p. 24\)](#)
- [Cross-account access to the account you're closing \(p. 24\)](#)
- [Removing Amazon VPC peering connection \(p. 24\)](#)

## Your agreement with AWS services

Your closure of your AWS account serves as a notice to us that you want to terminate the AWS service customer agreement or other agreements with AWS services that governs your AWS account, solely with respect to the specific AWS account. If you reopen your AWS account during the *post-closure period* (that is, within 90 days after your account is closed), you agree that the same agreement terms will govern your access to and use of the service offerings through your reopened AWS account.

If you close the account that you're using for the AWS Firewall Manager administrator, AWS services and Firewall Manager handle the closure as follows:

AWS retains the policy data for the account for 90 days from the effective date of the administrator account closure. At the end of the 90 day period, AWS permanently deletes all policy data for the account.

- To retain findings for more than 90 days, you can archive the policies. You can also use a custom action with an EventBridge rule to store the findings in an S3 bucket.
- As long as AWS retains the policy data, when you reopen the closed account, AWS reassigns the account as the service administrator and recovers the service policy data for the account.

### Important

For customers in the AWS GovCloud (US) Regions:

- Before closing your account, back up and then delete your policy data and other account resources. You will no longer have access to them after you close the account.

## AWS management console access

Your access to the AWS Management Console for the closed AWS account is restricted. During the post-closure period, you can still sign in to your AWS account to view your past billing information and access AWS Support. You can't access any other AWS services or start any new AWS services in the closed account.

## Existing content and services still in use

Before you close your AWS account, we recommend that you retrieve the content that you want to keep and delete the remaining resources. For instructions on how to retrieve data and delete resources, see the documentation for that service.

After the post-closure period, any remaining content in your AWS account is deleted, and services that are still in use are terminated. For more information about the post-closure period, see [Accessing your AWS account after closure \(p. 25\)](#).

## Your payment method

We charge you through your designated payment method for any usage fees incurred before you closed your AWS account. We might issue you any refunds that are due through that same payment

method. If you have active subscriptions, even after your account is closed, you might continue to be charged for the subscription until the subscription expires or is sold according to the terms governing the subscription. If you're charged, you're charged through your designated payment method. This situation might apply to you if, for example, you have a Reserved Instance that you pay for on a monthly basis. These charges and refunds might occur after you close your account.

In addition, if you reopen your account, you might be charged for the cost of running AWS service services during the post-closure period. This is specifically for any services that you didn't terminate before closing your account.

**Important**

Closing your AWS account doesn't affect payment methods that you use on Amazon.com or other Amazon websites.

## Accounts protected by MFA

If you've turned on [multi-factor authentication \(MFA\)](#) on your AWS account root user, or configured an [MFA device on an IAM user](#), the MFA isn't removed automatically when you close the account. If you choose to leave the MFA turned on during the 90 days post-closure period, keep the virtual hardware MFA device active until the post-closure period expired in case you need to access the account during that time.

You have the option to [turn off the MFA device](#) before closing the account. MFA devices for [IAM users](#) must be deleted by the account administrator.

## On-Demand charges

During the post-closure period, billing for On-Demand charges stops. However, you're billed for any usage that has accrued up until the time you closed your account. You'll be charged for that usage at the beginning of the next month. In addition, if you purchased any subscriptions with ongoing payment obligations, you might continue to be charged for them after your account is closed.

**Important**

If you don't terminate your resources, you will continue to generate costs.

## Domains registered with Amazon Route 53

Domains that are registered with Route 53 are not deleted automatically. When you're closing your AWS account, you have three options:

- You can disable automatic renewal, and the domains are deleted when the registration period expires. For more information, see [Enabling or Disabling Automatic Renewal for a Domain](#) in the *Amazon Route 53 Developer Guide*.
- You can transfer the domains to another AWS account. For more information, see [Transferring a Domain to a Different AWS account](#).
- You can transfer the domains to another domain registrar. For more information, see [Transferring a Domain from Route 53 to Another Registrar](#).

If you already closed the account, you can open a case with AWS Support to get help with disabling automatic renewal or transferring your domains. For more information, see [Contacting AWS Support About Domain Registration Issues](#). There is no charge to open a case for domain registration issues.

## Charges if you reopen your AWS account

If you reopen your AWS account during the post-closure period, you might be billed for the cost of any AWS services that aren't terminated before you closed your account.

## Example

You reopen your AWS account 30 days after closure, and your AWS account had only an active t-example.example Amazon EC2 instance at closure. The price for a t-example.example Amazon EC2 instance in your AWS Region is \$0.01 each hour. In this case, you might be charged for 30 days x 24 hours x \$0.01 per hour = \$7.20 for your AWS services.

## Closing a member account

When you close an account that was created with AWS Organizations, that account isn't removed from the organization until after the post-closure period. During the post-closure period, a closed member account still counts toward your quota of accounts in the organization.

To avoid having the account count against the limit, remove member accounts from the organization before closing it. For more information, see [Closing an AWS account](#) in the *AWS Organizations User Guide*.

## Cross-account access to the account you're closing

After you close your AWS account, any access requests to your closed account's AWS service services from other AWS accounts fail. This occurs even if you have granted the other accounts permission to access your account's AWS services. If you reopen your AWS account, other AWS accounts can access your account's AWS services if you have granted the other accounts the necessary permissions.

## Removing Amazon VPC peering connection

AWS services currently doesn't delete Amazon VPC peering connections when you close one of the accounts participating in the VPC peering connection. Any traffic that's destined for the VPC peering connection and originates from other active accounts is dropped. This is because AWS services terminates instances and deletes any security groups in the closed account. To remove the VPC peering connection, you can delete it from your account using the Amazon VPC console, AWS CLI, or Amazon EC2 API.

## Troubleshooting errors when closing an AWS account

If you receive an error message while trying to close your AWS account, you can contact your account representative or contact us to open a billing or account support case. Common reasons why you can't close your AWS account include the following situations:

- Your account is the management account of an organization in AWS Organizations with open member accounts.
- You have unpaid invoices for your account.
- You aren't signed in to the account as the root user.
- You are an active AWS Marketplace seller.

## Closing your AWS account

You can close your AWS account using the following procedure.

### To close your AWS account

1. Open the Billing and Cost Management console at <https://console.aws.amazon.com/billing/home#/>.

2. On the navigation bar in the upper-right corner, choose your account name (or alias), and choose **Account**.
3. Scroll to the end of the page to the **Close Account** section. Read and ensure that you understand the text next to the check box. After you close an AWS account, you can no longer use it to access AWS services.

If the account has a [multi-factor authentication \(MFA\)](#) device turned on, keep your MFA device until the 90 day post-closure period expires, or [turn off](#) before closing the account.

4. Select the check box to accept the terms, and choose **Close Account**.
5. In the confirmation box, choose **Close Account**.

## Accessing your AWS account after closure

After you close an AWS account following the process described in the preceding steps, you can no longer use it to access AWS services. However, during the Post-Closure Period, which are the 90 days after your account is closed, you can still view your AWS account's past billing information and access [AWS Support](#). Your Amazon EC2 instances can be stopped after your account has been closed. If you reopen your account, you might need to restart your Amazon EC2 instances.

During the Post-Closure Period, AWS services might retain any content that you didn't delete and any AWS services that you didn't terminate before you closed your AWS account. You can access any remaining content or AWS services only by reopening your account during the Post-Closure Period. You can reopen your AWS account by contacting [AWS Support](#). If you choose to reopen your account, you can access the content that you didn't delete and AWS services that you didn't terminate before closing your account. However, you might be charged for the cost of running those AWS services during the Post-Closure Period. You can estimate the cost of running AWS services using the [AWS Pricing Calculator](#) in the *AWS Pricing Calculator User Guide*.

## After the post-closure period

After the Post-Closure Period, we permanently close your AWS account, and you can't reopen it. Any content that you didn't delete is deleted, and any AWS services that you didn't terminate are terminated. Service attributes can be retained as long as needed for billing and administration purposes. You also can't create a new AWS account using the same alias or email address that was registered to your AWS account at the time of its closure.

If you close the account that you're using for the AWS Firewall Manager administrator, AWS and Firewall Manager handle the closure as follows:

AWS retains the policy data for the account for 90 days from the effective date of the administrator account closure. At the end of the 90 day period, AWS permanently deletes all policy data for the account.

- To retain findings for more than 90 days, you can archive the policies. You can also use a custom action with an EventBridge rule to store the findings in an S3 bucket.
- As long as AWS retains the policy data, when you reopen the closed account, AWS reassigns the account as the service administrator and recovers the service policy data for the account.

### Important

For customers in the AWS GovCloud (US) Regions:

- Before closing your account, back up and then delete your policy data and other account resources. You will no longer have access to them after you close the account.

# Using the AWS Billing console dashboard

You can use the dashboard page of the AWS Billing console to gain a general view of your AWS spending. You can also use it to identify your highest cost service or Region and view trends in your spending over the past few months. You can use the dashboard page to see various breakdowns of your AWS usage. This is especially useful if you're a Free Tier user. To view more details about your AWS costs and invoices, choose **Billing details** in the left navigation pane. You can customize your dashboard layout at any time by choosing the gear icon at the top of the page to match your use case.

Viewing your AWS costs in the AWS Billing console dashboard doesn't require turning on Cost Explorer. To turn on Cost Explorer to access additional views of your cost and usage data, see [Enabling AWS Cost Explorer](#).

## To open the AWS Billing console and dashboard

- Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.

By default, the console shows the **AWS Billing Dashboard** page.

## Understanding your dashboard page

Your AWS Billing console dashboard contains the following sections. To create your preferred layout, drag and drop sections of the **Dashboard** page. To customize the visible sections and layout, choose the gear icon at the top of the page. These preferences are stored for ongoing visits to the **Dashboard** page. To temporarily remove sections from your view, choose the x icon for each section. To make all sections visible, choose refresh at the top of the page.

### AWS summary

This section is an overview of your AWS costs across all accounts, AWS Regions, service providers, and services, and other KPIs. **Total compared to prior period** displays your total AWS costs for the most recent closed month. It also provides a comparison to your total forecasted costs for the current month. Choose the gear icon on the card to decide which KPIs you want to display.

### Highest cost and usage details

This section shows your top service, account, or AWS Region by estimated month-to-date (MTD) spend. To choose which to view, choose the gear icon on the top right.

### Cost trend by top five services

In this section, you can see the cost trend for your top five services for the most recent three to six closed billing periods.

You can choose between chart types and time periods on the top of the section. You can adjust additional preferences using the gear icon.

The columns provide the following information:

- **Average:** The average cost over the trailing three months.



- **Total:** The total for the most recent closed month.
- **Trend:** Compares the **Total** column with the **Average** column.

#### Account cost trend

This section shows the cost trend for your account for the most recent three to six closed billing periods. If you're a management account of AWS Organizations, the **cost trend by top five section** shows your top five AWS accounts for the most recent three to six closed billing periods. If invoices weren't already issued, the data isn't visible in this section.

You can choose between chart types and time periods on the top of the section. Adjust additional preferences using the gear icon.

The columns provide the following information:

- **Average:** The average cost over the trailing three months.
- **Total:** The total for the most recent closed month.
- **Trend:** Compares the **Total** column with the **Average** column.

## Understanding your dashboard (old console)

On the dashboard, you can view the following graphs:

- **Spend Summary**
- **Month-to-Date Spend by Service**
- **Month-to-Date Top Services by Spend**

#### Spend Summary

The **Spend Summary** graph shows you how much you spent last month, the estimated costs of your AWS usage for the month-to-date, and a forecast for how much you are likely to spend this month. The forecast is an estimate that's based on your past AWS costs. Therefore, your actual monthly costs might not match the forecast.

#### Month-to-Date Spend by Service

The **Month-to-Date Spend by Service** graph shows the top services that you use most and the proportion of your costs that service contributed to. The **Month-to-Date Spend by Service** graph doesn't include forecasting.

#### Month-to-Date Top Services by Spend

The **Month-to-Date Top Services by Spend** graph shows the services that you use most, along with the costs incurred for the month to date. The **Month-to-Date Top Services by Spend** graph doesn't include forecasting.

#### Note

The Billing and Cost Management console has a refresh time of approximately 24 hours to reflect your billing data.

# Viewing your bill

You receive AWS invoices monthly for usage charges and recurring fees. For one-time fees, such as fees for purchasing an All Upfront Reserved Instance, you are charged immediately.

At any time, you can view estimated charges for the current month and final charges for previous months. This section describes how to view your monthly bill and past bills and how to receive and read billing reports.

## Topics

- [Viewing your monthly charges \(p. 28\)](#)
- [Getting an invoice emailed to you \(p. 31\)](#)
- [Cost and Usage Reports](#)
- [Managing Your Payments \(p. 32\)](#)

## Viewing your monthly charges

At the end of a monthly billing period, or when you incur a one-time fee, AWS issues an invoice as a PDF file. If you're paying by credit card, AWS also charges the credit card you have on file at this time. This section shows how you can use the **Bills** page in your AWS Billing console to download invoices and view your monthly charge details.

### Note

IAM users need explicit permission to see some of the pages in the Billing and Cost Management console. For more information, see [Overview of managing access permissions \(p. 124\)](#).

## Understanding your bills page

### Bills page

You can use the **Bills** page in your AWS Billing console to see your monthly chargeable costs, along with details of your AWS services and purchases made through AWS Marketplace. Invoices are generated when a monthly billing period closes (marked as **Issued** billing status), or when subscriptions or one-time purchases are made. For monthly billing periods that haven't closed (marked as **Pending** billing status), this page shows the most recent estimated charges based on your AWS services metered to date.

If you're logged in as the management account of your AWS Organizations, you can see the consolidated charges for all of your member accounts. By using the **charges by account** tab, you can also view account level details.

If you're an AWS Billing Conductor user, logged in as a management account, you can turn on a [pro forma](#) view by choosing the gear icon on the top of the page. Choose **View billing period** to specify your billing period.

To customize the visible sections, choose the gear icon at the top of the page. These preferences will be stored for ongoing visits to the **Bills** page.

### AWS bill summary

The **AWS bill summary** section shows an overview of your monthly charges. The information shows your invoice totals for the closed billing periods, marked as **Issued** status.

Billing periods that haven't closed are marked as **Pending** status. The totals show the most recent estimated charges based on your AWS services metered to date. Totals are shown in US dollars (USD). If your invoices are issued in another currency, the total in the other currency is also shown.

### Payment information

The **Payment information** section lists invoices for the selected billing period that AWS received payments for. The section lists the service provider, charge types, document types, invoice IDs, payment status, the date AWS received the payments, and the total amount in USD. If your invoices are issued in another currency, the total in the other currency is also shown. For more information, see [Managing Your Payments \(p. 32\)](#).

### Highest cost

The **highest cost** section identifies your account's service and Region with the highest cost for the billing period, and shows the month-over-month trends for each. For pending billing periods, the month-over-month trend compares the month-to-date spend in the current billing period with the equivalent portion of the previous billing period.

### Invoiced charges

The **invoiced charges** section lists the invoices for each service provider you transacted with during the selected billing period. This section includes details such as charge type, invoice date, and total in USD. If your invoices are issued in another currency, the total in the other currency is also shown. Choose the **Invoice ID** to view and download a PDF format for individual invoices.

The **tax invoices** section lists tax invoices and other supplemental documents for the selected billing period. Not all service providers issue tax invoices. The **invoice ID** column shows the associated commercial invoice associated with that tax invoice. Choose **document ID** to view and download a PDF format for individual invoices.

### Savings

The **Savings** section summarizes your savings during the billing period as the outcome of Savings Plans, credits, or other discount programs. These savings are also reflected in the **charges by service**, **charges by account**, and **invoiced charges** section. Choose each savings type to see the details by service.

### Charges by services

The **Charges by services** section shows your spend in each AWS service. You can sort by **service name** or **amount in USD**, and filter by **service name**. Choose the + icon next to each service to see the charges for that service by **Region**. Choose a **Region** to see charge details.

### Charges by account

If you use AWS Organizations and logged into your management account, the **Charges by account** section shows the spend of each of your member accounts. You can sort by **account ID**, **account name**, or **amount in USD**, and filter by account ID or account name. Choose the + icon next to each account to see charges for that account by service provider. Choose the + icon next to each line item to see charges by service and Region. Choose a **Region** to see charge details.

### Taxes by service

The **taxes by service** section shows the pre-tax, tax, and post-tax charges for each service that was charged taxes. You can sort by **service name**, **post-tax charge**, **pre-tax charge**, or **tax in USD**, and filter by service name.

### To access your monthly charges

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.

2. In the navigation pane, choose **Bills**.
3. Choose **Select billing period** on the top right to specify the billing period month.

## Viewing your monthly charges (old console)

### To view your monthly charges

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Bills**.
3. For **Date**, choose a month.

The **Summary** section displays a summary and details of your charges for that month. It is not an invoice, however, until the month's activity closes and AWS calculates final charges.

If you use the consolidated billing feature in AWS Organizations, the **Bills** page lists totals for all accounts on the **Consolidated Bill Details** tab. Choose the **Bill Details by Account** tab to see the activity for each account in the organization. For more information about consolidated billing, see [Consolidated billing for AWS Organizations \(p. 106\)](#).

### To download a copy of your charges as a PDF document

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the **Bills** page, select a month from the **Select billing period**.
3. Under the **AWS bill summary** section, confirm that the **bill status** is showing as **Issued**.
4. Choose the **Invoiced charges** tab.
5. Choose the **Invoice ID** of the document you want to download.
6. (For service providers other than AWS EMEA SARL) To download a copy of a particular tax invoice, choose the **Document ID** in the **Tax Invoices** section.
7. (For AWS EMEA SARL) To download a copy of a particular tax invoice, choose the **Document ID** in the **AWS EMEA SARL charges** section.

## Downloading a copy of your charges as a PDF document (old console)

### To download a copy of your charges as a PDF document

1. On the **Bills** page, select a month from the **Date** list for which all activity is closed.
2. Under **Total**, choose **Amazon Web Services, Inc. - Service Charges**.
3. Choose **Invoice <invoiceID>**.
4. (For entities other than AWS EMEA SARL) To download a copy of a particular tax invoice, choose the **Invoice <invoiceID>** in the **Tax Invoices** section.
5. (For AWS EMEA SARL) To download a copy of a particular tax invoice, choose the **Invoice <invoiceID>** in the **Amazon Web Services EMEA SARL – Service Charges** section.

You can download CSV files for any future billing once you turn on reports.

### To download a monthly report

1. Turn on monthly reports by choosing **Billing preferences** in the navigation pane.

2. Under **Detailed Billing Reports**, select **Turn on the legacy Detailed Billing Reports feature to receive ongoing reports of your AWS charges**.
3. Choose **Configure** to specify where your reports will be delivered to.
  - Under **Select existing bucket**, choose an existing Amazon S3 bucket name as your report destination.
  - If you prefer to create a new Amazon S3 bucket to deliver reports to, enter an **Amazon S3 bucket name** and **Region** under **Create a bucket**.
    - a. Choose **Next**.
    - b. Verify your IAM policy and select **I have confirmed that this policy is correct**.
    - c. Choose **Save**.
4. Choose **Save preferences**.
5. On the **Bills** page, choose **Download all to CSV**.

## Getting an invoice emailed to you

Follow these steps to have a PDF copy of your monthly invoice sent to the email address associated with your account.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. Choose **Billing preferences** on the navigation pane.
3. Select the **Receive PDF Invoice by Email** check box.
4. Choose **Save preferences**.

The monthly invoices are sent to the account's root user and the alternate billing contact. To edit the root user email address, see [Editing Your Account name, root user password, and root user email address \(p. 13\)](#). To add or update the alternate billing contact, see [Adding, changing, or removing alternate contacts \(p. 14\)](#).

# Managing your payments

To open an AWS account, you must have a valid payment method on file. Use the procedures in this section to add, update, or remove payment methods and to make payments.

## Topics

- [Managing your AWS payments](#) (p. 32)
- [Managing your payments in India](#) (p. 42)
- [Managing your payments in AWS Europe](#) (p. 44)
- [Managing your Advance Pay](#) (p. 50)
- [Managing your payment profiles](#) (p. 52)

## Managing your AWS payments

You can use the [Payment preferences](#) page of the AWS Billing console to manage your AWS payment methods and the [Payments](#) page on the Billing and Cost Management console to manage your payments.

## Topics

- [Managing your AWS payment preferences](#) (p. 32)
- [Making payments, checking unapplied funds, and viewing your payment history](#) (p. 34)
- [Managing your credit card payment methods](#) (p. 36)
- [Managing your ACH direct debit payment methods](#) (p. 37)
- [Managing your AWS payments in CNY](#) (p. 38)

## Managing your AWS payment preferences

You can use the [Payment preferences](#) page of the AWS Billing console to perform the following tasks for all payment types:

## Topics

- [View your payment methods](#) (p. 32)
- [Designate a default payment method](#) (p. 33)
- [Remove a payment method](#) (p. 33)
- [Changing the currency to pay your bill](#) (p. 33)
- [Adding additional billing contact email addresses](#) (p. 34)

In addition, you can use the [Payment preferences](#) page of the AWS Billing console to manage your credit cards and direct debit accounts. For more information, see [Managing your credit card payment methods](#) (p. 36) and [Managing your ACH direct debit payment methods](#) (p. 37).

## View your payment methods

You can use the console to view the payment methods that are associated with your account.

### To view payment methods associated with your AWS account

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.

Payment methods associated with your AWS account are listed in the **Payment method** section.

## Designate a default payment method

You can use the console to designate a default payment method for your AWS account.

### To designate a default payment method

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.

Payment methods associated with your AWS account are listed in the **Payment method** section.

3. Next to the payment method that you want to use as your default payment method, choose **Set as default**.

#### Note

More information or actions might be required, depending on your payment method. Additional actions might include completing your tax registration information or choosing a supported payment currency.

## Remove a payment method

You can use the console to remove a payment method from your account.

### To remove a payment method from your AWS account

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.
3. Ensure that your account has another valid payment method set as the default.
4. Select a payment method to remove, and choose **Delete**.
5. In the **Delete payment method** dialog box, choose **Delete**.

## Changing the currency to pay your bill

To change the currency that you use to pay your bill, for example, from Danish kroner to South African rand, perform the following procedure.

### To change the local currency associated with your account

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation bar in the upper-right corner, choose your account name (or alias), and choose **Account**.
3. In the navigation pane, choose **Payment preferences**.
4. In the **Default payment preferences** section, choose **Edit**.
5. On the **Payment currency** section, choose the payment currency you want to use.
6. Choose **Save changes**.

## Adding additional billing contact email addresses

Use additional billing contacts to contact another person about billing related items impacting your AWS accounts. Additional billing contacts will be contacted with the root account contact and alternate billing contact about billing events.

### To add additional billing contacts to your account

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.
3. In the **Default payment preferences** section, choose **Edit**.
4. For **Billing contact email**, enter the additional billing contact emails you want AWS to send billing related emails to.
5. Choose **Save changes**.

## Making payments, checking unapplied funds, and viewing your payment history

You can use the **Payments** page of the AWS Billing and Cost Management console to perform the following tasks for all payment types:

- [Make a payment](#)
- [View outstanding invoices](#)
- [View unapplied funds](#)
- [View payment history](#)

## Make a payment

AWS charges your default payment method automatically at the beginning of each month. If that charge doesn't process successfully, you can use the console to update your payment method and make a payment.

### Note

If you pay by ACH direct debit, AWS provides you with your invoice and initiates the charge to your payment method within 10 days of the start of the month. It can take 3–5 days for your payment to succeed. For more information, see [Managing your ACH direct debit payment methods \(p. 37\)](#).

Before making a payment, ensure that the payment method that you want automatically charged in the future is set as your default payment method. If you are using a credit card, confirm that your credit card has not expired. For more information, see [Designate a default payment method \(p. 33\)](#) and [Managing your credit card payment methods \(p. 36\)](#).

### To make a payment

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.

The **Payments due** table lists all outstanding invoices. If there are no invoices listed, you don't need to take action at this time.

3. If there are outstanding invoices, select the invoice you want to pay in the **Payments due** table, and then choose **Complete payment**.



4. On the **Complete a payment** page, your default payment method is selected if it is eligible for you to use to pay the invoice. If you want to use a different payment method or choose an eligible payment method, choose **Change**.
5. Confirm that the summary matches what you want to pay, and choose **Verify and pay**.

After your bank processes your payment, you're redirected to the **Payments** page.

If you pay by ACH direct debit, and you receive an email from AWS saying that AWS can't charge your bank account and will try again, work with your bank to understand what went wrong.

If you receive an email saying that AWS failed the last attempt to charge your bank account, select the invoice to pay in the **Payments due** table. Then choose **Complete payment** to pay the invoice. If you have questions about issues with charging your bank account or paying an overdue balance, create a case in the [Support Center](#).

If you pay by electronic funds transfer and your account payment is overdue, create a case in the [Support Center](#).

## View outstanding invoices, unapplied funds, and payment history

You can search and filter the **Payments due**, **Unapplied funds**, and **Payment history** tables described in the following procedures. Choose the gear icon to change the default columns and customize other table settings. Download items individually by choosing the appropriate ID, or choose **Download**, and then **Download CSV** to download a CSV file of the table for reporting purposes.

### To view outstanding invoices

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.
3. Choose the **Payments due** tab to view the **Payments due** table.

The **Payments due** table lists all your outstanding invoices.

The table includes the following statuses:

- **Due** – Outstanding invoices with an approaching due date.
- **Past due** – Outstanding invoices where a payment has not been made by the due date.
- **Scheduled** – Invoices with an upcoming scheduled payment.
- **Processing** – Invoices for which we are currently scheduling a payment.

### To view unapplied funds

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.
3. Choose the **Unapplied funds** tab to view the **Unapplied funds** table.

The **Unapplied funds** table lists of all unapplied funds and credit memos.

### To view payment history

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.

3. Choose the **Transactions** tab to view the **Transactions** table.

The **Transactions** table lists all completed transactions with AWS.

## Managing your credit card payment methods

You can use the [Payment preferences](#) page of the AWS Billing console to perform the following credit card tasks:

- [Add a credit card](#) (p. 36)
- [Update your credit card](#) (p. 36)
- [Confirm credit card information](#) (p. 36)
- [Use a Chinese yuan credit card](#) (p. 40)

### Add a credit card

You can use the console to add a credit card to your account.

#### To add a credit card to your AWS account

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose [Payment preferences](#).
3. Choose **Add payment method**.
4. Enter the credit card information.

To designate this card as the default payment method, choose **Set as default payment method**.

5. Enter your card billing address.
6. Choose **Add card**.

### Update your credit card

You can update the name, address, or phone number that is associated with your credit card.

#### Note

When you add or update your credit card, AWS charges any unpaid invoices from the previous month to the new card.

#### To update your credit card

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.

Payment methods associated with your AWS account are listed in the **Payment methods** section.

3. Select the credit card that you want to edit, and choose **Edit**.
4. Update the information that you want to change.
5. At the bottom on the page, choose **Update**.

### Confirm credit card information

To make a payment, you must have a valid, unexpired credit card on file.

### To confirm that your credit card is up to date

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.
3. Ensure that the **Expires On** date for your card is in the future. If your card has expired, add a new card or update your current card.

## Managing your ACH direct debit payment methods

If you meet the eligibility requirements, you can add a US bank account as an ACH direct debit payment method to your payment methods.

To be eligible, your AWS account must meet the following requirements:

- It is an Amazon Web Services customer.
- It is at least 60 days old.
- It has paid at least one invoice in full in the previous 12 months.
- It has paid at least \$100 cumulative over the previous 12 months.
- It uses USD as the preferred currency.

If you pay by ACH direct debit, AWS provides you with your invoice and initiates the charge to your payment method within 10 days of the start of the month. It can take up to 20 days for the payment to complete successfully, even if the payment shows as **Succeeded** on the AWS Billing console.

You can use the [Payment Methods](#) page of the AWS Billing console to add or update a direct debit account.

### To add a direct debit account to your AWS payment methods

You can use the AWS Billing console to add a direct debit account to your AWS payment methods. You can use any personal or business bank account, provided that the account is located at a branch in the US.

To add an ACH direct debit account, you must have the following information ready:

- A US bank account number
- A US bank account routing number
- The address that the bank associates with the account
- (For a personal bank account) A US driver's license number or state-issued ID number
- (For a business bank account) A Federal tax ID number

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose [Payment preferences](#).
3. Choose **Add payment method**.
4. Choose **Bank account (ACH)**.
5. For **Bank account type**, choose either **Personal** or **Business**.
6. For **Name on account**, enter the name of the principal account holder.
7. For **Bank Routing Number**, enter the nine-digit routing number.

Routing numbers are always nine digits long. Some banks list the routing number first on a check, and other banks list the account number first.

8. For **Bank Account Number**, enter the account number. Account numbers might have up to 17 digits. The account must be an ACH-enabled checking account at a bank located in the US.
9. (Personal) For **Driver's License Number**, enter the primary account holder's valid US driver's license or state-issued ID number.

For **State**, enter the name of the state where the ID was issued.

10. (Business) For **Tax ID**, enter the Federal tax ID for the business.
11. For **Set as default payment method**, select whether you want this direct debit account to be your default payment method.
12. For **Billing Address information**, enter the valid US billing address of the primary account holder.
13. Choose **Add bank account** to agree to the **Terms and Conditions** and add your direct debit account.

### To update your direct debit account

You can update the name, address, or phone number associated with your direct debit account.

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.

Payment methods associated with your AWS account are listed in the **Payment method** section.

3. Select the direct debit account that you want to edit, and choose **Edit**.
4. Update the information that you want to change.
5. At the bottom of the dialog box, choose **Save changes**.

## Managing your AWS payments in CNY

You can make payments using the Chinese yuan currency if you're an AWS Inc. customer.

### Using the China bank redirect payment method

If you're a customer based in China, you can use the China bank redirect payment method to complete payments. To do this, you must have Chinese yuan payments activated and set as your preferred currency. With the China bank redirect method, you can make payments in Chinese yuan for AWS Inc.

#### Topics

- [Requirements for using China bank redirect payments \(p. 38\)](#)
- [Setting up China bank redirect payments \(p. 39\)](#)
- [Making payments using China bank redirect \(p. 39\)](#)
- [Switching from China bank redirect to Pay by invoice \(p. 40\)](#)

### Requirements for using China bank redirect payments

To use China bank redirect as your payment method, your account must meet the following requirements:

- Your account must be an Amazon Web Services, Inc. customer.
- You must have Chinese yuan payments activated.
- You must have Chinese yuan set as your preferred currency.

## Setting up China bank redirect payments

To use China bank redirect as your payment method, you must activate Chinese yuan payments on the AWS Billing console.

To activate Chinese yuan payments, you must submit information for identity verification. For a personal account, you need your national ID number for verification. For a business account, you must have the following information:

- Your uniform social credit code or organization code
- Your business license image

After you gathered the required information, use the following procedure to change your preferred currency to Chinese yuan and to set up China bank redirect payments.

### To activate Chinese yuan payments and set up the China bank redirect payment method

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment methods**.
3. In the **Pay with Chinese yuan** section, choose **Get started** or **Pay in Chinese yuan**.
4. Review the **Terms and Conditions for Chinese Yuan Payments**. Then, select **I have read and agree to the Terms and Conditions for Chinese Yuan Payments**.
5. Choose **Next**.
6. If you have a personal account:
  - For **Full name**, enter your full name in Chinese.
  - For **Identity card number**, enter your national ID number.

If you have a business account:

- For **Company name**, enter the company name in Chinese.
- For **Contact name**, enter the contact name in Chinese.
- For **Contact phone number**, enter the contact phone number for your company.
- For **Uniform social credit code or organization code**, enter your company's code.
- For **Company business license**, upload the image of your company's business license.

#### Note

If applicable to your account, you might be required to add a China UnionPay credit card. For more information, see [Use a Chinese yuan credit card \(p. 40\)](#).

7. Choose **Next**.
8. Review the identity information that you entered. Then, choose **Submit**.

It can take up to one business day to verify your identity information. After your identity is successfully verified, your default currency automatically changes to Chinese yuan. Additionally, the China bank redirect payment method is made available to you in the **Pay with Chinese yuan** section of the **Payment Methods** console page.

## Making payments using China bank redirect

After setting up the payment method, you can use China bank redirect to make payments on your invoices.

### To pay invoices using China bank redirect

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.
3. Select the invoice that you want to pay, and then choose **Complete payment**.
4. For **Select payment option**, choose **China bank redirect**.
5. For payments that are more than \$50,000, you must confirm that you fulfilled the applicable tax and surcharge withholding obligations. To do so, select **I confirm that I fulfilled the Chinese tax and surcharge withholding obligations according to Chinese tax laws and regulations**.
6. Choose **Verify and pay**.
7. To proceed with the redirect, choose **OK**.

After you're redirected, choose your bank from the dropdown menu and complete your payment on your bank's website. It can take up to 24 hours for your transaction request to process.

### Switching from China bank redirect to Pay by invoice

To change your default payment method to Pay by invoice, follow these steps.

#### To switch to the Pay by invoice method

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment methods**.
3. In the **Pay by invoice** section, choose **Make default** next to the default payment method that you want to use.
4. In the **Change your payment method and currency** dialog box, choose **Yes, I want to proceed**.

After you change your payment method, your preferred currency defaults to US dollars. To change your preferred currency back to Chinese yuan, choose **Make default** next to the China bank redirect payment method. To change your preferred currency to another supported currency, see [Changing the currency to pay your bill](#) (p. 33).

### Use a Chinese yuan credit card

If you have an account with AWS Inc., are charged in USD, and are based in China, you can use the following sections to add a Chinese yuan (CNY) credit card to your account.

You can use the **Payment Methods** page of the AWS Billing console to perform the following tasks:

- [the section called "Set up a Chinese yuan credit card"](#) (p. 40)
- [the section called "Switch from a Chinese yuan credit card to an international credit card"](#) (p. 41)
- [the section called "Add a new Chinese yuan credit card"](#) (p. 41)

### Set up a Chinese yuan credit card

To change your preferred currency to CNY and add a credit card, you must have the following information:

- National ID number
- Business license number (if applicable)

- Business license image (if applicable)

After you have the required information, you can use the following procedure to change your preferred currency and add your first Chinese credit card.

### To add your first Chinese credit card

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment methods**.
3. Choose **Pay with Chinese yuan**.
4. In the **Setting up Chinese yuan payment** dialog box, read the **Terms and Conditions for Chinese yuan payments**, select **I've already read and agree to the above terms and conditions**, and choose **Next**.
5. For **Verify customer identity**, provide the following information:
  - **National ID name**
  - **Contact number**
  - (Business only) **Company Name**
  - **National ID number**
  - (Business only) **Business License number**
  - (Business only) **Business License image**

After you have provided the required information, choose **Next**.

6. For **Add a China Union Pay credit card**, for the credit card fields, enter the information about the card and bank.
7. Choose **Get Code**, enter the provided code, and choose **Next**.
8. Review your information, select **I have confirmed that the provided information is accurate and valid**, and choose **Submit**.

It can take up to one business day to verify your customer information. AWS emails you after your information is fully verified.

### Switch from a Chinese yuan credit card to an international credit card

To switch from a Chinese yuan credit card to an international credit card, you must change your preferred currency. You can use the following procedure to change your default payment method and preferred currency at the same time.

### To change your default payment methods and currency

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment methods**.
3. Next to the international credit card that you want to use as your default payment method, choose **Make Default**.
4. In the dialog box, for **Select payment currency**, choose the currency that you want to use. Then choose **Yes, I want to proceed**.

### Add a new Chinese yuan credit card

Use the following procedure to add other Chinese yuan credit cards.

### To add another Chinese credit card

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment methods**.
3. Choose **Add a Chinese yuan credit card**.
4. For the credit card boxes, enter the information about the card and bank.
5. Choose **Get Code**, enter the provided code, and choose **Continue**.

If you have questions about payments or payment methods, see [Getting help with AWS Billing and Cost Management \(p. 8\)](#).

## Managing your payments in India

If your account is with AWS India, follow the procedures in this section to manage your payment methods and payments and to verify credit or debit card payments with your bank. To learn whether your account is with AWS or AWS India, see the procedure [Determining Which Company Your Account is With \(p. 18\)](#).

### Note

If you have questions about payment methods, see [Getting help with AWS Billing and Cost Management \(p. 8\)](#).

### Topics

- [Supported payment methods \(p. 42\)](#)
- [Add a net banking account \(p. 42\)](#)
- [Make a payment using a credit or debit card \(p. 43\)](#)
- [Make a payment using net banking \(p. 43\)](#)
- [Remove a net banking account \(p. 43\)](#)

## Supported payment methods

AWS supports Visa, Mastercard, and American Express credit and debit cards for AWS India accounts. You can also use internet banking (net banking) accounts to pay for AWS India invoices.

## Add a net banking account

You can use the console to add internet banking (net banking) accounts as your payment method. This payment option is available to all AWS India customers.

### To add a net banking account to your AWS India account

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.
3. Choose **Add payment method**.
4. Choose **Net Banking**.
5. Under **Net Banking information**, select your bank name,
6. In the **Billing Address Information** section, enter your name, billing address, and phone number.



7. Choose **Create**.

## Make a payment using a credit or debit card

You can use the console to pay your AWS India bills.

### To pay your AWS India bill

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.

The **Payments due** table lists all of your remaining invoices. If there are no invoices listed, you currently don't have any actions to take.

3. Choose the invoices you're paying in the **Payments due** table.
4. Choose **Complete payment**.
5. On the **Complete payment** page, enter your card CVV in the **Summary** section and choose **Verify and pay**.
6. For Visa and Mastercard payment methods, you're redirected to your bank to verify your payment. For American Express payment methods, your bank processes your payment with no action required from you. After your payment is verified, you're redirected to your **Payments** page. Your invoice will remain on the **Payments due** table until your bank processes your payment.

## Make a payment using net banking

You can use the console to pay your AWS India bills using Net Banking.

### Note

Due to the current AWS India regulations, you're redirected to your bank to authorize the charge with each AWS payment. You can't use Net Banking for automatic payments.

### To pay your AWS India bill

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.

The **Payments due** table lists all of your remaining invoices. If there are no invoices listed, you currently don't have any actions to take.

3. Choose the invoices you're paying in the **Payments due** table.
4. Choose **Complete payment**.
5. On the **Complete a payment** page, your net banking account you previously saved is selected by default. To use a new net banking account, choose **Add Net Banking**.
6. Review the summary and choose **Verify and pay**.
7. You're redirected to your bank's website to verify your payment. Log in and follow the prompts to approve the payment.
8. After your payment is verified, you're redirected to the **Payments** page. You'll see a success message at the top of the page.

## Remove a net banking account

You can use the AWS Billing console to remove an internet banking (Net Banking) account from your AWS account. This payment option is available to all AWS India customers.

### To pay your AWS India bill

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.

Payment methods associated with your AWS account are listed in the **Payment method** section.

3. Ensure that your AWS account has another valid payment method set as the default.
4. Select the payment method you want to remove, and choose **Delete**.
5. In the **Delete payment method** dialogue box, choose **Delete**.

## Managing your payments in AWS Europe

If your account is with AWS Europe, follow the procedures in this section to manage your payment methods and payments.

### Topics

- [Managing your AWS Europe payment methods \(p. 44\)](#)
- [Making payments, checking unapplied funds, and viewing your payment history in AWS Europe \(p. 45\)](#)
- [Managing your AWS Europe credit card payment methods \(p. 47\)](#)
- [Managing your AWS Europe credit card payment verifications \(p. 48\)](#)
- [Managing your SEPA direct debit payment methods \(p. 49\)](#)

## Managing your AWS Europe payment methods

You can use the [Payment preferences](#) page of the AWS Billing console to perform the following tasks for all payment types:

- [View payment methods associated with your account](#)
- [Designate a default payment method](#)
- [Remove a payment method from your AWS Europe account](#)

In addition, you can use the [Payment preferences](#) page of the AWS Billing console to manage your credit cards and direct debit accounts. For more information, see [Managing your credit card payment methods \(p. 36\)](#) and [Managing your SEPA direct debit payment methods \(p. 49\)](#).

### To view payment methods associated with your AWS account

You can use the console to view the payment methods associated with your account.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose [Payment preferences](#).

Payment methods associated with your AWS account are listed in the **Payment method** section.

### To designate a default payment method

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.

2. In the navigation pane, choose [Payment preferences](#).

Payment methods associated with your AWS account are listed in the **Payment method** section.

3. Select the payment method that you want to use as your default payment method, and choose **Set as default**.

### To remove a payment method from your AWS Europe account

You can use the console to remove a payment method from your account.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.

Payment methods associated with your AWS account are listed in the **Payment method** section.

3. Ensure that your account has another valid payment method set as the default.
4. Select the payment method that you want to remove, and choose **Delete**.
5. In the **Delete payment method** dialog box, choose **Delete**.

## Making payments, checking unapplied funds, and viewing your payment history in AWS Europe

You can use the **Payments** page of the AWS Billing and Cost Management console to perform the following tasks for all payment types:

- [Make a payment](#)
- [View outstanding invoices](#)
- [View unapplied funds](#)
- [View payment history](#)

### Make a payment

AWS Europe charges your default payment method automatically at the beginning of each month. If that charge doesn't process successfully, you can use the console to update your payment method and make a payment.

#### Note

If you pay by SEPA direct debit, AWS provides you with your invoice and initiates the charge to your payment method either the following day or the invoice due date, whichever is latest. It can take up to 5 business days for your payment to succeed. For more information, see [Managing your SEPA direct debit payment methods \(p. 49\)](#).

Before making a payment, ensure that the payment method that you want automatically charged in the future is set as your default payment method. If you are using a credit card, confirm that your credit card has not expired. For more information, see [Designate a default payment method \(p. 44\)](#) and [Managing your AWS Europe credit card payment methods \(p. 47\)](#).

### To make a payment

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.

The **Payments due** table lists all outstanding invoices. If there are no invoices listed, you don't need to take action at this time.

3. If there are outstanding invoices, select the invoice you want to pay in the **Payments due** table, and then choose **Complete payment**.
4. On the **Complete a payment** page, your default payment method is selected if it is eligible for you to use to pay the invoice. If you want to use a different payment method or select an eligible payment method, choose **Change**.
5. Confirm that the summary matches what you want to pay, and choose **Verify and pay**.

After your bank processes your payment, you're redirected to the **Payments** page.

If you pay by SEPA direct debit, and you receive an email from AWS Europe saying that AWS Europe can't charge your bank account and will try again, work with your bank to understand what went wrong.

If you receive an email saying that AWS Europe failed the last attempt to charge your bank account, choose **Verify and pay** on the console to pay your invoice. If you have questions about issues with charging your bank account or paying an overdue balance, create a case in the [Support Center](#).

If you pay by electronic funds transfer and your account payment is overdue, create a case in the [Support Center](#).

## View outstanding invoices, unapplied funds, and payment history

You can search and filter the **Payments due**, **Unapplied funds**, and **Payment history** tables described in the following procedures. Choose the gear icon to change the default columns and customize other table settings. Download items individually by choosing the appropriate ID, or choose **Download** and then **Download CSV** to download a CSV file of the table for reporting purposes.

### To view outstanding invoices

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.
3. Choose the **Payments due** tab to view the **Payments due** table.

The **Payments due** table lists all your outstanding invoices.

The table includes the following statuses:

- **Due** – Outstanding invoices with an approaching due date.
- **Past due** – Outstanding invoices where a payment has not been made by the due date.
- **Scheduled** – Invoices with an upcoming scheduled payment.
- **Processing** – Invoices for which we are currently scheduling a payment.

### To view unapplied funds

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.
3. Choose the **Unapplied funds** tab to view the **Unapplied funds** table.

The **Unapplied funds** table lists of all unapplied funds and credit memos.

### To view payment history

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.
3. Choose the **Transactions** tab to view the **Transactions** table.

The **Transactions** table lists all completed transactions with AWS.

## Managing your AWS Europe credit card payment methods

You can use the [Payment preferences](#) page of the AWS Billing console to perform the following credit card tasks:

- [Add a credit card to your AWS Europe account](#)
- [Update your credit card](#)
- [Confirm that your credit card is up to date](#)

### To add a credit card to your AWS Europe account

You can use the console to add a credit card to your account.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose [Payment Methods](#).
3. Choose **Add a card**.
4. For the credit card fields, enter the information and then choose **Continue**.
5. For the credit card information fields, enter your card billing address.
6. Choose **Continue**.

### To update your credit card

You can update the name, address, or phone number associated with your credit card.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment Methods**.
3. Next to the credit card that you want to edit, choose **Edit**.
4. Update the fields that you want to change.
5. At the bottom on the page, choose **Update**.

### To confirm that your credit card is up to date

You must have a valid, unexpired credit card on file to make a payment.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment Methods**.
3. Ensure that the **Expires On** date for your card is in the future. If your card has expired, add a new card or update your current card.

## Managing your AWS Europe credit card payment verifications

To comply with the recent EU regulation, your bank might ask you for verification whenever you use a credit card to pay AWS online, add or update a credit card, or register a new AWS account. Banks typically verify by sending unique security codes to credit card holders before online purchases are completed. If your bank needs to verify your payment, you will receive an email from AWS. After verification, you're redirected to the AWS website.

If you prefer not to verify payments, register a bank account as your payment method. For more information about direct debit payment eligibility, see [the section called "Managing your SEPA direct debit payment methods"](#).

To learn more about the EU regulation, see the [European Commission's website](#).

- [the section called "Best practices for verification"](#)
- [the section called "Payment verification"](#)
- [the section called "Troubleshooting payment verification"](#)
- [the section called "AWS Organizations"](#)
- [the section called "Subscription purchases"](#)

### Best practices for verification

- Confirm that your credit card information is up to date. Banks send verification codes only to the registered card owner.
- Enter the newest code. If you close the authentication portal or request a new code, you might experience a delay in receiving your newest code.
- Enter the code as prompted. Don't enter the phone number that the code is sent from.

### Payment verification

You can use the AWS Billing console to confirm that your payment requires verification or to reattempt any failed payments.

#### To verify your payment

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Orders and invoices**.
3. Under **Payments due**, locate the invoice that you want to pay and choose **Verify and pay**.
4. On the choose [Payment preferences](#) page, select the preferred payment method.
5. Choose **Complete payment**.
6. If your payment requires verification, you're redirected to your bank's website. To complete verification, follow the provided prompts.

After your bank has processed our payment, you're redirected to the **Orders and invoices** page.

#### Note

Your invoice appears with the status of **Payment processing** until your bank completes the payment process.

## Troubleshooting payment verification

If you can't successfully complete your verification, we recommend that you take any of the following actions:

- Contact your bank to confirm that your contact information is up to date
- Contact your bank for details about why your verification has failed
- Clear your cache and cookies or use a different browser
- Navigate to the [Payment preferences](#) page of the AWS Billing console and update your billing contact information

## AWS Organizations

If you're a member account in AWS Organizations, your purchased services that require upfront payments might not activate until the Management account user verifies the payment. If verification is required, AWS notifies the billing contact of the Management account by email.

Establish a communication process between your Management account and member accounts. To change your payment method, see [the section called "Managing your AWS Europe credit card payment methods"](#).

## Subscription purchases

If you purchase multiple subscriptions at a time (or in bulk) and your bank requests verification, the bank might ask you to verify each individual purchase.

Subscriptions can include immediate purchases such as Reserved Instances, Business support plan, and Route 53 domains. Subscriptions don't include AWS Marketplace charges.

Be sure to complete validation for all purchases or register a bank account as your payment method. For more information about eligibility for direct debit payment, see [the section called "Managing your SEPA direct debit payment methods"](#).

## Managing your SEPA direct debit payment methods

If you meet the eligibility requirements, you can add an EU bank account as a SEPA direct debit payment method to your payment methods. To meet these requirements, your AWS account must:

- Be an AWS Europe customer
- Have accepted SEPA terms and conditions
- Have paid at least one invoice in full in the previous 12 months
- Have paid at least \$100 cumulative over the previous 12 months
- Use euro as the preferred currency

If you pay by SEPA direct debit, AWS provides you with your invoice and initiates the charge to your payment method either the following day or the invoice due date, whichever is latest. It can take up to 5 business days for the payment to complete successfully, even if the payment shows as **Succeeded** in the AWS Billing console.

You can use the [Payment preferences](#) page of the AWS Billing console to perform the following SEPA direct debit tasks:

- [Add a direct debit account to your AWS Europe payment methods](#)
- [Update your linked debit account](#)

## To add a direct debit account to your AWS Europe payment methods

You can use the AWS Billing console to add a direct debit account to your AWS Europe payment methods. You can use any personal or business bank account, provided that the account is located at a branch in a SEPA-supported country.

To add a SEPA direct debit account, you must have the following information ready:

- Bank Identifier Code (BIC)
- International Bank Account Number (IBAN)
- The address that the bank associates with the account

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.
3. Choose **Add payment method**.
4. Choose **Bank account (SEPA)**.
5. For **Account Holder Name**, enter the name of the principal account holder.
6. For **BIC (Swift Code)**, enter the 8 or 11 digit number.  
  
Routing numbers are always either 8 or 11 digits long.
7. For **Confirm BIC (Swift Code)**, reenter the BIC. Don't copy and paste.
8. For **IBAN**, enter the digits for the IBAN.
9. For **Reenter IBAN**, reenter the IBAN digits. Don't copy and paste.
10. For **Make Default**, select whether you want this direct debit account to be your default payment method.
11. For **Billing Address information**, enter the billing address of the primary account holder.
12. Choose **Add bank account** to agree to the **Terms and Conditions** and add your direct debit account.

## To update your direct debit account

You can update the name, address, or phone number associated with your direct debit account.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payment preferences**.

Payment methods associated with your AWS account are listed in the **Payment method** section.

3. Select the direct debit account that you want to edit, and choose **Edit**.
4. Update the fields that you want to change.
5. At the bottom of the dialog box, choose **Save changes**.

If you have questions about payment methods, see [Getting help with AWS Billing and Cost Management \(p. 8\)](#).

# Managing your Advance Pay

Advance pay is in public preview for AWS Billing and Cost Management and is subject to change. This feature is available for a select group of customers. Your use of advance pay is subject to the Betas and Previews terms of the [AWS Service Terms](#) (Section 2).



Use *Advance Pay* to pay for your AWS usage in advance. AWS uses the funds to pay for your invoices automatically when they are due.

You can register for Advance Pay in the AWS Billing and Cost Management console. You can add funds to Advance Pay using electronic fund transfer, or by using any personal or business bank account. If you're adding funds using a bank account, the bank must be a US branch location.

For a full list of service restrictions for Advance Pay, see [Advance Pay \(p. 154\)](#) on the *Quotas and restrictions* page.

#### Topics

- [Registering your Advance Pay \(p. 51\)](#)
- [Adding funds to your Advance Pay \(p. 51\)](#)

## Registering your Advance Pay

You can use the AWS Billing and Cost Management console to register for Advance Pay.

#### To register for Advance Pay

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.
3. Choose the **Advance Pay** tab.
4. Accept the **Advance Pay terms and conditions**.
5. Choose **Register**.

## Adding funds to your Advance Pay

You can add funds to Advance Pay using electronic funds transfer, or a personal or business bank account.

#### To add funds to your Advance Pay using electronic funds transfer

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Payments**.
3. Choose the **Advance Pay** tab.
4. Choose **Add funds**.
5. Under **Amount**, enter the fund amount that you want to add.

The amount must be entered in US dollars.

6. Under **Payment method**, choose **Choose payment method**.
7. Choose **Wire transfer**.
8. Choose **Use this payment method**.
9. Review the payment details, and choose **Verify**.
10. Complete your electronic funds transfer by using the instructions in the **Payment summary** section.

#### To add funds to your Advance Pay using a bank account

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.

2. In the navigation pane, choose **Payments**.
3. Choose the **Advance Pay** tab.
4. Choose **Add funds**.
5. Under **Amount**, enter the fund amount that you want to add.

The amount must be entered in US dollars.

6. Under **Payment method**, choose **Choose payment method**.
7. Choose **Bank account**.
8. Choose **Use this payment method**.
9. Review the payment details, and choose **Add funds**.

Your bank account will automatically be charged with the fund amount that you entered.

You can download the funding summary document from the **Advance pay summary** page.

## Managing your payment profiles

You can use *payment profiles* to assign payment methods that are different than your default payment method to pay your invoices automatically. If you receive invoices from more than one AWS service provider ("seller of record"), use payment profiles to assign a unique payment method for each one. After you create a payment profile for a service provider, your payment profile pays your AWS bills automatically. It does so using the currency and payment method that you specify.

Payment profiles are useful in avoiding situations such as incomplete payments, failed subscription orders, or unprocessed contract renewals despite having a valid default payment method. By using payment profiles, you can do the following:

- Use different payment methods for different AWS service providers.
- Customize your payment preferences for your AWS Organizations member accounts that use different service providers.
- Always have valid payment methods for your automatic bill payments.
- Avoid service interruptions and incomplete balances.

### Note

Due to some country and technological limitations, not all payment methods are available for all providers. If your default payment method isn't valid for different service providers, create payment profiles using payment methods accepted by your service provider. For more information, see [Creating your payment profiles \(p. 52\)](#).

### Topics

- [Creating your payment profiles \(p. 52\)](#)
- [Editing your payment profiles \(p. 55\)](#)
- [Deleting your payment profiles \(p. 55\)](#)

## Creating your payment profiles

You can create new custom profiles using the following steps in the Billing and Cost Management console.

### To create payment profiles

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane under **Preferences**, choose **Payment methods**.
3. Under the **Payment profiles** section, choose **Visit payment profiles**.
4. Under the **Payment profiles** section, choose **Create payment profiles**.
5. Choose a service provider that matches your invoice.
6. Choose a payment currency that matches your invoice from your service provider.
7. (Optional) Enter a name for your payment profiles.
8. Under the **Payment method** section, choose the payment method to pay your specified service provider and currency with.
  - To add a new payment method
    - a. Choose **Add a new payment method** to open a new tab.
    - b. Add a new payment method to your account. For more information, see [Managing Your Payments \(p. 32\)](#).
    - c. Return to the **Create payment profile** tab.
    - d. Under the **Payment method** section, choose the refresh icon.
    - e. Choose the new payment method that you created.
9. Choose **Create payment profile**.

#### Note

Check that your payment profile currency matches the currency of your invoice for the same service provider.

### Example: Creating a payment profile for AWS Inc. bills

This section shows an example of how to create a payment profile for the bills that you receive from the AWS Inc. service provider. In this example, your AWS Organizations management account is with AWS Europe (shown as "AWS EMEA SARL" as the service provider). Your default payment currency is Euro (EUR).

If you have a valid default payment method on file, you can pay your AWS Europe invoices automatically. Examples of a valid payment method include a credit card and a SEPA direct debit account. For more information, see [Managing your payments in AWS Europe \(p. 44\)](#).

For your AWS Inc. invoices, you can create a payment profile to pay using a EUR currency credit card that's eligible for AWS Inc.

### To create a payment profile for this AWS Inc. example

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane under **Preferences**, choose **Payment methods**.
3. Under the **Payment profiles** section, choose **Visit payment profiles**.
4. Under the **Payment profiles** section, choose **Create payment profiles**.
5. For **Service provider**, choose AWS Inc.
6. For **Currency**, choose EUR - Euro.
7. (Optional) Enter a name for your payment profiles (for example, My AWS Inc. payment profile).
8. Under the **Payment method** section, choose the payment method to pay your specified service provider and currency with.

9. Choose **Create payment profile**.

After this payment profile is created, your AWS Inc. invoices are paid automatically using EUR currency and the payment method that you specified.

### Example: Creating a payment profile for AWS Europe bills

This section shows an example of how to create a payment profile for the bills that you receive from the AWS Europe ("AWS EMEA SARL") service provider. In this example, your AWS Organizations management account is with AWS Inc. Your default payment currency is US dollars (USD).

If you have a valid default payment method on file, you can pay your AWS Inc. invoices automatically. Examples of a valid payment method include a credit card and a US bank account for ACH direct debit payments. For more information, see [Managing your AWS payments \(p. 32\)](#).

For your AWS Europe invoices, you can create a payment profile to pay using a USD currency credit card that's eligible for AWS Europe.

#### To create a payment profiles for this AWS Europe example

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane under **Preferences**, choose **Payment methods**.
3. Under the **Payment profiles** section, choose **Visit payment profiles**.
4. Under the **Payment profiles** section, choose **Create payment profiles**.
5. For **Service provider**, choose AWS EMEA SARL.
6. For **Currency**, choose USD - US dollar.
7. (Optional) Enter a name for your payment profiles (for example, My AWS Europe payment profile).
8. Under the **Payment method** section, choose the payment method to pay your specified service provider and currency with.
9. Choose **Create payment profile**.

### Example: Creating a payment profile for AWS Brazil bills

This section shows an example of how to create a payment profile for the bills that you receive from the AWS Brazil ("Amazon AWS Serviços Brasil Ltda.") service provider. In this example, your AWS Organizations management account is with AWS Inc. Your default payment currency is US dollars (USD).

If you have a valid default payment method on file, you can pay your AWS Inc. invoices automatically. Examples of a valid payment method include a credit card and a US bank account for ACH direct debit payments. For more information, see [Managing your AWS payments \(p. 32\)](#).

For your AWS Brazil invoices, you can create a payment profile to pay using a Brazilian real (BRL) currency credit card that's eligible for AWS Brazil.

#### To create a payment profiles for this AWS Brazil example

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane under **Preferences**, choose **Payment methods**.
3. Under the **Payment profiles** section, choose **Visit payment profiles**.
4. Under the **Payment profiles** section, choose **Create payment profiles**.
5. For **Service provider**, choose Amazon AWS Serviços Brasil Ltda..
6. For **Currency**, choose BRL - Brazilian real.

7. (Optional) Enter a name for your payment profiles (for example, My AWS Brazil payment profile).
8. Under the **Payment method** section, choose the payment method to pay your specified service provider and currency with.
9. Choose **Create payment profile**.

## Editing your payment profiles

After you create a payment profile, you can edit the details using the Billing and Cost Management console at any time.

### To edit a payment profile

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane under **Preferences**, choose **Payment methods**.
3. Under the **Payment profiles** section, choose **Visit payment profiles**.
4. Under the **Payment profiles** section, choose a payment profile and choose **Edit**.
5. Update your payment profile and choose **Save changes**.

## Deleting your payment profiles

You can delete your payment profiles using the Billing and Cost Management console at any time.

### To edit a payment profile

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane under **Preferences**, choose **Payment methods**.
3. Under the **Payment profiles** section, choose **Visit payment profiles**.
4. Under the **Payment profiles** section, choose a payment profile and choose **Delete**.

# Understanding your customer carbon footprint tool

You can use the customer carbon footprint tool to view estimates of the carbon emissions associated with your AWS products and services.

## Topics

- [Getting started with customer carbon footprint tool](#) (p. 56)
- [Understanding your customer carbon footprint tool overview](#) (p. 56)
- [Understanding your carbon emission estimations](#) (p. 57)

## Getting started with customer carbon footprint tool

The customer carbon footprint tool is available for all accounts. If a report isn't available for your account, your account might be too new to show data. After each month, you might have a delay of up to three months for AWS to show your carbon emission estimates.

### To view your customer carbon footprint tool

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. On the navigation bar, choose **Cost & Usage Reports**.
3. Under **date range**, choose your **start month** and **end month**.

## IAM policies

You must have the IAM permission `sustainability:GetCarbonFootprintSummary` to access the customer carbon footprint tool and data. For more information regarding IAM permissions, see [AWS Identity and Access Management for AWS Billing](#) (p. 122).

## AWS Organizations users

If you're logged in as a management account of AWS Organizations, the customer carbon footprint tool reports the member account data for the duration that those accounts were a part of your management account. If you're a member account, the customer carbon footprint tool reports emission data for all the periods. This is regardless of any changes that might have occurred to your account's associated membership in one of the AWS Organizations.

## Understanding your customer carbon footprint tool overview

Your customer carbon footprint tool page contains the following sections. This page defines each console section, so you can understand the information provided in depth.

The unit of measurement for carbon emissions is metric tons of carbon dioxide-equivalent (MTCO<sub>2</sub>e), an industry-standard measure. This measurement considers multiple greenhouse gases, including carbon dioxide, methane, and nitrous oxide. All greenhouse gas emissions are converted to the amount of carbon dioxide that would result in equivalent warming.

Carbon emissions data is available from January 2020 onwards. New data is available monthly, with a delay of three months as AWS gathers and processes the data that's required to provide your carbon emissions estimates. All values in the customer carbon footprint tool are rounded to the nearest one-tenth ton. If the emissions don't round up to one-tenth ton, the report will display as 0.

#### **Your carbon emissions summary**

This section shows your estimated AWS emissions and estimated emissions savings, relative to an equivalent on-premises workload. This is summarized under two categories:

- Emission savings from AWS cloud infrastructure efficiencies
- Emission savings from AWS purchase of renewable energy

#### **Your emissions by geography**

This section shows the carbon emissions associated with each applicable geographical region. This information shows high-level geographical groupings such as AMER, EMEA, and not by AWS Regions.

#### **Your emissions by service**

This section shows the carbon emissions resulting from your usage of Amazon Elastic Compute Cloud (EC2), Amazon Simple Storage Service (S3), and any other AWS products and services.

#### **Your carbon emissions statistics**

This section shows trends in your carbon emissions over time. You can choose between a monthly, quarterly, or annual view.

#### **Path to 100% renewable energy**

This graph shows how your carbon emissions will change over time as AWS moves toward its goal of powering its operations with 100% renewable energy. These figures are based on your current AWS usage profile.

The **Path to 100% renewable energy** graph isn't impacted by your **date range** selection.

## Understanding your carbon emission estimations

Carbon emissions data in the customer carbon footprint tool adhere to the [Greenhouse Gas Protocol](#) and [ISO](#). Carbon footprint estimates for AWS include Scope 1 (emissions from direct operations) and Scope 2 (emissions from electricity production) data. For more information about carbon emissions, see the [EPA Scope 1 and Scope 2 Inventory Guidance](#).

The Scope 2 portion of the estimate is calculated using the GHGP market-based method. This means it factors in Amazon enabled renewable projects on the grids where the customer footprint is being estimated. Because we use the market-based method to calculate Scope 2 emissions, only purchased renewables on the grid where your workloads are running are included in the carbon footprint estimates. Estimates factor the grid mix of the AWS Regions where you run your workloads, following GHGP guidance. Carbon emission estimates also factor in the AWS power usage effectiveness (PUE) in our data centers.

To estimate your emissions savings compared to on-premises workload equivalent, we use data from 451 Research, which is a part of S&P Global Market Intelligence. This research found that AWS can lower a workload's carbon footprint by 88% for the median surveyed US enterprise data centers, and compared to European data enterprise centers, up to 96% once AWS is powered with 100% renewable energy. This

target is on path to meet by the year 2025. For more information, see [Reducing carbon by moving to AWS](#).

## Regions, usage, and billing data factors

Electricity grids in different parts of the world use various sources of power. Some use carbon-intense fuels (for example, coal), and some are primarily low-carbon hydro or other renewables. The locations of Amazon's renewable energy projects also play a role, because the energy produced by these projects is accounted against our emissions from Regions on the same grid. As a result, not all AWS Regions have the same carbon intensity.

There are some Regions where high usage results in relatively low emissions. There are others where the low usage results in higher emissions. For carbon reports, EMEA Regions are often shown as under represented in estimates since there are more renewables on the grid. APAC Regions are often shown over represented in estimates. This is because sourcing renewable energy is difficult. Carbon estimates are based on usage only, and one-time charges such as upfront Savings Plan purchases, won't result in similar increases in carbon emissions.

## Customer carbon footprint tool and Amazon's carbon footprint report

Amazon's carbon footprint report is a part of our annual sustainability report. This covers Scope 1 through 3 emissions for all Amazon operations, including Amazon Web Services. The customer carbon footprint report provides you with the emissions that attribute to your own AWS usage. For more information, see [Amazon Sustainability](#).



# Managing your purchase orders

You can use your Billing and Cost Management console to manage your purchase orders and configure how they reflect on your invoices. You have the option to add multiple purchase orders with multiple line items. Based on your configurations, we select the purchase order that best matches with your invoice. You can manage purchase orders if you're using a regular AWS account or an AWS Organizations management account. For more information about accessing the feature, see [Overview of managing access permissions](#) (p. 124).

Each purchase order can have several line items, and every line item is used for matching with invoices. The following types of line items are available:

- **ALL** – All charges on your AWS account.
- **AWS Monthly Usage** – Your AWS monthly invoice charges.
- **AWS Subscription Purchase** – Your subscription invoice charges; for example, upfront charges for Reserved Instances (RI) and AWS Support charges.
- **AWS Marketplace Transaction** – Your purchase order line item for invoice charges from an AWS Marketplace contract subscription. This is available only for the AWS Inc. and AWS EMEA SARL entity, because all AWS Marketplace invoices are generated from AWS Inc and AWS EMEA SARL. Currently, this line item only supports invoices outside of your normal monthly billing cycle.
- **AWS Marketplace Blanket Usage** – Your default purchase order for AWS Marketplace invoice charges. This is available only for the AWS Inc. and EMEA SARL entity, because all AWS Marketplace invoices are generated from AWS Inc. and AWS EMEA SARL. All invoices with AWS Marketplace subscriptions contain an **AWS Marketplace Blanket Usage** line item, unless the subscription has a transaction-specific purchase order. If the subscription has a transaction-specific purchase order, then your invoice has an **AWS Marketplace Transaction** line item instead.

Many criteria and parameters are used to determine the optimal purchase order for your invoices. You can create up to 100 active purchase orders with up to 100 line items for each regular account or AWS Organizations management account.

When an invoice is generated, all purchase orders that are added to your management account are considered for association. Then, expired or suspended purchase orders are filtered out, leaving only the active purchase orders. Your invoice's billing entity is matched with the "Bill from" entity in your purchase order, filtering out those that don't match. For example, if you have a purchase order added for the AWS Inc. entity (PO\_1), and another one for the AWS EMEA SARL entity (PO\_2). If you purchase a Reserved Instance from AWS Europe, only PO\_2 will be considered for invoice association.

Next, we evaluate line item configurations to determine the best fit for your invoice. To be matched with a line item, the invoice's billing period must be within the line item's start and end month, and it must also match the line item type. If multiple line items match, we use the line item with the most specific type for invoice association. For example, if you have an RI invoice, we use the subscription line item instead of ALL if both are configured.

Lastly, the line items with enough balance to cover your invoice amount are selected above the out of balance line items. If line items that belong to multiple purchase orders match all criteria precisely, we use the purchase order that was most recently updated to match the invoice.

## Topics

- [Setting up purchase order configurations](#) (p. 60)
- [Adding a purchase order](#) (p. 61)
- [Editing your purchase orders](#) (p. 63)
- [Deleting your purchase orders](#) (p. 64)

- [Viewing your purchase orders \(p. 64\)](#)
- [Reading your purchase order details page \(p. 65\)](#)
- [Enabling purchase order notifications \(p. 66\)](#)

## Setting up purchase order configurations

You can use purchase orders and their line item attributes to flexibly define a configuration that best fits your needs. The following are examples of purchase order configuration scenarios that you can use.

You can configure separate purchase orders for different time periods by choosing distinct effective and expiration months.

### Note

To be matched with a line item, the invoice's billing period must be within the line item's start and end month, and it must also match the line item type.

### Example Example 1

If you use monthly purchase orders, you can define one purchase order for each month by selecting the same effective and expiration month for each purchase order. The purchase order will only apply to invoices that are generated during that month.

Here are a few purchase order configurations that you can use for this setup:

- PO #M1\_2021 with the effective month set to Jan 2021 and expiration month Jan 2021.
- PO #M2\_2021 with the effective month set to Feb 2021 and expiration month Feb 2021.
- PO #M3\_2021 with the effective month set to Mar 2021 and expiration month Mar 2021.

Here is an example of how you can also define a purchase order for a particular quarter, half-year, or the entire year:

- PO #Q4\_2021 with the effective month set to Apr 2021 and expiration month Jun 2021.
- PO #2H\_2021 with the effective month set to Jul 2021 and expiration month Dec 2021.
- PO #2022Y with the effective month set to Jan 2022 and expiration month as Dec 2022.

### Example Example 2

You can configure separate purchase orders for different types of invoices through line item configurations.

- PO #Anniversary\_Q4\_2021 with the effective month set to Apr 2021, and expiration month Jun 2021, Line item type = AWS monthly usage.
- PO #Subscriptions\_Q4\_2021 with the effective month set to Apr 2021, and expiration month Jun 2021, Line item type = AWS Subscription Purchase.
- PO #Marketplace\_Q4\_2021 with the effective month set to Apr 2021, and expiration month Jun 2021, Line item type = AWS Marketplace Purchase.

You can track the balance of a given purchase order for different time periods by configuring granular line item start and end months.

### Example Example 3

Consider PO #Q4\_2021 from Example 1 with an effective month of Apr 2021 and an expiration month Jun 2021. You can track this PO's balance on a monthly basis by setting up the following line items:

- Line item #1 with the start month Apr 2021, end month Apr 2021, Line item type = ALL.
- Line item #2 with the start month May 2021, end month May 2021, Line item type = ALL.
- Line item #3 with the start month Jun 2021, end month Jun 2021, Line item type = ALL.

Alternatively, you can track balance for each line item type separately for the same purchase order and time period.

#### Example Example 4

The same PO #Q4\_2021 from Example 1 can be set up using the following configuration to track balance of different line item types separately.

- Line item #1 with the start month Apr 2021, end month Jun 2021, Line item type = AWS monthly usage.
- Line item #1.2 with the start month Apr 2021, end month Jun 2021, Line item type = AWS Subscription Purchase.
- Line item #1.3 with the start month Apr 2021, end month Jun 2021, Line item type = AWS Marketplace Purchase.

Continue this configuration for May and June.

#### Example Example 5

You can also combine the previous two configurations to track balances for different time periods and line item types separately.

- Line item #1.1 with the start month Apr 2021, end month Apr 2021, Line item type = AWS monthly usage.
- Line item #1.2 with the start month Apr 2021, end month Apr 2021, Line item type = AWS Subscription Purchase.
- Line item #1.3 with the start month Apr 2021, end month Apr 2021, Line item type = AWS Marketplace Purchase.

Continue this configuration for May and June.

## Adding a purchase order

You can use the Billing and Cost Management console to add purchase orders to use in your invoices. Adding a purchase order is a two-step process involving purchase orders and line item configurations. First, you enter your purchase order details (for example, purchase order ID, shipping address, effective and expiration month). Then, you define the purchase order line item configurations that are used to match the purchase order with an invoice. If you add multiple purchase orders, we use the purchase order that has the line item best matching the invoice being generated.

#### To add a purchase order

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Purchase orders**.
3. Choose **Add purchase order**.

4. For **Purchase order ID**, enter a unique identifier for your purchase order ID. Purchase order IDs must be unique within your account. For details about character restrictions for your purchase ID, see [Purchase orders \(p. 153\)](#).
5. (Optional) For **Description**, describe your purchase order, including any notes for your reference.
6. For **Bill from**, choose the AWS billing entity that you are invoiced from.

**Note**

Remittance details are different for each **Bill from** location. Be sure to verify your **Bill from** selection. You must make your payments to the legal entity that you're billed from. We don't recommend configuring more than one **Bill from** location for a purchase order.

7. (Optional) If your purchase order is invoiced from the **Amazon Web Services EMEA SARL** billing entity: For **Tax registration number**, select the tax registration numbers that you want to associate with your purchase order. Your purchase order is associated with only the invoices generated for the tax registration numbers that you select.

**Note**

The **Tax registration number** selection is available for only the **Amazon Web Services EMEA SARL** billing entity. For more information on your tax registration number settings, see [Managing your account \(p. 13\)](#).

8. For **Ship to**, enter your shipping address.  
  
(Optional) Select **Copy Bill to address** to copy and edit the address populated from your **Bill to** field.
9. For **Effective month**, choose the month you want your purchase order to start from. Your purchase order is eligible for invoice associations starting from this month.
10. For **Expiration month**, choose the month you want your purchase order to end. Your purchase order expires at the end of this month, and is not used for invoice associations going forward.
11. (Optional) For **Purchase order contacts**, enter the contact name, email address, and phone number. You can add up to 10 contacts.
12. Choose **Configure line items**.
13. For **Line item number**, enter a unique identifier for your line item number.
14. (Optional) For **Description**, enter a description for your line item.
15. For **Line item type**, choose your preferred line item type. For a detailed description for each line item type, see [Managing your purchase orders \(p. 59\)](#).
16. For **Start month**, choose the month you want your line item to start from. This date cannot be earlier than your purchase order **Effective month**.
17. For **End month**, choose the month you want your line item to end. This date cannot be later than your purchase order **Expiration month**.
18. (Optional) Choose **Enable balance tracking** to track the balance of your line item.
19. For **Amount**, enter the total amount of your purchase order line item.
20. For **Quantity**, enter the quantity amount.
21. (Optional) For **Tax**, enter the tax amount. This can be an absolute value or a percentage of the line item amount.

For **Tax type**, choose **% of amount** to enter a percentage, or **amount in \$** to enter an absolute tax amount.

22. To add other line items, choose **Add new line item**. You can add up to 100 line items.
23. Choose **Submit purchase order**.

Some fields are automatically filled and cannot be edited. Here is a list of where the automated fields are referenced from.

- **Bill to** – The **Bill to** address for your invoice. This field is included as a reference, because your purchase order billing address should match your invoice billing address.

- **Payment terms** – Your negotiated payment terms.
- **Currency** – Your preferred invoice currency.

## Editing your purchase orders

You can edit your purchase order, line item information, and status using the Billing and Cost Management console. You can't change your purchase order ID in this process.

### To edit a purchase order

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Purchase orders**.
3. Select the purchase order that you want to edit.
4. Choose **Edit purchase order**.
5. Change any parameter of your choice. Purchase order IDs cannot be changed.
6. Choose **Configure line items**.
7. Choose **Submit purchase order**.

### To update contacts

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Purchase orders**.
3. Choose the purchase order that you want to edit.
4. Choose **Manage contacts**.
5. Change the contacts information as needed.
6. Choose **Save changes**.

### To change the status of your purchase order

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Purchase orders**.
3. Choose the purchase order that you want to edit.
4. Choose **Change status**.
5. Choose a status:
  - **Suspended** – Your purchase order will no longer be used for invoice association.
  - **Active** – Your purchase order will be used for invoice association.
6. Choose **Change status**.

#### Note

You can use a suspended purchase order for invoice association when it is past its expiration date and set to **Suspended-Expired** status. To do so, you must change the status to **Expired** and update the expiration month to make it **Active**. Be sure to update your line item end months accordingly.

### To add a line item

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Purchase orders**.

3. Choose the purchase order you want to edit.
4. In the **Line items** section, choose **Add line item**.
5. Change the information as needed.
6. Choose **Save line item**.

#### To edit a line item

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Purchase orders**.
3. Choose the purchase order you want to edit.
4. In the **Line items** section, choose **Edit**.
5. Change the line item information as needed.
6. Choose **Save line item**.

#### To delete a line item

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Purchase orders**.
3. Choose the purchase order you want to edit.
4. Select all of the line items to delete in the **Line items** section.
5. Choose **Delete**.
6. Choose **Confirm**.

## Deleting your purchase orders

You can use the Billing and Cost Management console to delete your purchase order at any time, along with all of its notifications and associated contacts. A deleted purchase order can't be recovered.

#### To delete a purchase order

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Purchase orders**.
3. Select all of the purchase orders that you want to delete.
4. Choose **Delete purchase order**.
5. Choose **Confirm**.

## Viewing your purchase orders

Your purchase order dashboard on the Billing and Cost Management console shows you the state of your purchase orders at a glance. Your purchase orders are listed on the dashboard, along with the following information.

- **Purchase order ID** – The unique identifier for your purchase order.
- **Value** – Your purchase order amount. This is the sum of all line item amounts.
- **Balance** – The sum of all line item balances. This sum is updated whenever an invoice is associated.
- **Effective** and **Expiration** – The start and end of your purchase order ID.
- **Status** – The current status of your purchase order.

- **Updated on** – The most recent date you updated your purchase order.

### To view your purchase orders

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Purchase orders**.
3. Choose a purchase order to see the **Purchase order details** page.

## Reading your purchase order details page

You can review the contents of your individual purchase orders on the **Purchase order details** page of the Billing and Cost Management console.

To change your purchase order or line items, see [Editing your purchase orders \(p. 63\)](#).

- **Bill to** – The address reflected on your invoice. To change your billing address, update the information from your [Payment methods](#).
- **Ship to** – Your purchase order's shipping address.
- **Bill from** – The AWS legal entity you're billed from.
- **Tax registration numbers** – The tax registration numbers that you selected for your purchase order. Your purchase order is associated with the invoices generated for these tax registration numbers.

#### Note

The **Tax registration number** selection is available for only the **Amazon Web Services EMEA SARL** billing entity. For more information on your tax registration number settings, see [Managing your account \(p. 13\)](#).

- **Payment terms** – Your negotiated AWS payment terms.
- **Currency** – Your preferred invoice payment currency.
- **Effective month** – The month your purchase order is effective from. Your purchase order is used for generated invoices starting this month.
- **Expiration month** – The month your purchase order expires. Your purchase order is not used for any invoices that are generated past this month.
- **Contacts** – A list of all contacts for this purchase order. Choose **Manage contacts** to see all listed.
- **Status** – The current status of your purchase order.
  - **Active** – Eligible for invoice association.
  - **Suspended** – Not eligible for invoice association. You can suspend an active or expired purchase order.
  - **Expired** – A purchase order that is past its expiration date, and is no longer eligible for invoice association.
  - **Suspended-expired** – A suspended purchase order that is also past its expiration date.
- **Balance amount** – The balance remaining on your purchase order. This is the total balance amount of all line items configured on your purchase order.
- **Total amount** – The sum of your total values for all line items configured in your purchase order.
- **Line items** – The line item details you used when adding the purchase order.
  - **Number** – The unique identifier for your line item.
  - **Type** – Your line item type.
  - **Start month** – The month that your line is effective from. The line item is eligible for invoice association from this month.
  - **End month** – The month your line item expires. The line item is not eligible for invoice association at the end of this month.

- **Amount** – The unit price amount.
- **Quantity** – The number of units.
- **Tax** – The tax amount.
- **Total value** – The total value of amount for the particular line item.
- **Current balance** – The remaining balance after subtracting the total amount of all invoices matched with this line item. To see details for all invoices matching this line item, see the invoices table.
- **Invoices** – All invoices associated with your purchase order.
  - **Date issued** – The date when the invoice was issued.
  - **Type** – The type of invoice. For example, invoice and credit memo.
  - **ID** – The unique identifier of the invoice.
  - **Line item number** – The line item number of your purchase order, associated with the invoice.
  - **Amount** – The invoice amount.
  - **Due date** – Your payment due date for the invoice.

## Enabling purchase order notifications

You can enable email notifications on the Billing and Cost Management console by adding contacts to your purchase orders. You need at least one purchase order contact added to receive notifications.

Notifications are beneficial to proactively take action on your expiring, or out of balance purchase orders. This helps you make payments without delay. To update your contacts information, see [Editing your purchase orders](#) (p. 63).

Purchase order notifications are sent to your contacts for the following scenarios:

- **Balance tracking** – When your purchase order's line item balance drops below the 75% threshold. The purchase order balance is tracked at the line item level, and must be enabled at each level.
- **Expiration tracking** – When your purchase order is approaching its expiration. Your contacts receive notifications leading up to your expiration date. If your purchase order expiration is less than one month away, notifications are sent one week prior and on the expiration date. If your expiration date is one to three months away, a notification is sent one month before the expiration date. If the expiration is more than three months away, notifications are sent two months before the expiration date.



# Managing your costs with AWS Cost and Usage Reports

The AWS Cost and Usage Reports (AWS CUR) contains the most comprehensive set of cost and usage data available. You can use AWS Cost and Usage Reports to publish your AWS billing reports to an Amazon Simple Storage Service (Amazon S3) bucket that you own.

For more information, see [What are AWS Cost and Usage Reports](#) in the *AWS Cost and Usage Reports User Guide*.

# Managing your costs with AWS Cost Categories

You can use AWS Cost Categories to map your AWS costs and usage into meaningful categories. With cost categories, you can organize your costs using a rule-based engine. The rules that you configure organize your costs into categories. You can then use these categories across multiple products in the AWS Billing and Cost Management console. This includes Cost Explorer, AWS Budgets, AWS Cost and Usage Reports (AWS CUR), and Cost Anomaly Detection.

You can create groupings of costs using cost categories. For example, assume that your business is organized by teams and that each team has multiple accounts within. To build this structure in cost categories, create a cost category named *Team*. Then, you can map costs to a cost category value that's named *Team 1*.

Companies commonly have multiple perspectives on their business. These can include projects, cost centers, and applications. You can create cost categories to match these perspectives. Cost category values are groups within cost categories. They're similar to *Team 1* or *Team 2* from the previous example. By creating cost categories, you can view your business from multiple, corresponding perspectives. Furthermore, you can create multilevel hierarchical relationships among your cost categories to replicate your organizational structure. For example, you can create a cost category named *Business Unit* that includes groupings of multiple teams. You can then define a cost category value that's named *BU1* with *Team 1* and *Team 2* selected from your *Teams* cost category and a cost category value *BU2* with *Team 3* and *Team 4* selected from the *Teams* cost category.

You can start using cost categories by creating a unique category name. Then, map costs to cost category values within the cost categories. In each cost category value, map the type of costs that belong to that value. For example, if your *Team 1* consists of multiple accounts, you can write that expression by choosing the *accounts* dimension (is option) and selecting the applicable accounts. After creating the cost category value, continue to create other teams by adding values.

**Note**

To create hierarchical relationships among your cost categories, you select the cost category dimension from the parent cost category. This was *Business Unit* in the previous example. The child cost category is the cost category name. This was *Teams* in the previous example. You can then select values that belong to the child cost category, such as *Team 1* and *Team 2*, into the parent cost category value. This is *BU 1* in the previous example.

After you create the cost categories, they appear in Cost Explorer, AWS Budgets, AWS CUR, and Cost Anomaly Detection. In Cost Explorer and AWS Budgets, a cost category appears as an additional billing dimension. You can use this to filter for the specific cost category value, or group by the cost category. In AWS CUR, the cost category appears as a new column with the cost category value in each row. In Cost Anomaly Detection, you can use cost category as a monitor type to monitor your total costs across specified cost category values.

**Note**

Cost categories are effective at the start of the current month. If you create or update your cost category in the middle of the month, it retroactively takes effect on cost and usage from the beginning of the month.

This is an administrative feature, and it can only be customized by the management account or regular accounts in AWS Organizations.

**Topics**

- [Supported dimensions \(p. 69\)](#)
- [Supported operations \(p. 69\)](#)
- [Supported rule types \(p. 70\)](#)
- [Default value \(p. 70\)](#)
- [Status \(p. 70\)](#)
- [Quotas \(p. 71\)](#)
- [Term comparisons \(p. 71\)](#)
- [Creating cost categories \(p. 71\)](#)
- [Tagging cost categories \(p. 73\)](#)
- [Viewing cost categories \(p. 73\)](#)
- [Editing cost categories \(p. 74\)](#)
- [Deleting cost categories \(p. 75\)](#)
- [Splitting charges within cost categories \(p. 75\)](#)

## Supported dimensions

You can select from a list of billing dimensions to create your cost category rules. These billing dimensions are used to group your data. For example, assume that you wanted to group a set of accounts to form a team. You need to choose the account billing dimension, and then choose the list of accounts that you want to include in the team.

The following billing dimensions are supported.

### **Account**

This can be the AWS account name or the account ID, depending on the operation. If you're using an exact match operation (`is` or `is not`), account refers to the account ID. If you're using an approximate match operation (`starts with`, `ends with`, or `contains`), account refers to account name.

### **Service**

AWS services, such as Amazon EC2, Amazon RDS, and Amazon S3.

### **Charge type**

The type of charges based on line items details. Also referred to as the `RECORD_TYPE` in the Cost Explorer API. For more information, see [Term comparisons \(p. 71\)](#).

### **Tag key**

The cost allocation tag keys that are specified on the resource. For more information, see [Using AWS cost allocation tags \(p. 77\)](#).

### **Cost category**

A dimension from another cost category. Using cost categories as a dimension helps you organize the levels of categories.

## Supported operations

You can use these operations to create the filter expression when you're creating a cost category rule.

The following operations are supported.

**Is**

The exact match operation that's used to filter for the exact value specified.

**Is not**

The exact match operation that's used to filter for the exact value that isn't specified.

**Is absent**

The exact match operation that's used to exclude the tag key that matches this value.

**Contains**

The approximate match that's used to filter for a text string containing this value. This value is case sensitive.

**Starts with**

The approximate match that's used to filter for a text string that starts with this value. This value is case sensitive.

**Ends with**

The approximate match that's used to filter for a text string that ends with this value. This value is case sensitive.

## Supported rule types

Use rule type to define which cost category values to use to categorize your costs.

The following rule types are supported.

**Regular Rule**

This rule type adds statically defined cost category values that categorize costs based on the defined dimension rules.

**Inherited Value**

This rule type adds the flexibility of defining a rule that dynamically inherits the cost category value from the dimension value defined. For example, assume that you wanted to dynamically group costs based on the value of a specific tag key. You need to choose the inherited value rule type, then choose the Tag dimension and specify the tag key to use. Optionally, you can use a tag key, teams, to tag your resources. They can tag them with values such as alpha, beta, and gamma. Then, with an inherited value rule, you can select Tag as the dimension and use teams as the tag key. This generates the dynamic cost category values of alpha, beta, and gamma.

## Default value

Optionally, if no rules are matched for the cost category, you can define this value to be used instead.

## Status

You can use the console to confirm the status of whether your cost categories completed processing the cost and usage information. After you create or edit a cost category, it can take up to 24 hours before it has categorized your cost and usage information in the AWS Cost and Usage Report, Cost Explorer, and other cost management products.

There are two status states.

**Applied**

Cost categories completed processing, and the information in AWS Cost and Usage Report, Cost Explorer, and other cost management products is up to date with the new rules.

**Processing**

The cost category updates are still in progress.

## Quotas

For more information about cost categories quotas, see [Quotas and restrictions \(p. 153\)](#).

## Term comparisons

CHARGE\_TYPE is a dimension supported for cost category expressions. It's the RECORD\_TYPE value in the Cost Explorer API. This dimension uses different terms, depending on whether you're using the console or the API/JSON editor. The following table compares the terminology used for both scenarios.

**Term comparison**

Value in API or JSON editor	Name used in the console
Credit	Credit
DiscountedUsage	Reservation applied usage
Fee	Fee
Refund	Refund
RIFee	Recurring reservation fee
SavingsPlanCoveredUsage	Savings Plan Covered Usage
SavingsPlanNegation	Savings Plan Negation
SavingsPlanRecurringFee	Savings Plan Recurring Fee
SavingsPlanUpfrontFee	Savings Plan Upfront Fee
Tax	Tax
Usage	Usage

## Creating cost categories

You can create cost categories to organize your cost and usage information. Regular accounts and the management account in AWS Organizations have default access to create cost categories. Rules aren't mutually exclusive, and you can control the order that the rules apply in. Allow up to 24 hours after creating a cost category for your usage records to be updated with values.

There are five major steps in creating cost categories.

1. Define a name for your cost category (for example, business units, Teams).
2. (Optional) Add a tag to your cost category. For more information about tags, see [Tagging AWS resources](#) in the *AWS General Reference guide*.
3. (Optional) Set the lookback period for your cost category rules. The default will be set to the current month.
4. Write the rules to categorize your costs into cost category values (for example, Team-A, Team-B, Team-C).
5. (Optional) Define rules to split charges between your cost category values.

For more information about split charges, see [Splitting charges within cost categories \(p. 75\)](#).

Use the following procedure to create a new cost category.

### To create a cost category

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **AWS Cost Categories**.
3. At the top of the page, choose **Create Cost category**.
4. Under **Cost category details**, enter the name of your cost category. Your cost category name must be unique within your account.
5. (Optional) To add a tag, choose **Add new resource tag** and enter a key and value.
6. (Optional) To add a lookback period for your cost category rules, choose the **Apply cost category rules starting any specified month from the previous 12 months** radio button, and select the month where you want to retroactively apply the rules.
7. Choose **Next**.
8. Choose **Define category values**.

Use either the **Rule Builder** or **JSON editor** to define your cost categories.

For more information about the JSON request syntax, see the [AWS Billing and Cost Management API Reference](#).

9. For **Value**, enter the name of the cost category value.
10. Choose a **Rule Type**, either **Regular** or **Inherited value**.
11. Choose a billing **Dimension** from the dropdown list. For a regular rule type, you can choose **Accounts**, **Service**, **Charge Type** (for example, recurring reservation fee), **Tag key**, or **Cost Category**. (You can choose **Cost Category** to create hierarchical relationships among your cost categories.) For an inherited value rule type, you can choose **Account** or **Tag key** (Cost Allocation tag key).
12. For a regular rule type, choose **Operator** from the dropdown list. Your options are **Is**, **Contains**, **Starts with**, and **Ends with**.

#### Note

**Contains**, **Starts with**, and **Ends with** are only supported with Accounts and Tag dimensions. If you use these operators with Accounts, the engine evaluates against account name, and not account ID.

Choose a filtered value for your **Dimension** in the attribute selector.

13. For an inherited value rule type, choose **Account** or **Tag** for **Dimension**. If **Tag** is the **Dimension**, choose the **Tag key** to inherit the cost category value from.

#### Note

The **Account** dimension uses account names, not account IDs for the inherited cost category value.

14. (Optional) Add a default value. It categorizes all unmatched costs to this value.

15. (Optional) To rearrange the rule order, use the arrows or change the number on the top right of each rule.
16. (Optional) To delete a rule, choose **Remove** on the top right of each rule.
17. (Optional) Under **Define split charges**, choose **Next**.

For more information about split charge rules, see [Splitting charges within cost categories \(p. 75\)](#).

- a. Choose **Add a split charge**.
- b. Under **Source value**, choose your cost category value.

**Uncategorized** cost isn't an option at this time, but is an available source if you edit your cost category. For more information, see [Editing cost categories \(p. 74\)](#).

- c. Under **Target values**, choose one or more cost category values you wish to allocate split charges to.
- d. Under **Charge allocation method**, choose how you want to allocate your costs. Your choices are **proportional**, **fixed**, and **even split**.

For **fixed** charge allocation, enter the percentage amount to allocate each target cost category value.

- e. Choose **Create split charge**.
  - f. Choose **Add a split charge** and repeat steps to define more split charges.
18. Choose **Create cost category**.

## Tagging cost categories

Tagging cost categories is beneficial to control access to cost categories. For more information, see [Controlling access to AWS resources using tags](#) in the *IAM User Guide*.

You can tag your existing cost categories using the following procedure:

### To tag a cost category

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **AWS Cost Categories**.
3. Choose the cost category you want to tag.
4. Navigate to the **Resource tags** section.
5. Choose **Manage resource tags**.
6. Choose **Add new resource tag**.
7. Enter a **Key** and **Value**.
8. Once you configure the tags, choose **Save changes**.

## Viewing cost categories

From the cost categories dashboard in AWS Billing and Cost Management, you go to the details page. There comprehensive information about your category details and values is displayed.

### Topics

- [Navigating to your cost category details page \(p. 74\)](#)
- [Understanding your cost category details page \(p. 74\)](#)

- [Your cost category month-to-date categorizations \(p. 74\)](#)
- [Download your cost category values \(p. 74\)](#)

## Navigating to your cost category details page

You can choose any cost category name in the Billing and Cost Management console to open a details page. The details page is also shown when you add or edit a cost category.

### To view your cost category details page

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Cost categories**.
3. Under the **Cost category** column, choose a cost category name.

## Understanding your cost category details page

Your cost category details page breaks down your month-to-date cost allocations using the **Category details** and **Category values** sections.

- Use the **month selector** on the top right of the page to change the month you're viewing. You can see a detailed breakdown of cost category value cost allocations within your cost category.
- Under the **Category details** section, you can view your current [status \(p. 70\)](#), [default value \(p. 70\)](#), value count, and your total month-to-date net amortized costs.
- The graph under **Categorized costs** shows the allocation of cost category values in your monthly spend. Any uncategorized costs are shown as **Uncategorized**.

## Your cost category month-to-date categorizations

In the **Category values** section, you can see the month-to-date spend for each configured cost category value. The amounts that are shown are the net amortized costs.

To further explore your costs, open Cost Explorer by choosing **View in AWS Cost Explorer**.

## Download your cost category values

You can download an offline copy of your month-to-date cost category spend.

### To download your cost category details page

1. Open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Cost categories**.
3. Under the **Cost category** column, choose a cost category name.
4. Choose **Download CSV** to download a comma-separated values file.

## Editing cost categories

You can edit your AWS Cost Categories using the following procedure. Cost category names can't be edited. If you're using split charges, you can choose **Uncategorized** cost as your source value at this time.



### To edit a cost category

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **cost categories**.
3. Select the cost category to edit.
4. Choose **Edit cost category**.
5. If you want the changes to retroactively apply from a previous date, choose the month you want the parameter changes to apply from.
6. Make changes to parameters and choose **Confirm cost category**.

## Deleting cost categories

You can delete your cost categories using the following procedure.

### To delete a cost category

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Cost categories**.
3. Select the cost category to delete.
4. Choose **Delete cost category**.

## Splitting charges within cost categories

You can use split charge rules to allocate your charges between your cost category values. Splitting charges is useful when you have costs that aren't directly attributed to a single owner. Therefore, the costs can't be categorized into a single cost category value. For example, your organization has a set of costs shared by multiple teams, business units, and financial owners that incur data transfer costs, enterprise support, and operating costs. You can define split charge rules when you create or edit your cost categories. For more information about these processes, see [Creating cost categories \(p. 71\)](#) and [Editing cost categories \(p. 74\)](#).

This is a list of terms you'll see when configuring your split charges.

#### Source

The group of shared costs you want to split. Sources can be any of your existing cost category values.

#### Targets

The cost category values you want to split your costs across, defined by the source.

#### Allocation method

How you want your source costs split between your targets. You can choose from the following methods:

**Proportional** - Allocates costs across your targets based on the proportional weighted cost of each target.

**Fixed** - Allocates costs across your targets based on your defined allocation percentage.

**Even split** - Allocates costs evenly across all targets.

## Prerequisites

Before you define your split charge rules, you must categorize your costs into the appropriate cost category values.

### Example Example

You define a business unit view of your organization, using a `Business unit` cost category, with values `engineering`, `marketing`, and `FinOps`. Your organization is also operating a shared infrastructure platform that supports engineering and marketing business units.

To allocate costs of this shared infrastructure platform to the target business unit, categorize its costs into a new cost category value, `Infrastructure Platform` using the appropriate [dimensions](#) (p. 69).

We recommend that you move your cost category values containing shared costs to the top of the rule list. Because cost category rules are evaluated in a top-down order, your shared costs are categorized before individual business units are categorized. After these shared costs are categorized, they can then be split across your business units.

## Understanding split charge best practices

For instructions on how to configure your split charges, see [Creating cost categories](#) (p. 71) step 15. After you define split charge rules, you can view the split and allocated costs on the **cost categories details** page in the console. The details page provides an overview of your costs for each cost category value. This includes the costs for before and after calculating the split charges. You can also download a CSV report from the details page.

Note the following scenarios when configuring your split charges:

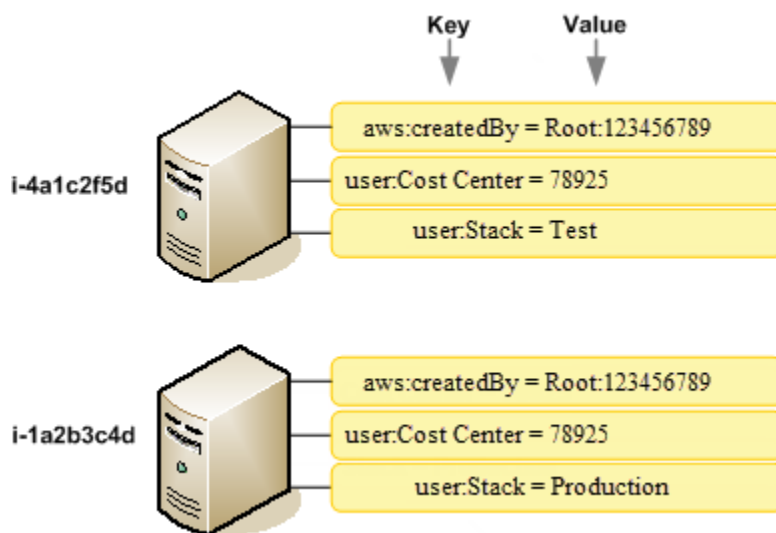
- A cost category value can be used as a source only once across all split charge rules. This means that, if a value is used as a source, it can't be used as a target. If the value is used as a target, it can't be used as a source. A value can be used as a target in multiple split charge rules.
- If you want to use cost category values as a source or split charge target when the value was created from [inherited values](#) (p. 70) rules, you must wait until the [cost category status](#) (p. 70) changes to **Applied**.
- Split charge rules and the total allocated costs are only presented on the **cost categories details** page. These costs do not appear and don't impact your AWS Cost and Usage Reports, Cost Explorer, and other AWS Cost Management tools.
- You can define up to 10 split charge rules for a cost category

For more information about cost category quotas, see [AWS Cost Categories](#) (p. 153).

# Using AWS cost allocation tags

A tag is a label that you or AWS assigns to an AWS resource. Each tag consists of a *key* and a *value*. For each resource, each tag key must be unique, and each tag key can have only one value. You can use tags to organize your resources, and cost allocation tags to track your AWS costs on a detailed level. After you activate cost allocation tags, AWS uses the cost allocation tags to organize your resource costs on your cost allocation report, to make it easier for you to categorize and track your AWS costs. AWS provides two types of cost allocation tags, an *AWS generated tags* and *user-defined tags*. AWS, or AWS Marketplace ISV defines, creates, and applies the AWS generated tags for you, and you define, create, and apply user-defined tags. You must activate both types of tags separately before they can appear in Cost Explorer or on a cost allocation report.

The following diagram illustrates the concept. In the example, you've assigned and activated tags on two Amazon EC2 instances, one tag called Cost Center and another tag called Stack. Each of the tags has an associated value. You also activated the AWS generated tags, `createdBy` before creating these resources. The `createdBy` tag tracks who created a resource. The user-defined tags use the user prefix, and the AWS generated tag uses the `aws:` prefix.



After you or AWS applies tags to your AWS resources (such as Amazon EC2 instances or Amazon S3 buckets) and you activate the tags in the Billing and Cost Management console, AWS generates a cost allocation report as a comma-separated value (CSV file) with your usage and costs grouped by your active tags. You can apply tags that represent business categories (such as cost centers, application names, or owners) to organize your costs across multiple services.

The cost allocation report includes all of your AWS costs for each billing period. The report includes both tagged and untagged resources, so that you can clearly organize the charges for resources. For example, if you tag resources with an application name, you can track the total cost of a single application that runs on those resources. The following screenshot shows a partial report with columns for each tag.

Total Cost ▾	user:Owner ▾	user:Stack ▾	user:Cost Center ▾	user:Application ▾
0.95	DbAdmin	Test	80432	Widget2
0.01	DbAdmin	Test	80432	Widget2
3.84	DbAdmin	Prod	80432	Widget2
6.00	DbAdmin	Test	78925	Widget1
234.63	SysEng	Prod	78925	Widget1
0.73	DbAdmin	Test	78925	Widget1
0.00	DbAdmin	Prod	80432	Portal
2.47	DbAdmin	Prod	78925	Portal

At the end of the billing cycle, the total charges (tagged and untagged) on the billing report with cost allocation tags reconciles with the total charges on your [Bills](#) page total and other billing reports for the same period.

You can also use tags to filter views in Cost Explorer. For more information about Cost Explorer, see [Analyzing your costs with AWS Cost Explorer](#).

For more information about activating the AWS generated tags, see [Activating the AWS-generated cost allocation tags \(p. 81\)](#). For more information about applying and activating user-defined tags, see [User-defined cost allocation tags \(p. 82\)](#). All tags can take up to 24 hours to appear in the Billing and Cost Management console.

#### Note

- As a best practice, do not include sensitive information in tags.
- Only management account in an organization and single accounts that are not members of an organization have access to the **cost allocation tags** manager in the Billing console.

#### Topics

- [AWS-generated cost allocation tags \(p. 78\)](#)
- [User-defined cost allocation tags \(p. 82\)](#)
- [Monthly cost allocation report \(p. 83\)](#)

## AWS-generated cost allocation tags

The AWS generated tag `createdBy` is a tag that AWS defines and applies to supported AWS resources for cost allocation purposes. To use the AWS generated tag, a management account owner must activate it in the Billing console. When a management account owner activates the tag, the tag is also activated for all member accounts. After the tag is activated, AWS starts applying the tag to resources that are created after the AWS generated tag is activated. The AWS generated tag is available only in the Billing console and reports, and doesn't appear anywhere else in the AWS console, including the AWS Tag Editor. The `createdBy` tag does not count towards your tags per resource quota.

The `createdBy` tag uses the following key-value definition:

```
key = aws:createdBy
```

```
value = account-type:account-ID or access-key:user-name or role session name
```

Not all values include all of the value parameters. For example, the value for a AWS generated tag for a root account doesn't always have a user name.

Valid values for the *account-type* are Root, IAMUser, AssumedRole, and FederatedUser.

If the tag has an account ID, the *account-id* tracks the account number of the root account or federated user who created the resource. If the tag has an access key, then the *access-key* tracks the IAM access key used and, if applicable, the session role name.

The *user-name* is the user name, if one is available.

Here are some examples of tag values:

```
Root:1234567890
Root: 11112223333 :exampleUser
IAMUser: AIDACKCEVSQ6C2EXAMPLE :exampleUser
AssumedRole: AKIAIOSFODNN7EXAMPLE :exampleRole
FederatedUser:1234567890:exampleUser
```

For more information about IAM users, roles, and federation, see the [IAM User Guide](#).

AWS-generated cost allocation tags are applied on a best-effort basis. Issues with services that AWS generated tag depends on, such as CloudTrail, can cause a gap in tagging.

The createdBy tag is applied only to the following services and resources after the following events.

AWS Product	API or Console Event	Resource Type
AWS CloudFormation (AWS CloudFormation)	CreateStack	Stack
AWS Data Pipeline (AWS Data Pipeline)	CreatePipeline	Pipeline
Amazon Elastic Compute Cloud (Amazon EC2)	CreateCustomerGateway	Customer gateway
	CreateDhcpOptions	DHCP options
	CreateImage	Image
	CreateInternetGateway	Internet gateway
	CreateNetworkAcl	Network ACL
	CreateNetworkInterface	Network interface
	CreateRouteTable	Route table
	CreateSecurityGroup	Security group
	CreateSnapshot	Snapshot
	CreateSubnet	Subnet
	CreateVolume	Volume
	CreateVpc	VPC
	CreateVpcPeeringConnection	VPC peering connection
	CreateVpnConnection	VPN connection
	CreateVpnGateway	VPN gateway

AWS Product	API or Console Event	Resource Type
	PurchaseReservedInstancesOptions	Reserved-instance
	RequestSpotInstances	Spot-instance-request
	RunInstances	Instance
Amazon ElastiCache (ElastiCache)	CreateSnapshot	Snapshot
	CreateCacheCluster	Cluster
AWS Elastic Beanstalk (Elastic Beanstalk)	CreateEnvironment	Environment
	CreateApplication	Application
Elastic Load Balancing (Elastic Load Balancing)	CreateLoadBalancer	Loadbalancer
Amazon S3 Glacier (S3 Glacier)	CreateVault	Vault
Amazon Kinesis (Kinesis)	CreateStream	Stream
Amazon Relational Database Service (Amazon RDS)	CreateDBInstanceReadReplica	Database
	CreateDBParameterGroup	ParameterGroup
	CreateDBSnapshot	Snapshot
	CreateDBSubnetGroup	SubnetGroup
	CreateEventSubscription	EventSubscription
	CreateOptionGroup	OptionGroup
	PurchaseReservedDBInstancesOffering	ReservedDB Instance
	CreateDBInstance	Database
Amazon Redshift (Amazon Redshift)	CreateClusterParameterGroup	ParameterGroup
	CreateClusterSnapshot	Snapshot
	CreateClusterSubnetGroup	SubnetGroup
	CreateCluster	Cluster
Amazon Route 53 (Route 53)	CreateHealthCheck	HealthCheck
	CreatedHostedZone	HostedZone
Amazon Simple Storage Service (Amazon S3)	CreateBucket	Bucket
AWS Storage Gateway (Storage Gateway)	ActivateGateway	Gateway

**Note**

The CreateDBSnapshot tag isn't applied to the snapshot backup storage.

## AWS Marketplace vendor-provided tags

Certain AWS Marketplace vendors can create tags and associate them with your software usage. These tags will have the prefix `aws:marketplace:isv:`. To use the tags, a management account owner must activate the tag in the Billing and Cost Management console. When a management account owner activates the tag, the tag is also activated for all member accounts. Similar to `aws:createdBy` tags, these tags appear only in the Billing and Cost Management console and they don't count towards your tags per resource quota. You can find the tag keys that apply to the product on the [AWS Marketplace](#) product pages.

## Activating the AWS-generated cost allocation tags

Management account owners can activate the AWS generated tags in the Billing and Cost Management console. When a management account owner activates the tag, it's also activated for all member accounts. This tag is visible only in the Billing and Cost Management console and reports.

### To activate the AWS generated tags

You can activate the `createdBy` tag in the Billing and Cost Management console.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Cost allocation tags**.
3. Under **AWS-generated cost allocation tags**, choose the `createdBy` tag.
4. Choose **Activate**.

It can take up to 24 hours for tags to activate.

## Deactivating the AWS-generated cost allocation tags

Management account owners can deactivate the AWS generated tags in the Billing and Cost Management console. When a management account owner deactivates the tag, it's also deactivated for all member accounts. After you deactivate the AWS generated tags, AWS no longer applies the tag to new resources. Previously tagged resources remain tagged.

### To deactivate the AWS generated tags

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Cost allocation tags**.
3. Under **AWS-generated cost allocation tags**, choose **Deactivate**.

It can take up to 24 hours for tags to deactivate.

## Restrictions on AWS-generated cost allocation tags

The following restrictions apply to the AWS generated tags:

- Only a management account can activate AWS generated tags.
- You can't update, edit, or delete AWS generated tags.

- AWS-generated cost allocation tags aren't applied to resources that were created before the tag was activated.
- The maximum active tag keys for Billing and Cost Management reports is 500.
- AWS generated tags are created using CloudTrail logs. CloudTrail logs over a certain size cause AWS generated tag creation to fail.
- The reserved prefix is `aws :`.

AWS generated tag names and values are automatically assigned the `aws :` prefix, which you can't assign. AWS generated tag names don't count towards the user-defined resource tag quota of 50. User-defined tag names have the prefix `user :` in the cost allocation report.

- Null tag values will not appear in Cost Explorer and AWS Budgets. If there is only one tag value that is also null, the tag key will also not appear in Cost Explorer or AWS Budgets.

## User-defined cost allocation tags

User-defined tags are tags that you define, create, and apply to resources. After you have created and applied the user-defined tags, you can activate by using the Billing and Cost Management console for cost allocation tracking. Cost allocation tags appear on the console after you've enabled Cost Explorer, Budgets, AWS Cost and Usage Reports, or legacy reports. After you activate the AWS services, they appear on your cost allocation report. You can then use the tags on your cost allocation report to track your AWS costs. Tags are not applied to resources that were created before the tags were created.

### Note

- As a best practice, reactivate your cost allocation tags when moving organizations. When an account moves to another organization as a member, previously activated cost allocation tags for that account lose their "active" status and need to be activated again by the new management account.
- As a best practice, do not include sensitive information in tags.
- Only a management account in an organization and single accounts that aren't members of an organization have access to the **cost allocation tags** manager in the Billing and Cost Management console.

## Applying user-defined cost allocation tags

For ease of use and best results, use the AWS Tag Editor to create and apply user-defined tags. The Tag Editor provides a central, unified way to create and manage your user-defined tags. For more information, see [Working with Tag Editor](#) in the [AWS Resource Groups User Guide](#).

For supported services, you can also apply tags to resources using the API or the AWS Management Console. Each AWS service has its own implementation of tags. You can work with these implementations individually or use Tag Editor to simplify the process. For a full list of services that support tags, see [Supported Resources for Tag-based Groups](#) and [Resource Groups Tagging API Reference](#).

### Note

The behavior of cost allocation tags varies across AWS services. To learn more about the cost allocation tag behavior for a supported service, refer to the service's documentation. For example, to learn more about using cost allocation tags with Amazon ECS, see [Tagging your Amazon ECS resources](#) in the *Amazon Elastic Container Service Developer Guide*.

After you create and apply user-defined tags, you can [activate them \(p. 83\)](#) for cost allocation. If you activate your tags for cost allocation, it's a good idea to devise a set of tag keys that represent how you want to organize your costs. Your cost allocation report displays the tag keys as additional columns with the applicable values for each row, so it's easier to track your costs if you use a consistent set of tag keys.



Some services launch other AWS resources that the service uses, such as Amazon EMR launching an EC2 instance. If the supporting service (EC2) supports tagging, you can tag the supporting resources (such as the associated Amazon EC2 instance) for your report. For a full list of resources that can be tagged, use the Tag Editor to search. For more information about how to search for resources using Tag Editor, see [Searching for Resources to Tag](#).

**Note**

AWS Marketplace line items are tagged with the associated Amazon EC2 instance tag.

## Activating user-defined cost allocation tags

For tags to appear on your billing reports, you must activate your applied tags in the Billing and Cost Management console.

### To activate your tags

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Cost allocation tags**.
3. Select the tags that you want to activate.
4. Choose **Activate**.

After you create and apply user-defined tags to your resources, it can take up to 24 hours for the tags to appear on your cost allocation tags page for activation. After you select your tags for activation, it can take up to 24 hours for tags to activate.

For an example of how tags appear in your billing report with cost allocation tags, see [Viewing a cost allocation report \(p. 85\)](#).

## User-defined tag restrictions

For basic tag restrictions, see [Tag Restrictions](#) in the Amazon EC2 User Guide.

The following restrictions apply to user-defined tags for Cost Allocation:

- The reserved prefix is `aws :`.  
  
AWS generated tag names and values are automatically assigned the `aws :` prefix, which you can't assign. User-defined tag names have the prefix `user :` in the cost allocation report.
- Use each key only once for each resource. If you attempt to use the same key twice on the same resource, your request will be rejected.
- In some services, you can tag a resource when you create it. For more information, see the documentation for the service where you want to tag resources.
- You can't backdate the application of a tag. This means that tags only start appearing on your cost allocation report after you apply them and don't appear on earlier reports.
- If you need characters outside of those listed in [Tag Restrictions](#), you can apply standard base-64 encoding to your tag. Billing and Cost Management does not encode or decode your tag for you.
- User-defined tags on non-metered services can be activated (for example, Account Tagging). However, these tags will not populate in the Cost Management suite because these services are not metered.

## Monthly cost allocation report

The monthly cost allocation report lists the AWS usage for your account by product category and linked account user. The report contains the same line items as the detailed billing report (see the [Cost and](#)

[Usage Reports Guide](#)) and additional columns for your tag keys. For more information, see the following topics.

#### Topics

- [Setting up a monthly cost allocation report](#) (p. 84)
- [Getting an hourly cost allocation report](#) (p. 84)
- [Viewing a cost allocation report](#) (p. 85)

## Setting up a monthly cost allocation report

By default, new tag keys that you add using the API or the AWS Management Console are automatically excluded from the cost allocation report. You can add them using the procedures described in this topic.

When you select tag keys to include in your cost allocation report, each key becomes an additional column that lists the value for each corresponding line item. Because you might use tags for more than just your cost allocation report (for example, tags for security or operational reasons), you can include or exclude individual tag keys for the report. This ensures that you're seeing meaningful billing information that helps organize your costs. A small number of consistent tag keys makes it easier to track your costs. For more information, see [Viewing a cost allocation report](#) (p. 85).

#### Note

AWS stores billing reports in an Amazon S3 bucket that you create and own. You can retrieve these reports from the bucket using the Amazon S3 API, AWS Management Console for Amazon S3, or the Amazon S3 command line interface (CLI). You can't download the cost allocation report from the [Account Activity](#) page of the Billing and Cost Management console.

#### To set up the cost allocation report and activate tags

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. Under **Preferences** in the navigation pane, choose **Billing Preferences**.
3. For **Detailed Billing Reports [Legacy]**, select the check box **Turn on the legacy Detailed Billing Reports feature to receive ongoing reports of your AWS charges**.
4. For **Save to S3 Bucket**, enter a valid Amazon S3 bucket name and choose **Verify**.
5. In the **Report** list, select the check box for **Cost allocation report**.
6. Choose **Manage report tags**, as shown in the following screenshot.

The page displays a list of tags that you've created using either the API or the console for the applicable AWS service. Tag keys that currently appear in the report are selected, and the check boxes for excluded tag keys are cleared.

7. For **Filter**, choose **Inactive tags** in the dropdown list and select the tags that you want to activate for your report.
8. Choose **Activate**.

If you own the management account in an organization, your cost allocation report includes all the usage, costs, and tags for the member accounts. By default, all keys registered by member accounts are available for you to include or exclude from your report. The detailed billing report with resources and tags also includes any cost allocation tag keys that you select using the preceding steps.

## Getting an hourly cost allocation report

The cost allocation report is one of several reports that AWS publishes to an Amazon S3 bucket several times a day.

**Note**

During the current billing period (monthly), AWS generates an estimated cost allocation report. The current month's file is overwritten throughout the billing period until a final report is generated at the end of the billing period. Then a new file is created for the next billing period. The reports for the previous months remain in the designated Amazon S3 bucket.

## Viewing a cost allocation report

The following example tracks the charges for several cost centers and applications. Resources (such as Amazon EC2 instances and Amazon S3 buckets) are assigned tags like "Cost Center"="78925" and "Application"="Widget1". In the cost allocation report, the user-defined tag keys have the prefix `user:`, such as `user:Cost Center` and `user:Application`. AWS generated tag keys have the prefix `aws:`. The keys are column headings identifying each tagged line item's value, such as "78925".

Total Cost ▾	user:Owner ▾	user:Stack ▾	user:Cost Center ▾	user:Application ▾
0.95	DbAdmin	Test	80432	Widget2
0.01	DbAdmin	Test	80432	Widget2
3.84	DbAdmin	Prod	80432	Widget2
6.00	DbAdmin	Test	78925	Widget1
234.63	SysEng	Prod	78925	Widget1
0.73	DbAdmin	Test	78925	Widget1
0.00	DbAdmin	Prod	80432	Portal
2.47	DbAdmin	Prod	78925	Portal

Pick your keys carefully so that you have a consistent hierarchy of values. Otherwise, your report won't group costs effectively, and you will have many line items.

**Note**

If you add or change the tags on a resource partway through a billing period, costs are split into two separate lines in your cost allocation report. The first line shows costs before the update, and the second line shows costs after the update.

## Unallocated resources in your report

Any charges that cannot be grouped by tags in your cost allocation report default to the standard billing aggregation (organized by Account/Product/Line Item) and are included in your report. Situations where you can have unallocated costs include:

- You signed up for a cost allocation report mid-month.
- Some resources aren't tagged for part, or all, of the billing period.
- You are using services that currently don't support tagging.
- Subscription-based charges, such as Premium Support and AWS Marketplace monthly fees, can't be allocated.
- One-time fees, such as Amazon EC2 Reserved Instance upfront charges, can't be allocated.

## Unexpected costs associated with tagged resources

You can use cost allocation tags to see what resources are contributing to your usage and costs, but deleting or deactivating the resources doesn't always reduce your costs. For more information on reducing unexpected costs, see [Avoiding unexpected charges \(p. 9\)](#).

# Using the AWS Free Tier

When you create an AWS account, you're automatically signed up for the AWS Free Tier for 12 months. The AWS Free Tier allows you to try some AWS services free of charge within certain usage limits.

For the list of services that offer AWS Free Tier benefits and their Free Tier usage limits, see [AWS Free Tier](#).

For more information on how to avoid charges while you're eligible for the AWS Free Tier, see the following resources:

- [Tracking your AWS Free Tier usage \(p. 87\)](#)
- [Avoiding unexpected charges after the AWS Free Tier \(p. 86\)](#)

## Eligibility for the AWS Free Tier

Your AWS usage stays within the AWS Free Tier limits when all of these conditions are met:

- You're within the first 12 months of creating your AWS account.
- You use only AWS services that offer AWS Free Tier benefits.
- Your usage stays within the AWS Free Tier limits of those services.

If you use AWS services beyond one or more of these conditions, then that usage exceeds the Free Tier limits. You're charged at the standard AWS billing rates for usage that exceeds the Free Tier limits.

To learn more about the AWS Free Tier limits, see [AWS Free Tier](#).

### **Note**

For AWS Organizations, the AWS Free Tier eligibility for all member accounts begins on the day that the management account is created. For more information, see the [AWS Organizations User Guide](#).

## Avoiding unexpected charges after the AWS Free Tier

Your eligibility for the AWS Free Tier expires 12 months after you first create your account. You can't extend your Free Tier eligibility after this time.

### **Note**

You can continue to use Always Free offers, even after your Free Tier eligibility expires. To learn more about available Always Free offers, see [AWS Free Tier](#).

As the expiration date of your AWS Free Tier eligibility approaches, we recommend that you terminate any resources you no longer need. After your eligibility expires, you're charged at the standard AWS billing rates for usage.

Even if you aren't regularly logging in to your account, you might have active resources running. Use the following procedure to identify your account's active resources.

### To identify your account's active resources

1. Sign in to the AWS Management Console and open the Billing console at <https://console.aws.amazon.com/billing/>.
2. Next to **Details**, choose **Expand All**.
3. Review the list under **AWS Service Charges**. This list shows you the services with active resources by AWS Region.

Note the services and AWS Regions with resources that you no longer need. For instructions on how to terminate those resources, see the documentation for that service.

You might decide to close your AWS account. To avoid generating future charges, we recommend that you retrieve the content you want to keep and terminate any remaining resources before you close your account. Closing your account might not automatically terminate all your active resources and you might continue to incur charges. Make sure to review your content and resources across different AWS Regions. For more information and important considerations, see [close your account \(p. 21\)](#).

## Tracking your AWS Free Tier usage

You can track your AWS Free Tier usage in the following ways:

- Set up Free Tier alerts using AWS Budgets. By default, AWS Budgets automatically notifies you over email when you exceed 85 percent of the Free Tier limit for each service. You can also configure AWS Budgets to track your usage to 100 percent of the Free Tier limit.
- Review your AWS Free Tier usage using the **Top Free Tier Services by Usage** table in the Billing console.

### Topics

- [AWS Free Tier usage alerts using AWS Budgets \(p. 87\)](#)
- [Top AWS Free Tier services table \(p. 88\)](#)
- [Trackable AWS Free Tier services \(p. 88\)](#)

## AWS Free Tier usage alerts using AWS Budgets

AWS Budgets allows you to track and take action on your cost and usage. For more information about this feature, see [Managing your costs with AWS Budgets](#).

AWS Budgets automatically notifies you over email when you exceed 85 percent of your Free Tier limit for each service. For additional tracking, you can set up AWS Budgets to track your usage to 100 percent of the Free Tier limit for each service. For example, you can set up a budget to send you an alert when you're forecasted to exceed 100 percent of the Free Tier limit for Amazon Elastic Block Store. For instructions on how to set up a usage budget, see [Creating a usage budget](#).

AWS Free Tier usage alerts cover non-expiring Free Tier offerings, such as the first 25 GB of Amazon DynamoDB storage or the first 10 custom Amazon CloudWatch metrics. The alerts also cover AWS Free Tier offerings that expire after 12 months, such as the 750 hours per month of Amazon EC2 Windows t2.micro instance usage and the first 5 GB of standard Amazon S3 storage. The alerts don't cover Free Tier offerings that expire in less than 12 months, such as the first 30 days of using Amazon Lightsail.

When you exceed the Free Tier limit for a service, AWS sends an email to the email address that you used to create your account. Use the following procedure to change the email address for AWS Free Tier usage alerts.

### To change the email address for AWS Free Tier usage alerts

1. Sign in to the AWS Management Console and open the Billing console at <https://console.aws.amazon.com/billing/>.
2. Under **Preferences** in the navigation pane, choose **Billing preferences**.
3. Under **Cost Management Preferences**, under **Receive AWS Free Tier Usage Alerts** in the **Email Address** dialog box, enter the email address where you want to receive the usage alerts.
4. Scroll to the end of the page and choose **Save preferences**.

AWS Budgets usage alerts for 85 percent of the Free Tier limit are automatically activated for all individual AWS accounts, but not for a management account in an AWS Organizations. If you own a management account, you must opt in to get AWS Free Tier usage alerts. Use the following procedure to opt in or out of Free Tier usage alerts.

### To opt in or out of AWS Free Tier usage alerts

1. Sign in to the AWS Management Console and open the Billing console at <https://console.aws.amazon.com/billing/>.
2. Under **Preferences** in the navigation pane, choose **Billing preferences**.
3. Under **Cost Management Preferences**, select **Receive AWS Free Tier Usage Alerts** to opt in to Free Tier usage alerts. To opt out, clear the **Receive AWS Free Tier Usage Alerts** check box.

## Top AWS Free Tier services table

If you're eligible for the AWS Free Tier and you use an AWS Free Tier offering, you can track your usage with the **Top AWS Free Tier Services by Usage** table on the dashboard of the [AWS Billing console](#). The dashboard shows your account's top five AWS Free Tier service measurements.

To see more details about your AWS Free Tier usage, including all of your active Free Tier services, choose **View all** in the **Top AWS Free Tier Services by Usage** table. The detailed table includes additional information about your forecasted usage for each Free Tier service measurement.

The **Top AWS Free Tier Service by Usage** table is grouped by service limit. A service might have multiple lines, enabling you to track each AWS Free Tier limit closely. For example, each month you get 2,000 Amazon S3 Put operations and 5 GB of Amazon S3 storage. The AWS Free Tier usage table has two lines, one for S3 - Puts and one for S3 - Storage.

The following conditions might limit whether you see the Free Tier table data:

- You use an AWS service that doesn't offer a AWS Free Tier.
- Your AWS Free Tier has expired.
- You access AWS through an AWS Organizations member account.
- You use an AWS service in the AWS GovCloud (US-West) or AWS GovCloud (US-East) Regions.

## Trackable AWS Free Tier services

With AWS, you can track how much you used AWS Free Tier services and what service usage types you used. Usage types are the specific type of usage that AWS tracks. For example, the usage type `Global-BoxUsage:freetier.micro` means that you used an Amazon EC2 micro instance.

The AWS Free Tier usage alerts and the **Top AWS Free Tier Services by Usage** table cover both expiring and non-expiring AWS Free Tier offerings. You can track the following services and usage types.

Service	Usage type
Alexa Web Information Service	AlexaWebInfoService::request AlexaWebInfoService::Requests
Amazon API Gateway	Global-ApiGatewayRequest
Amazon AppStream	Global-stream-hrs:720p:g2 Global-stream.standard.large-ib
Amazon Cloud Directory	Global-Requests-Tier1 Global-Requests-Tier2 Global-TimedStorage-ByteHrs
Amazon CloudFront	Global-DataTransfer-Out-Bytes Global-Requests-Tier1 Invalidations Execution:Executions-CloudFrontFunctions
Amazon CloudWatch	Global-CW:Requests Global-TimedStorage-ByteHrs PutLogEvents:Global-DataProcessing-Bytes
Amazon Cognito	Global-CognitoUserPoolMAU
Amazon Cognito Sync	Global-CognitoSyncOperation Global-TimedStorage-ByteHrs
Amazon Connect	USE1-end-customer-mins
AWS CodeBuild	Global-Build-Min:Linux:g1.small
Amazon GameLift	Global-BoxUsage:c5.large
AWS Storage Gateway	Global-Uploaded-Bytes
Amazon DynamoDB	TimedStorage-ByteHrs GetRecords:AFS1-Streams-Requests
Amazon Elastic Compute Cloud (Amazon EC2)	Global-BoxUsage:freetier.micro Global-BoxUsage:freetier.micro Global-DataProcessing-Bytes Global-EBS:SnapshotUsage Global-EBS:VolumeIOUsage

Service	Usage type
	Global-EBS:VolumeUsage Global-LCUUsage Global-LoadBalancerUsage
Amazon Elastic Container Registry (Amazon ECR)	Global-TimedStorage-ByteHrs
Amazon Elastic File System	Global-TimedStorage-ByteHrs
Amazon OpenSearch Service	Global-ES:freetier-Storage Global-ESInstance:freetier.micro
Amazon Elastic Transcoder	global-ets-audio-success Global-ets-hd-success Global-ets-sd-success
Amazon Forecast	Global-DataInjection Global-TrainingHours
Amazon Fraud Detector	Global-BoxUsage:c3.large Global-FlexMatchMatchmakingHrs Global-FlexMatchPlayerPackages Global-DailyActiveUser
Amazon GameLift	Global-CW:Requests Global-DataProcessing-Bytes Global-TimedStorage-ByteHrs
Amazon GameOn	API-Score-Free-Tier
Amazon GameSparks	Global-ExecutionTime-Code Global-APIRequest-Blocks Global-APIRequest-Code Global-APIRequest-CodeRead Global-APIRequest-CodeWrite Global-APIRequest-Tune Global-Storage-Code Global-Storage-Content
Amazon IVS	SUM-Global-Input-Basic-Hours SUM-Global-Output-SD-Hours



Service	Usage type
Amazon Lex	Lex-Global-Speech-Requests Lex-Global-Text-Requests
Amazon LookoutVision	Free-Inference Free-Training
Amazon Macie	SensitiveDataDiscovery
Amazon MCS	Global-TimedStorage-ByteHrs Global-ReadRequestUnits Global-WriteRequestUnits
Amazon Neptune	DataTransfer-Out-Bytes
Amazon Pinpoint	Domain-Inboxplacement MonthlyTargetedAudience Predictive-Tests
Amazon Personalize	Global-DataIngestion Global-TPS-hours Global-TrainingHour Predictive-Tests EventsRecorded
Amazon Polly	Global-SynthesizeSpeech-Chars
Amazon Relational Database Service	Global-InstanceUsage:db.t1.micro Global-RDS:StorageIOUsage
Amazon Rekognition	Global-FaceVectorsStored Global-ImagesProcessed Global-inferenceminutes Global-MinutesOfVideoProcessed Global-minutestrained
Amazon Route 53	Health-Check-AWS
Amazon Simple Storage Service (Amazon S3)	Global-Requests-Tier1 Global-Requests-Tier2 Global-TimedStorage-ByteHrs

Service	Usage type
Amazon Simple Email Service	Global-Message Global-Recipients-MailboxSim-EC2
Amazon Simple Notification Service (Amazon SNS)	DeliveryAttempts-HTTP DeliveryAttempts-SMTP Requests-Tier1 Notifications-Mobile
Amazon States	Global-StateTransition
Amazon Simple Workflow Service	Global-AggregateInitiatedActions Global-AggregateInitiatedWorkflows Global-AggregateWorkflowDays
Amazon Textract	Global-PagesforAnalyzeDocTables Global-PagesforDocumentText
Amazon WorkLink	WorkLink-MAU
Amazon TTS	Global-SynthesizeSpeech-Chars
Amazon WorkSpaces	AutoStop-Usage AutoStop-User
AWS Amplify	Global-BuildDuration Global-DataStorage , Global-DataTransferOut
AWS Budgets	ActionEnabledBudgetsUsage
AWS CodeArtifact	Global-Requests Global-TimedStorage-ByteHrs
AWS CodeCommit	User-Month Global-activePipeline
AWS Database Migration Service	Global-InstanceUsg:dms.t2.micro Global-SynthesizeSpeechNeural-Characters
AWS DataTransfer	Global-DataTransfer-Out-Bytes
AWS DeepRacer	TimedStorage-GigabyteHrs

Service	Usage type
AWS Glue	Global-Catalog-Request Global-Catalog-Storage
AWS IoT	AWSIoT-messages
AWS KMS	Global-KMS-Requests
AWS Lambda	Global-Lambda-GB-Second Global-Request
Amazon SQS	Global-Requests
AWS X-Ray	Global-XRay-TracesAccessed Global-XRay-TracesStored
AWS Storage Gateway	Global-Uploaded-Bytes
AWS CodeBuild	Global-Build-Min:Linux:g1.small
Amazon Comprehend	Global-Comprehend-DC-Custom Global-Comprehend Global-Comprehend-Syntax Global-DetectEvents Global-DetectPiiEntities Global-DetectTopics
Amazon Comprehend Medical	Global-CompMed-DetectEntities Global-CompMed-DetectPHI
ContactCenterTelecomm	USE1-US-did-inbound-mins USE1-US-outbound-mins USE1-US-tollfree-inbound-mins
ContactLensAmazonConnect	ChatAnalytics:Global-ChatAnalytics VoiceAnalytics:Global-VoiceAnalytics
AWS IoT Device Defender	global-Detect
AWS IoT Device Management	global-JobExecutions
Amazon Mobile Analytics	EventsRecorded
AWS OpsWorks	OpsWorks-Chef-Automate

# Using the AWS Price List API

AWS offers two APIs that you can use to query prices:

- With the AWS Price List Bulk API, you can query the prices of AWS services in bulk. The API returns either a JSON or a CSV file. The bulk API retains all historical versions of the price list.
- With the AWS Price List Query API, you can query specific information about AWS services, products, and pricing using an AWS SDK or the AWS CLI. This API can retrieve information about certain products or prices, rather than retrieving prices in bulk. This allows you to get pricing information in environments that might not be able to process a bulk price list, such as in mobile or web browser-based applications. For example, you can use the query API to fetch pricing information for Amazon EC2 instances with 64 vCPUs, 256 GiB of memory, and pre-installed SQL Server Enterprise in the Asia Pacific (Mumbai) Region. The query API serves the current prices and doesn't retain historical prices.

## Topics

- [Using the query API \(p. 94\)](#)
- [Using the bulk API \(p. 95\)](#)
- [Setting up notifications \(p. 105\)](#)

## Using the query API

The AWS Price List Query API is a centralized and convenient way to programmatically query AWS for services, products, and pricing information. The query API uses standardized product attributes such as Location, Storage Class, and Operating System, and provides prices at the SKU level. You can use the query API to build cost control and scenario planning tools, reconcile billing data, forecast future spend for budgeting purposes, and provide cost benefit analyses that compare your internal workloads with AWS. The query API does not support Savings Plans prices.

If you use a programming language that AWS provides an SDK for, we recommend that you use the SDK. All of the AWS SDKs greatly simplify the process of signing requests and save you a significant amount of time when compared with using the query API. In addition, the SDKs integrate easily with your development environment and provide easy access to related commands.

### Note

The AWS Price List Query API provides pricing details for your information only. If there is a discrepancy between the offer file and a service pricing page, AWS charges the prices that are listed on the service pricing page. For more information about AWS service pricing, see [Cloud Services Pricing](#).

For more information about available SDKs, see [Tools for Amazon Web Services](#). For more information about the AWS Price List Query API, see the [AWS Billing and Cost Management API Reference](#).

## Service endpoint

The AWS Price List Query API provides the following two endpoints:

- <https://api.pricing.us-east-1.amazonaws.com>

- <https://api.pricing.ap-south-1.amazonaws.com>

## Granting IAM permissions to use the AWS Price List Query API

An IAM user must be granted explicit permission to query the AWS Price List Query API. For the policy that grants the necessary permissions to an IAM user, see [Find products and prices \(p. 138\)](#).

## Using the bulk API

The AWS Price List Bulk API is actually a URL that provides up-to-date pricing information on the current AWS products and services. To access pricing information using the bulk API, download the offer file:

- **Offer file** – A JSON or CSV file that lists the products and prices for either a single AWS service in all Regions or a single AWS service in a specific Region. For more information, see [Downloading an offer file \(p. 96\)](#).

To find a list of all available offer files, download the offer index file:

- **Offer index file** – A JSON file that lists the supported AWS services, with a URL for each offer file where you can download pricing details. The file also includes metadata about the offer index file itself, URLs for service offer files, and URLs for regional offer index files. For more information, see [Downloading an offer index file \(p. 95\)](#).

Offer files don't include information about expiring free tier offers or Amazon EC2 Spot Instances.

### Note

The AWS Price List Bulk API provides pricing details for your information only. If there is a discrepancy between the offer file and a service pricing page, AWS charges the prices that are listed on the service pricing page. For more information about AWS service pricing, see [Cloud Services Pricing](#).

### Topics

- [Downloading an offer index file \(p. 95\)](#)
- [Downloading an offer file \(p. 96\)](#)
- [Finding prices in an offer file \(p. 96\)](#)
- [Finding Savings Plan prices in an offer file \(p. 99\)](#)
- [Reading an offer file \(p. 100\)](#)
- [Reading the offer index file \(p. 104\)](#)

To receive SNS notifications when prices change, see [Setting up notifications \(p. 105\)](#).

## Downloading an offer index file

To download the offer index file, go to the following [URL](#) :

```
https://pricing.us-east-1.amazonaws.com/offers/v1.0/aws/index.json
```

The URL opens the offer index file. In the offer index file, search for the service that you want prices for. You need the service code to download the service-specific offer file. To download an offer index file for a specific service and Region, find the service that you want prices for and open the regional offer index file.

For more information, see [Reading the offer index file \(p. 104\)](#).

## Downloading an offer file

To download the offer file for the service that you want, go to the URL for that offer file. For example, to download the current JSON version of the Amazon EC2 offer file, go to the following [URL](#) :

```
https://pricing.us-east-1.amazonaws.com/offers/v1.0/aws/AmazonEC2/current/index.json
```

The offer index file includes the JSON URLs. To download the CSV version, replace the `.json` extension in the offer file URL with `.csv`. If you want to download the offer file for a specific service and you know the service code, replace the AmazonEC2 in the URL with the service code to download the offer file for that service. If you don't know the service code, download the offer index file to find it. If you want to download the offer file for a specific service in a specific Region and you know the service code and Region, use the URL for that regional offer file. For example, to download the current JSON version of the Amazon EC2 offer file for US East (N. Virginia), use the following [URL](#) :

```
https://pricing.us-east-1.amazonaws.com/offers/v1.0/aws/AmazonEC2/current/us-east-1/index.json
```

To download the offer file for Savings Plans that apply to a particular service, go to the Savings Plans URL for that service. For example, to download the current JSON version of Compute Savings Plans, use the following [URL](#) . You can use this URL for the regional offer files directly.

```
https://pricing.us-east-1.amazonaws.com/savingsPlan/v1.0/aws/AWSComputeSavingsPlan/current/index.json
```

To download the current JSON version of SageMaker Savings Plans, use the following [URL](#) .

```
https://pricing.us-east-1.amazonaws.com/savingsPlan/v1.0/aws/AWSMachineLearningSavingsPlans/current/index.json
```

If you access the offer files programmatically, you can use the offer index file to find the current URLs. For more information about the offer index file, see [Finding prices in an offer file \(p. 96\)](#), [Finding Savings Plan prices in an offer file \(p. 99\)](#), and [Reading an offer file \(p. 100\)](#).

## Finding prices in an offer file

The AWS Price List Bulk API provides prices for all AWS products for informational purposes, including On-Demand and Reserved Instance pricing.

You can use the offer files to find the prices and terms for a specific product. For example, you can find a list of Amazon EC2 instance prices.

### Note

The AWS Price List Bulk API is not a comprehensive source for limited period Free Tiers, such as AWS Free Tier pricing. For complete information on Free Tier prices, see [AWS Free Tier](#).

Use the following procedures to find prices for the products you're interested in.

### Topics

- [Finding On-Demand prices for services \(p. 97\)](#)
- [Finding tiered prices for services \(p. 97\)](#)
- [Finding tiered prices for services with free tier \(p. 98\)](#)
- [Finding prices for services with reserved instances \(p. 99\)](#)

## Finding On-Demand prices for services

The following procedure shows how to find On-Demand prices for services (for example, Amazon EC2).

### To find an On-Demand price using the csv file

1. Download the csv file for the service.
2. Open the csv file with your program of choice.
3. Under the **TermType** column, filter to show **OnDemand**.
4. Find the usage type and operation of your choice.
5. In the **PricePerUnit** column, see the corresponding price.

### To find an On-Demand price using the JSON file

1. Download the JSON file for the service.
2. Open the JSON file with your program of choice.
3. Under **terms** and **On-Demand**, find the SKU of interest.

If you don't know the SKU, search under **products** for the **usage type** and **operation**.

4. See the **pricePerUnit** to find the corresponding On-Demand price for the SKU.

## Finding tiered prices for services

The following procedure shows how to find tiered prices for services (for example, Amazon S3).

### To find tiered prices for services using the csv file

1. Download the csv file for the service.
2. Open the csv file with your program of choice.
3. Under the **TermType** column, filter to show **OnDemand**.
4. Find the usage type and operation of your choice.
5. In the **PricePerUnit** column, see the corresponding price for each **StartingRange** and **EndingRange**.

### To find tiered prices for services using the JSON file

1. Download the JSON file.
2. Open the JSON file with your program of choice.
3. Under **terms** and **On-Demand** find the SKU of interest.

If you don't know the SKU, search under **products** for the **usage type** and **operation**.

4. Under each **beginRange** and **endRange**, see the **pricePerUnit** to find the corresponding tiered prices.

## Finding tiered prices for services with free tier

The following procedure shows how to find AWS services that publish free tier prices in the AWS Price List Bulk API (for example, AWS Lambda).

All Free Tier prices are subject to the terms documented in [AWS Free Tier](#).

### To find prices for services with free tier using csv

1. Download the csv file for the service.
2. Open the csv file with your program of choice.
3. Under the **TermType** column, filter to show **OnDemand**.
4. Under the **Location** column, filter to show **Any**.

**Any** does not represent all AWS Regions in this scenario. It is a subset of Regions defined by other line items in the csv file, with a **RelatedTo** column matching the SKU for the location **Any** entry.

5. To find a list of all eligible locations and products for a given Free Tier SKU, find the Free Tier SKU under the **RelatedTo** column.
6. To find the covered usage by Free Tier across all eligible locations, see the **StartingRange** and **EndingRange** for the location **Any**.

### Example

This example assumes there are no more entries in the price file where **RelatedTo** equals to the SKU ABCD.

The free tier offer with SKU ABCD is valid in Regions Asia Pacific (Singapore) and US East (Ohio), but not in AWS GovCloud (US). The covered usage by Free Tier is 400,000 seconds total, used across both eligible Regions.

SKU	StartingRange	EndingRange	Unit	RelatedTo	Location
ABCD	0	400000	seconds		Any
QWER	0	Inf	seconds	ABCD	Asia Pacific (Singapore)
WERT	0	Inf	seconds	ABCD	US East (Ohio)
ERTY	0	Inf	seconds		AWS GovCloud (US)

### To find tiered prices for services with free tier using the JSON file

1. Download the JSON file for the service.
2. Open the JSON file with your program of choice.
3. Under **products**, find the **usagetype** with the Region prefix **Global**.
4. Take note of the SKU and look for the same SKU under **terms** and **OnDemand**.
5. For the amount of Free Tier usage, see the **BeginRange** and **EndRange**.



For a list of products and Regions covered by Free Tier, see **appliesTo**.

## Finding prices for services with reserved instances

The following procedure shows how to find prices for services with Reserved Instances (for example, Amazon RDS).

### To find an Reserved Instance using the csv file

1. Download the EC2 csv file for the service.
2. Open the csv file with your program of choice.
3. Under the **TermType** column, filter to show **reserved**.
4. Find the usage type and operation of your choice.
5. For each **LeaseContractLength**, **PurchaseOption**, and **OfferingClass**, see the **PricePerUnit** column for the corresponding price .

### To find an prices for Reserved Instance using the JSON file

1. Download the JSON file for the service.
2. Open the JSON file with your program of choice.
3. Under **terms** and **Reserved**, find the SKU of interest.

If you don't know the SKU, search under **products** for the **usage type** and **operation**.

You can find prices for all **LeaseContractLength**, **PurchaseOption**, and **OfferingClass** for the same product.

## Finding Savings Plan prices in an offer file

You can use the offer files to find prices and discounts when Savings Plans are applied to your usage.

The following procedures show how to find products participating in Savings Plans by downloading a Savings Plans CSV or JSON file.

### To find Savings Plans for a service

1. Download the index file.
2. Navigate to your relevant service.
3. Search for `savingsPlanVersionIndexUrl` to find Savings Plans rates that apply to the service.

#### Note

Some services might not have Savings Plans that apply.

### To find Savings Plans rates for a service

1. Download the Savings Plans index file.
2. Find the relevant `regionalIndexURLs` for the Regions.

The Compute Savings Plans that apply across multiple Regions will be in the **global** Region.

3. Download the Savings Plans offer file.

- **Terms** includes the contract length and rates for all available Savings Plans.
- **Rates** lists all SKUs that are covered by Savings Plans along with the applicable rate. Details of these SKUs are available in the individual service files. For example, Amazon EC2, Fargate, and AWS Lambda.

Files are available in both CSV and JSON format.

## Reading an offer file

An offer file lists the products and prices for a single AWS service in all Regions or a single AWS service in a specific Region. Offer files are available as either CSV or JSON files. You can read the files in multiple ways, such as using a spreadsheet program to read and sort the CSV file, a text program to read the file, or a program that parses JSON.

Offer files include the following types of information:

- [Offer file details](#) – File metadata about the offer file itself, such as the format version and the publication date.
- [Product details](#) – Product metadata that lists the products in an offer file along with product information.
- [Pricing details \(terms\)](#) – Prices for all the products in this offer file.

### Note

In a CSV file, the product and pricing details are combined into one section. In a JSON file, the product details and pricing details are in separate sections.

### Topics

- [CSV file \(p. 100\)](#)
- [JSON file \(p. 100\)](#)
- [Offer file definitions \(p. 101\)](#)

## CSV file

The first five rows of the CSV are the metadata for the offer file. The sixth row has all the column names for the products and their attributes, such as the SKU, the OfferTermCode, the RateCode, the TermType, and more. The number of columns varies depending on the service. The first 12 columns contain all the pricing details, while the other columns contain the product details for a service.

## JSON file

In the JSON files, the product details and pricing details are in separate sections. The same product can be offered under multiple terms, and the same term could apply to multiple products. For example, an EC2 instance is available for an Hourly or Reserved term. Use the SKU of a product to identify the terms that are available for that product.

A JSON offer file looks like this:

```
{
  "formatVersion": "The version of the file format",
  "disclaimer": "The disclaimers for the offer file",
  "offerCode": "The code for the service",
  "version": "The version of the offer file",
  "publicationDate": "The publication date of the offer file",
  "Products (p. 102)": {
    "sku": {
```

```
    "sku": "The SKU of the product",
    "productFamily": "The product family of the product",
    "attributes": {
      "attributeName": "attributeValue",
    }
  },
  "Terms (p. 102)": {
    "termType": {
      "sku": {
        "sku": {
          "offerTermCode": "The term code of the product",
          "sku": "The SKU of the product",
          "effectiveDate": "The effective date of the pricing details",
          "termAttributesType": "The attribute type of the terms",
          "termAttributes": {
            "attributeName": "attributeValue",
          },
        },
        "priceDimensions": {
          "rateCode": {
            "rateCode": "The rate code of the price",
            "description": "The description of the term",
            "unit": "The usage measurement unit for the price",
            "startingRange": "The start range for the term",
            "endingRange": "The end range for the term",
            "pricePerUnit": {
              "currencyCode": "currencyRate",
            }
          }
        }
      }
    }
  }
}
```

## Offer file definitions

Each of the sections in an offer file includes specific details about that product:

- [Offer file details](#) – File metadata about the offer file itself, such as the format version and the publication date.
- [Product details](#) – Product metadata that lists the products in an offer file along with product information.
- [Pricing details \(terms\)](#) – Prices for all the products in this offer file.

### Note

In a CSV file, the product and pricing details are combined into one section. In a JSON file, the product details and pricing details are in separate sections.

The following lists provide definitions for each detail.

## Offer file details

This section provides metadata about the offer file itself.

### Format Version

An attribute that tracks which format version the offer file is in. The `formatVersion` of the file is updated when the structure is changed. For example, the version will change from v1 to v2.

### **Disclaimer**

Any disclaimers that apply to the offer file.

### **Offer Code**

A unique code for the product of an AWS service. For example, AmazonEC2 for Amazon EC2 or Amazon S3 for Amazon S3.

### **Version**

An attribute that tracks the version of the offer file. Each time a new file is published, it contains a new version number. For example, 20150409T022205 and 20150910T182105.

### **Publication Date**

The date and time (UTC) when an offer file was published. For example, 2015-04-09T02:22:05Z, 2015-09-10T18:21:05Z.

## **Product details**

This section provides information about products in an AWS service offer file. Products are indexed by SKU.

### **Product Details:SKU**

A unique code for a product. Use the SKU code to correlate product details and pricing. For example, a product with a SKU of HCNSHWWAJSGVAHMH is available only for a price that also lists HCNSHWWAJSGVAHMH as a SKU.

### **Product Details:SKU:Product Family**

The category for the type of product. For example, compute for Amazon EC2 or storage for Amazon S3.

### **Product Details:SKU:Attributes**

A list of all of the product attributes.

### **Product Details:SKU:Attributes:Attribute Name**

The name of a product attribute. For example, Instance Type, Processor, or OS.

### **Product Details:SKU:Attributes:Attribute Value**

The value of a product attribute. For example, m1.small (an instance type), xen (a type of processor), or Linux (a type of OS).

## **Pricing details (terms)**

This section provides information about the prices for products in an AWS service offer file. Prices are indexed first by the terms (onDemand and reserved), and then by SKU.

### **Pricing Details:Term Type**

The specific type of term that a term definition describes. The valid term types are reserved and onDemand.

### **Pricing Details:Term Type:SKU**

A unique code for a product. Use the SKU code to correlate product details and pricing. For example, a product with a SKU of HCNSHWWAJSGVAHMH is available only for a price that also lists HCNSHWWAJSGVAHMH as a SKU.

**Pricing Details:Term Type:SKU:Offer Term Code**

A unique code for a specific type of term. For example, KCAKZHGHC. Product and price combinations are referenced by the SKU code followed by the term code, separated by a period. For example, U7ADXS4BEK5XXHRU.KCAKZHGHC.

**Pricing Details:Term Type:SKU:Effective Date**

The date that an offer file goes into effect. For example, if a term has an EffectiveDate of November 1, 2017, the price is not valid before November 1, 2017.

**Pricing Details:Term Type:SKU:Term Attributes Type**

A unique code for identifying what product and product offering are covered by a term. For example, an EC2-Reserved attribute type means that a term is available for EC2 reserved hosts.

**Pricing Details:Term Type:SKU:Term Attributes**

A list all of the attributes that are applicable to a term type, in the format attribute-name: attribute-value. For example, length of term and type of purchase covered by the term.

**Pricing Details:Term Type:SKU:Term Attributes:Attribute Name**

The name of a TermAttribute. You can use it to look up specific attributes. For example, you can look up terms by length or PurchaseOption.

**Pricing Details:Term Type:SKU:Term Attributes:Attribute Value**

The value of a TermAttribute. For example, terms can have a length of one year and a purchase option of All Upfront.

**Pricing Details:Term Type:SKU:Price Dimensions**

The pricing details for the offer file, such as how usage is measured, the currency that you can use to pay with, and the pricing tier limitations.

**Pricing Details:Term Type:SKU:Price Dimensions:Rate Code**

A unique code for a product/offer/pricing-tier combination. Product and term combinations can have multiple price dimensions, such as a free tier, a low use tier, and a high use tier.

**Pricing Details:Term Type:SKU:Price Dimensions:Rate Code:Description**

The description for a price or rate.

**Pricing Details:Term Type:SKU:Price Dimensions:Rate Code:Unit**

The type of unit that each service uses to measure usage for billing. For example, EC2 uses hours as a measuring unit, and S3 uses GB as a measuring unit.

**Pricing Details:Term Type:SKU:Price Dimensions:Rate Code:Starting Range**

The lower limit of the price tier covered by this price. For example, 0 GB or 1,001 API calls.

**Pricing Details:Term Type:SKU:Price Dimensions:Rate Code:Ending Range**

The upper limit of the price tier covered by this price. For example, 1,000 GB or 10,000 API calls.

**Pricing Details:Term Type:SKU:Price Dimensions:Rate Code:Price Per Unit**

A calculation of how much a single measured unit for a service costs.

**Pricing Details:Term Type:SKU:Price Dimensions:Rate Code:Price Per Unit:Currency Code**

A code that indicates the currency for prices for a specific product.

**Pricing Details:Term Type:SKU:Price Dimensions:Rate Code:Price Per Unit:Currency Rate**

The rate for a product in various supported currencies. For example, \$1.2536 per unit.

## Reading the offer index file

After you have the offer index file, you can use it to find an offer file.

### Topics

- [Offer index file \(p. 104\)](#)
- [Offer index definitions \(p. 104\)](#)

## Offer index file

The offer index file is available as a JSON file. You can read the file multiple ways, such as using a text program to read the JSON file or a program that parses the JSON.

The offer index file consists of two main sections: the metadata about the offer index file itself, and either a list of the services that AWS offers (for the offer index file) or a list of Regions where a service is offered (for the regional offer index file). The information about an offer file includes the URL where you can download the prices and a URL for a regional offer index file for that service.

The offer index file looks like this:

```
{
  "formatVersion": "The version number for the offer index format",
  "disclaimer": "The disclaimers for this offer index",
  "publicationDate": "The publication date of this offer index",
  "offers": {
    "firstService": {
      "offerCode": "The service that this price list is for",
      "currentVersionUrl": "The URL for this offer file",
      "currentRegionIndexUrl": "The URL for the regional offer index file",
      "savingsPlanVersionIndexUrl": "The URL for the Savings Plan index file (if applicable)"
    },
    "secondService": {
      "offerCode": ...,
      "currentVersionUrl": ...,
      "currentRegionIndexUrl": ...,
      "savingsPlanVersionIndexUrl": ...
    },
    ...
  },
  ...
}
```

## Offer index definitions

The following list defines the terms that are used in the offer index file:

### FormatVersion

An attribute that tracks which format version the offer index file is in. The `formatVersion` of the file is updated when the structure is changed. For example, the version will change from v1 to v2.

### Disclaimer

Any disclaimers that apply to the offer index file.

### PublicationDate

The date and time (UTC) when an offer index file was published. For example, 2015-04-09T02:22:05Z, 2015-09-10T18:21:05Z.

## Offers

A list of available offer files.

### Offers:OfferCode

A unique code for the product of an AWS service. For example, AmazonEC2 or AmazonS3. The `OfferCode` is used as the lookup key for the index.

### Offers:CurrentVersionUrl

The URL where you can download the most up-to-date offer file.

### Offers:currentRegionIndexUrl

A list of available regional offer files.

### Offers:savingsPlanVersionIndexUrl

The list of applicable Savings Plan offers.

## Setting up notifications

You can sign up to receive notifications when AWS prices change, such as when AWS cuts prices, when new instance types are launched, or when new services are introduced. You can sign up to be notified every time a price changes or once a day. If you sign up to be notified once a day, the notification includes all price changes applied during that day.

You can use the console to sign up for Amazon SNS notifications.

### To sign up for price update notifications

1. Sign in to the AWS Management Console and open the Amazon SNS console at <https://console.aws.amazon.com/sns/v3/home>.
2. If you are new to Amazon SNS, choose **Get Started**.
3. If necessary, change the Region on the navigation bar to **US East (N. Virginia)**.
4. On the navigation pane, choose **Subscriptions**.
5. Choose **Create Subscription**.
6. For **Topic ARN**, do the following as appropriate:
  - For service pricing – If you want to be notified every time a price changes, enter `arn:aws:sns:us-east-1:278350005181:price-list-api`. If you want to be notified about price changes once a day, enter `arn:aws:sns:us-east-1:278350005181:daily-aggregated-price-list-api` instead.
  - For Savings Plans prices – Enter `arn:aws:sns:us-east-1:626627529009:SavingsPlanPublishNotifications`.
7. For **Protocol**, use the default HTTP setting.
8. For **Endpoint**, choose the format that you want to receive the notification in, such as Amazon SQS, Lambda, or email.
9. Choose **Create Subscription**.

### Important

If you get an error message `Couldn't create subscription. Error code: InvalidParameter - Error message: Invalid parameter: TopicArn`, it's likely that your Region is not set to **US East (N. Virginia)**. The billing metric data is stored in this Region, even for resources in other Regions. Repeat the process with close attention to step 3.

# Consolidated billing for AWS Organizations

You can use the consolidated billing feature in AWS Organizations to consolidate billing and payment for multiple AWS accounts or multiple Amazon Web Services India Private Limited (AWS India) accounts. Every organization in AWS Organizations has a *management account* that pays the charges of all the *member accounts*. For more information about organizations, see the [AWS Organizations User Guide](#).

Consolidated billing has the following benefits:

- **One bill** – You get one bill for multiple accounts.
- **Easy tracking** – You can track the charges across multiple accounts and download the combined cost and usage data.
- **Combined usage** – You can combine the usage across all accounts in the organization to share the volume pricing discounts, Reserved Instance discounts, and Savings Plans. This can result in a lower charge for your project, department, or company than with individual standalone accounts. For more information, see [Volume discounts \(p. 108\)](#).
- **No extra fee** – Consolidated billing is offered at no additional cost.

## Note

The member account bills are for informational purpose only. The management account might reallocate the additional volume discounts, Reserved Instance, or Savings Plans discounts that your account receives.

If you have access to the management account, you can see a combined view of the AWS charges that the member accounts incur. You also can get a cost report for each member account.

AWS and AWS India accounts can't be consolidated together. If your contact address is in India, you can use AWS Organizations to consolidate AWS India accounts within your organization.

## Important

When a member account leaves an organization, the member account can no longer access Cost Explorer data that was generated when the account was in the organization. The data isn't deleted, and the management account in the organization can still access the data. If the member account rejoins the organization, the member account can access the data again.

## Topics

- [Consolidated billing process \(p. 107\)](#)
- [Consolidated billing in India \(p. 107\)](#)
- [Effective billing date \(p. 108\)](#)
- [Billing and account activity \(p. 108\)](#)
- [Volume discounts \(p. 108\)](#)
- [AWS credits \(p. 109\)](#)
- [Reserved instances \(p. 111\)](#)
- [Understanding Consolidated Bills \(p. 114\)](#)
- [AWS Support charges for accounts in an AWS Organizations \(p. 120\)](#)



## Consolidated billing process

AWS Organizations provides consolidated billing so that you can track the combined costs of all the member accounts in your organization. The following steps provide an overview of the process for creating an organization and viewing your consolidated bill.

1. Open the [AWS Organizations console](#) or the [AWS Billing and Cost Management console](#). If you open the AWS Billing and Cost Management console, choose **Consolidated Billing**, and then choose **Get started**. You are redirected to the AWS Organizations console.
2. Choose **Create organization** on the AWS Organizations console.
3. Create an organization from the account that you want to be the management account of your new organization. For details, see [Creating an Organization](#). The management account is responsible for paying the charges of all the member accounts.
4. (Optional) Create accounts that are automatically member to the organization. For details, see [Creating an AWS account in Your Organization](#).
5. (Optional) Invite existing accounts to join your organization. For details, see [Inviting an AWS account to Join Your Organization](#).
6. Each month AWS charges your management account for all the member accounts in a consolidated bill.

The management account is billed for all charges of the member accounts. However, unless the organization is changed to support all features in the organization (not consolidated billing features only) and member accounts are explicitly restricted by policies, each member account is otherwise independent from the other member accounts. For example, the owner of a member account can sign up for AWS services, access resources, and use AWS Premium Support unless the management account restricts those actions. Each account owner continues to use their own IAM user name and password, with account permissions assigned independently of other accounts in the organization.

### Securing the consolidated billing management account

The owner of the management account in an organization should secure the account by using [AWS Multi-Factor Authentication](#) and a strong password that has a minimum of eight characters with both uppercase and lowercase letters, at least one digit, and at least one special character. You can change your password on the [AWS Security Credentials](#) page.

## Consolidated billing in India

If you sign up for a new account and choose India for your contact address, your user agreement is with Amazon Web Services India Private Limited (AWS India), a local AWS seller in India. AWS India manages your billing, and your invoice total is listed in rupees instead of in dollars. After you create an account with AWS India, you can't change the country in your contact information.

If you have an existing account with an India address, your account is either with AWS or AWS India, depending on when you opened the account. To learn whether your account is with AWS or AWS India, see the procedure [Determining Which Company Your Account Is With](#). If you're an existing AWS customer, you can continue to use your AWS account. You can also choose to have both an AWS account and an AWS India account, although they can't be consolidated into the same organization. (Currently, you can't migrate an existing account from AWS to AWS India.) If you are in an AWS India organization, the management account can edit the PAN numbers of all member accounts.

If you create an organization from a management account that is with AWS India, you can invite only other AWS India accounts to join your organization. You can't invite AWS accounts.

If you create an organization from a management account that is with AWS, you can invite only other AWS accounts to join your organization. You can't invite AWS India accounts.

## Effective billing date

When the member account owner accepts your request to join the organization, you immediately become responsible for the member account's charges. If the member account joins in the middle of the month, the management account is billed only for the latter part of the month.

For example, if a member account joins an organization on March 10, then AWS bills the management account for the member account's period of usage starting on March 10. The member account's original owner is still billed for the first part of the month.

## Billing and account activity

Each month, AWS charges the management account owner, and not the owners of the member accounts. To see the total usage and charges across all the accounts in an organization, see the **Bills** page of the management account. AWS updates the page multiple times each day. Additionally, AWS makes a downloadable cost report available each day.

Although the owners of the member accounts aren't charged, they can still see their usage and charges by going to their AWS **Bills** pages. They can't view or obtain data for the management account or any other member accounts on the bill.

## Volume discounts

For billing purposes, AWS treats all of the accounts in the organization as if they were one account. Some services, such as AWS Data Transfer and Amazon S3, have volume pricing tiers across certain usage dimensions that give you lower prices the more you use the service. With consolidated billing, AWS combines the usage from all accounts to determine which volume pricing tiers to apply, giving you a lower overall price whenever possible. AWS then allocates each member account a portion of the overall volume discount based on the account's usage.

For example, let's say that Bob's consolidated bill includes both Bob's own account and Susan's account. Bob's account is the management account, so he pays the charges for both himself and Susan.

Bob transfers 8 TB of data during the month and Susan transfers 4 TB.

For the purposes of this example, AWS charges \$0.17 per GB for the first 10 TB of data transferred and \$0.13 for the next 40 TB. This translates into \$174.08 per TB ( $= .17 \times 1024$ ) for the first 10 TB, and \$133.12 per TB ( $= .13 \times 1024$ ) for the next 40 TB. Remember that 1 TB = 1024 GB.

For the 12 TB that Bob and Susan used, Bob's management account is charged  $(\$174.08 \times 10 \text{ TB}) + (\$133.12 \times 2 \text{ TB}) = \$1740.80 + \$266.24 = \$2,007.04$ .

Without the benefit of tiering across the consolidated bill, AWS would have charged Bob and Susan each \$174.08 per TB for their usage, for a total of \$2,088.96.

To learn more about pricing, see [AWS Pricing](#).

## AWS Free Tier for AWS Organizations

For services such as Amazon EC2 that support a free tier, AWS applies the free tier to the total usage across all accounts in an AWS organization. AWS doesn't apply the free tier to each account individually.

AWS provides budgets that track whether you exceed the free tier limits or are forecasted to go over the free tier limits. Free tier budgets are not enabled for organizations by default. Management account can opt in to free tier usage alerts through the Billing and Cost Management console. Free tier usage alerts aren't available to individual member accounts.

For more information about free tiers, see [AWS Free Usage Tier FAQs](#). For more information about AWS Free Tier usage alerts through AWS Budgets and opting in, see [AWS Free Tier usage alerts using AWS Budgets \(p. 87\)](#).

## AWS credits

AWS credits are automatically applied to bills to help cover costs that are associated with eligible services. For more information about eligible services, see [Redeem Your AWS Promotional Credit](#). Credits are applied until they are exhausted or they expire.

- [Applying AWS credits \(p. 109\)](#)
- [Applying AWS credits across single and multiple accounts \(p. 110\)](#)
- [Sharing AWS credits \(p. 111\)](#)

## Applying AWS credits

Credits are applied using the following process:

1. [the section called "selecting-credits-to-apply" \(p. 109\)](#)
2. [the section called "Selecting where to apply credits" \(p. 110\)](#)

## Selecting credits to apply

This section explains how AWS credits apply in a single or standalone AWS account. If an AWS account has more than one credit, the available credits apply in the following order:

### **The order of how credits apply if an AWS account has more than one credit**

1. The soonest to expire amongst the credits
2. The credit with the least number of eligible services
3. The oldest of all credits

For example, Jorge has two credits available to him. Credit one is for 10 dollars, it expires January 2019, and it can be used for either Amazon S3 or Amazon EC2. Credit two is for 5 dollars, it expires December 2019, and it can be used only for Amazon EC2. Jorge has sufficient AWS charges to apply all credits. AWS selects credit one for application first because it expires sooner than credit two.

### **Note**

- If you have remaining, eligible usage after credit is consumed, the process will repeat until your credits are consumed or your usage is covered.
- Credit is applied to the largest services charge (for example, Amazon EC2, Amazon S3). Then, the consumption will continue in a descending pattern for the remainder of the service charges.
- Credits don't require customer selection to apply during the billing process. AWS will automatically apply eligible credits to applicable services.

## Selecting where to apply credits

This section shows how AWS credits apply in an AWS Organizations when credit sharing is turned on.

### **The order of how credits are applied in an AWS Organizations when credit sharing is activated**

1. Account that owns the credit is covered for the service charges
2. Credits are applied towards the AWS account with the highest spend
3. Credits are applied to the service with the highest spend within that account
4. Credits are applied to the SKU with the highest spend within that service

The process repeats until the credit is consumed, or all customer spend is covered.

AWS applies the credit to the largest available charge across all eligible sellers of record. This means that AWS tries to apply your credits before they expire. So they might use a generic credit for a specific service.

For example, Jorge has two credits available to him. Credit one is for 10 dollars, expires January 2019, and can be used for either Amazon S3 or Amazon EC2. Credit two is for 5 dollars, expires December 2019, and can be used only for Amazon EC2. Jorge has two AWS charges: 100 dollars for Amazon EC2 and 50 dollars for Amazon S3. AWS applies credit one, which expires in January, to the Amazon EC2 charge, which leaves him with a 90-dollar Amazon EC2 charge and a 50-dollar Amazon S3 charge. AWS applies credit two to the remaining 90 dollars of Amazon EC2 usage, and Jorge has to pay 85 dollars for Amazon EC2 and 50 dollars for Amazon S3. He has now used all of his credits.

## Applying AWS credits across single and multiple accounts

The following rules specify how AWS applies credits to bills for single accounts and for organizations by default (Credit sharing turned on):

- The billing cycle begins on the first day of each month.
- If an account is owned on the first day of the month by an individual who is not part of an organization, but joins the organization later in the month, AWS applies credits that are owned by the individual to that individual's bill for their usage for that month. The next month, AWS applies credits to the organization the individual joined.
- If an account is owned by an organization at the start of the month, AWS applies credits redeemed by the payer account or by any linked account to the organization's bill, even if the account leaves the organization in the same month. The start of the month begins one second after 0:00 UTC+0. For example, assume that an account leaves an organization on August 1. AWS still applies the August credits the account redeemed to the organization's bill because the account belonged to the organization during that calendar month.
- If an individual leaves an organization during the month, AWS begins applying credits to the individual's account on the first day of the following month.
- Credits are shared with all accounts that join an organization at any point in the month. However, the organization's shared credit pool consists of only credits from accounts that have been part of the organization since the first day of the month.

For example, assume that Susan owns a single account on the first day of the month and then joins an organization during the month. Also assume that she redeems her credits on any day after she joins the organization. AWS applies her credits to her account for usage she incurred from the first of the month to the day that she joined the organization. However, from the first day of the next month, AWS applies

the credits to the organization's bill. If Susan leaves the organization, any credits that she redeems are also applied to the organization's bill until the first of the month after her departure. Starting the month after her departure, AWS applies Susan's credits to her bill instead of the organization's bill.

In another example, assume that Susan owns a single account on January 1 and joins an organization on January 11. If Susan redeems 100 dollars of credits on January 18, AWS applies them to her account for the usage that she incurred for the month of January. From February 1st onwards, Susan's credits are applied to the organization's consolidated bill. If Susan has 50 dollars of credits and leaves the organization on April 16, her credits are applied to the organization's consolidated bill for April. From May onward, Susan's credits are applied to her account.

## Sharing AWS credits

You can turn off credit sharing on the **Billing preferences** page on the Billing console. The following rules specify how credits are applied to bills for single accounts and for organizations when credit sharing is turned off:

- The billing cycle begins on the first day of each month.
- Credits are applied to only the account that received the credits.
- Bills are calculated using the credit sharing preference that is active on the last day of the month.
- In an organization, only the payer account can turn credit sharing off or on. The credit sharing preference applies to all accounts in an organization.

### To turn off credit sharing

You can turn off credit sharing through the Billing console.

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Billing preferences**.
3. Select **Disable credit sharing**.
4. Choose **Save preferences**.

## Reserved instances

For billing purposes, the consolidated billing feature of AWS Organizations treats all the accounts in the organization as one account. This means that all accounts in the organization can receive the hourly cost benefit of Reserved Instances that are purchased by any other account.

You can turn off Reserved Instance discount sharing on the **Preferences** page on the Billing and Cost Management console. For more information, see [the section called "Turning off reserved instances and Savings Plans discount sharing" \(p. 113\)](#).

### Topics

- [Billing examples for specific services \(p. 111\)](#)
- [Turning off reserved instances and Savings Plans discount sharing \(p. 113\)](#)

## Billing examples for specific services

There are a few other things to know about how consolidated billing works with specific services in AWS.

### Amazon EC2 reserved instances

For an Amazon EC2 Reserved Instances example, suppose that Bob and Susan each have an account in an organization. Susan has five Reserved Instances of the same type, and Bob has none. During one particular hour, Susan uses three instances and Bob uses six, for a total of nine instances on the organization's consolidated bill. AWS bills five instances as Reserved Instances, and the remaining four instances as regular instances.

Bob receives the cost benefit from Susan's Reserved Instances only if he launches his instances in the same Availability Zone where Susan purchased her Reserved Instances. For example, if Susan specifies `us-west-2a` when she purchases her Reserved Instances, Bob must specify `us-west-2a` when he launches his instances to get the cost benefit on the organization's consolidated bill. However, the actual locations of Availability Zones are independent from one account to another. For example, the `us-west-2a` Availability Zone for Bob's account might be in a different location than the location for Susan's account.

## Amazon RDS reserved DB instances

For an Amazon RDS Reserved DB Instances example, suppose that Bob and Susan each have an account in an organization. Susan has five Reserved DB Instances, and Bob has none. During one particular hour, Susan uses three DB Instances and Bob uses six, for a total of nine DB Instances on the consolidated bill. AWS bills five as Reserved DB Instances, and the remaining four as On-Demand DB Instances (for Amazon RDS Reserved DB Instance charges, see the [pricing page](#)). Bob receives the cost benefit from Susan's Reserved DB Instances only if he launches his DB Instances in the same region where Susan purchased her Reserved DB Instances.

Also, all of the relevant attributes of Susan's Reserved DB Instances should match the attributes of the DB Instances launched by Bob as described in [Reserved DB Instances](#). For example, let's say Susan purchased a Reserved DB Instance in `us-west-2` with the following attributes:

- DB Engine: Oracle
- DB Instance Class: `m1.xlarge`
- Deployment Type: Multi-AZ

This means that Bob must launch his DB Instances in `us-west-2` with the exact same attributes to get the cost benefit on the organization's consolidated bill.

## Amazon ElastiCache reserved node instances

For an Amazon ElastiCache Reserved Nodes example, suppose Bob and Susan each have an account in an organization. Susan has five Reserved Nodes, and Bob has none. During one particular hour, Susan uses three nodes and Bob uses six. This makes a total of nine nodes used on the consolidated bill.

AWS bills five as Reserved Nodes. AWS bills the remaining four as On-Demand nodes. (For Amazon ElastiCache Reserved Nodes charges, see [Amazon ElastiCache Pricing](#).) Bob receives the cost benefit from Susan's Reserved Nodes only if he launches his On-Demand nodes in the same region where Susan purchased her Reserved Nodes.

Also, to receive the cost benefit of Susan's Reserved Nodes, all attributes of Bob's nodes must match the attributes of the nodes launched by Susan. For example, let's say Susan purchased Reserved Nodes in `us-west-2` with the following attributes:

- Cache engine: Redis
- Node type: `cache.r3.large`

Bob must launch his ElastiCache nodes in `us-west-2` with the same attributes to get the cost benefit on the organization's consolidated bill.

## Amazon OpenSearch Service reserved instances

For an Amazon OpenSearch Service Reserved Nodes example, suppose Bob and Susan each have an account in an organization. Susan has five Reserved Instances, and Bob has none. During one particular hour, Susan uses three instances and Bob uses six. This makes a total of nine instances used on the consolidated bill.

AWS bills five as Reserved Instances. AWS bills the remaining four as On-Demand instances. (For Amazon OpenSearch Service Reserved Instance charges, see [Amazon OpenSearch Service Pricing](#).) Bob receives the cost benefit from Susan's Reserved Instances only if he launches his On-Demand instances in the same region where Susan purchased her Reserved Instances.

To receive the cost benefit of Susan's Reserved Instances, Bob also must use the same instance type that Susan reserved. For example, let's say Susan purchased `m4.large.elasticsearch` instances in `us-west-2`. Bob must launch his Amazon OpenSearch Service domains in `us-west-2` with the same instance type to get the cost benefit on the organization's consolidated bill.

## Turning off reserved instances and Savings Plans discount sharing

The management account of an organization can turn off Reserved Instance (RI) discount and Savings Plans discount sharing for any accounts in that organization, including the management account. This means that RIs and Savings Plans discounts aren't shared between any accounts that have sharing turned off. To share an RI or Savings Plans discount with an account, both accounts must have sharing turned on. This preference isn't permanent, and you can change it at any time. Each estimated bill is computed using the last set of preferences. The final bill for the month is calculated based on the preferences set at 23:59:59 UTC time on the last day of the month.

### Important

Turning off RI and Savings Plans discount sharing can result in a higher monthly bill.

### Topics

- [Turning off shared reserved instances and Savings Plans discounts \(p. 113\)](#)
- [Turning on shared reserved instances and Savings Plans discounts \(p. 114\)](#)

## Turning off shared reserved instances and Savings Plans discounts

You can turn off RI sharing discounts for individual member accounts.

You can't share Savings Plans with a set of accounts. You can choose to restrict the benefit to the account that purchased the Savings Plans, but not share amongst a group of accounts.

### To turn off shared reserved instances and Savings Plans discounts

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.
2. In the navigation pane, choose **Billing preferences**.
3. Expand **RI and Savings Plans discount sharing** by selecting the arrow symbol.
4. Under **RI and Savings Plans discount sharing enabled**, select the accounts that you want to disable RI discount sharing for.
5. Choose **Add to list** to add the accounts to the **RI and Savings Plans discount sharing disabled** accounts.
6. Choose **Save preferences**.

7. In the **Manage RI Discount, Savings Plans Discount and Credit Sharing** dialog box, choose **Save**.

## Turning on shared reserved instances and Savings Plans discounts

You can use the console to turn RI sharing discounts back on for an account.

You can share Savings Plans with a set of accounts. You can either choose to not share the benefit with other accounts, or to open up line item eligibility for the entire consolidated billing family of accounts.

### To turn on shared reserved instances discounts

1. Sign in to the AWS Management Console and open the AWS Billing console at <https://console.aws.amazon.com/billing/>.

#### Note

Ensure you're logged in to the management account of your AWS Organizations.

2. In the navigation pane, choose **Billing Preferences**.
3. Expand **RI and Savings Plans discount sharing** by selecting the arrow symbol.
4. Under **RI and Savings Plans discount sharing disabled**, select the accounts that you want to enable RI discount sharing for.
5. Choose **Remove from list** to remove the accounts from the **RI and Savings Plans discount sharing disabled** accounts.
6. Choose **Save preferences**.
7. In the **Manage RI Discount and Credit Sharing** dialog box, choose **Save**.

## Understanding Consolidated Bills

If you manage an organization in AWS Organizations, you can use consolidated billing to view aggregated usage costs for accounts in the organization. Consolidated billing can also help you reduce those costs. For example, to ensure that you pay the lowest available prices for AWS products and services, AWS offers pricing tiers that reward higher usage with lower prices and discounted rates for purchasing instances in advance (known as *reservations* or *Reserved Instances*). Using consolidated billing, you can combine usage from multiple accounts into a single invoice, allowing you to reach the tiers with lower prices faster. You can also apply unused reservations from one account to another account's instance usage.

### Topics

- [Calculating Consolidated Bills \(p. 114\)](#)
- [Pricing Tiers \(p. 115\)](#)
- [Reserved Instances \(p. 117\)](#)
- [Savings Plans \(p. 118\)](#)
- [Blended Rates and Costs \(p. 118\)](#)

## Calculating Consolidated Bills

In an organization, the management account is responsible for paying all charges that the member accounts incur. If you're an administrator of a management account and you have the appropriate permissions, you can view aggregated usage costs for Reserved Instance discounts and volume tiering for all member accounts. You can also view the charges that individual member accounts incur, because AWS creates a separate bill for each member account based on that account's usage. AWS also includes



invoice summaries for each account in the management account invoice. During each billing period, AWS calculates your estimated charges several times each day so that you can track your costs as your organization incurs them. Your bill is not finalized until the beginning of the next month.

**Note**

Like member accounts, a management account can incur usage charges. However, as a best practice you shouldn't use the management account to run AWS services. An exception is for services and resources that are required to manage the organization itself. For example, as part of managing your consolidated billing you might create an S3 bucket in the management account to store AWS Cost and Usage Reports.

## Pricing Tiers

Some AWS services are priced in *tiers*, which specify unit costs for defined amounts of AWS usage. As your usage increases, your usage crosses thresholds into new pricing tiers that specify lower unit costs for additional usage in a month. Your AWS usage is measured every month. To measure usage, AWS treats all accounts in an organization as a single account. Member accounts don't reach tier thresholds individually. Instead, all usage in the organization is aggregated for each service, which ensures faster access to lower-priced tiers. As each month begins, your service usage is reset to zero.

Each AWS service publishes its pricing information independently. You can access all individual pricing pages from the [AWS Pricing](#) page.

## Calculating Costs for Amazon S3 Standard Storage

The following table shows an example of pricing tiers (your costs might vary). For more information, see [Amazon S3 pricing](#).

### Amazon S3 Pricing Tiers

Tier description	Price per GB	Price per TB
First 1 TB/month	\$0.10	\$100.00
Next 49 TB/month	\$0.08	\$80.00
Next 450 TB/month	\$0.06	\$60

The following table shows Amazon S3 usage for an organization that includes a management account and three member accounts.

### Example S3 Usage Blended Cost

Account	Tier	Storage amount (GB)	Storage amount (TB)	Unblended rate (/GB)	Unblended rate (/TB)	Unblended cost
Management	First TB/month	1,000	1	\$0.10	100	\$100.00
	Next 49 TB/month	49,000	49	\$0.08	80	\$3,920.00
	Next 450 TB/month	45,000	45	\$0.06	60	\$2,700.00
<b>Total</b>		<b>95,000</b>	<b>95</b>			<b>\$6,720.00</b>

Account	Tier	Storage amount (GB)	Storage amount (TB)	Unblended rate (/ GB)	Unblended rate (/ TB)	Unblended cost	Blended rate (/ GB) (= \$6,720/9)	Blended rate (/ TB) (= \$6,720/9)	Blended cost (= Blended rate * storage)
Member 1	First TB/month	1,000	1	\$0.10	100	\$100.00	0.070737	70.737	\$70.37
	Next 49 TB/month	14,000	14	\$0.08	80	\$1,120.00	0.070737	70.737	\$990.318
	Next 450 TB/month	15,000	15	\$0.06	60	\$900.00	0.070737	70.737	\$1,061.055

Account	Tier	Storage amount (GB)	Storage amount (TB)	Unblended rate (/ GB)	Unblended rate (/ TB)	Unblended cost	Blended rate (/ GB) (= \$6,720/9)	Blended rate (/ TB) (= \$6,720/9)	Blended cost (= Blended rate * storage)
Member 2	Next 49 TB/month	20,000	20	\$0.08	80	\$1,600.00	0.070737	70.737	\$1,414.74
	Next 450 TB/month	15,000	15	\$0.06	60	\$900.00	0.070737	70.737	\$1,061.55

Account	Tier	Storage amount (GB)	Storage amount (TB)	Unblended rate (/ GB)	Unblended rate (/ TB)	Unblended cost	Blended rate (/ GB) (= \$6,720/9)	Blended rate (/ TB) (= \$6,720/9)	Blended cost (= Blended rate * storage)
Member 3	Next 49 TB/month	15,000	15	\$0.08	80	\$1,200.00	0.070737	70.737	\$1,061.55
	Next 450 TB/month	15,000	15	\$0.06	60	\$900.00	0.070737	70.737	\$1,061.55

The costs in the preceding table are calculated as follows:

1. All usage for the organization adds up to 95 TB or 95,000 GB. This is rolled up into the management account for recording purposes. The management account has no usage of its own. Only the member accounts incur usage. Member 1 uses 1 TB of storage. This satisfies the first pricing tier for the organization. The second pricing tier is satisfied by all three member accounts (14 TB for member 1 + 20 TB for member 2 + 15 TB for member 3 = 49 TB). The third pricing tier is applied to any usage over 49 TB. In this example, the third pricing tier is applied to total member account usage of 45 TB.
2. The total cost is calculated by adding the cost of the first TB ( $1,000 \text{ GB} * \$0.10 = 1 \text{ TB} * \$100.00 = \$100.00$ ) to the cost of the next 49 TB ( $49,000 \text{ GB} * \$0.08 = 49 \text{ TB} * \$80.00 = \$3920.00$ ) and the cost of the remaining 45 TB ( $45,000 \text{ GB} * \$0.06 = 45 \text{ TB} * \$60.00 = \$2700.00$ ), for a total of \$6,720 ( $\$100.00 + \$3920.00 + \$2700.00 = \$6720.00$ ).

The preceding example shows how using consolidated billing in AWS Organizations helps lower the overall monthly cost of storage. If you calculate the cost for each member account separately, the total cost is \$7,660 rather than \$6,720. By aggregating the usage of the three accounts, you reach the lower-priced tiers sooner. The most expensive storage, the first TB, is charged at the highest price just once, rather than three times. For example, three TB of storage at the most expensive rate of \$100/TB would result in a charge of \$300. Charging this storage as 1 TB (\$100) and two additional TB at \$80 (\$160) results in a total charge of \$260.

## Reserved Instances

AWS also offers discounted hourly rates in exchange for an upfront fee and term contract.

### Zonal Reserved Instances

A Reserved Instance is a reservation that provides a discounted hourly rate in exchange for an upfront fee and term contract. Services such as Amazon Elastic Compute Cloud ([Amazon EC2](#)) and Amazon Relational Database Service ([Amazon RDS](#)) use this approach to sell reserved capacity for hourly use of *Reserved Instances*. It is not a virtual machine. It is a commitment to pay in advance for specific Amazon EC2 or Amazon RDS instances. In return, you get a discounted rate as compared to On-Demand Instance usage. From a technical perspective, there is no difference between a Reserved Instance and an On-Demand Instance. When you launch an instance, AWS checks for qualifying usage across all accounts in an organization that can be applied to an active reservation. For more information, see [Reserved Instances](#) in the *Amazon EC2 User Guide for Linux Instances* and [Working with Reserved DB Instances](#) in the *Amazon Relational Database Service Developer Guide*.

When you reserve capacity with Reserved Instances, your hourly usage is calculated at a discounted rate for instances of the same usage type in the same Availability Zone.

### Regional Reserved Instances

Regional Reserved Instances don't reserve capacity. Instead, they provide Availability Zone flexibility and in certain cases instance size flexibility. Availability Zone flexibility allows you to run one or more instances in any Availability Zone in your reserved AWS Region. The Reserved Instance discount is applied to any usage in any Availability Zone. Instance size flexibility provides the Reserved Instance discount to instance usage regardless of size, within that instance family. Instance size flexibility applies to only regional Reserved Instances on the Linux/Unix platform with default tenancy. For more information about regional Reserved Instances, see [Reservation Details](#) in the *Cost and Usage Reports Guide* in this documentation and [Applying Reserved Instances](#) in the *Amazon Elastic Compute Cloud User Guide for Linux Instances*.

## Calculating Costs for Amazon EC2 with Reserved Instances

AWS calculates the charges for Amazon EC2 instances by aggregating all the EC2 usage for a specific instance type in a specific AWS Region for an organization.

## Calculation Process

AWS calculates blended rates for Amazon EC2 instances using the following logic:

1. AWS aggregates usage for all accounts in an organization for the month or partial month, and calculates costs based on unblended rates such as rates for On-Demand and Reserved Instances. Line items for these costs are created for the management account. This bill computation model attempts to apply the lowest unblended rates that each line item is eligible for. The allocation logic first applies Reserved Instance hours, then free tier hours, and then On-Demand rates to any remaining usage. In the AWS Cost and Usage Reports, you can see line items for these aggregated costs.
2. AWS identifies each Amazon EC2 usage type in each AWS Region and allocates cost from the aggregated management account to the corresponding member account line items for identical usage types in the same region. In the AWS Cost and Usage Reports, the **Unblended Rate** column shows that rate applied to each line item.

### Note

When AWS assigns Reserved Instance hours to member accounts, it always starts with the account that purchased the reservation. If there are hours from the capacity reservation left over, AWS applies them to other accounts that operate identical usage types in the same Availability Zone.

AWS allocates a regional RI by instance size: The RI is applied first to the smallest instance in the instance family, then to the next smallest, and so on. AWS applies an RI or a fraction of an RI based on the [normalization factor](#) of the instance. The order in which AWS applies RIs doesn't result in a price difference.

## Savings Plans

Savings Plans is a flexible pricing model that can help you reduce your AWS usage bill. Compute Savings Plans enables you to commit to an amount each hour, and receive discounted Amazon EC2, Fargate, and AWS Lambda usage up to that amount.

## Calculating Costs with Savings Plans

AWS calculates the charges for Amazon EC2, Fargate, and AWS Lambda by aggregating all usage that's not covered by Reserved Instances, and applying the Savings Plans rates starting with the highest discount.

The Savings Plans are applied to the account that owns the Savings Plans. Then, it is shared with other accounts in the AWS organization. For more information, see [Understanding How Savings Plans are Applied to Your Usage](#) in the *Savings Plans User Guide*.

## Blended Rates and Costs

Blended rates are the averaged rates of the Reserved Instances and On-Demand Instances that are used by member accounts in an organization in AWS Organizations. AWS calculates blended costs by multiplying the blended rate for each service with an account's usage of that service.

### Note

- AWS shows each member account their charges as unblended costs. AWS continues to apply all of the consolidated billing benefits such as reservations and tiered prices across all member accounts in AWS Organizations.
- Blended rates for Amazon EC2 are calculated at the hourly level.

This section includes examples that show how AWS calculates blended rates for the following services.

- [Calculating Blended Rates for Amazon S3 Standard Storage](#)
- [Calculating Blended Rates for Amazon EC2](#)

## Calculating Blended Rates for Amazon S3 Standard Storage

AWS calculates blended rates for Amazon S3 standard storage by taking the total cost of storage and dividing by the amount of data stored per month. Using the example from [Calculating Consolidated Bills](#) (p. 114) where we calculated a cost of \$6,720 for a management account and three member accounts, we calculate the blended rates for the accounts using the following logic:

1. The blended rate in GB is calculated by dividing the total cost (\$6,720) by the amount of storage (95,000 GB) to produce a blended rate of \$0.070737/GB. The blended rate in TB is calculated by dividing the total cost (\$6,720) by the amount of storage (95 TB) to produce a blended rate of \$70.737/TB.
2. The blended cost for each member account is allocated by multiplying the blended rate (for GB or TB) by the usage, resulting in the amounts listed in the Blended Cost column. For example, Member 1 uses 14,000 GB of storage priced at the blended rate of \$0.070737 (or 14 TB priced at \$70.737) for a blended cost of \$990.318.

## Calculating Blended Rates for Amazon EC2

The following example shows how the consolidated billing logic aggregates Amazon EC2 costs to the management account and then allocates it to the member accounts based on proportional usage. For this example, all usage is of the same usage type, occurs in the same Availability Zone, and is for the same Reserved Instance term. This example covers Full Upfront and Partial Upfront Reserved Instances.

The following table shows line items that represent the calculation of line items for Amazon EC2 usage for a 720-hour (30-day) month. Each instance is of the same usage type (t2.small) running in the same Availability Zone. The organization has purchased three Reserved Instances for a one-year term. Member Account 1 has three Reserved Instances. Member Account 2 has no Reserved Instances, but uses an On-Demand Instance.

Line item account	Billing type	Usage type	Upfront cost	Monthly cost	Usage available	Usage quantity	Unblended rate	Unblended cost	Blended rate	Blended cost
Management account	RI, Full upfront	t2.small	\$274.00	\$0.00	-	1440	-	-	-	-
	RI, Partial upfront	t2.small	\$70.00	\$5.84	-	720	-	-	-	-
Member account 1	RI applied	t2.small	-	-	1440	1440	\$0.00	\$0.00	\$0.00575	\$8.28
	RI applied	t2.small	-	-	720	720	\$0.00	\$0.00	\$0.00575	\$4.14
Member account 2	On-Demand	t2.small	-	-	-	720	\$0.023	\$16.56	\$0.00575	\$4.14
<b>Total</b>					<b>2160</b>	<b>2880</b>		<b>\$16.56</b>		<b>\$16.56</b>

The data in the preceding table shows the following information:

- The organization purchased 1,440 hours of Reserved Instance capacity at a Full Upfront rate (two EC2 instances).
- The organization purchased 720 hours of Reserved Instance capacity at a Partial Upfront rate (one EC2 instance).
- Member account 1 completely uses the two Full Upfront Reserved Instances and the one Partial Upfront Reserved Instance for a total usage of 2,160 hours. Member account 2 uses 720 hours of an On-Demand Instance. Total usage for the organization is 2,880 hours ( $2160 + 720 = 2,880$ ).
- The unblended rate for the three Reserved Instances is \$0.00. The unblended cost of an RI is always \$0.00 because RI charges are not included in blended rate calculations.
- The unblended rate for the On-Demand Instance is \$0.023. Unblended rates are associated with the current price of the product. They can't be verified from information in the preceding table.
- The blended rate is calculated by dividing the total cost (\$16.56) by the total amount of Amazon EC2 usage (2,880 hours). This produces a rate of \$0.005750000 dollars per hour.

## AWS Support charges for accounts in an AWS Organizations

AWS calculates AWS Support fees independently for each member account. Typically an AWS Support subscription for a member account does not apply to the entire organization. Each account subscribes independently. Enterprise Support plan customers have the option to include multiple accounts in an aggregated monthly billing. Monthly charges for the Developer, Business, and Enterprise Support plans are based on each month's AWS usage, subject to a monthly minimum. AWS Support fees associated with Reserved Instance and Savings Plan purchases apply to the member accounts that made the purchase. For more information, see [AWS Support Plan Pricing](#).

# Security in AWS Billing and Cost Management

Cloud security at AWS is the highest priority. As an AWS customer, you benefit from a data center and network architecture that is 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 Billing and Cost Management, 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 Billing and Cost Management. The following topics show you how to configure Billing and Cost Management to meet your security and compliance objectives. You also learn how to use other AWS services that help you to monitor and secure your Billing and Cost Management resources.

## Topics

- [Data protection in AWS Billing and Cost Management \(p. 121\)](#)
- [AWS Identity and Access Management for AWS Billing \(p. 122\)](#)
- [Logging and monitoring in AWS Billing and Cost Management \(p. 146\)](#)
- [Compliance validation for AWS Billing and Cost Management \(p. 151\)](#)
- [Resilience in AWS Billing and Cost Management \(p. 152\)](#)
- [Infrastructure security in AWS Billing and Cost Management \(p. 152\)](#)

## Data protection in AWS Billing and Cost Management

The AWS [shared responsibility model](#) applies to data protection in AWS Billing and Cost Management. 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. This content includes 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 (successor to AWS Single Sign-On) 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 recommend TLS 1.2 or later.
- Set up API and user activity logging with AWS CloudTrail.
- 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 140-2 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 \(FIPS\) 140-2](#).

We strongly recommend that you never put confidential or sensitive information, such as your customers' email addresses, into tags or free-form fields such as a **Name** field. This includes when you work with Billing and Cost Management or other AWS services using the console, API, AWS CLI, or AWS SDKs. Any data that you enter into tags or free-form 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.

## AWS Identity and Access Management for AWS Billing

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 Billing resources. IAM is an AWS service that you can use with no additional charge.

To start activating access to the Billing console, see [Tutorial: Delegate Access to the Billing Console](#) in the *IAM User Guide*.

### Topics

- [Audience \(p. 122\)](#)
- [Overview of managing access permissions \(p. 124\)](#)
- [Using identity-based policies \(IAM policies\) for AWS Billing \(p. 126\)](#)
- [AWS Billing policy examples \(p. 132\)](#)

## Audience

How you use IAM differs, depending on the work you do in AWS Billing.

**Service user** – If you use the AWS Billing service to do your job, your administrator provides you with the credentials and permissions that you need. As you use more Billing and Cost Management features, you might need additional permissions. Understanding how access is managed helps you request the right permissions from your administrator.

**Service administrator** – If you're in charge of AWS Billing resources, you probably have full access to AWS Billing. You're responsible to determine which AWS Billing features and resources employees access.



You're also responsible for submitting 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.

**IAM administrator** – If you're an IAM administrator, you might want to learn more about how you can write policies to manage access to AWS Billing.

This table summarizes the default actions that are permitted in AWS Billing for each type of billing user.

### User types and billing permissions

User type	Description	Billing permissions
Account owner	The person or entity that your account is set up under.	<ul style="list-style-type: none"> <li>Has full control of all Billing and Cost Management resources.</li> <li>Receives a monthly invoice of AWS charges.</li> </ul>
IAM user	A person or application that's defined as a user in an account by an account owner or administrative user. Accounts can contain multiple IAM users.	<ul style="list-style-type: none"> <li>Has permissions explicitly granted to the user or a group that includes the user.</li> <li>Can be granted permission to view Billing and Cost Management console pages. For more information, see <a href="#">Overview of managing access permissions (p. 124)</a>.</li> <li>Can't close accounts.</li> </ul>
Organization management account owner	The person or entity that's associated with an AWS Organizations management account. The management account pays for AWS usage that's incurred by a member account in an organization.	<ul style="list-style-type: none"> <li>Has full control of all Billing and Cost Management resources for the management account only.</li> <li>Receives a monthly invoice of AWS charges for the management account and member accounts.</li> <li>Views the activity of member accounts in the billing reports for the management account.</li> </ul>
Organization member account owner	The person or entity that's associated with an AWS Organizations member account. The management account pays for AWS usage that's incurred by a member account in an organization.	<ul style="list-style-type: none"> <li>Doesn't have permission to review any usage reports or account activity except for its own. Doesn't have access to usage reports or account activity for other member accounts in the organization or for the management account.</li> <li>Doesn't have permission to view billing reports.</li> <li>Has permission to update account information only for its own account. Can't access other member accounts or the management account.</li> </ul>

## Overview of managing access permissions

AWS Billing integrates with the AWS Identity and Access Management (IAM) service so that you can control who in your organization has access to specific pages on the [AWS Billing console](#). You can control access to invoices and detailed information about charges and account activity, budgets, payment methods, and credits.

For instructions on how to activate access to the AWS Billing console, see [Tutorial: Delegate Access to the Billing Console](#) in the *IAM User Guide*.

### Topics

- [Granting access to your billing information and tools \(p. 124\)](#)
- [Activating access to the AWS Billing console \(p. 124\)](#)

## Granting access to your billing information and tools

The AWS account owner can access billing information and tools by signing in to the AWS Management Console using the account password. We don't recommend that you use the account password for everyday access to the account or share your account credentials with others.

Instead, you should create a special user identity that's called an *IAM user* for anyone who might need access to the account. This approach provides individual sign-in information for each user, and you can grant each user only the permissions they need. More specifically, you can grant some users limited access to some of your billing information and tools. Then, grant others complete access to all of the information and tools. We also recommend that the account owner also access the account by using an IAM user identity.

By default, IAM users don't have access to the [AWS Billing console](#). You or your account administrator must grant users access. You can do this by activating IAM user access to the Billing console and attaching an IAM policy to your users. This can be either managed or custom. Then, you must activate IAM user access for IAM policies to take effect. You only need to activate IAM user access once.

### Note

IAM is a feature of your AWS account. If you're already signed up for a product that's integrated with IAM, you don't need to do anything else to sign up for IAM. Moreover, you're not charged for using IAM.

Permissions for Cost Explorer apply to all accounts and member accounts, regardless of the IAM policies. For more information about Cost Explorer access, see [Controlling access for AWS Cost Explorer](#).

## Activating access to the AWS Billing console

By default, IAM users and roles within an AWS account can't access the Billing console pages. This is true even if the IAM user or role has IAM policies that grant access to certain Billing features. The AWS account root user can allow IAM users and roles access to Billing console pages by using the **Activate IAM Access** setting.

On the Billing console, the **Activate IAM Access** setting controls IAM user and role access to the following pages:

- Home
- Cost Explorer
- Budgets
- Budgets Reports
- AWS Cost and Usage Reports

- Cost categories
- Cost allocation tags
- Bills
- Payments
- Credits
- Purchase Order
- Billing preferences
- Payment methods
- Tax settings

On the Cost Management console, the **Activate IAM Access** setting controls IAM user and role access to the following pages:

- Home
- Cost Explorer
- Reports
- Rightsizing recommendations
- Savings Plans recommendations
- Savings Plans utilization report
- Savings Plans coverage report
- Reservations overview
- Reservations recommendations
- Reservations utilization report
- Reservations coverage report
- Preferences

### Important

Activating IAM access alone doesn't grant IAM users and roles the necessary permissions for these Billing console pages. In addition to activating IAM access, you must also attach the required IAM policies to those users or roles. For more information, see [Using identity-based policies \(IAM policies\) for AWS Billing \(p. 126\)](#).

The **Activate IAM Access** setting doesn't control access to the following pages and resources:

- The console pages for AWS Cost Anomaly Detection, Savings Plans overview, Savings Plans inventory, Purchase Savings Plans, and Savings Plans cart
- The Cost Management view in the AWS Console Mobile Application
- The Billing SDK APIs (AWS Cost Explorer, AWS Budgets, and AWS Cost and Usage Reports APIs)
- The cost and usage widget on the AWS Console and AWS Systems Manager Application Manager.
- The Account SDK APIs.

To activate the **Activate IAM Access** setting, you must log in to your AWS account using the root user credentials, and then select the setting in the [My Account](#) page. Activate this setting in each account where you want to allow IAM user and role access to the Billing console pages. If you use AWS Organizations, activate this setting in each management or member account where you want to allow IAM user and role access to console pages.

### Note

The **Activate IAM Access** setting isn't available to IAM users with administrator access. This setting is available only to the root user of the account.

If the **Activate IAM Access** setting isn't activated, then IAM users and roles in the account can't access the Billing console pages. This is true even if they have administrator access or the required IAM policies.

#### To activate IAM user and role access to the Billing and Cost Management console

1. Sign in to the AWS Management Console with your root account credentials (specifically, the email address and password that you used to create your AWS account).
2. On the navigation bar, choose your account name, and then choose [My Account](#).
3. Next to **IAM User and Role Access to Billing Information**, choose **Edit**.
4. Select the **Activate IAM Access** check box to activate access to the Billing and Cost Management console pages.
5. Choose **Update**.

After you activate IAM access, you must also attach the required IAM policies to the IAM users or roles. The IAM policies can grant or deny access to specific Billing features. For more information, see [Using identity-based policies \(IAM policies\) for AWS Billing](#) (p. 126).

## Using identity-based policies (IAM policies) for AWS Billing

This topic provides examples of several identity-based policies. These policies that demonstrate how an account administrator attaches permissions policies to IAM identities (users, groups, and roles) to grant permissions for performing operations on Billing resources.

For a full discussion of AWS accounts and IAM users, see [What Is IAM?](#) in the *IAM User Guide*.

For instructions on how you can update customer managed policies, see [Editing customer managed policies \(console\)](#) in the *IAM User Guide*.

#### Topics

- [AWS Billing actions policies](#) (p. 126)
- [Managed policies](#) (p. 131)

## AWS Billing actions policies

This table summarizes the permissions that allow or deny IAM users access to your billing information and tools. For examples of policies that use these permissions, see [AWS Billing policy examples](#) (p. 132).

For a list of actions policies for the AWS Cost Management console, see [AWS Cost Management actions policies](#) in the *AWS Cost Management user guide*.

Permission name	Description
aws-portal:ViewBilling	Allow or deny IAM users permission to view the Billing and Cost Management console pages.
aws-portal:ModifyBilling	Allow or deny IAM users permission to modify the following Billing and Cost Management console pages: <ul style="list-style-type: none"><li>• <a href="#">Budgets</a></li><li>• <a href="#">Consolidated Billing</a></li><li>• <a href="#">Billing preferences</a></li></ul>

Permission name	Description
	<ul style="list-style-type: none"><li>• <a href="#">Credits</a></li><li>• <a href="#">Tax settings</a></li><li>• <a href="#">Payment methods</a></li><li>• <a href="#">Purchase orders</a></li><li>• <a href="#">Cost Allocation Tags</a></li></ul> <p>To allow IAM users to modify these console pages, you must allow both <code>ModifyBilling</code> and <code>ViewBilling</code>. For an example policy, see <a href="#">Allow IAM users to modify billing information (p. 137)</a>.</p>
<code>aws-portal:ViewAccount</code>	Allow or deny IAM users permission to view <a href="#">Account Settings</a> .
<code>aws-portal:ModifyAccount</code>	<p>Allow or deny IAM users permission to modify <a href="#">Account Settings</a>.</p> <p>To allow IAM users to modify account settings, you must allow both <code>ModifyAccount</code> and <code>ViewAccount</code>.</p> <p>For an example of a policy that explicitly denies an IAM user access to the <b>Account Settings</b> console page, see <a href="#">Deny access to account settings, but allow full access to all other billing and usage information (p. 137)</a>.</p>
<code>aws-portal:ViewPaymentMethods</code>	Allow or deny IAM users permission to view <a href="#">Payment Methods</a> .
<code>aws-portal:ModifyPaymentMethods</code>	<p>Allow or deny IAM users permission to modify <a href="#">Payment Methods</a>.</p> <p>To allow users to modify payment methods, you must allow both <code>ModifyPaymentMethods</code> and <code>ViewPaymentMethods</code>.</p>
<code>billing:ListBillingViews</code>	<p>Allow or deny users to get billing information for pro forma billing groups. This is made using AWS Billing Conductor on the <b>Bills</b> page, or <b>AWS Cost and Usage Reports</b>.</p> <p>For more information about viewing your billing group details, see <a href="#">Viewing your billing group details</a> in the <i>AWS Billing Conductor User Guide</i>.</p>
<code>sustainability:GetCarbonFootprintSummary</code>	<p>Allow or deny IAM users permission to view the AWS customer carbon footprint tool and data. This is accessible from the AWS Cost and Usage Reports page of the Billing and Cost Management console.</p> <p>For an example of a policy, see <a href="#">Allow IAM users to view your billing information and carbon footprint report (p. 133)</a>.</p>

Permission name	Description
cur:DescribeReportDefinitions	<p>Allow or deny IAM users permission to view AWS Cost and Usage Reports.</p> <p>AWS Cost and Usage Reports permissions apply to all reports that are created using the <a href="#">AWS Cost and Usage Reports Service</a> API and the Billing and Cost Management console. If you create reports using the Billing and Cost Management console, we recommend that you update the permissions for IAM users. Not updating the permissions will result in users losing access to viewing, editing, and removing reports on the console reports page.</p> <p>For an example of a policy, see <a href="#">Allow IAM users to access the reports console page (p. 134)</a>.</p>
cur:PutReportDefinition	<p>Allow or deny IAM users permission to create AWS Cost and Usage Reports.</p> <p>AWS Cost and Usage Reports permissions apply to all reports that are created using the <a href="#">AWS Cost and Usage Reports Service</a> API and the Billing and Cost Management console. If you create reports using the Billing and Cost Management console, we recommend that you update the permissions for IAM users. Not updating the permissions will result in users losing access to viewing, editing, and removing reports on the console reports page.</p> <p>For an example of a policy, see <a href="#">Allow IAM users to access the reports console page (p. 134)</a>.</p>
cur>DeleteReportDefinition	<p>Allow or deny IAM users permission to delete AWS Cost and Usage Reports.</p> <p>AWS Cost and Usage Reports permissions apply to all reports that are created using the <a href="#">AWS Cost and Usage Reports Service</a> API and the Billing and Cost Management console. If you create reports using the Billing and Cost Management console, we recommend that you update the permissions for IAM users. Not updating the permissions will result in users losing access to viewing, editing, and removing reports on the console reports page.</p> <p>For an example of a policy, see <a href="#">Create, view, edit, or delete AWS Cost and Usage Reports (p. 140)</a>.</p>

Permission name	Description
cur:ModifyReportDefinition	<p>Allow or deny IAM users permission to modify AWS Cost and Usage Reports.</p> <p>AWS Cost and Usage Reports permissions apply to all reports that are created using the <a href="#">AWS Cost and Usage Reports Service</a> API and the Billing and Cost Management console. If you create reports using the Billing and Cost Management console, we recommend that you update the permissions for IAM users. Not updating the permissions will result in users losing access to viewing, editing, and removing reports on the console reports page.</p> <p>For an example of a policy, see <a href="#">Create, view, edit, or delete AWS Cost and Usage Reports (p. 140)</a>.</p>
ce:CreateCostCategoryDefinition	<p>Allow or deny IAM users permissions to create cost categories.</p> <p>For an example policy, see <a href="#">View and manage cost categories</a>.</p>
ce>DeleteCostCategoryDefinition	<p>Allow or deny IAM users permissions to delete cost categories.</p> <p>For an example policy, see <a href="#">View and manage cost categories</a>.</p>
ce:DescribeCostCategoryDefinition	<p>Allow or deny IAM users permissions to view cost categories.</p> <p>For an example policy, see <a href="#">View and manage cost categories</a>.</p>
ce:ListCostCategoryDefinitions	<p>Allow or deny IAM users permissions to list cost categories.</p> <p>For an example policy, see <a href="#">View and manage cost categories</a>.</p>
ce:UpdateCostCategoryDefinition	<p>Allow or deny IAM users permissions to update cost categories.</p> <p>For an example policy, see <a href="#">View and manage cost categories</a>.</p>
aws-portal:ViewUsage	<p>Allow or deny IAM users permission to view AWS usage <a href="#">Reports</a>.</p> <p>To allow IAM users to view usage reports, you must allow both ViewUsage and ViewBilling.</p> <p>For an example policy, see <a href="#">Allow IAM users to access the reports console page</a>.</p>

Permission name	Description
<code>pricing:DescribeServices</code>	<p>Allow or deny IAM users permission to view AWS service products and pricing via the AWS Price List Service API.</p> <p>To allow IAM users to use AWS Price List Service API, you must allow <code>DescribeServices</code>, <code>GetAttributeValues</code>, and <code>GetProducts</code>.</p> <p>For an example policy, see <a href="#">Find products and prices</a>.</p>
<code>pricing:GetAttributeValues</code>	<p>Allow or deny IAM users permission to view AWS service products and pricing via the AWS Price List Service API.</p> <p>To allow IAM users to use AWS Price List Service API, you must allow <code>DescribeServices</code>, <code>GetAttributeValues</code>, and <code>GetProducts</code>.</p> <p>For an example policy, see <a href="#">Find products and prices</a>.</p>
<code>pricing:GetProducts</code>	<p>Allow or deny IAM users permission to view AWS service products and pricing via the AWS Price List Service API.</p> <p>To allow IAM users to use AWS Price List Service API, you must allow <code>DescribeServices</code>, <code>GetAttributeValues</code>, and <code>GetProducts</code>.</p> <p>For an example policy, see <a href="#">Find products and prices</a>.</p>
<code>purchase-orders:ViewPurchaseOrders</code>	<p>Allow or deny IAM users permission to view <a href="#">Purchase Orders (p. 59)</a>.</p> <p>For an example policy, see <a href="#">View and manage purchase orders</a>.</p>
<code>purchase-orders:ModifyPurchaseOrders</code>	<p>Allow or deny IAM users permission to modify <a href="#">Purchase Orders (p. 59)</a>.</p> <p>For an example policy, see <a href="#">View and manage purchase orders</a>.</p>
<code>tax:GetExemptions</code>	<p>Allows IAM users read-only access to view exemptions and exemption types by tax console.</p> <p>For an example policy, see <a href="#">Allow IAM users to view US tax exemptions and create AWS Support cases</a>.</p>
<code>tax:UpdateExemptions</code>	<p>Allows IAM users to upload an exemption to the US tax exemptions console.</p> <p>For an example policy, see <a href="#">Allow IAM users to view US tax exemptions and create AWS Support cases</a>.</p>



Permission name	Description
support:CreateCase	Allows IAM users to file support cases, required to upload exemption from tax exemptions console.  For an example policy, see <a href="#">Allow IAM users to view US tax exemptions and create AWS Support cases</a> .
support:AddAttachmentsToSet	Allows IAM users to attach documents to support cases that are required to upload exemption certificates to the tax exemption console.  For an example policy, see <a href="#">Allow IAM users to view US tax exemptions and create AWS Support cases</a> .

## Managed policies

Managed policies are standalone identity-based policies that you can attach to multiple users, groups, and roles in your AWS account. You can use AWS managed policies to control access in Billing.

An AWS managed policy is a standalone policy that's created and administered by AWS. AWS managed policies are designed to provide permissions for many common use cases. AWS managed policies make it easier for you to assign appropriate permissions to users, groups, and roles than if you had to write the policies yourself.

You can't change the permissions defined in AWS managed policies. AWS occasionally updates the permissions that are defined in an AWS managed policy. When this occurs, the update affects all principal entities (users, groups, and roles) that the policy is attached to.

Billing provides several AWS managed policies for common use cases.

### Allow full access to the Billing console and to manage purchase orders

Managed policy name: `AWSPurchaseOrdersServiceRolePolicy`

This managed policy grants full access to the Billing console and to the Purchase orders console. The policy allows the user to view, create, update, and delete the account's purchase orders.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "aws-portal:*Billing",
        "purchase-orders:*PurchaseOrders"
      ],
      "Resource": "*"
    }
  ]
}
```

## AWS Billing updates to AWS managed policies

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

Change	Description	Date
<a href="#">AWSPurchaseOrdersServiceRolePolicy</a> – Update to an existing policy	AWS Billing removed unnecessary permissions.	November 18, 2021
AWS Billing started tracking changes	AWS Billing started tracking changes for its AWS managed policies.	November 18, 2021

## AWS Billing policy examples

This topic contains example policies that you can attach to your IAM user or group to control access to your account's billing information and tools. The following basic rules apply to IAM policies for Billing and Cost Management:

- Version is always 2012-10-17.
- Effect is always Allow or Deny.
- Action is the name of the action or a wildcard (\*).

The action prefix is budgets for AWS Budgets, cur for AWS Cost and Usage Reports, aws-portal for AWS Billing, or ce for Cost Explorer.

- Resource is always \* for AWS Billing.

For actions that are performed on a budget resource, specify the budget Amazon Resource Name (ARN).

- It's possible to have multiple statements in one policy.

For a list of actions policies for the AWS Cost Management console, see [AWS Cost Management policy examples](#) in the *AWS Cost Management user guide*.

### Note

These policies require that you activate IAM user access to the Billing and Cost Management console on the [Account Settings](#) console page. For more information, see [Activating access to the AWS Billing console](#) (p. 124).

### Topics

- [Allow IAM users to view your billing information](#) (p. 133)
- [Allow IAM users to view your billing information and carbon footprint report](#) (p. 133)
- [Allow IAM users to access the reports console page](#) (p. 134)
- [Deny IAM users access to the Billing and Cost Management consoles](#) (p. 135)
- [Deny AWS Console cost and usage widget access for member accounts](#) (p. 135)
- [Deny AWS Console cost and usage widget access for specific IAM users and roles](#) (p. 135)
- [Allow IAM users to view your billing information, but deny access to carbon footprint report](#) (p. 135)
- [Allow IAM users to access carbon footprint reporting, but deny access to billing information](#) (p. 136)
- [Allow full access to AWS services but deny IAM users access to the Billing and Cost Management consoles](#) (p. 136)
- [Allow IAM users to view the Billing and Cost Management consoles except for account settings](#) (p. 137)
- [Allow IAM users to modify billing information](#) (p. 137)

- [Deny access to account settings, but allow full access to all other billing and usage information \(p. 137\)](#)
- [Deposit reports into an Amazon S3 bucket \(p. 138\)](#)
- [Find products and prices \(p. 138\)](#)
- [View costs and usage \(p. 139\)](#)
- [Enable and disable AWS Regions \(p. 139\)](#)
- [View and manage cost categories \(p. 139\)](#)
- [Create, view, edit, or delete AWS Cost and Usage Reports \(p. 140\)](#)
- [View and manage purchase orders \(p. 140\)](#)
- [View and update the Cost Explorer preferences page \(p. 140\)](#)
- [View, create, update, and delete using the Cost Explorer reports page \(p. 142\)](#)
- [View, create, update, and delete reservation and Savings Plans alerts \(p. 143\)](#)
- [Allow read-only access to AWS Cost Anomaly Detection \(p. 144\)](#)
- [Allow AWS Budgets to apply IAM policies and SCPs \(p. 144\)](#)
- [Allow AWS Budgets to apply IAM policies and SCPs and target EC2 and RDS instances \(p. 145\)](#)
- [Allow IAM users to view US tax exemptions and create AWS Support cases \(p. 146\)](#)

## Allow IAM users to view your billing information

To allow an IAM user to view your billing information without giving the IAM user access to sensitive account information, use a policy similar to the following example policy. Such a policy prevents users from accessing your password and account activity reports. This policy allows IAM users to view the following Billing and Cost Management console pages, without giving them access to the **Account Settings** or **Reports** console pages:

- **Dashboard**
- **Cost Explorer**
- **Bills**
- **Orders and invoices**
- **Consolidated Billing**
- **Preferences**
- **Credits**
- **Advance Payment**

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "aws-portal:ViewBilling",
      "Resource": "*"
    }
  ]
}
```

## Allow IAM users to view your billing information and carbon footprint report

To allow an IAM user to view both billing information and carbon footprint reporting, use a policy similar to the following example. This policy prevents users from accessing your password and account activity

reports. This policy allows IAM users to view the following Billing and Cost Management console pages, without giving them access to the **Account Settings** or **Reports** console pages:

- **Dashboard**
- **Cost Explorer**
- **Bills**
- **Orders and invoices**
- **Consolidated Billing**
- **Preferences**
- **Credits**
- **Advance Payment**
- **The AWS customer carbon footprint tool section of the AWS Cost and Usage Reports page**

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "aws-portal:ViewBilling",
      "Resource": "*"
    },
    {
      "Effect": "Allow",
      "Action": "sustainability:GetCarbonFootprintSummary",
      "Resource": "*"
    }
  ]
}
```

## Allow IAM users to access the reports console page

To allow an IAM user to access the **Reports** console page and to view the usage reports that contain account activity information, use a policy similar to this example policy.

For definitions of each action, see [AWS Billing actions policies](#).

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "aws-portal:ViewUsage",
        "aws-portal:ViewBilling",
        "cur:DescribeReportDefinitions",
        "cur:PutReportDefinition",
        "cur>DeleteReportDefinition",
        "cur:ModifyReportDefinition"
      ],
      "Resource": "*"
    }
  ]
}
```

## Deny IAM users access to the Billing and Cost Management consoles

To explicitly deny an IAM user access to the all Billing and Cost Management console pages, use a policy similar to this example policy.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": "aws-portal:*",
      "Resource": "*"
    }
  ]
}
```

## Deny AWS Console cost and usage widget access for member accounts

To restrict member (linked) account access to cost and usage data, use your management (payer) account to access the Cost Explorer preferences tab and uncheck **Linked Account Access**. This will deny access to cost and usage data from the Cost Explorer (AWS Cost Management) console, Cost Explorer API, and AWS Console Home page's cost and usage widget regardless of the IAM actions a member account's IAM user or role has.

## Deny AWS Console cost and usage widget access for specific IAM users and roles

To deny AWS Console cost and usage widget access for specific IAM users and roles, use the permissions policy below.

### Note

Adding this policy to an IAM user or role will deny users access to Cost Explorer (AWS Cost Management) console and Cost Explorer APIs as well.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": "ce:*",
      "Resource": "*"
    }
  ]
}
```

## Allow IAM users to view your billing information, but deny access to carbon footprint report

To allow an IAM user to both billing information in the Billing and Cost Management consoles, but doesn't allow access to the AWS customer carbon footprint tool. This tool is located in the AWS Cost and Usage Reports page.

```
{
```

```
"Version": "2012-10-17",
"Statement": [
  {
    "Effect": "Allow",
    "Action": "aws-portal:ViewBilling",
    "Resource": "*"
  },
  {
    "Effect": "Deny",
    "Action": "sustainability:GetCarbonFootprintSummary",
    "Resource": "*"
  }
]
```

## Allow IAM users to access carbon footprint reporting, but deny access to billing information

To allow an IAM users to access the AWS customer carbon footprint tool tool in the AWS Cost and Usage Reports page, but denies access to view billing information in the Billing and Cost Management consoles.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": "aws-portal:ViewBilling",
      "Resource": "*"
    },
    {
      "Effect": "Allow",
      "Action": "sustainability:GetCarbonFootprintSummary",
      "Resource": "*"
    }
  ]
}
```

## Allow full access to AWS services but deny IAM users access to the Billing and Cost Management consoles

To deny IAM users access to everything on the Billing and Cost Management console, use the following policy. Deny user access to AWS Identity and Access Management (IAM) to prevent access to the policies that control access to billing information and tools.

### Important

This policy doesn't allow any actions. Use this policy in combination with other policies that allow specific actions.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Deny",
      "Action": [
        "aws-portal:*",
        "iam:*"
      ],
      "Resource": "*"
    }
  ]
}
```

## Allow IAM users to view the Billing and Cost Management consoles except for account settings

This policy allows read-only access to all of the Billing and Cost Management console. This includes the **Payments Method** and **Reports** console pages. However, this policy denies access to the **Account Settings** page. This means it protects the account password, contact information, and security questions.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "aws-portal:View*",
      "Resource": "*"
    },
    {
      "Effect": "Deny",
      "Action": "aws-portal:*Account",
      "Resource": "*"
    }
  ]
}
```

## Allow IAM users to modify billing information

To allow IAM users to modify account billing information in the Billing and Cost Management console, allow IAM users to view your billing information. The following policy example allows an IAM user to modify the **Consolidated Billing**, **Preferences**, and **Credits** console pages. It also allows an IAM user to view the following Billing and Cost Management console pages:

- **Dashboard**
- **Cost Explorer**
- **Bills**
- **Orders and invoices**
- **Advance Payment**

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": "aws-portal:*Billing",
      "Resource": "*"
    }
  ]
}
```

## Deny access to account settings, but allow full access to all other billing and usage information

To protect your account password, contact information, and security questions, deny IAM user access to **Account Settings** while still enabling full access to the rest of the functionality in the Billing and Cost Management console. The following is an example policy.

```
{
```

```
"Version": "2012-10-17",
"Statement": [
  {
    "Effect": "Allow",
    "Action": [
      "aws-portal:*Billing",
      "aws-portal:*Usage",
      "aws-portal:*PaymentMethods"
    ],
    "Resource": "*"
  },
  {
    "Effect": "Deny",
    "Action": "aws-portal:*Account",
    "Resource": "*"
  }
]
```

## Deposit reports into an Amazon S3 bucket

The following policy allows Billing and Cost Management to save your detailed AWS bills to an Amazon S3 bucket if you own both the AWS account and the Amazon S3 bucket. This policy must be applied to the Amazon S3 bucket, rather than an IAM user. This is because it's a resource-based policy, not a user-based policy. We recommend that you deny IAM user access to the bucket for IAM users who don't need access to your bills.

Replace *bucketname* with the name of your bucket.

For more information, see [Using Bucket Policies and User Policies](#) in the *Amazon Simple Storage Service User Guide*.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "Service": "billingreports.amazonaws.com"
      },
      "Action": [
        "s3:GetBucketAcl",
        "s3:GetBucketPolicy"
      ],
      "Resource": "arn:aws:s3:::bucketname"
    },
    {
      "Effect": "Allow",
      "Principal": {
        "Service": "billingreports.amazonaws.com"
      },
      "Action": "s3:PutObject",
      "Resource": "arn:aws:s3:::bucketname/*"
    }
  ]
}
```

## Find products and prices

To allow an IAM user to use the AWS Price List Service API, use the following policy to grant them access.

```
{
```



```
"Version": "2012-10-17",
"Statement": [
  {
    "Effect": "Allow",
    "Action": [
      "pricing:DescribeServices",
      "pricing:GetAttributeValues",
      "pricing:GetProducts"
    ],
    "Resource": [
      "*"
    ]
  }
]
```

## View costs and usage

To allow IAM users to use the AWS Cost Explorer API, use the following policy to grant them access.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "ce:*"
      ],
      "Resource": [
        "*"
      ]
    }
  ]
}
```

## Enable and disable AWS Regions

For an example IAM policy that allows users to enable and disable Regions, see [AWS: Allows Enabling and Disabling AWS Regions](#) in the *IAM User Guide*.

## View and manage cost categories

To allow IAM users to use, view, and manage cost categories, use the following policy to grant them access.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "aws-portal:ViewBilling",
        "ce:GetCostAndUsage",
        "ce:DescribeCostCategoryDefinition",
        "ce:UpdateCostCategoryDefinition",
        "ce:CreateCostCategoryDefinition",
        "ce>DeleteCostCategoryDefinition",
        "ce:ListCostCategoryDefinitions",
        "ce:TagResource",
        "ce:UntagResource",

```

```
        "ce:ListTagsForResource",
        "pricing:DescribeServices"
    ],
    "Resource": "*"
  }
]
```

## Create, view, edit, or delete AWS Cost and Usage Reports

This policy allows an IAM user to create, view, edit, or delete sample-report using the API.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "ManageSampleReport",
      "Effect": "Allow",
      "Action": [
        "cur:PutReportDefinition",
        "cur:DeleteReportDefinition",
        "cur:ModifyReportDefinition"
      ],
      "Resource": "arn:aws:cur:*:123456789012:definition/sample-report"
    },
    {
      "Sid": "DescribeReportDefs",
      "Effect": "Allow",
      "Action": "cur:DescribeReportDefinitions",
      "Resource": "*"
    }
  ]
}
```

## View and manage purchase orders

This policy allows an IAM user to view and manage purchase orders, using the following policy to grant access.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "aws-portal:ViewBilling",
        "purchase-orders:ViewPurchaseOrders",
        "purchase-orders:ModifyPurchaseOrders"
      ],
      "Resource": "*"
    }
  ]
}
```

## View and update the Cost Explorer preferences page

This policy allows an IAM user to view and update using the **Cost Explorer preferences page**.

```
{
  "Version": "2012-10-17",
```

```
"Statement": [  
  {  
    "Sid": "VisualEditor0",  
    "Effect": "Allow",  
    "Action": [  
      "aws-portal:ViewBilling",  
      "ce:UpdatePreferences"  
    ],  
    "Resource": "*"  
  }  
]
```

The following policy allows IAM users to view Cost Explorer, but deny permission to view or edit the **Preferences** page.

```
{  
  "Version": "2012-10-17",  
  "Statement": [  
    {  
      "Sid": "VisualEditor0",  
      "Effect": "Allow",  
      "Action": [  
        "aws-portal:ViewBilling"  
      ],  
      "Resource": "*"  
    },  
    {  
      "Sid": "VisualEditor1",  
      "Effect": "Deny",  
      "Action": [  
        "ce:GetPreferences",  
        "ce:UpdatePreferences"  
      ],  
      "Resource": "*"  
    }  
  ]  
}
```

The following policy allows IAM users to view Cost Explorer, but deny permission to edit the **Preferences** page.

```
{  
  "Version": "2012-10-17",  
  "Statement": [  
    {  
      "Sid": "VisualEditor0",  
      "Effect": "Allow",  
      "Action": [  
        "aws-portal:ViewBilling"  
      ],  
      "Resource": "*"  
    },  
    {  
      "Sid": "VisualEditor1",  
      "Effect": "Deny",  
      "Action": [  
        "ce:UpdatePreferences"  
      ],  
      "Resource": "*"  
    }  
  ]  
}
```

## View, create, update, and delete using the Cost Explorer reports page

This policy allows an IAM user to view, create, update, and delete using the **Cost Explorer reports page**.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "aws-portal:ViewBilling",
        "ce:CreateReport",
        "ce:UpdateReport",
        "ce>DeleteReport"
      ],
      "Resource": "*"
    }
  ]
}
```

The following policy allows IAM users to view Cost Explorer, but deny permission to view or edit the **Reports** page.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "aws-portal:ViewBilling"
      ],
      "Resource": "*"
    },
    {
      "Sid": "VisualEditor1",
      "Effect": "Deny",
      "Action": [
        "ce:DescribeReport",
        "ce:CreateReport",
        "ce:UpdateReport",
        "ce>DeleteReport"
      ],
      "Resource": "*"
    }
  ]
}
```

The following policy allows IAM users to view Cost Explorer, but deny permission to edit the **Reports** page.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "aws-portal:ViewBilling"
      ]
    }
  ]
}
```

```
    ],
    "Resource": "*"
  },
  {
    "Sid": "VisualEditor1",
    "Effect": "Deny",
    "Action": [
      "ce:CreateReport",
      "ce:UpdateReport",
      "ce>DeleteReport"
    ],
    "Resource": "*"
  }
]
```

## View, create, update, and delete reservation and Savings Plans alerts

This policy allows an IAM user to view, create, update, and delete [reservation expiration alerts](#) and [Savings Plans alerts](#). To edit reservation expiration alerts or Savings Plans alerts, a user needs all three granular actions: `ce:CreateNotificationSubscription`, `ce:UpdateNotificationSubscription`, and `ce>DeleteNotificationSubscription`.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "aws-portal:ViewBilling",
        "ce:CreateNotificationSubscription",
        "ce:UpdateNotificationSubscription",
        "ce>DeleteNotificationSubscription"
      ],
      "Resource": "*"
    }
  ]
}
```

The following policy allows IAM users to view Cost Explorer, but denies permission to view or edit the **Reservation Expiration Alerts** and **Savings Plans alert** pages.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "aws-portal:ViewBilling"
      ],
      "Resource": "*"
    },
    {
      "Sid": "VisualEditor1",
      "Effect": "Deny",
      "Action": [
        "ce:DescribeNotificationSubscription",
        "ce:CreateNotificationSubscription",

```

```
        "ce:UpdateNotificationSubscription",
        "ce:DeleteNotificationSubscription"
      ],
      "Resource": "*"
    }
  ]
}
```

The following policy allows IAM users to view Cost Explorer, but denies permission to edit the **Reservation Expiration Alerts** and **Savings Plans alert** pages.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Sid": "VisualEditor0",
      "Effect": "Allow",
      "Action": [
        "aws-portal:ViewBilling"
      ],
      "Resource": "*"
    },
    {
      "Sid": "VisualEditor1",
      "Effect": "Deny",
      "Action": [
        "ce:CreateNotificationSubscription",
        "ce:UpdateNotificationSubscription",
        "ce:DeleteNotificationSubscription"
      ],
      "Resource": "*"
    }
  ]
}
```

## Allow read-only access to AWS Cost Anomaly Detection

To allow IAM users read-only access to AWS Cost Anomaly Detection, use the following policy to grant them access. `ce:ProvideAnomalyFeedback` is optional as a part of the read-only access.

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Action": [
        "ce:Get*"
      ],
      "Effect": "Allow",
      "Resource": "*"
    }
  ]
}
```

## Allow AWS Budgets to apply IAM policies and SCPs

This policy allows AWS Budgets to apply IAM policies and service control policies (SCPs) on behalf of the user.

```
{
  "Version": "2012-10-17",
```

```
"Statement": [
  {
    "Effect": "Allow",
    "Action": [
      "iam:AttachGroupPolicy",
      "iam:AttachRolePolicy",
      "iam:AttachUserPolicy",
      "iam:DetachGroupPolicy",
      "iam:DetachRolePolicy",
      "iam:DetachUserPolicy",
      "organizations:AttachPolicy",
      "organizations:DetachPolicy"
    ],
    "Resource": "*"
  }
]
```

## Allow AWS Budgets to apply IAM policies and SCPs and target EC2 and RDS instances

This policy allows AWS Budgets to apply IAM policies and service control policies (SCPs), and to target Amazon EC2 and Amazon RDS instances on behalf of the user.

### Trust policy

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Principal": {
        "Service": "budgets.amazonaws.com"
      },
      "Action": "sts:AssumeRole"
    }
  ]
}
```

### Permissions policy

```
{
  "Version": "2012-10-17",
  "Statement": [
    {
      "Effect": "Allow",
      "Action": [
        "ec2:DescribeInstanceStatus",
        "ec2:StartInstances",
        "ec2:StopInstances",
        "iam:AttachGroupPolicy",
        "iam:AttachRolePolicy",
        "iam:AttachUserPolicy",
        "iam:DetachGroupPolicy",
        "iam:DetachRolePolicy",
        "iam:DetachUserPolicy",
        "organizations:AttachPolicy",
        "organizations:DetachPolicy",
        "rds:DescribeDBInstances",
        "rds:StartDBInstance",
        "rds:StopDBInstance",
        "ssm:StartAutomationExecution"
      ]
    }
  ]
}
```

```
    ],  
    "Resource": "*"    
  }  
]  
}
```

## Allow IAM users to view US tax exemptions and create AWS Support cases

This policy allows an IAM user to view US tax exemptions and create AWS Support cases to upload exemption certificates in the tax exemption console.

```
{  
  "Version": "2012-10-17",  
  "Statement": [  
    {  
      "Action": [  
        "aws-portal:*",  
        "tax:GetExemptions",  
        "tax:UpdateExemptions",  
        "support:CreateCase",  
        "support:AddAttachmentsToSet"  
      ],  
      "Resource": [  
        "*"    
      ],  
      "Effect": "Allow"  
    }  
  ]  
}
```

# Logging and monitoring in AWS Billing and Cost Management

Monitoring is an important part of maintaining the reliability, availability, and performance of your AWS account. There are several tools available to monitor your Billing and Cost Management usage.

## AWS Cost and Usage Reports

AWS Cost and Usage Reports tracks your AWS usage and provides estimated charges associated with your account. Each report contains line items for each unique combination of AWS products, usage type, and operation that you use in your AWS account. You can customize the AWS Cost and Usage Reports to aggregate the information either by the hour or by the day.

For more information about AWS Cost and Usage Reports, see the [Cost and Usage Report Guide](#).

## AWS CloudTrail

Billing and Cost Management is integrated with AWS CloudTrail, a service that provides a record of actions taken by a user, role, or an AWS service in Billing and Cost Management. CloudTrail captures all write and modify API calls for Billing and Cost Management as events, including calls from the Billing and Cost Management console and from code calls to the Billing and Cost Management APIs.

For more information about AWS CloudTrail, see the [Logging Billing and Cost Management API calls with AWS CloudTrail \(p. 147\)](#).



# Logging Billing and Cost Management API calls with AWS CloudTrail

Billing and Cost Management is integrated with AWS CloudTrail, a service that provides a record of actions taken by a user, role, or an AWS service in Billing and Cost Management. CloudTrail captures API calls for Billing and Cost Management as events, including calls from the Billing and Cost Management console and from code calls to the Billing and Cost Management APIs. For a full list of CloudTrail events related to Billing, see [Billing CloudTrail events](#) (p. 147).

If you create a trail, you can enable continuous delivery of CloudTrail events to an Amazon S3 bucket, including events for Billing and Cost Management. If you don't configure a trail, you can still view the most recent events in the CloudTrail console in **Event history**. Using the information collected by CloudTrail, you can determine the request that was made to Billing and Cost Management, the IP address from which the request was made, who made the request, when it was made, and additional details.

To learn more about CloudTrail, including how to configure and enable it, see the [AWS CloudTrail User Guide](#).

## Billing CloudTrail events

This section shows a full list of the CloudTrail events related to Billing and Cost Management.

### Note

The event source for `CreateCustomerCase`, `GetTaxExemptionTypes`, and `BatchGetTaxExemptions` are `taxconsole.amazonaws.com` instead of `billingconsole.amazonaws.com`.

Event name	Definition
<code>AcceptFxPaymentCurrencyTermsAndConditions</code>	Logs the acceptance of the terms and conditions of paying in a currency other than USD.
<code>BatchGetTaxExemptions</code>	Logs the access to US tax exemptions of an account, and any linked accounts.
<code>CloseAccount</code>	Logs the closing of an account.
<code>CreateCustomerCase</code>	Logs the creation of a customer support case to validate US tax exemption for an account.
<code>CreateOrigamiReportPreference</code>	Logs the creation of the cost and usage report; management account only.
<code>DeleteOrigamiReportPreference</code>	Logs the deletion of the cost and usage report; management account only.
<code>DownloadCommercialInvoice</code>	Logs the download of a commercial invoice.
<code>DownloadECSVForBillingPeriod</code>	Logs the download of the eCSV file (monthly usage report) for a specific billing period.
<code>DownloadRegistrationDocument</code>	Logs the download of the tax registration document.
<code>DownloadTaxInvoice</code>	Logs the download of a tax invoice.
<code>EnableBillingAlerts</code>	Logs the opt-in of receiving CloudWatch billing alerts for estimated charges.
<code>FindECSVForBillingPeriod</code>	Logs the retrieval of the ECSV file for a specific billing period.
<code>GetAccountEDPStatus</code>	Logs the retrieval of the account's EDP status.

Event name	Definition
GetAddresses	Logs the access to tax address, billing address, and contact address of an account.
GetAllAccounts	Logs the access to all member account numbers of the management account.
GetAllAccountDetails	Logs the access to tax registration details of all member accounts of the management account.
GetBillsForBillingPeriod	Logs the access of the account's usage and charges for a specific billing period.
GetBillsForLinkedAccount	Logs the access of a management account retrieving the usage and charges of one of the member accounts in the consolidated billing family for a specific billing period.
GetCommercialInvoicesForBillingPeriod	Logs the access to the account's commercial invoices metadata for the specific billing period.
GetConsolidatedBillingFamilySummary	Logs the access of the management account retrieving the summary of the entire consolidated billing family.
GetLinkedAccountNames	Logs the retrieval from a management account of the member account names belonging to its consolidated billing family for a specific billing period.
GetSupportedCountryCodes	Logs the access to all country codes supported by tax console.
GetTaxExemptionTypes	Logs the access to all supported US exemption types by tax console.
GetTaxInheritance	Logs the access to tax inheritance preference (turning on or off) of an account.
GetTaxInvoicesMetadata	Logs the retrieval of tax invoices metadata.
GetTaxRegistration	Logs the access to the tax registration number of an account.
GetTotal	Logs the retrieval of the account's total charges.
GetTotalAmountForForecast	Logs the access to the forecasted charges for the specific billing period.
ListCostAllocationTags	Logs the retrieval and listing of cost allocation tags.
PreviewTaxRegistrationChanges	Logs the preview of tax registration changes before confirmation.
RedeemPromoCode	Logs the redemption of promotional credits for an account.
SetAccountContractMetadata	Logs the creation, deletion, or update of the necessary contract information for public sector customers.
SetAccountPreferences	Logs the updates of the account name, email, and password.
SetAdditionalContacts	Logs the creation, deletion, or update of the alternate contacts for billing, operations, and security communications.
SetContactAddress	Logs the creation, deletion, or update of the account owner contact information, including the address and phone number.
SetCreatedByOptIn	Logs the opt-in of the awscreatedby cost allocation tag preference.

Event name	Definition
SetCreditSharing	Logs the history of the credit sharing preference for the management account.
SetFreeTierBudgetsPreference	Logs the preference (opt-in or opt-out) of receiving Free Tier usage alerts.
SetFxPaymentCurrency	Logs the creation, deletion, or update of the preferred currency used to pay your invoice.
SetIAMAccessPreference	Logs the creation, deletion, or update of the IAM user's ability to access to the billing console. This setting is only for customers with root access.
SetPANInformation	Logs the creating, deletion, or update of PAN information under AWS India.
SetPayInformation	Logs the payment method history (invoice or credit/debit card) for the account.
SetRISharing	Logs the history of the RI/Savings Plans sharing preference for the management account.
SetSecurityQuestions	Logs the creation, deletion, or update of the security challenge questions to help AWS identify you as the owner of the account.
SetTagKeysState	Logs the active or inactive state of a particular cost allocation tag.
SetTaxInheritance	Logs the preference (opt-in or opt-out) of tax inheritance.
SetTaxRegistration	Logs the creation, deletion, or update of the tax registration number for an account.
UpdateOrigamiReportPreference	Logs the update of the cost and usage report; management account only.
ValidateAddress	Logs the validation of the tax address of an account.

## Billing and Cost Management information in CloudTrail

CloudTrail is enabled on your AWS account when you create the account. When supported event activity occurs in Billing and Cost Management, that activity is recorded in a CloudTrail event along with other AWS service events in **Event history**. You can view, search, and download recent events in your AWS account. For more information, see [Viewing Events with CloudTrail Event History](#) in the *AWS CloudTrail User Guide*.

For an ongoing record of events in your AWS account, including events for Billing and Cost Management, create a trail. A trail enables CloudTrail to deliver log files to an Amazon S3 bucket. By default, when you create a trail in the console, the trail applies to all AWS Regions. The trail logs events from all Regions in the AWS partition and delivers the log files to the Amazon S3 bucket that you specify. Additionally, you can configure other AWS services to further analyze and act upon the event data collected in CloudTrail logs.

For more information, see the following:

- [Overview for Creating a Trail](#)
- [CloudTrail Supported Services and Integrations](#)
- [Configuring Amazon SNS Notifications for CloudTrail](#)
- [Receiving CloudTrail Log Files from Multiple Regions](#) and [Receiving CloudTrail Log Files from Multiple Accounts](#)

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

For more information, see the [CloudTrail userIdentity Element](#) in the *AWS CloudTrail User Guide*.

## CloudTrail log entry examples

The following examples are provided for specific Billing and Cost Management CloudTrail log entry scenarios.

### Topics

- [Billing and Cost Management log file entries \(p. 150\)](#)
- [Tax console \(p. 151\)](#)

## Billing and Cost Management log file entries

A *trail* is a configuration that enables delivery of events as log files to an Amazon S3 bucket that you specify. CloudTrail log files contain one or more log entries. An event represents a single request from any source and includes information about the requested action, the date and time of the action, request parameters, and so on. CloudTrail log files are not an ordered stack trace of the public API calls, so they don't appear in any specific order.

The following example shows a CloudTrail log entry that demonstrates the SetContactAddress action.

```
{
  "eventVersion": "1.05",
  "userIdentity": {
    "accountId": "111122223333",
    "accessKeyId": "AIDACKCEVSQ6C2EXAMPLE"
  },
  "eventTime": "2018-05-30T16:44:04Z",
  "eventSource": "billingconsole.amazonaws.com",
  "eventName": "SetContactAddress",
  "awsRegion": "us-east-1",
  "sourceIPAddress": "100.100.100.10",
  "requestParameters": {
    "website": "https://amazon.com",
    "city": "Seattle",
    "postalCode": "98108",
    "fullName": "Jane Doe",
    "districtOrCounty": null,
    "phoneNumber": "206-555-0100",
    "countryCode": "US",
    "addressLine1": "Nowhere Estates",
    "addressLine2": "100 Main Street",
    "company": "AnyCompany",
    "state": "Washington",
    "addressLine3": "Anytown, USA",
    "secondaryPhone": "206-555-0101"
  },
  "responseElements": null,
  "eventID": "5923c499-063e-44ac-80fb-b40example9f",
  "readOnly": false,
  "eventType": "AwsConsoleAction",
}
```

```
}    "recipientAccountId": "1111-2222-3333"
}
```

## Tax console

The following example shows a CloudTrail log entry that uses the `CreateCustomerCase` action.

```
{
  "eventVersion": "1.05",
  "userIdentity": {
    "accountId": "111122223333",
    "accessKeyId": "AIDACKCEVSQ6C2EXAMPLE"
  },
  "eventTime": "2018-05-30T16:44:04Z",
  "eventSource": "taxconsole.amazonaws.com",
  "eventName": "CreateCustomerCase",
  "awsRegion": "us-east-1",
  "sourceIPAddress": "100.100.10.10",
  "requestParameters": {
    "state": "NJ",
    "exemptionType": "501C",
    "exemptionCertificateList": [
      {
        "documentName": "ExemptionCertificate.png"
      }
    ]
  },
  "responseElements": {
    "caseId": "case-111122223333-iris-2022-3cd52e8dbf262242"
  },
  "eventID": "5923c499-063e-44ac-80fb-b40example9f",
  "readOnly": false,
  "eventType": "AwsConsoleAction",
  "recipientAccountId": "1111-2222-3333"
}
```

# Compliance validation for AWS Billing and Cost Management

Third-party auditors assess the security and compliance of AWS services as part of multiple AWS compliance programs. Billing and Cost Management is not in scope of any AWS compliance programs.

For a list of AWS services in scope of specific compliance programs, see [AWS Services in Scope by Compliance Program](#). 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 Billing and Cost Management 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 security- and compliance-focused baseline environments on AWS.
- [AWS Compliance Resources](#) – This collection of workbooks and guides might apply to your industry and location.

- [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 that helps you check your compliance with security industry standards and best practices.

## Resilience in AWS Billing and Cost Management

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](#).

## Infrastructure security in AWS Billing and Cost Management

As a managed service, AWS Billing and Cost Management 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 Billing and Cost Management 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 Ephemeral Diffie-Hellman (DHE) or Elliptic Curve Ephemeral Diffie-Hellman (ECDHE). 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.

# Quotas and restrictions

The following table describes the current quotas, restrictions, and naming constraints within the Billing console.

For a list of quotas and restrictions for features in the AWS Cost Management console, see [Quotas and restrictions](#) in the *AWS Cost Management User Guide*.

## Topics

- [AWS Cost Categories](#) (p. 153)
- [Purchase orders](#) (p. 153)
- [Advance Pay](#) (p. 154)
- [AWS cost allocation tags](#) (p. 154)

## AWS Cost Categories

The total number of AWS Cost Categories for a management account	50
The number of cost category rules for a cost category (API)	500
The number of cost category rules for a cost category (UI)	100
AWS Cost Categories Names	<ul style="list-style-type: none"><li>• Names must be unique</li><li>• Case sensitive</li></ul>
AWS Cost Categories value names	Names don't have to be unique
The type and number of characters allowed in a AWS Cost Categories name and value name	<ul style="list-style-type: none"><li>• Numbers: 0-9</li><li>• Unicode letters</li><li>• Space, if it's not used at the beginning or end of the name</li><li>• The following symbols: _ -</li></ul>
The number of split charge rules for a cost category	10

## Purchase orders

The type of characters that are allowed in a purchase order ID	<ul style="list-style-type: none"><li>• A-Z and a-z</li><li>• Space</li><li>• The following symbols: _ . : / = + - % @</li></ul>
The number of characters allowed in a purchase order ID	100

The number of line items allowed for a purchase order	100
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## Advance Pay

User entity	AWS Inc
Currency	USD
Fund usage after funds are added to your Advance Pay	<ul style="list-style-type: none"><li>Funds can only be used to pay for eligible AWS charges. Non-eligible charges (for example, AWS Marketplace invoices) are charged using the default payment method at the time of Advance Pay registration.</li><li>Funds can't be withdrawn, refunded, or transferred.</li><li>Funds can't be converted to other currencies.</li></ul>
If there are unused funds in your Advance Pay	<ul style="list-style-type: none"><li>You can't change your seller on record.</li><li>You can't change your preferred currency.</li><li>You can't change your default payment method.</li></ul>

## AWS cost allocation tags

You can adjust the maximum number of active cost allocation tag keys on the AWS service quotas page.

The maximum number of active cost allocation tag keys for each payer account	500
The number of cost allocation tag that can be activated or deactivated for one request (API)	20
The number of cost allocation tag that can be activated or deactivated for one request (UI)	20



# Document history

The following table describes the documentation for this release of the *AWS Billing and Cost Management User Guide*.

Change	Description	Date
<a href="#">New customer carbon footprint tool</a>	Added a new customer carbon footprint tool feature to view estimates of the carbon emissions associated with your AWS products and services.	February 28, 2022
<a href="#">New payment profiles</a>	Added a new payment profiles feature to assign automatic payment methods to invoices.	February 17, 2022
<a href="#">AWSPurchaseOrdersServiceRolePolicy – Update to an existing policy</a>	AWS Billing removed unnecessary permissions.	November 18, 2021
<a href="#">AWS Billing started tracking changes for AWS managed policies</a>	AWS Billing started tracking changes for its AWS managed policies.	November 18, 2021
<a href="#">New AWS Cost Management guide</a>	Split the Billing and Cost Management user guide and aligned the feature details into the Billing guide and AWS Cost Management guide to align with the console.	October 20, 2021
<a href="#">New AWS Cost Anomaly Detection</a>	Added a new AWS Cost Anomaly Detection feature that uses machine learning to continuously monitor your cost and usage to detect unusual spends.	December 16, 2020
<a href="#">New Purchase Order Management</a>	Added a new purchase order feature to configure how your purchases are reflected on your invoices.	October 15, 2020
<a href="#">New Budgets Actions</a>	Added a new AWS Budgets actions feature to run an action on your behalf when a budget exceeds a certain cost or usage threshold.	October 15, 2020
<a href="#">New AWS Cost Categories</a>	Added a new AWS Cost Categories feature to map AWS costs into meaningful categories.	April 20, 2020
<a href="#">New Heritage Tax feature</a>	Added a new feature that enables you to use your tax registration information with your linked accounts.	March 19, 2020

<a href="#">New china bank redirect payment method</a>	Added a new payment method that allows China CNY customers using AWS to pay their overdue payments using China Bank Redirect.	February 20, 2020
<a href="#">New security chapter</a>	Added a new security chapter that provides information about various security controls. Former "Controlling Access" chapter contents have been migrated here.	February 6, 2020
<a href="#">New AWS Cost and Usage Reports user guide</a>	Migrated and reorganized all AWS Cost and Usage Reports content to a separate user guide.	January 21, 2020
<a href="#">New reporting method using AWS Budgets</a>	Added a new reporting functionality using AWS Budgets reports.	June 27, 2019
<a href="#">Added normalized units to Cost Explorer</a>	Cost Explorer reports now include normalized units.	February 5, 2019
<a href="#">Credit application changes</a>	AWS changed how they apply credits.	January 17, 2019
<a href="#">New payment behavior</a>	AWS India customers can now enable the auto-charge ability for their payments.	December 20, 2018
<a href="#">New AWS Price List Service endpoint</a>	Added a new endpoint for AWS Price List Service.	December 17, 2018
<a href="#">Updated the Cost Explorer UI</a>	Updated the Cost Explorer UI.	November 15, 2018
<a href="#">Integrated Amazon Athena into AWS Cost and Usage Reports</a>	Added the ability to upload the data from an AWS Cost and Usage Reports into Athena.	November 15, 2018
<a href="#">Added Budgets history</a>	Added the ability to see the history of a budget.	November 13, 2018
<a href="#">Expanded budget services</a>	Expanded RI budgets to Amazon OpenSearch Service.	November 8, 2018
<a href="#">Added a new payment method</a>	Added the SEPA Direct Debit payment method.	October 25, 2018
<a href="#">Added On-Demand capacity reservations (p. 155)</a>	Added documentation about AWS Cost and Usage Reports line items that apply to capacity reservations.	October 25, 2018
<a href="#">Redesigned AWS Budgets experience</a>	Updated the AWS Budgets UI and workflow.	October 23, 2018
<a href="#">New Reserved Instance recommendation columns</a>	Added new columns to the Cost Explorer RI recommendations.	October 18, 2018

<a href="#">New AWS CloudTrail actions</a>	More actions added to CloudTrail logging..	October 18, 2018
<a href="#">Added a new Reserved Instance report</a>	Expanded RI reports to Amazon OpenSearch Service.	October 10, 2018
<a href="#">New AWS Cost and Usage Reports columns (p. 155)</a>	New columns added to the AWS Cost and Usage Reports.	September 27, 2018
<a href="#">Cost Explorer walkthrough</a>	Cost Explorer now provides a walkthrough for the most common functionality.	September 24, 2018
<a href="#">Added CloudTrail events</a>	Added additional CloudTrail events.	August 13, 2018
<a href="#">Added a new payment method</a>	Added the ACH Direct Debit payment method.	July 24, 2018
<a href="#">Updated the AWS free tier widget</a>	Updated the AWS Free Tier Widget.	July 19, 2018
<a href="#">Added RI purchase recommendations for additional services</a>	Added RI purchase recommendations for additional services in Cost Explorer.	July 11, 2018
<a href="#">Added RI purchase recommendations for linked accounts</a>	Added RI purchase recommendations for linked accounts in Cost Explorer.	June 27, 2018
<a href="#">Added support for AWS Cost and Usage Reports data refreshes</a>	AWS Cost and Usage Reports can now update after finalization if AWS applies refunds, credits, or support fees to an account.	June 20, 2018
<a href="#">Added CloudTrail support</a>	Added support for CloudTrail event logging.	June 7, 2018
<a href="#">Added AWS CloudFormation for Budgets</a>	Added Budgets templates for AWS CloudFormation.	May 22, 2018
<a href="#">Updated RI allocation behavior for linked accounts</a>	Updated the RI allocation behavior size-flexible RI for linked accounts.	May 9, 2018
<a href="#">RI coverage alerts</a>	Added RI coverage alerts.	May 8, 2018
<a href="#">Unblend linked account bills (p. 155)</a>	Linked account bills no longer show the blended rate for the organization.	May 7, 2018
<a href="#">Updated AWS tax settings</a>	Added the ability to bulk edit tax settings.	April 25, 2018
<a href="#">Added Amazon RDS recommendations to Cost Explorer</a>	Added Amazon RDS Recommendations to Cost Explorer.	April 19, 2018

<a href="#">Added a new Cost Explorer dimension and AWS Cost and Usage Reports line item (p. 155)</a>	Added a new Cost Explorer dimension and AWS Cost and Usage Reports line item.	March 27, 2018
<a href="#">Added purchase recommendations to the Cost Explorer API</a>	Added access to the Amazon EC2 Reserved Instance (RI) purchase recommendations via the Cost Explorer API.	March 20, 2018
<a href="#">Added RI coverage for Amazon RDS, Amazon Redshift, and ElastiCache</a>	Reserved Instance (RI) coverage for Amazon RDS, Amazon Redshift, and ElastiCache .	March 13, 2018
<a href="#">Added RI coverage to the Cost Explorer API</a>	Added GetReservationCoverage to the Cost Explorer API.	February 22, 2018
<a href="#">Added AWS free tier alerts</a>	Added AWS Free Tier alerts that enable you stay under the free tier limits.	December 13, 2017
<a href="#">RI recommendations</a>	Added RI recommendations based on previous usage.	November 20, 2017
<a href="#">Cost Explorer API</a>	Enabled programmatic access to Cost Explorer via API.	November 20, 2017
<a href="#">RI utilization alerts for additional services</a>	Added notifications for additional services.	November 10, 2017
<a href="#">Added RI reports</a>	Expanded RI reports to Amazon RDS, Redshift, and ElastiCache.	November 10, 2017
<a href="#">Discount sharing preferences</a>	Updated preferences so that AWS credits and RI discount sharing can be turned off.	November 6, 2017
<a href="#">New Amazon S3 console (p. 155)</a>	Updated for the new Amazon S3 console.	September 15, 2017
<a href="#">RI utilization alerts</a>	Added notifications for when RI utilization drops below a preset percentage-based threshold.	August 21, 2017
<a href="#">Updated Cost Explorer UI</a>	Released a new Cost Explorer UI.	August 16, 2017
<a href="#">AWS Marketplace data integration (p. 155)</a>	Added AWS Marketplace so that customers can see their data reflected in all billing artifacts, including the Bills page, Cost Explorer, and more.	August 10, 2017
<a href="#">Consolidated billing with organizations</a>	Updated the consolidated billing with organizations behavior.	June 20, 2017

<a href="#">Linked account access and usage type groups in AWS Budgets</a>	Added support for creating cost and usage budgets based on specific usage types and usage type groups, and extended budget creation capabilities to all account types.	June 19, 2017
<a href="#">Regional offer files</a>	The AWS Price List API now offers regional offer files for each service.	April 20, 2017
<a href="#">Added Cost Explorer advanced options</a>	You can now filter Cost Explorer reports by additional advanced options, such as refunds, credits, RI upfront fees, RI recurring charges, and support charges.	March 22, 2017
<a href="#">Added a Cost Explorer report</a>	You can now track your Reserved Instance (RI) coverage in Cost Explorer.	March 20, 2017
<a href="#">Added Cost Explorer filters</a>	You can now filter Cost Explorer reports by tenancy, platform, and the Amazon EC2 Spot and Scheduled Reserved Instance purchase options.	March 20, 2017
<a href="#">Cost Explorer and Budgets for AWS India</a>	AWS India users can now use Cost Explorer and Budgets.	March 6, 2017
<a href="#">Added grouping for Cost Explorer usage types</a>	Cost Explorer supports grouping for both cost and usage data, enabling customers to identify their cost drivers by cross-referencing their cost and usage charts.	February 24, 2017
<a href="#">Added a Cost Explorer report</a>	You can now track your monthly Amazon EC2 Reserved Instance (RI) utilization in Cost Explorer.	December 16, 2016
<a href="#">Added a Cost Explorer report</a>	You can now track your daily Amazon EC2 Reserved Instance (RI) utilization in Cost Explorer.	December 15, 2016
<a href="#">Added AWS-generated cost allocation tags</a>	You can now activate the AWS-generated tag <code>createdBy</code> to track who created an AWS resource.	December 12, 2016
<a href="#">Added Cost Explorer advanced options</a>	You can now exclude tagged resources from your Cost Explorer reports.	November 18, 2016
<a href="#">Amazon QuickSight integration for AWS Cost and Usage Reports (p. 155)</a>	AWS Cost and Usage Reports now provide customized queries for uploading your data into Amazon QuickSight.	November 15, 2016

<a href="#">Expanded AWS Budgets functionality</a>	You can now use AWS Budgets to track usage data.	October 20, 2016
<a href="#">Expanded Cost Explorer functionality</a>	You can now use Cost Explorer to visualize your costs by usage type groups.	September 15, 2016
<a href="#">Improved Amazon Redshift integration for AWS Cost and Usage Reports (p. 155)</a>	AWS Cost and Usage Reports now provide customized queries for uploading your data into Amazon Redshift.	August 18, 2016
<a href="#">AWS Cost and Usage Reports</a>	You can now create and download AWS Cost and Usage Reports.	December 16, 2015
<a href="#">AWS price list API</a>	You can now download offer files that list the products, prices, and restrictions for a single AWS service.	December 9, 2015
<a href="#">Cost Explorer report manager</a>	You can now save Cost Explorer queries.	November 12, 2015
<a href="#">AWS free tier tracking</a>	You can now track how much of your free tier limit you've used.	August 12, 2015
<a href="#">Budgets and forecasting</a>	You can now manage your AWS usage and costs using AWS Budgets and cost forecasts.	June 29, 2015
<a href="#">Amazon Web Services India Private Limited</a>	You can now manage your account settings and payment methods for an Amazon Web Services India Private Limited (AWS India) account.	June 1, 2015
<a href="#">Expanded Cost Explorer functionality</a>	You can now use Cost Explorer to visualize your costs by Availability Zone, API operation, purchase option, or multiple cost allocation tags.	February 19, 2015
<a href="#">Preferred payment currencies</a>	You can now change the currency associated with your credit card.	February 16, 2015
<a href="#">Expanded Cost Explorer functionality</a>	You can now use Cost Explorer to visualize your costs by Amazon EC2 instance type or region.	January 5, 2015
<a href="#">Avoiding unexpected charges</a>	Revised and expanded Avoiding Unexpected Charges and Using the Free Tier.	August 19, 2014

<a href="#">IAM user permissions</a>	You can now enable AWS Identity and Access Management (IAM) users and federated users to access and manage your account settings, view your bills, and perform cost management. For example, you can grant people in your finance department full access to the financial setup and control of your AWS account, without having to give them access to your production AWS environment.	July 7, 2014
<a href="#">Cost Explorer launched</a>	Cost Explorer provides a visualization of your AWS costs that enables you to analyze your costs in multiple ways.	April 8, 2014
<a href="#">Version 2.0 published (p. 155)</a>	The <i>AWS Billing and Cost Management User Guide</i> has been reorganized and rewritten to use the new Billing and Cost Management console.	October 25, 2013

# AWS glossary

For the latest AWS terminology, see the [AWS glossary](#) in the *AWS General Reference*.