

User Guide

AWS Billing Conductor



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AWS Billing Conductor: User Guide

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What is AWS Billing Conductor?

AWS Billing Conductor is a custom billing service for AWS Channel Partners (Partners) and organizations that have *chargeback* requirements. For Partners, chargebacks are a prerequisite to getting paid by their customers. For direct customers, showback or, chargeback activities ensure that the business allocates the costs of a specific team, business unit, subsidiary or affiliate company, to the correct internal budget or profit and loss (P&L) statement.

To achieve these activities, Billing Conductor enables users to create a second version of their costs to share with their customers or account owners. The second version of cloud cost data comes from your Billing Conductor configuration (pricing plans, pricing rules, and custom line items).

This data is called pro forma cost data, which represents costs for accounts in billing groups. These Billing Conductor resources can include a subset of accounts in an AWS Organizations (standard billing group) when using Billing Conductor as a standalone service, or an entire AWS Organizations (billing transfer billing group) when using Billing Conductor with billing transfer.

Pro forma data exists in a separate domain (pro forma) from your billable cost data (standard billable). While billable cost data uses AWS-determined pricing, pro forma data is accessible through billing views.

The primary billing view for accounts or AWS Organizations in billing groups shows only pro forma data. The account that configures the Billing Conductor pricing resources gains access to the billing view that shows the pro forma data displayed to accounts or AWS Organizations in billing groups.



Note

Customers will observe cost differences between *billable costs* (matching the AWS invoice) and *pro forma costs* (matching the Billing Conductor configuration) throughout the month. However, usage values will match at the end of each month, once the AWS invoice is issued.

Defining pro forma costs enables customers to model their costs uniformly to match one of the following use cases:

- 1. Customer agreements, which can be a Partner use case negotiated outside of AWS
- 2. Internal accounting practices, often an organization-specific use case

Billing Conductor configurations don't affect customers' existing invoices from AWS or billing configurations (for example, sharing of credits or commitment-based discounts like Reserved Instances or Savings Plans).

You can analyze pro forma costs from either a management account of a standalone AWS Organizations or from a bill transfer account that manages multiple AWS Organizations bills.

- Analyze margins (the difference between pro forma costs and billable costs for the same set of accounts) within Billing Conductor
- Use to analyze cost data using either billing group views or billing transfer views
- Analyze cost data by using Billing Group views or Billing Transfer views on the Bills page
- Create a for each Billing Group view and Billing Transfer view
- View reservation and Savings Plans coverage and utilization reports that reflect Billing Group and Billing Transfer views

Billing Conductor managed accounts and AWS Organizations can analyze pro forma costs in AWS Cost Explorer, Cost and Usage Reports, the Billing dashboard, and the billing details page. Managed accounts and AWS Organizations in billing groups can create budgets to monitor their pro forma spend and receive alerts when they exceed, or are forecasted to exceed, their desired pro forma spending limit.

You can configure billing groups, pricing plans, pricing rules, and custom line items in the <u>Billing</u> Conductor console or by using the <u>Billing</u> Conductor API.

For more information about AWS Billing Conductor service quotas, see <u>Quotas and restrictions</u>. For more information about billing transfer, see <u>Transfer billing management to external accounts</u>.

Features in AWS Billing Conductor

You can use the AWS Billing Conductor features to do the following:

Group accounts in standard billing groups

Organize accounts into Billing Conductor billing groups to view aggregated pro forma costs that model your AWS Organizations structure to reflect your business financial organization.

Assign AWS Organizations to billing transfer billing group

When using billing transfer, you can use Billing Conductor to create billing groups that map one-to-one with an AWS Organizations so that the entire organization (including the management account) can view the pro forma costs data exclusively.

Custom pricing

Set global or specific markups or discounts, and control Free Tier access.

Charges and credits

Add one-time or recurring flat or percentage-based charges or credits to billing groups.

Pro forma analysis

Analyze costs based on pricing configurations in the Billing console. Accounts and AWS Organizations in your billing groups can visualize, forecast, and create custom reports of their pro forma costs in AWS Cost Explorer. Accounts and AWS Organizations in the billing groups can view Reservation and Savings Plans coverage and utilization reports that reflects their pro forma costs. When using Billing Conductor as a standalone service, you designate a primary account for each billing group. This primary account has a cross-account view of all costs accrued by accounts in the billing group, while non-primary accounts see only their own costs. For Billing Conductor users who opt in to billing transfer, the primary account defaults to the management account of the AWS Organizations that's transferring its bills (bill source account).

Reporting

Configure Cost and Usage Reports for each billing group.

Rate analysis

Compare the applied rates to actual AWS rates with the billing group margin report.

Budget

Accounts and AWS Organizations in billing groups can create budgets to monitor their pro forma spend and be alerted when they exceed, or they are forecasted to exceed, their desired pro forma spending limit.

Email Notification

You may receive email notifications when your AWS Billing Conductor configurations change. For example, when the primary account leaves AWS Organizations, or when a new linked account joins AWS Organizations and is automatically associated to a billing group.

Pricing for AWS Billing Conductor

For more information about pricing, see <u>AWS Billing Conductor Pricing</u>. Billing Conductor is free for all billing transfer users for transfer billing billing groups. Any standard billing groups are charged.

Related services

AWS Billing

The AWS Billing is the portal for all AWS customers, from students and startup companies to large enterprises. You can use the console to see the resources that are running in your AWS accounts, manage billing preferences, and access billing artifacts that are needed to make payments to AWS. The AWS Billing console also provides a high-level explanation of the spending for your account, and serves as the entry point for enrolling in products in the AWS Cost Management products.

For more information, see the AWS Billing User Guide.

AWS Cost Explorer

You can use the Cost Explorer interface to visualize, understand, and manage your AWS costs and usage over time. Get started quickly by creating custom reports that analyze cost and usage data. Analyze your data at a high level (for example, total costs and usage across all accounts), or dive deeper into your cost and usage data to identify trends, pinpoint cost drivers, and detect anomalies.

For more information, see the following topics:

- Performing ad hoc analysis on pro forma costs in AWS Cost Explorer
- Analyzing your costs with AWS Cost Explorer in the AWS Cost Management User Guide

AWS Cost and Usage Reports

The AWS Cost and Usage Reports (AWS CUR) contain the most comprehensive set of cost and usage data available. You can use Cost and Usage Reports to publish your AWS billing reports to an Amazon Simple Storage Service (Amazon S3) bucket that you own. You can receive reports that break down your costs by the hour or day, by product or product resource, or by tags that you define yourself.

AWS updates the report in your bucket once a day in comma-separated values (CSV) or Apache Parquet format. You can view the reports using spreadsheet software such as Microsoft Excel or

Apache OpenOffice Calc. You can also access them from an application using the Amazon S3 or Amazon Athena APIs.

AWS Cost and Usage Reports track your AWS usage and provide 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.

AWS Identity and Access Management (IAM)

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

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

For more information about how to work with IAM, see <u>What Is IAM?</u> and <u>Security Best Practices</u> in IAM in the *IAM User Guide*.

AWS Organizations (Consolidated billing)

AWS products and services can accommodate every size of company, from small startups 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 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 your member accounts under one management account and receive a single bill. For more information, see Consolidated billing for Organizations in the AWS Billing User Guide.

Billing transfer

Billing transfer decouples billing and financial management from security and governance management. This enables a single AWS Organizations to get centralized access to costs data and AWS invoices across multiple organizations.

To centralize billing while maintaining security management autonomy, billing transfer allows a management account to designate an external management account to manage and pay for

Related services 5

its consolidated bill. To set up billing transfer, an external account (bill transfer account) sends a billing transfer invitation to a management account (bill source account). After the invitation is accepted, the external account becomes the bill transfer account and manages payment for the bill source account's consolidated bill, starting on the date specified in the invitation.

For more information, see <u>Transfer billing management to external accounts</u>.

Billing views

A billing view helps you manage and control access to cost management data within your AWS environment. With billing views, cost management data is represented as an AWS resource. Through resource-based policies, you can configure what data is accessible to an account when using AWS Billing and Cost Management tools.

Each billing view is identified by a unique Amazon Resource Name (ARN), which you can reference in identity-based policies to perform specific IAM actions on the cost management data contained in that billing view.

For more information, see Controlling cost management data access with Billing View.

Related services 6

What is pro forma billing data?

The pro forma billing data is an alternate version of the billing data. This version is the output of your configuration through Billing Conductor resources (pricing plans, pricing rules, and custom line items) applied to either a subset of accounts in the AWS Organizations (standard billing groups) or to an entire organization (billing transfer billing group) for customized showback or chargeback purposes.

Important

The pro forma data differs from the data shown in your AWS bill and doesn't reflect the actual charges due to AWS each month.

This section clarifies the differences between the pro forma bill, generated by AWS Billing Conductor, and the standard AWS bill. When you create a billing group, the AWS Billing Conductor computation generates a pro forma bill for that billing group using your custom pricing configuration. There are several fundamental differences between pro forma bill compared to the standard AWS bill.



Note

The pro forma billing data has no impact on the standard AWS bill. It doesn't change the way you or your organization are billed by AWS.

Glossary

This section defines key terms used throughout AWS Billing Conductor so you can use the service effectively.

Pro forma bill

The billing data that is generated for each billing group. Billing data is generated for each billing group type: standard billing groups configured when using Billing Conductor as a standalone service, and billing transfer billing groups configured when using billing transfer with Billing Conductor. AWS Billing Conductor computation takes the usage accrued by the billing group accounts and applies the custom rates that are defined by the billing group's

Glossary

pricing plan. The billing data is then vended downstream to the <u>integrated services</u>. If an account or AWS Organizations in a billing group views their costs through one of these services, they see the pro forma billing data instead of the standard AWS billing data.

Standard AWS bill/ Chargeable AWS bill

The standard AWS bill that represents the true costs payable to AWS.

Domains

The pro forma billing data set and standard AWS billing data sets are isolated from one another in separate billing domains. Pro forma data exists in the **pro forma domain**, while the standard billing data exists in the **billable domain**.

Billable

The billing output that's generated by AWS and used as the basis of calculating your AWS invoice.

Resource values

The inputs that are used to calculate percentage-based custom line items. Resource values can include the accrued costs for the billing group and any flat custom line items that are associated with a given billing group for a billing period.

Understanding your pro forma billing data

This section explains in depth the differences between pro forma and standard billing. It also provides use cases and best practices when using pro forma billing data.

What's the difference between pro forma billing data and standard AWS billing data?

Each billing group's pro forma bill is computed as if the accounts within the group are their own consolidated billing family or organization. As a result, there are several key differences between account charges in the pro forma domain, compared to the standard billable domain.

- Reserved instances and Savings Plans are only applied and shared within the billing group if it was purchased by a billing group account.
- Volume tiering discounts are calculated based on the usage accrued only by the accounts within the billing group.

 Free Tier consumption is calculated based on the usage accrued only by the accounts within the billing group.

Note

 These differences apply only when using Billing Conductor as a standalone service. When using billing transfer with Billing Conductor, the reserved instances, Savings Plans, and volume discounts are calculated based on the entire AWS Organizations. This calculation method is used because the entire organization is included in the billing group. As a result, the reserved instance and Savings Plans benefits are always visible to organizations transferring their bills.

• Free Tier credits are not supported in pro forma billing for billing transfer users.

The following line item types are excluded from the pro forma domain:

- Credits (redeemed at the payer or linked account level)
- Free Tier credits
- Support plans charges (Enterprise, Business, Developer)
- Non-public discounts (for example, Solution Provider Program)
- Usage-based discounts (for example, bundled discounts)
- Tax
- Refunds

Because of these factors, your billing group's margins varies month to month.



Note

Along with these factors, it is possible for the billing group margin to be a negative number, based on the pricing plan and the applied custom line items.

Configuring pricing in the pro forma domain for my billing group

You can adjust the pricing rates by <u>creating pricing rules</u> and associating them to a <u>pricing plan</u>. Then, that pricing plan can be applied to your billing group. Any markup or discount pricing rule is calculated against the Billing Conductor base rates (rates exclusive of negotiated discounts, Partner program discounts, credits, free tier credits, tax and support plan charges). If you apply an empty pricing plan to your billing group, then the pricing rates default to the Billing Conductor base rates.

You can then <u>create custom line items</u> to add credits or fees to a specific billing group account's proforma bill.

Who can see the pro forma billing data and standard AWS bills?

When using Billing Conductor as a standalone service, the payer account can always view the standard AWS bill because they are responsible for paying these charges to AWS. They can also view the pro forma bill for each of their billing groups on the **Bills** page and AWS Cost and Usage Report and Cost Explorer.

When using Billing Conductor with billing transfer, the bill transfer account can always view the standard AWS bill because they are responsible for paying these charges to AWS. They can also view the pro forma bill for each of their billing groups on the Bills page, , and Cost Explorer.

For more information, see <u>Viewing your billing group details</u> and <u>Configuring Cost and Usage</u> Reports by billing group.

Accounts that are associated to a billing group can see the pro forma data when they view their bill details through an integrated service. When using Billing Conductor as a standalone service, the primary account has cross-account visibility, and can see the pro forma billing data for all of the accounts in the billing group. Other accounts in the billing group can see the pro forma billing data for their own account. For the full list of services that support pro forma data views, see MSS services that support pro forma-based billing view costs.

How Free Tier applies in the pro forma domain

The following considerations about Free Tier behavior in pro forma billing apply when using Billing Conductor as a standalone service or with billing transfer.

12-month Free Tier

Billing Conductor removes this Free Tier from the pro forma bill. It is exchanged with the first paid offer for the given SKU.

Always Free Tier

Billing Conductor doesn't remove this Free Tier from the pro forma bill. You can deactivate this Free Tier by applying a tiering pricing rule to your billing group's pricing plan. For more information, see Pricing rules

Free trials

Billing Conductor removes most free trials from the pro forma data. However, we can't remove the free trial if there is no subsequent pricing tier data that can cover existing usage.

Free Tier for accounts signing up after July 2025

Accounts that sign up after July 2025 receive Free Tier credits when they choose their account plan. These credits don't appear in the pro forma billing by default. To include these credits in the pro forma billing, the payer account or bill transfer account must use the custom line item functionality in Billing Conductor.

Can you derive the pro forma bill costs from the standard AWS bill costs?

You can't reconcile the costs generated for a billing group's pro forma bill, based on the costs in the standard privately negotiated AWS bill. For example, you can't derive the pro forma cost for an account by subtracting private discounts and taxes charged in the standard AWS bill. For more information on why, see What's the difference between pro forma billing data and standard AWS billing data? and How Free Tier applies in the pro forma domain.

How are Reserved Instances and Savings Plans allocated in the proforma domain?

This section applies only when using Billing Conductor as a standalone service. For users using billing transfer, the reserved instances and Savings Plans apply exactly as they do in the standard billing domain because there is a one-to-one mapping between the billing group and the AWS Organizations transferring its bills.

When using Billing Conductor as a standalone service, if an account outside your billing group purchases a reserved instance (RI) or Savings Plans, it is excluded from your billing group's pro forma billing. If an account within your billing group purchases an RI or Savings Plans, the benefits first apply to any eligible usage that accrues within the purchasing account. Any remaining benefits are distributed to other accounts within the group.

RI and Savings Plans discount sharing preferences made at the payer level have no effect on the pro forma domain. RI and Savings Plans purchased by an account in a billing group are always shared with accounts in the same group. As a result, the RI and Savings Plans discount allocation might differ between the pro forma and billable domains.

Do billing groups impact the way reserved instances and Savings Plans are allocated?

This section applies only when using Billing Conductor as a standalone service.

Billing Conductor resources and the resulting pro forma data have no impact on the actual AWS bill. Your billing group might impact how the RIs and Savings Plans are applied in the pro forma domain, but it has no effect on how the same RIs and Savings Plans apply in the billable domain.

Understanding your AWS Billing Conductor dashboard

The AWS Billing Conductor dashboard provides a high-level summary of the key metrics to help you understand the impact of your custom pricing dimensions.

Key performance indicators

This section defines the key performance indicators (KPI) that are available on your AWS Billing Conductor dashboard. KPIs are all month-to-date. As you create or add accounts to your AWS Organizations, the accounts accrue to this KPI. When you delete a billing group, the accounts in that billing group also accrue to this KPI.

- Charged amount The combined charges for usage accrued by all billing groups are based on the custom rate defined by the applied pricing plans. The calculation doesn't include commitment-based discounts purchased outside of the billing group (not applicable to billing transfer users), non-public pricing, or credits consumed in the billable domain. Examples of commitment-based discounts include reserved instances and Savings Plans.
- AWS costs The combined month-to-date charge for usage that's accrued by all billing groups, according to the estimated charges on your AWS bill. The calculations include any commitmentbased discounts purchased outside of the billing group if those benefits were applied in the billable domain, any non-public pricing, volume-tiered discounts, and credits. Examples of commitment-based discounts include reserved instances and Savings Plans.

Note

When using billing transfer in a two-level transfer configuration and signed in as the bill transfer account (middle tier level), your view of AWS costs reflects the pricing configuration set by the bill transfer (bill receiver) account. This amount represents what you owe to your bill transfer account for your bill source accounts' usage. When using billing transfer in either one-level or two-level transfer configurations and signed in as the bill source account to use Billing Conductor for your internal chargeback or showback requirements, the AWS cost metrics reflect the pricing data configured by your bill transfer account. This represents the costs you owe your bill transfer account for usage in your AWS Organizations.

Key performance indicators

• Margin – The aggregated month-to-date margin that's accrued by all billing groups. The margin is calculated by subtracting the AWS costs from the charged amount. Based on the factors such as the pricing plan and the applied custom line items, the margin can also be a negative.



Note

Post-billing period adjustments impact your historical margins. For more information, see Analyzing your margins.

• Billing groups – The number of mutually exclusive groups of accounts or, for billing transfer users, AWS Organizations, each with a primary account and an associated pricing plan.

Viewing your top-five billing groups per charged amount

You can understand your top-five billing groups that generate revenue by referencing the visual and table view. To manage your existing billing groups, choose Manage billing groups on the dashboard page.

Billing groups

When using Billing Conductor as a standalone service, a billing group is a set of accounts within your consolidated billing family that share a common end customer. This applies in the pro forma billing domain only. That end customer maintains the primary account, and can see the cost and usage that accrues across its group. Each billing group's pro forma usage is computed as its own consolidated billing family. Usage shares Reserved Instances and Savings Plans benefits only within the group, accrues volume tier discounts, and an Always Free Tier offering. An account can only associate with one billing group during a billing period.

When using Billing Conductor with billing transfer, a billing group maps one-to-one with the AWS Organizations transferring its bills. Because of this one-to-one mapping, there are no changes to how reserved instances, Savings Plans, and volume discounts are calculated.



Note

For billing transfer billing groups, the primary account corresponds to the management account transferring its bill (bill source account). All linked accounts in the AWS Organizations must be included in the billing group because of the one-to-one mapping requirement.

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 - Understanding the differences between AWS Billing Conductor AWS CUR and standard AWS **CUR**

Creating billing groups

Using Billing Conductor as a standalone service

You can use AWS Billing Conductor to create billing groups to organize your accounts. By default, payer accounts with admin permissions can create billing groups. Each billing group is mutually exclusive. This means that an account can only belong to one billing group in a given billing period. Although you can see the billing group segmentation immediately, it takes up to 24 hours after creating a billing group to see the group's custom rates reflected.

Note

Moving accounts across billing groups in the middle of the month will initiate the recomputation of both billing groups back to the start of the billing period. Moving accounts mid-month doesn't affect previous billing periods.

To create a billing group

- Sign in to the AWS Management Console and open AWS Billing Conductor at https://eusc-deeast-1.console.amazonaws-eusc.eu/billingconductor/.
- In the navigation pane, choose **Billing groups**. 2.
- 3. Choose **Create billing group**.
- For **Billing group details**, enter the name of the billing group. For naming restrictions, see 4. Quotas and restrictions.
- 5. (Optional) For **Description**, enter a description for the billing group.
- Choose Standard as the billing group type.
- For **Pricing plan**, choose a pricing plan to associate with the billing group. To create a pricing 7. plan, see Creating pricing plans.
 - Alternatively, you can use AWS managed BasicPricingPlan, which is available in the pricing plan dropdown list. The BasicPricingPlan calculates gross cloud costs from AWS. You cannot edit or delete this pricing plan.
- (Optional) For **Additional settings**, you can enable automatic account association for the billing group.

Creating billing groups



- Only one billing group can have automatic account association.
- Once you enable this feature, accounts that are created or added to your organization will be automatically associated to this billing group. You will also receive email notification when the automatic association happens.
- If you currently have a CloudTrail logging trail, you can review your automatic account associations in your CloudTrail log.
- Under **Accounts**, choose one or more accounts to add to the billing group *or* choose **Import** organizational unit to automatically select the accounts that are within an organizational unit. For a policy example to grant access to the import OU feature, see Granting Billing Conductor access to the import organizational unit feature.
 - You can use the table filter to sort by account names, account IDs, or the root email address that's associated with an account.
- 10. The primary account inherits the ability to see pro forma cost and usage across the billing group, and can generate a pro forma Cost and Usage Reports (AWS CUR) for the billing group.
 - If you choose a primary account that joined your organization during the current month, the pro forma costs for all accounts in that billing group will only include cost and usage accrued since the primary account joined the organization. To check the join date, choose Validate joined date. For more information, see Understanding how the primary account join and leave date affect pro forma billing.
- 11. Choose Create billing group.

Notes

- You must select your primary account in step 9. You can't change your primary account after the billing group is created. To assign a new primary account, delete the billing group and regroup your accounts. While a payer account can be included within a billing group, a payer account can't be assigned the role of the primary account.
- If the primary account of a billing group leaves your organization and this billing group has automatic account association enabled, it will continue to automatically

> associate accounts until the end of the month. Then, the billing group will be automatically deleted. You can enable automatic account association for an existing billing group or create another one.

Using Billing Conductor with billing transfer

In one-level transfers, the console will create a new billing group with selected pricing configuration and assign it to the AWS organization of the bill source account, when the transfer begins. The billing group status appears as 'pending' until the billing transfer date begins.



Note

If you set up billing transfers programmatically using the billing transfer APIs through the AWS SDK and AWS CLI, you must also call Billing Conductor APIs to create billing groups and associate pricing plans. This ensures that bill source accounts can view pro forma billing data in their billing and cost management console.

In two-level transfers, the bill transfer (bill receiver) account must configure a billing group manually on the bill source accounts' AWS Organizations through Billing Conductor. This step enables the bill transfer account to view the costs of their bill source accounts as allocated by the bill transfer (bill receiver) account. For users in the APN Distribution programs, this enables downstream sellers to see how much they owe their distributor for their end-customers' usage.

For support with automating this action, contact Support.



Important

If a billing group is not assigned to the AWS organization of the bill source account, all the accounts in that AWS organization may not have access to the pro forma cost data when accessing Billing and Cost Management tools.

Usage data will always remain available to the bill source account and the accounts in its AWS organizations via CloudWatch.

To create a billing group manually for billing transfer recovery or two-level transfers

Use this procedure when automatic billing group creation fails during billing transfer setup or when using two-level transfers.

- 1. Sign in to the AWS Management Console and open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/billingconductor/.
- 2. In the navigation pane, choose **Billing groups**.
- 3. Choose **Create billing group**.
- 4. For **Billing group details**, enter the name of the billing group. For naming restrictions, see Quotas and restrictions.
- 5. (Optional) For **Description**, enter a description for the billing group.
- 6. Choose Standard as the billing group type.
- 7. Choose an individual AWS Organizations that's transferring its bills for which you want to create a billing group.
 - a. If you're using billing transfer with two-level transfers, expand the transfer name to view the organizations available for billing group creation.
 - b. The list displays only organizations that aren't associated with a billing group.
 Organizations that already have an associated billing group don't appear in this list.
- 8. For **Pricing plan**, choose a pricing plan to associate with the billing group. To create a pricing plan, see Creating pricing plans.
- 9. Choose Create billing group.

Viewing your billing group details

You can use this section to see the different ways you can review your billing group and pricing plan configurations, as well as your output post-creation.

Viewing the billing group table

After you create a billing group, you can view the details of the billing group in a filterable table. You can filter using the following dimensions:

- Billing group name
- Primary account name

- Primary account ID
- Number of accounts
- Pricing plan name

To view the details for each billing group, choose the billing group name in the table. The billing group that you enabled for the automatic account association feature will have an **Auto-associate** icon next to the billing group name.

Viewing your pro forma configurations by billing group

You can use your billing group details to monitor, analyze, and edit your billing group in AWS Billing Conductor. The billing group details provide a month-to-date margin analysis, a history of custom line items applied, and the ability to edit and delete the billing group as needed.

To view your billing group details page

- 1. Sign in to the AWS Management Console and open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/billingconductor/.
- 2. In the navigation pane, choose **Billing groups**.
- 3. In the **Billing groups** table, choose the billing group name.



The auto-associate functionality applies only when using Billing Conductor as a standalone service.

Viewing your pro forma configurations by linked account

This feature is available only when using Billing Conductor as a standalone service, not with billing transfer. You can review your billing group configurations by linked account, using the account inventory tool in the AWS Billing Conductor console.

To view your billing group configurations by linked account

1. Sign in to the AWS Management Console and open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/billingconductor/.

- 2. In the navigation pane, choose **Account inventory**.
- 3. In the **Account inventory** table, find your account ID or use the filter to search for the account ID.

4. Choose the account to view the account and billing group configurations.

Viewing your billing details by custom pricing dimensions

After you create and assign your billing groups and pricing plans, you can view your custom billing dimensions with usage type granularity for each billing group.

Use the following steps to view your billing details in the pro forma domain.

To view your pro forma billing details

- 1. Open the AWS Billing and Cost Management console at https://eusc-de-east-1.console.amazonaws-eusc.eu/costmanagement/.
- 2. In the navigation pane, enable **billing view** mode.
- 3. From the dropdown list, choose billing transfer view.

The dropdown shows your 10 most recently accessed views. To see all views, choose **See all views** at the bottom of the dropdown menu.

- From the Billing view modal, choose either billing group view or billing transfer views.
- 5. Use the search bar to filter results across all columns in the table.

Search for views using these parameters:

- View name (partial match, starts with)
- Account ID (exact match)
- Type (exact match for BILLING_TRANSFER or BILLING_TRANSFER_SHOWBACK)
- Billing period (choose month)
- 6. Select the desired billing view and select **Choose view**.

When using Billing Conductor as a standalone service, you can analyze billing group usage and costs by service and AWS Region through billing group views. The costs reflect the rates defined in your pricing configuration.

You can analyze pro forma usage for AWS Organizations transferring their bills by using billing transfer views of type Showback/Chargeback. You can use all available Cost Explorer filters to analyze your billing transfer views.

You can find the custom line items under the service AWS Billing Conductor on the Billing details page.

Configuring Cost and Usage Reports by billing group

You can create pro forma AWS Cost and Usage Reports (AWS CUR) for each billing group that you create. The pro forma AWS CUR has the same file format, granularity, and columns as the standard AWS CUR, and contains the most comprehensive set of cost and usage data available for a given period of time.



Note

The split cost allocation data functionality isn't available for billing transfer users. Disable this option when creating your preferences.

When you configure the using the Legacy Pages path, the console doesn't display the billing view option. This option is available only through the Data Exports to Legacy CUR path.

You can publish your pro forma AWS CUR to an Amazon Simple Storage Service (Amazon S3) bucket that you own.

AWS updates the report in your bucket once a day in comma-separated values (CSV) or Apache Parquet format. You can view the reports using spreadsheet software such as Microsoft Excel and Apache OpenOffice Calc. You can also access them from an application using the Amazon S3 or Amazon Athena APIs. For more information about the standard AWS CUR, see the AWS Cost and Usage Reports User Guide.

Understanding the differences between AWS Billing Conductor AWS CUR and standard AWS CUR

There are a few differences between the standard Cost and Usage Reports and pro forma AWS CUR created using the AWS Billing Conductor configuration.

- The standard AWS CUR computes the cost and usage for each account in your consolidated billing family. A pro forma AWS CUR per billing group only includes the accounts in the billing group at the time of computation.
- The standard AWS CUR populates the invoice column once and invoice is generated by AWS. A
 pro forma AWS CUR doesn't populate the invoice column. Currently, no invoice is generated, or
 issued by AWS based on pro forma billing data.

Use the following steps to generate a pro forma AWS CUR for a billing group.

To create pro forma Cost and Usage Reports for a billing group

- 1. Open the AWS Billing and Cost Management console at https://eusc-de-east-1.console.amazonaws-eusc.eu/costmanagement/.
- 2. On the navigation pane, choose **Cost & Usage Reports**.
- 3. Choose **Create report**.
- 4. Choose **Export tytpe**.
- 5. For **Report name**, enter a name for your report.
- 6. For **Billing view**, choose one of the following options:
 - When using Billing Conductor as a standalone service, choose Billing group view
 - When using Billing Conductor with billing transfer, choose Billing transfer view
 - To include pro forma data in your, choose Showback/Chargeback view for your billing transfer view
- 7. For **Additional report details**, select **Include resource IDs** to include the IDs of each individual resource in the report.
- 8. For **Data refresh settings**, select whether you want the AWS Cost and Usage Reports to refresh with any new changes to your cost and usage data after finalizing your bill. When a report refreshes, a new report is uploaded to Amazon S3.



Note

Billing group Cost and Usage Reports don't include credits, tax, or support charges.

- Choose Next. 9.
- 10. For **S3 bucket**, choose **Configure**.
- 11. In the **Configure S3 Bucket** dialog box, do one of the following:
 - Choose an existing bucket from the dropdown list, and then choose Next.
 - Enter a bucket name and the AWS Region where you want to create a new bucket, and choose Next.
- 12. Select I have confirmed that this policy is correct, and choose Save.
- 13. For **Report path prefix**, enter the report path prefix that you want prepended to the name of your report.

This step is optional for Amazon Redshift or Quick Suite, but required for Amazon Athena.

If you don't specify a prefix, the default prefix is the name that you specified for the report in step 4 and the date range for the report, in the following format:

/report-name/date-range/

- 14. For **Time granularity**, choose one of the following:
 - **Hourly** if you want the line items in the report to be aggregated by the hour.
 - **Daily** if you want the line items in the report to be aggregated by the day.
- 15. For **Report versioning**, choose whether you want each version of the report to overwrite the previous version of the report or to be delivered in addition to the previous versions.
- 16. For **Enable report data integration for**, choose whether you want to upload your Cost and Usage Reports to Amazon Athena, Amazon Redshift, or Quick Suite. The report is compressed in the following formats:
 - Athena: parquet compression
 - Amazon Redshift or Quick Suite: .gz compression
- 17. Choose **Next**.
- 18. After reviewing the settings for your report, choose **Review and Complete**.

Pricing rules

You can create pricing rules in AWS Billing Conductor to customize your billing rates across your billing groups. Pricing rules can be global, service-specific, billing entity-specific, or SKU-specific in scope. You can use pricing rules to apply a discount or markup for each respective scope. Scopes don't overlap. Scopes are applied from most to least granular when pricing rules with different scopes are contained within a single pricing plan. For global pricing rules, you can also choose to deactivate or active Always Free Tier rates. Pricing rules with Always Free Tier deactivated defaults to the first paid tier for the usage type or operation. By default, a payer account in with admin permissions can create pricing rules. It takes up to 24 hours after you apply a pricing rule to a billing group to see the custom rates for your billing group reflected.

A single pricing plan can be applied to multiple billing groups.

Contents

- Creating pricing rules
- Viewing the pricing rule table

Creating pricing rules

Use the following steps to create a pricing rule.

To create a pricing rule

- Open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/ billingconductor/.
- 2. In the navigation pane, choose **Pricing configuration**.
- 3. Choose the **Pricing rules** tab.
- 4. Choose Create pricing rules.
- 5. For **Pricing rule details**, enter the name of the pricing rule. For naming restrictions, see <u>Quotas</u> and restrictions.
- 6. (Optional) For **Description**, enter a description for the pricing rule.
- 7. For **Scope**, choose Global, Service, Billing entity, or SKU.
 - Global applies to all usage.

Creating pricing rules 25

• Service - only applies to a given service. When choosing service, choose a service code to configure the pricing rates for. When you choose a service, choose the service code from the Price List Query API that you want to adjust.

- Billing entity only applies to a given billing entity. A billing entity is the seller of services provided by AWS, their affiliates, or third-party providers selling services through AWS Marketplace.
- SKU only applies to the unique combination of service (product) code, usage type, and/or operation.
- 8. For **Type**, choose **Discount**, **Markup**, or **Tiering**.



Note

Tiering is only available for global and service-scoped pricing rules.

For **Percentage**, enter the percentage amount. 9.

If you enter **0** as the percentage, the pricing plan defaults to the AWS On-Demand rate. If you enter a decimal value, it will be rounded to the nearest 2 decimal places.



Note

The percentage displays on the member account's bills page. For example, EC2 t3.micro on-demand (+20%).

- 10. For the **Tiering** type, you can check the box under **Tiering configuration** to deactivate Always Free Tier, or leave as activated. Always Free Tier will be activated unless it's explicitly deactivated.
- 11. (Optional) To create another pricing rule in the same workflow, choose Add pricing rule.
- 12. Choose Create pricing rule.

Viewing the pricing rule table

After you create a pricing rule, you can view the details of the pricing rule in a filterable table. You can filter by the following dimensions:

Pricing rule name

- Scope
- Type
- Details
- Rate

Pricing plans

You can use pricing plans in AWS Billing Conductor to customize the output of your billing details across your billing groups.

There are two types of pricing plans:

- AWS managed Pricing Plan
- Customer managed Pricing Plan

AWS managed Pricing plans are read-only (cannot be edited or deleted), template pricing plans created by AWS. AWS supports the BasicPricingPlan as a managed pricing plan. This is plan calculates pro forma costs pre-discounts, and exclude credits, taxes and support charges.

Customer managed pricing plans are customizable pricing plan controlled by the managed account. By default, a management account with admin permissions can create, update or delete pricing plans. It takes up to 24 hours after you apply a pricing plan to a billing group to see the custom rates for your billing group reflected.

A single pricing plan (AWS or customer managed) can be applied to multiple billing groups.



Note

Updating a pricing plan also affects the billing details of each billing group, where the pricing plan is associated. If the pricing plan is associated with a billing group or set of billing groups, this change affects only the current billing period. Previous billing periods remain the same.

Contents

- Select an AWS managed pricing plan
- Creating pricing plans
- Viewing the pricing plan table

Select an AWS managed pricing plan

Use the following steps to select an AWS managed pricing plan.

To select a AWS managed pricing plan

 Open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/ billingconductor/.

- 2. In the navigation pane, choose **Billing groups**.
- 3. When creating or editing a billing group, for pricing plan, select a pricing plan in the AWS Managed Pricing Plan category from the drop down menu.

Creating pricing plans

Use the following steps to create a pricing plan (customer managed).

To create a pricing plan

- Open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/
 billingconductor/.
- 2. In the navigation pane, choose **Pricing configuration**.
- 3. From the **Pricing plan** tab, choose **Create pricing plan**.
- 4. For **Pricing plan details**, enter the name of the pricing plan. For naming restrictions, see Quotas and restrictions.
- 5. (Optional) For **Description**, enter a description for the pricing plan.
- In the Pricing rules table, choose the pricing rules that you want to be associated with the pricing plan. You can filter the pricing rules by pricing rule name, scope, details, type, or rate.
- 7. Choose **Create pricing plan**.

Viewing the pricing plan table

After you create a pricing plan, you can view the details of the pricing plan in a filterable table. You can filter by the following dimensions:

- The pricing plan name
- The description
- The number of pricing rules that's associated with the pricing plan

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Custom line items

Use AWS Billing Conductor to create personalized line items and apply them to designated AWS accounts within a billing group.

You can allocate costs and discounts by using custom line items. You can calculate a custom line item as a *flat charge* or *percentage charge* value. You can configure the presentation for the **Flat** custom line item by using display settings. You can configure specific services for the percentage custom line items through ChargeDetails.LineItemFilters. You can also set an **Itemized** computation rule for the percentage custom line item to have the custom line item displayed next to each applicable line item. Configure the percentage-based custom line item to include or exclude resources. These resources will include billing group costs and other flat custom line items that are associated with a billing group for a billing period. You can then set the custom line items to apply for one month, or to reoccur for multiple months.

Custom Line Items will appears in Billing and Cost Management tools such as Bills Page, Cost Explorer and Cost and Usage Records with specific line item types, line item subtypes, or charge types. For Custom Line Items which are presented under Billing Conductor service, the types will be **Fee** or **Credit**, depending on the type of the Custom Line Item. For Custom Line Items which are presented under any other service, or for Itemized Custom Line Items, the types will be **Proforma_Fee** or **Proforma_Credit**, depending on the type of the Custom Line Item.

Common use cases for custom line item creation include, but are not limited to the following:

- Allocating Support fees
- Allocating shared service costs
- Applying managed service fees
- Applying tax
- Distributing credits
- Distributing RI and Savings Plans savings (as opposed to On-Demand)
- Adding organizational credits and discount line items

Creating a flat charge custom line item

Use the following steps to create a custom line item that applies either a credit or fee line item to an individual billing group.

To create a custom line item

 Open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/ billingconductor/.

- 2. In the navigation pane, choose **Custom line items**.
- 3. Choose Create custom line item.
- 4. For **Custom line item details**, enter the name of the custom line item. For naming restrictions, see Quotas and restrictions.
- 5. For **Description**, enter a description for the custom line item. The character limit is 255.
- 6. For **Billing period**, choose either the existing billing period or the previous billing period.
- 7. For **Duration**, choose either one month or recurring (no defined end date).
- 8. For **Billing group**, choose a billing group. You can only associate the custom charge to one billing group at a time.
 - (Optional) For Allocated account, you can apply your custom line item to a billing group
 account of your choice. Your custom line item is applied to the primary account of the
 billing group of your choice by default.
- 9. Choose Flat charge for your custom line item type.
- 10. Choose a **charge type** and enter an input amount.
 - A discount line item adds a credit. This reduces the amount that's charged to the selected billing group. A markup line item adds a charge. This increases the amount that's charged to the selected billing group. All custom line items are in USD.
- 11. For **Display settings**, choose a service that you want the flat custom line item present in the bills. The default value is AWSBillingConductor.
- 12. Choose Create.

Creating a percentage charge custom line item

Use the following steps to create a custom line item that applies either a credit or fee line item to an individual billing group.

To create a custom line item

Open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/
 billingconductor/.

- In the navigation pane, choose **Custom line items**. 2.
- 3. Choose Create custom line item.
- For Custom line item details, enter the name of the custom line item. For naming restrictions, 4. see Quotas and restrictions.
- 5. For **Description**, enter a description for the custom line item. The character limit is 255.
- For **Billing period**, choose either the existing billing period or the previous billing period.
- 7. For **Duration**, choose either one month or recurring (no defined end date).
- 8. For **Billing group**, choose a billing group. You can only associate the custom charge to one billing group at a time.
 - (Optional) For Allocated account, you can apply your custom line item to a billing group account of your choice. Your custom line item is applied to the primary account of the billing group of your choice by default.
- Choose percentage charge for your custom line item type.
- 10. Choose a **charge type** and enter an input amount.
 - A discount line item adds a credit. This reduces the amount that's charged to the selected billing group. A markup line item adds a charge. This increases the amount that's charged to the selected billing group. All custom line items are in USD.
- 11. (Optional) For Reference values, choose the values to include in the calculation. By default, the billing group total cost is selected as a resource. This excludes all flat custom line items.
 - (Optional) By default, Savings Plans discounts are included. To exclude them from the a. calculation, select the **Exclude Savings Plans discounts** check box.
 - (Optional) If you want a specific service charges to be executed by the custom line item, select Choose the custom values using filters and input the service code under Value section.
- 12. (Optional) Include one of more flat custom line item. Choose each applicable flat custom line item from the table that you want included in the percentage-based calculation.



Note

You can create percentage custom line items with no associated resources. These custom line items show a \$0.00 value in your billing data.

13. For **Display settings**

a. You can choose a service that you want the percentage custom line item present in the bills. The default value is AWSBillingConductor.

b. Or you can select **Itemized** to have the custom line item displayed next to each applicable line item.

14. Choose Create.

Viewing the custom line items table

After you create a custom line item, you can view the details of the line item in a filterable table. You can filter by the following dimensions:

- The line item name
- The line item description
- · The amount that's charged
- The billing group that the line item is attributed to
- The date that line item was created

To view custom line items that you created in previous billing periods, use the **date picker** dropdown list.

Editing custom line items

Use the following steps to edit your custom line items.

To edit a custom line item

- Open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/billingconductor/.
- 2. In the navigation pane, choose **Custom line items**.
- 3. Choose Create custom line item.
- 4. Choose the custom line item that you want to edit.
- Choose Edit.
- Change the parameters that you want to edit.

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Note

You can't change the billing period, billing group, allocated account, charge type (flat or percentage), or charge value type (credit or fee).

Choose Save changes.

Deleting custom line items

Use the following steps to delete your custom line items.

To edit a custom line item

- Open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/ 1. billingconductor/.
- In the navigation pane, choose **Custom line items**. 2.
- Choose Create custom line item. 3.
- Choose the custom line item that you want to delete. 4.
- Choose delete. 5.
- Read how deleting the custom line item might affect you, and then choose **Delete custom line** item.

Deleting custom line items

Analyzing your margins

You can use the margin summary and margin details in AWS Billing Conductor to analyze your margins both in aggregate and with specific billing groups.

Use the following steps to view your margins for an individual billing group or a set of billing groups.

Contents

- View your aggregate margins with margin summary
 - Viewing your billing group margins summary
 - Understanding your margin analysis table
- View your margins by AWS service using margin details
 - Viewing your billing group margins by service
 - Understanding your margin trend chart
 - Understanding your margin analysis table

View your aggregate margins with margin summary

Viewing your billing group margins summary

To view your billing group margins summary

- Open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/billingconductor/.
- 2. In the navigation pane, under **Analytics**, choose **Margin summary**.
- 3. For **Report type**, choose **All billing groups** or **Select billing group**.
- 4. If you chose **Select billing groups**, choose a **Billing period** and one or more billing groups.
- 5. In the **Month-to-date overview** section, you can view your **Charged amount**, **AWS costs**, and **Margin**.
- 6. You can view your margin analysis in two ways:
 - As a bar chart in the Performance (up to last 13 months) section.
 - As a table in the Margin analysis table.

Negative margins are shown in red in the graph, with a negative dollar amount and negative percentage.

Understanding your margin analysis table

The billing group margin analysis table is sorted in reverse chronological order by default. You can sort the table by all of the columns, which include the following:

- Month
- Charged amount
- AWS costs
- · Margin amount
- Margin percentage

The graph and table returns values for the last 13 months of the billing groups selected. If the billing groups were created at different times, we assume the time range of the oldest selected billing group.

You can export your margin analysis table to a downloadable CSV file. Next to your margin analysis table, choose **Download CSV**. Your download will start automatically.



To download a CSV file with your billing group margin analysis, you must have the billingconductor:ListBillingGroupCostReport permission added to your IAM policy.

View your margins by AWS service using margin details

Viewing your billing group margins by service

To view your billing group margins by service

1. Open AWS Billing Conductor at https://eusc-de-east-1.console.amazonaws-eusc.eu/ billingconductor/.

- 2. In the navigation pane, , under **Analytics**, choose **Margin details**.
- 3. Under **Report parameters**, choose a **Billing period** and a **Billing group**.
- 4. You can view your margin analysis in two ways:
 - As a line chart in the Margin trend by top 5 services section.
 - As a table in the Margin analysis table.

Understanding your margin trend chart

Your margin details will display a line chart that displays the top five services by margin for the chosen billing period. The line chart will display the margins for each service over the last three months for comparison.

The chart will also include a table that displays the margins for each service for the chosen billing period. The table displays the average margin calculated over the last three months, which includes the following columns:

- Service name
- Average
- Margin

If the billing group wasn't active for the entirety of the last three months, then the chart will only display the cost report data that is available.

Understanding your margin analysis table

The billing group margin analysis table includes the following columns:

- Service name
- Charged amount
- AWS costs
- Margin amount
- Margin percentage

You can export your margin analysis table to a downloadable CSV file. Next to your margin analysis table, choose **Download CSV**. Your download will start automatically.



Note

To download a CSV file with your billing group margin analysis, you must have the $\verb|billingconductor:GetBillingGroupCostReport| permission added to your IAM|$ policy.

Viewing your pro forma data in Billing and Cost Management

This section shows how to view your pro forma data in the Billing and Cost Management console. Learn about **Bills** page integration for AWS Billing Conductor. You can also analyze, forcast, and report pro forma costs in Cost Explorer. A compiled list of all Cloud Financial Management services that support pro forma costs is available for reference. For services and features that don't support pro forma costs, AWS accounts use costs at billable rates, matching the AWS invoice.

Contents

- Viewing your pro forma costs on the Bills page
- Performing ad hoc analysis on pro forma costs in AWS Cost Explorer
 - Using Billing Conductor as a standalone service
 - Using Billing Conductor with billing transfer
- Analyzing Savings Plans, reservation coverage, and utilization reports
 - Understanding the effects of billing group configuration and Savings Plans sharing preferences
 - View your reservation and Savings Plans inventory
- Viewing your pro forma data in AWS Budgets
- AWS services that support pro forma-based billing view costs
 - Related information

Viewing your pro forma costs on the Bills page

After you create and assign your billing groups and pricing plans, you can view your custom billing dimensions with usage type granularity for each billing group under management.

Use the following steps to view your billing details in the pro forma domain.

To view your pro forma billing details

- 1. Open the AWS Billing and Cost Management console at https://eusc-de-east-1.console.amazonaws-eusc.eu/costmanagement/.
- 2. In the navigation pane, choose Bills.

- 3. In the navigation pane, enable **billing view** mode.
- 4. From the dropdown list, choose billing transfer view.

The dropdown shows your 10 most recently accessed views. To see all views, choose **See all views** at the bottom of the dropdown menu.

- 5. From the **Billing view** modal, choose either billing group view or billing transfer views.
- 6. Use the search bar to filter results across all columns in the table.

Search for views using these parameters:

- View name (partial match, starts with)
- Account ID (exact match)
- Type (exact match for BILLING_TRANSFER or BILLING_TRANSFER_SHOWBACK)
- Billing period (choose month)
- 7. Select the desired billing view and select **Choose view**.

When using Billing Conductor as a standalone service, you can analyze billing group usage and costs by service and AWS Region through billing group views. The costs reflect the rates defined in your pricing configuration.

You can analyze pro forma usage for AWS Organizations transferring their bills by using billing transfer views of type **Showback/Chargeback**. All Cost Explorer filters are available for analyzing your billing transfer views.

You can find the custom line items under the service **AWS Billing Conductor** on the **Billing details** page.

Performing ad hoc analysis on pro forma costs in AWS Cost Explorer

Using Billing Conductor as a standalone service

AWS accounts in Billing Conductor billing groups can analyze, forecast, and report pro forma costs in Cost Explorer. The primary account in a billing group can perform these activities for all accounts

within the group. If you're using AWS Organizations, management accounts can't analyze, forecast, or report pro forma costs in Cost Explorer.

Billing group managed accounts (billing group members) can see cost and usage data for the billing periods they were members of the billing group, and pro forma data is available. They cannot see historical billable cost and usage data. If you need historical data, the payer account can request a backfill by contacting Support Center. The data is presented in a pro forma format, aligned with the billing group settings.

Notes

- Billing Conductor managed accounts (billing group members) can see pro forma costs in Cost Explorer.
- Hourly granularity data is not supported pro forma costs in Cost Explorer.
- To learn more about core workflows that Cost Explorer supports, see Explorer in the AWS Cost Management User Guide.

Using Billing Conductor with billing transfer

An AWS Organizations in a billing transfer billing group can analyze, forecast, and report pro forma costs in Cost Explorer. By default, their cost data in the primary view shows only pro forma data.

For a list of AWS services that support pro forma costs, see <u>AWS services that support pro formabased</u> billing view costs.

Analyzing Savings Plans, reservation coverage, and utilization reports

You can analyze Savings Plans, reservation coverage, and utilization reports for AWS accounts in Billing Conductor billing groups. and Reports are generated for each billing group and as AWS Organizations in billing groups. The primary billing group account can view coverage and utilization data, based on pro forma costs for all accounts in the group. In pro forma domain, Savings Plans and reservations are shared only within billing groups, despite preferences in the billable domain. This is not applicable to Billing Conductor using billing transfer. This means that your pro forma coverage and utilization reports are computed based on your pro forma

Reservations and Savings Plans sharing configuration at the billing group level, which is enabled for all accounts in the billing group by default.

Billing group managed accounts, or billing group members, can view coverage and utilization data based on pro forma costs if there are Savings Plans purchases or reservations in that account. You can't view historical billable coverage and utilization data. Pro forma data can only be backfilled up to February of 2024.

The following graphs are available for analysis:

Savings Plans utilization graph

This shows pro forma costs under On-Demand spend equivalent, and total net savings.

Savings Plans coverage graph

This shows the pro forma cost under On-Demand spend not covered, and potential monthly savings compared to On-Demand.

Reservation utilization graph

This shows the pro forma cost under effective reservation costs, On-Demand cost equivalent, total net savings, and total potential savings.

Reservation coverage graph

This shows the pro forma costs under total On-Demand costs and annual potential savings.

Note

- If you're using AWS Organizations, management accounts can't analyze, forecast, or report pro forma costs in Cost Explorer. This feature is only available to accounts in the billing group.
- Total commitment values are not affected by the pro forma domain.
- When using Billing Conductor as a standalone service, don't use pro forma utilization and
 coverage reports to make optimization decisions. This limitation doesn't apply to billing
 transfer users because their billing groups map one-to-one with AWS Organizations. For
 example, changes in workloads, Savings Plans, or reservations purchases. See the billable
 utilization reports and coverage reports for any optimization decisions.
- We recommend you discuss with the billing administrator or your organization before making reservations and Savings Plans purchases based on pro forma data. Savings Plans

and reservations purchase recommendations offer accurate recommendations based on the billable sharing preferences, billable On-Demand spend, and on the performance of any existing Savings Plans and/or reservations in the billable domain. Savings Plans and reservation recommendations reflect the insights reported in the billable utilization and coverage report for primary accounts and linked accounts in billing groups. See the Savings Plans and reservation purchase recommendations page as an account within the billing group, and your recommended commitment value will accurately reflect the billable utilization and coverage report. This is the source of truth for your organization optimization decisions.

Understanding the effects of billing group configuration and Savings Plans sharing preferences

Discount benefits are shared within the billing group in Billing Conductor. For this reason, Savings Plans coverage and utilization metrics might change based on billing group configuration or Savings Plans sharing preferences in the billable domain. This behavior doesn't apply to billing transfer users because their billing groups map one-to-one with AWS Organizations.

Examples

- If Savings Plans sharing is enabled across all accounts in the organization in the billable domain and there is one single billing group that contains all accounts in the organization in the proforma domain, then there will be no variance between the coverage and utilization metrics between the billable and proforma domain.
- If Savings Plans sharing is enabled across all accounts in the organization in the billable domain but Billing Conductor pro forma domain is configured so there is either one billing group that contains a subset of accounts in the organization or there are multiple billing groups with subsets of accounts each, then there will be variance between the coverage and utilization metrics in pro forma domain and billable domain. The nature of the variance depends on your billing groups configuration and whether the Savings Plans reside in an account in or outside of the billing group. However, utilization metrics might be lower in the pro forma domain compared to the billable domain while the coverage might be higher in the pro forma domain compared to the billable domain.
- If Savings Plans sharing is restricted to a specific linked account in the billable domain and the billing group contains the account that purchased the Savings Plans, the utilization and coverage metrics might be higher in pro forma compared to the chargeable domain. This is because the

pro forma Savings Plans sharing behavior overrides the restrictive billable sharing preference enabling more accounts (if they are in a billing group) to benefit from the Savings Plans.

For more information about Savings Plans and reservation reports, see <u>Monitoring your Savings</u>

<u>Plans</u> in the *Savings Plans User Guide*, and <u>Understanding your reservations with Cost Explorer</u> in the *AWS Cost Management User Guide*.

View your reservation and Savings Plans inventory

You can view Savings Plans and reservation inventory for AWS accounts in Billing Conductor billing groups. The primary billing group account can see the inventory of accounts in the billing group. Savings Plans and reservations are shared only within billing groups, despite preferences in the billable domain.

Billing group managed accounts, or billing group members, can view reservation and Savings Plans inventory if they were purchased in that account.

To view your Savings Plans and reservation inventory (billing group primary account only)

- 1. Sign in to the AWS Management Console and open the AWS Billing and Cost Management console at https://eusc-de-east-1.console.amazonaws-eusc.eu/costmanagement/.
- 2. In the navigation pane, choose **Savings Plans**, under **Inventory**.

If you're using AWS Organizations, management accounts can view Savings Plans and reservation inventory.



For billing group member accounts, Queued Savings Plans are only visible in the
 Account inventory page of the AWS account purchasing the Savings Plans (not in the
 Organizations inventory for primary accounts).

Viewing your pro forma data in AWS Budgets

AWS accounts in AWS Billing Conductor billing groups can monitor pro forma spendings using AWS Budgets. Budgets created by AWS accounts in Billing Conductor billing groups capture the pro

forma billing data, enabling alerts when your pro forma spending limit is exceeding. The budget forecast will also be based on the pro forma data, and you will be alerted when you are about to exceed your spending limit as well.

Billing group primary accounts can monitor the holistic billing group pro forma spend, and spending on specific billing group member accounts. Billing group managed accounts, or billing group members, can create and view pro forma budgets of their own AWS accounts. These accounts can see the budget history for the billing periods they were members of the billing group. Billing data isn't shared from the budget history for dates prior to joining the billing group.

When accounts join a billing group, their existing budget information will begin capturing pro forma data. The budget history and forecast are based on the pro forma data. When accounts leave a billing group, the budget begins capturing billable data. The budget history and forecast will be based on billable data going forward.



Note

We recommend linked accounts in billing groups, that previously had budget alerts configured on billable data, to update the threshold to the budget alerts to match the pro forma data view.

As a billing transfer user, only bill source accounts can use budgets and budget alerts. If a bill transfer account needs to set up a budget, they must obtain an IAM role in the bill source account.

For more information about AWS Budgets, see Managing your costs with AWS Budgets in the AWS Cost Management User Guide.

AWS services that support pro forma-based billing view costs

The following Cloud Financial Management services and their features support pro forma costs.

Service and features	Support level by AWS account type		
	Payer (management account)	Primary account	Linked (member account)

Service and features	Support level by AWS account type		
AWS Cost and Usage Report	Yes	Yes	Yes
Split cost allocation	No	No	No
AWS Billing	No	Yes	Yes
Dashboard	No	Yes	Yes
Billing details	Yes	Yes	Yes
Download CSV	No	No	No
AWS Cost Explorer	No	Yes	Yes
Forecasting	No	Yes	Yes
Save reports	No	Yes	Yes
Rightsizing recommendations	No	No	No
Cost anomaly monitors	No	No	No
Savings Plans recommendations	No	No	No
Savings Plans utilizati on reports	No	Yes	Yes
Savings Plans coverage reports	No	Yes	Yes
Reservation recommendations	No	No	No
Reservation utilizati on reports	No	Yes	Yes

Service and features	Support level by AWS account type		
Reservation coverage reports	No	Yes	Yes
AWS Budgets	No	Yes	Yes
Budget reports	No	Yes	Yes

For services and features that don't support pro forma costs, AWS accounts will see costs at billable rates, which match the AWS invoice.

Related information

To manage linked account access to billable refunds, credits, and discounts, see the **AWS Cost Explorer** section on the **Preferences** page in the **Cost Management Console**.

If you don't want your IAM entities to see specific billable rates for these services and features, you can use IAM policies to deny access. For an example IAM policy, see <u>Denying Billing and Cost</u> Explorer access to services and features that don't support pro forma costs.

You can also customize your IAM policies to allow or deny specific permissions. For a granular list of IAM actions for Billing and Cost Management, see the following topics:

- Migrating access control for AWS Cost Management in the AWS Cost Management User Guide
- <u>Migrating access control for AWS Billing</u> and in the AWS Billing User Guide

Related information 47

Concepts and best practice for AWS Billing Conductor

This section highlights some best practices for when you're working with AWS Billing Conductor.

Controlling access to AWS Billing Conductor

The AWS Billing Conductor is only accessible to users who have access to the payer or management account. To grant IAM users permission to create billing groups and see the AWS Billing Conductor Key Performance Indicators (KPIs) in the Billing and Cost Management console, you must also grant IAM users the following:

List accounts within Organizations

To learn more about giving users the ability to create billing groups and pricing plans in the AWS Billing Conductor console, see Identity and access management for AWS Billing Conductor.

You can also create AWS Billing Conductor resources programmatically using the AWS Billing Conductor API. When you configure access to the AWS Billing Conductor API, we recommend creating a unique IAM user for allowing programmatic access. This helps you define more precise access controls between who in your organization has access to the AWS Billing Conductor console, and the API. To give multiple IAM users query access to the AWS Billing Conductor API, we recommend creating a programmatic access IAM role for each.

Understanding how the primary account join and leave date affect pro forma billing

This section applies only when using Billing Conductor as a standalone service without billing transfer enabled.

The date when the primary account joined your Organization defines the historical boundary for pro forma costs for that billing group. If you choose an account that joined your Organization in the middle of the month as the primary account of a billing group, all accounts in that billing group are not able to see their pro forma billing data for the first half of the month. This is because the primary account wasn't a part of the Organization at that time. Similarly, if the primary account left your Organization in the middle of the month, the accounts in the billing group are not able to see pro forma billing from the date the primary account left the Organization.



Note

The billing group is marked for deletion in the following month when the primary account leaves your Organization. To maintain pro forma billing for accounts in this billing group for the following months, we recommend you delete the billing group and create a new one. The new billing group can be created with a new primary account, or using the original account if it rejoined your Organization.

If the primary account left your Organization, you will receive an email notification.

For example, your primary account joined your organization on October 15 and left on October 28. The pro forma billing data for all accounts in the billing group will only include the cost and usage between October 15 through the 28th. This is true even if other accounts are a part of the billing group for thee entire month of October.

To avoid discrepancy between the cost and usage datasets across the billable pro forma domains, ensure the account chosen as the primary account is a part of your Organization for the entire month.

Understanding the AWS Billing Conductor update frequency

AWS billing data is updated at least once a day. AWS Billing Conductor uses this data to compute your pro forma billing data. Custom line items that are generated to apply to the current month are reflected within 24 hours. Custom line items that are generated to apply to the prior billing period might take up to 48 hours to reflect in a billing group AWS Cost and Usage Reports, or on the bills page for a given billing group.

Understanding the AWS Billing Conductor computational logic

The AWS Billing Conductor computation is flexible to the changes that you make in a given month, while retaining the historical integrity of your prior period billing data. This is best described with an example.

Example: Using Billing Conductor as a standalone service

In this example, we have two billing groups, A and B. Billing group A starts the billing period with accounts 1 through 3 in the group. At mid-month, the payer account moves Account 3 to Billing Group B. At that point, the re-computation of the costs for Billing Groups A and B are

required to accurately model the latest change. When Account 3 is moved, Billing Group A's usage is modeled as if Account 3 was not a part of the billing group during the current billing period. Additionally, Billing Group B's usage is modeled as if Account 3 was a part of Billing Group B since the beginning of the billing period. This approach eliminates the need to calculate complex rates and chargeback models when accounts move across groups within the billing period.

From the member account's stance, the new billing group's settings are applied to the account's usage for the entire month when Account 3 moves from one new billing group to another in the middle of the month. This is reflected in Cost Explorer and Bills as if the account has been apart of the new billing group from the start of the month.

Billing Group A	Days: 1 - 15	Days: 16 - 30	End of Month
Account 1	\$ 100	\$ 100	\$ 200
Account 2	\$ 100	\$ 100	\$ 200
Account 3	\$ 100	N/A	N/A
Total	\$ 300	\$ 200	\$ 400

Billing Group B	Days: 1 - 15	Days: 16 - 30	End of Month
Account 4	\$ 100	\$ 100	\$ 200
Account 5	\$ 100	\$ 100	\$ 200
Account 6	\$ 100	\$ 100	\$ 200
Account 3	\$ 100	\$ 100	\$ 200
Total	\$ 400	\$ 400	\$ 800

Example: Using Billing Conductor with billing transfer

Unlike standalone Billing Conductor users, billing transfer users don't manually configure billing groups. However, pro forma and chargeable data changes occur when linked accounts are added

to or removed from AWS Organizations, or when the bill transfer account modifies the pricing configuration.

Billing Conductor with two-level billing transfers

Billing transfer supports two-level transfers for selected accounts. A bill transfer account can transfer its own bill and all its bill source account bills to an external management account (bill transfer receiver). This receiving account is responsible for paying both the bills from the two-levels-down bill source accounts and the bills from the intermediary bill transfer account, which becomes a bill source account by transferring its bill.

For more information about two-level transfers, see Billing transfer quotas.

Account roles in billing transfer configurations

Account role	One-level transfer	Two-level transfer
Bill source account	Generates a consolidated bill and transfers it to an external management account	Generates a consolidated bill and transfers it to an external management account
Bill transfer account	Not applicable	Transfers its own bill and bill source account bills to a bill transfer receiver account. Acts as a bill transfer account for bill source accounts and as a bill source account for the bill transfer receiver. Uses Billing Conductor to manage pricing visible to bill source accounts.
Bill transfer receiver	Receives and pays consolidated bills from the bill source account and its own account. Uses Billing Conductor to manage pricing visible to the bill source account.	Receives and pays consolidated bills from all bill source accounts (includinging the bill transfer account) and its own account. Uses Billing Conductor to manage pricing for all bill source accounts. Only the bill transfer account sees costs priced by the bill transfer receiver,

Account role	One-level transfer	Two-level transfer
		while bill source accounts see costs priced by the bill transfer account.

Example 1: Conglomerate business

Each subsidiary has multiple business units. The media conglomerate implements a central FinOps strategy to incentivize the use of specific AWS services across the business, modernize their infrastructure, and lower overall cloud costs.

Usage flow

- The AWS usage of Business Unit_1.1 (Bill Source accountID 123) is \$15, based on standard AWS standard computation.
- The AWS usage of the Subsidiary_1 (accountID 456) is \$30, based on standard AWS standard computation.
- The AWS usage of the Conglomerate_A (Bill Transfer-Bill Receiver account ID 789) is \$10, based on standard AWS standard computation.

Payment flow

Conglomerate_A (accountID 789) receives three separate consolidated bills and invoices for each account's usage. They pay AWS a total of \$55.

Showback and chargeback flows

Conglomerate_A (bill transfer receiver, accountID 789) charges Subsidiary_1 (bill transfer accountID 456) \$14 for the usage of Business Unit_1.1 (Bill source accountID 123) and \$29 for the usage of the Subsidiary 1 (Bill Transfer accountID 456) to reward them in using the recommended AWS services.

In the AWS Billing and Cost Management console, Subsidiary_1 views only Business Unit_1.1's costs (accountID 123) at \$14 and their own costs (accountID 456) at \$29, as set by Conglomerate_A. Subsidiary_1 pays Conglomerate_A \$43 for the combined usage.

To provide incentives for improved budgeting operations, Subsidiary_1 charges Business Unit_1.1 \$13.50.

In the AWS Billing and Cost Management console, Business Unit 1.1 views only their own costs at \$13.50, as set by Subsidiary_1.

Example 2: Distribution reselling business

Company B is a distributor reselling AWS services. The distributor receives AWS Partner Network (APN) discounts to support AWS expansion. The distributor resells to their partners (downstream sellers), who then resell to end customers. Both distributors and downstream sellers share the APN discount and charge end customers based on public, pre-discounted pricing.

Usage flow

- The AWS usage of end-customer (Bill Source account ID 123) is \$20 (based on standard AWS standard computation)
- The AWS of the Downstream seller (Bill transfer account ID 456) is \$2 (based on standard AWS standard computation)
- The AWS usage of the Distributor (Bill Transfer-Bill Receiver account ID 789) is \$1 (based on standard AWS standard computation)

Payment flow

The Distributor (Bill Transfer Account-Bill Receiver account ID 789) will receive three different consolidated bills and invoices for the usage of each account, and will pay a total of \$23 to AWS.

Showback and chargeback flows

The Distributor (Bill Transfer-Bill Receiver account ID 789) charges back the Downstream seller (Bill Transfer account ID 456) \$21 for the usage of end-customer account (Bill Source account ID 123) and \$3 for the usage of the Bill Transfer account (ID 456). Downstream seller exclusively views the costs of end-customer (bill source ID 123) priced at \$21 in its Billing and Cost Management console. Downstream seller exclusively views its own costs for its Bill Transfer account (ID 456) priced at \$3.

The Downstream seller will charge back \$22 to the End-Customer (for example, public pricing).



Note

For two-level billing transfers:

The bill transfer receiver account doesn't need to send invitations to bill source accounts. Only the bill transfer account sends invitations. When a bill source account accepts

the invitation, the bill transfer receiver receives a CloudWatch notification and automatically takes over billing for the bill source accounts.

The bill transfer receiver account must configure a billing group manually in the bill source accounts' AWS Organizations through Billing Conductor. This configuration enables the bill transfer account to view their bill source account costs as allocated by the bill transfer receiver. For APN Distribution program users, this enables downstream sellers to see how much they owe their distributor for their end customers' usage.

For help with automating this process, contact Support.

Security in AWS Billing Conductor

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 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 .
- **Security in the cloud** Your responsibility is determined by the AWS service that you use. You are also responsible for other factors including the sensitivity of your data, your company's requirements, and applicable laws and regulations.

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

Topics

- Data protection in AWS Billing Conductor
- Identity and access management for AWS Billing Conductor
- Logging and monitoring in AWS Billing Conductor
- Compliance validation for AWS Billing Conductor
- Resilience in AWS Billing Conductor
- Infrastructure security in AWS Billing Conductor

Data protection in AWS Billing Conductor

The AWS applies to data protection in AWS Billing Conductor. As described in this model, AWS is responsible for protecting the global infrastructure that runs all of the AWS Cloud. You are responsible for maintaining control over your content that is hosted on this infrastructure. You are

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also responsible for the security configuration and management tasks for the AWS services that you use. For more information about data privacy, see the Data Privacy FAQ.

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

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

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

Identity and access management for AWS Billing Conductor

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 Conductor resources. IAM is an AWS service that you can use with no additional charge.

Topics

- Audience
- · Authenticating with identities
- Managing access using policies
- How AWS Billing Conductor works with IAM
- AWS Billing Conductor identity-based policy examples

Audience

How you use AWS Identity and Access Management (IAM) differs based on your role:

- Service user request permissions from your administrator if you cannot access features (see Troubleshooting AWS Billing Conductor identity and access)
- **Service administrator** determine user access and submit permission requests (see <u>How AWS</u> Billing Conductor works with IAM)
- IAM administrator write policies to manage access (see <u>AWS Billing Conductor identity-based</u> policy examples)

Authenticating with identities

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

You can sign in as a federated identity using credentials from an identity source like AWS IAM Identity Center (IAM Identity Center), single sign-on authentication, or Google/Facebook credentials. For more information about signing in, see How to sign in to your AWS account in the AWS Sign-In User Guide.

For programmatic access, AWS provides an SDK and CLI to cryptographically sign requests. For more information, see AWS Signature Version 4 for API requests in the IAM User Guide.

AWS account root user

When you create an AWS account, you begin with one sign-in identity called the AWS account *root user* that has complete access to all AWS services and resources. We strongly recommend that you don't use the root user for everyday tasks. For tasks that require root user credentials, see <u>Tasks</u> that require root user credentials in the *IAM User Guide*.

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IAM users and groups

An <u>IAM user</u> is an identity with specific permissions for a single person or application. We recommend using temporary credentials instead of IAM users with long-term credentials. For more information, see <u>Require human users to use federation with an identity provider to access AWS using temporary credentials</u> in the *IAM User Guide*.

An <u>IAM group</u> specifies a collection of IAM users and makes permissions easier to manage for large sets of users. For more information, see <u>Use cases for IAM users</u> in the <u>IAM User Guide</u>.

IAM roles

An <u>IAM role</u> is an identity with specific permissions that provides temporary credentials. You can assume a role by <u>switching from a user to an IAM role (console)</u> or by calling an AWS CLI or AWS API operation. For more information, see <u>Methods to assume a role</u> in the <u>IAM User Guide</u>.

IAM roles are useful for federated user access, temporary IAM user permissions, cross-account access, cross-service access, and applications running on Amazon EC2. For more information, see Cross account resource access in IAM in the IAM User Guide.

Managing access using policies

You control access in AWS by creating policies and attaching them to AWS identities or resources. A policy defines permissions when associated with an identity or resource. AWS evaluates these policies when a principal makes a request. Most policies are stored in AWS as JSON documents. For more information about JSON policy documents, see Overview of JSON policies in the IAM User Guide.

Using policies, administrators specify who has access to what by defining which **principal** can perform **actions** on what **resources**, and under what **conditions**.

By default, users and roles have no permissions. An IAM administrator creates IAM policies and adds them to roles, which users can then assume. IAM policies define permissions regardless of the method used to perform the operation.

Identity-based policies

Identity-based policies are JSON permissions policy documents that you attach to an identity (user, group, or role). These policies control what actions identities can perform, on which resources, and

under what conditions. To learn how to create an identity-based policy, see <u>Define custom IAM</u> permissions with customer managed policies in the *IAM User Guide*.

Identity-based policies can be *inline policies* (embedded directly into a single identity) or *managed policies* (standalone policies attached to multiple identities). To learn how to choose between managed and inline policies, see Choose between managed policies and inline policies in the *IAM User Guide*.

Resource-based policies

Resource-based policies are JSON policy documents that you attach to a resource. Examples include IAM *role trust policies* and Amazon S3 *bucket policies*. In services that support resource-based policies, service administrators can use them to control access to a specific resource. You must specify a principal in a resource-based policy.

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

Access control lists (ACLs)

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

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

Other policy types

AWS supports additional policy types that can set the maximum permissions granted by more common policy types:

- **Permissions boundaries** Set the maximum permissions that an identity-based policy can grant to an IAM entity. For more information, see <u>Permissions boundaries for IAM entities</u> in the *IAM User Guide*.
- **Service control policies (SCPs)** Specify the maximum permissions for an organization or organizational unit in AWS Organizations. For more information, see <u>Service control policies</u> in the *AWS Organizations User Guide*.

• **Resource control policies (RCPs)** – Set the maximum available permissions for resources in your accounts. For more information, see <u>Resource control policies (RCPs)</u> in the *AWS Organizations User Guide*.

• **Session policies** – Advanced policies passed as a parameter when creating a temporary session for a role or federated user. For more information, see Session policies in the *IAM User Guide*.

Multiple policy types

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

How AWS Billing Conductor works with IAM

Before you use IAM to manage access to Billing Conductor, you should understand what IAM features are available to use with Billing Conductor. To get a high-level view of how Billing Conductor and other AWS services work with IAM, see AWS Services That Work with IAM in the IAM User Guide.

Topics

- Billing Conductor identity-based policies
- Billing Conductor resource-based policies
- Access control lists (ACLs)
- Authorization based on Billing Conductor tags
- Billing Conductor IAM roles

Billing Conductor identity-based policies

With IAM identity-based policies, you can specify allowed or denied actions and resources as well as the conditions under which actions are allowed or denied. Billing Conductor supports specific actions, resources, and condition keys. To learn about all of the elements that you use in a JSON policy, see IAM JSON Policy Elements Reference in the IAM User Guide.

Actions

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

The Action element of a JSON policy describes the actions that you can use to allow or deny access in a policy. Include actions in a policy to grant permissions to perform the associated operation.

Policy actions in Billing Conductor use the following prefix before the action: Billing Conductor:. For example, to grant someone permission to run an Amazon EC2 instance with the Amazon EC2 RunInstances API operation, you include the ec2:RunInstances action in their policy. Policy statements must include either an Action or NotAction element. Billing Conductor defines its own set of actions that describe tasks that you can perform with this service.

To specify multiple actions in a single statement, separate them with commas as follows:

```
"Action": [
    "ec2:action1",
    "ec2:action2"
```

You can specify multiple actions using wildcards (*). For example, to specify all actions that begin with the word Describe, include the following action:

```
"Action": "ec2:Describe*"
```

To see a list of Billing Conductor actions, see <u>Actions Defined by AWS Billing Conductor</u> in the *IAM User Guide*.

Resources

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

The Resource JSON policy element specifies the object or objects to which the action applies. As a best practice, specify a resource using its Amazon Resource Name (ARN). For actions that don't support resource-level permissions, use a wildcard (*) to indicate that the statement applies to all resources.

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

The Amazon EC2 instance resource has the following ARN:

```
arn:${Partition}:ec2:${Region}:${Account}:instance/${InstanceId}
```

For more information about the format of ARNs, see <u>Amazon Resource Names (ARNs) and AWS</u> Service Namespaces.

For example, to specify the i-1234567890abcdef0 instance in your statement, use the following ARN:

```
"Resource": "arn:aws:ec2:us-east-1:123456789012:instance/i-1234567890abcdef0"
```

To specify all instances that belong to a specific account, use the wildcard (*):

```
"Resource": "arn:aws:ec2:us-east-1:123456789012:instance/*"
```

Some Billing Conductor actions, such as those for creating resources, cannot be performed on a specific resource. In those cases, you must use the wildcard (*).

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

Many Amazon EC2 API actions involve multiple resources. For example, AttachVolume attaches an Amazon EBS volume to an instance, so an IAM user must have permissions to use the volume and the instance. To specify multiple resources in a single statement, separate the ARNs with commas.

```
"Resource": [
    "resource1",
    "resource2"
```

To see a list of Billing Conductor resource types and their ARNs, see <u>Resources Defined by AWS</u> <u>Billing Conductor</u> in the *IAM User Guide*. To learn with which actions you can specify the ARN of each resource, see <u>Actions Defined by AWS Billing Conductor</u>.

Condition keys

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

The Condition element specifies when statements execute based on defined criteria. You can create conditional expressions that use <u>condition operators</u>, such as equals or less than, to match the condition in the policy with values in the request. To see all AWS global condition keys, see AWS global condition context keys in the *IAM User Guide*.

Billing Conductor defines its own set of condition keys and also supports using some global condition keys. To see all AWS global condition keys, see <u>AWS Global Condition Context Keys</u> in the *IAM User Guide*.

All Amazon EC2 actions support the aws: RequestedRegion and ec2: Region condition keys. For more information, see Example: Restricting Access to a Specific Region.

To see a list of Billing Conductor condition keys, see <u>Condition Keys for AWS Billing Conductor</u> in the *IAM User Guide*. To learn with which actions and resources you can use a condition key, see Actions Defined by AWS Billing Conductor.

Examples

To view examples of Billing Conductor identity-based policies, see <u>AWS Billing Conductor identity-based</u> policy examples.

Billing Conductor resource-based policies

Resource-based policies are JSON policy documents that specify what actions a specified principal can perform on the Billing Conductor resource and under what conditions. Amazon S3 supports resource-based permissions policies for Amazon S3 *buckets*. Resource-based policies let you grant usage permission to other accounts on a per-resource basis. You can also use a resource-based policy to allow an AWS service to access your Amazon S3 *buckets*.

To enable cross-account access, you can specify an entire account or IAM entities in another account as the <u>principal in a resource-based policy</u>. Adding a cross-account principal to a resource-based policy is only half of establishing the trust relationship. When the principal and the resource are in different AWS accounts, you must also grant the principal entity permission to access the resource. Grant permission by attaching an identity-based policy to the entity. However, if a resource-based policy grants access to a principal in the same account, no additional identity-based policy is required. For more information, see How IAM Roles Differ from Resource-based Policies in the *IAM User Guide*.

The Amazon S3 service supports only one type of resource-based policy called a *bucket* policy, which is attached to a *bucket*. This policy defines which principal entities (accounts, users, roles, and federated users) can perform actions on the *Billing Conductor*.

Examples

To view examples of Billing Conductor resource-based policies, see <u>AWS Billing Conductor</u> resource-based policy examples,

Access control lists (ACLs)

Access control lists (ACLs) are lists of grantees that you can attach to resources. They grant accounts permissions to access the resource to which they are attached. You can attach ACLs to an Amazon S3 bucket resource.

With Amazon S3 access control lists (ACLs), you can manage access to *bucket* resources. Each *bucket* has an ACL attached to it as a subresource. It defines which AWS accounts, IAM users or groups of users, or IAM roles are granted access and the type of access. When a request is received for a resource, AWS checks the corresponding ACL to verify that the requester has the necessary access permissions.

When you create a *bucket* resource, Amazon S3 creates a default ACL that grants the resource owner full control over the resource. In the following example *bucket* ACL, John Doe is listed as the owner of the *bucket* and is granted full control over that *bucket*. An ACL can have up to 100 grantees.

```
<?xml version="1.0" encoding="UTF-8"?>
<AccessControlPolicy xmlns="http://Billing Conductor.amazonaws.com/doc/2006-03-01/">
    <ID>c1daexampleaaf850ea79cf0430f33d72579fd1611c97f7ded193374c0b163b6</ID>
    <DisplayName>john-doe
  </0wner>
  <AccessControlList>
    <Grant>
      <Grantee xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"</pre>
              xsi:type="Canonical User">
        <ID>c1daexampleaaf850ea79cf0430f33d72579fd1611c97f7ded193374c0b163b6</ID>
        <DisplayName>john-doe</DisplayName>
      </Grantee>
      <Permission>FULL_CONTROL</Permission>
    </Grant>
  </AccessControlList>
</AccessControlPolicy>
```

The ID field in the ACL is the AWS account canonical user ID. To learn how to view this ID in an account that you own, see Finding an AWS Account Canonical User ID.

Authorization based on Billing Conductor tags

You can attach tags to Billing Conductor resources or pass tags in a request to Billing Conductor. To control access based on tags, you provide tag information in the <u>condition element</u> of a policy using the Billing Conductor:ResourceTag/key-name, aws:RequestTag/key-name, or aws:TagKeys condition keys.

Billing Conductor IAM roles

An IAM role is an entity within your AWS account that has specific permissions.

Using temporary credentials with Billing Conductor

You can use temporary credentials to sign in with federation, assume an IAM role, or to assume a cross-account role. You obtain temporary security credentials by calling AWS STS API operations such as AssumeRole or GetFederationToken.

Billing Conductor supports using temporary credentials.

Service-linked roles

<u>Service-linked roles</u> allow AWS services to access resources in other services to complete an action on your behalf. Service-linked roles appear in your IAM account and are owned by the service. An IAM administrator can view but not edit the permissions for service-linked roles.

Service roles

This feature allows a service to assume a <u>service role</u> on your behalf. This role allows the service to access resources in other services to complete an action on your behalf. Service roles appear in your IAM account and are owned by the account. This means that an IAM administrator can change the permissions for this role. However, doing so might break the functionality of the service.

Billing Conductor supports service roles.

Choosing an IAM role in Billing Conductor

When you create a resource in Billing Conductor, you must choose a role to allow Billing Conductor to access Amazon EC2 on your behalf. If you have previously created a service role or service-linked role, then Billing Conductor provides you with a list of roles to choose from. It's important to choose a role that allows access to start and stop Amazon EC2 instances.

AWS Billing Conductor identity-based policy examples

By default, IAM users and roles don't have permission to create or modify Billing Conductor resources. They also can't perform tasks using the AWS Management Console, AWS CLI, or AWS API. An IAM administrator must create IAM policies that grant users and roles permission to perform specific API operations on the specified resources they need. The administrator must then attach those policies to the IAM users or groups that require those permissions.

To learn how to create an IAM identity-based policy using these example JSON policy documents, see Creating Policies on the JSON Tab in the IAM User Guide.

Topics

- Policy best practices
- Billing Conductor identity-based policy examples
- AWS managed policies for AWS Billing Conductor
- AWS Billing Conductor resource-based policy examples
- Troubleshooting AWS Billing Conductor identity and access

Policy best practices

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

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

Use conditions in IAM policies to further restrict access – You can add a condition to your
policies to limit access to actions and resources. For example, you can write a policy condition to
specify that all requests must be sent using SSL. You can also use conditions to grant access to
service actions if they are used through a specific AWS service, such as CloudFormation. For more
information, see IAM JSON policy elements: Condition in the IAM User Guide.

- Use IAM Access Analyzer to validate your IAM policies to ensure secure and functional
 permissions IAM Access Analyzer validates new and existing policies so that the policies
 adhere to the IAM policy language (JSON) and IAM best practices. IAM Access Analyzer provides
 more than 100 policy checks and actionable recommendations to help you author secure and
 functional policies. For more information, see <u>Validate policies with IAM Access Analyzer</u> in the
 IAM User Guide.
- Require multi-factor authentication (MFA) If you have a scenario that requires IAM users or
 a root user in your AWS account, turn on MFA for additional security. To require MFA when API
 operations are called, add MFA conditions to your policies. For more information, see Secure API
 access with MFA in the IAM User Guide.

For more information about best practices in IAM, see <u>Security best practices in IAM</u> in the *IAM User Guide*.

Billing Conductor identity-based policy examples

This topic contains example policies that you can attach to your IAM user or group to control access to your account's information and tools.

Topics

- Granting full access to the Billing Conductor console
- Granting full access to the Billing Conductor API
- Granting read-only access to the Billing Conductor console
- Granting Billing Conductor access through the Billing console
- Granting Billing Conductor access through AWS Cost and Usage Reports
- Granting Billing Conductor access to the import organizational unit feature
- Denying Billing and Cost Explorer access to services and features that don't support pro forma costs
- Creating a pro forma CUR by billing group

Granting full access to the Billing Conductor console

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

To ensure that those entities can still use the Billing Conductor console, also attach the following AWS managed policy to the entities. For more information, see <u>Adding Permissions to a user</u> in the *IAM User Guide*:

In addition to the billingconductor: * permissions, pricing: DescribeServices is required for pricing rule creation, and organizations: ListAccounts is required to list linked accounts that are linked to the payer account.

JSON

```
{
    "Version": "2012-10-17",
    "Statement": [
        {
            "Effect": "Allow",
            "Action": "billingconductor:*",
            "Resource": "*"
        },
        {
            "Effect": "Allow",
            "Action": [
                 "organizations:ListAccounts",
                 "organizations:DescribeAccount"
            ],
            "Resource": "*"
        },
        {
            "Effect": "Allow",
            "Action": "pricing:DescribeServices",
            "Resource": "*"
        }
    ]
}
```

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

Granting full access to the Billing Conductor API

In this example, you grant an IAM entity full access to the Billing Conductor API.

JSON

Granting read-only access to the Billing Conductor console

In this example, you grant an IAM entity read-only access to the Billing Conductor console.

JSON

```
{
    "Effect": "Allow",
    "Action": "organizations:ListAccounts",
    "Resource": "*"
},
{
    "Effect": "Allow",
    "Action": "pricing:DescribeServices",
    "Resource": "*"
}
]
```

Granting Billing Conductor access through the Billing console

In this example, IAM entities can toggle and view pro forma billing data through the bills page in their Billing console.

JSON

Granting Billing Conductor access through AWS Cost and Usage Reports

In this example, IAM entities can toggle and view pro forma billing data through the Cost and Usage Reports page in their Billing console.

JSON

Granting Billing Conductor access to the import organizational unit feature

In this example, IAM entities have read-only access to the specific AWS Organizations API operations that are required to import your organizational unit (OU) accounts when you're creating a billing group. The import OU feature is on the AWS Billing Conductor console.

JSON

Denying Billing and Cost Explorer access to services and features that don't support pro forma costs

In this example, IAM entities are denied access to services and features that don't support pro forma costs. This policy includes a list of actions that are possible within the management account and individual member accounts.

JSON

```
{
    "Version":"2012-10-17",
    "Statement": [{
        "Effect": "Deny",
        "Action": [
            "aws-portal:ModifyAccount",
            "aws-portal:ModifyBilling",
            "aws-portal:ModifyPaymentMethods",
            "aws-portal:ViewPaymentMethods",
            "aws-portal:ViewAccount",
            "cur:GetClassic*",
            "cur:Validate*",
            "tax:List*",
            "tax:Get*",
            "tax:Put*",
            "tax:ListTaxRegistrations",
            "tax:BatchPut*",
            "tax:UpdateExemptions",
            "freetier:Get*",
            "payments:Get*",
            "payments:List*",
            "payments:Update*",
            "payments:GetPaymentInstrument",
            "payments:GetPaymentStatus",
            "purchase-orders:ListPurchaseOrders",
            "purchase-orders:ListPurchaseOrderInvoices",
            "consolidatedbilling:GetAccountBillingRole",
            "consolidatedbilling:Get*",
            "consolidatedbilling:List*",
            "invoicing:List*",
            "invoicing:Get*",
            "account:Get*",
            "account:List*",
```

```
"account:CloseAccount",
            "account:DisableRegion",
            "account: EnableRegion",
            "account:GetContactInformation",
            "account:GetAccountInformation",
            "account:PutContactInformation",
            "billing:GetBillingPreferences",
            "billing:GetContractInformation",
            "billing:GetCredits",
            "billing:RedeemCredits",
            "billing:Update*",
            "ce:GetPreferences",
            "ce:UpdatePreferences",
            "ce:GetReservationCoverage",
            "ce:GetReservationPurchaseRecommendation",
            "ce:GetReservationUtilization",
            "ce:GetSavingsPlansCoverage",
            "ce:GetSavingsPlansPurchaseRecommendation",
            "ce:GetSavingsPlansUtilization",
            "ce:GetSavingsPlansUtilizationDetails",
            "ce:ListSavingsPlansPurchaseRecommendationGeneration",
            "ce:StartSavingsPlansPurchaseRecommendationGeneration",
            "ce:UpdateNotificationSubscription"
        ],
        "Resource": "*"
    }]
}
```

For more information, see AWS services that support pro forma-based billing view costs.

Creating a pro forma CUR by billing group

Step 1: Allow IAM users to have full access to legacy CUR and billing group billing view.

```
"arn:aws:billing::*:billingview/*"

]
}
]
```

Step 2: To assign IAM roles to have access to specific billing groups, add the billing view ARN the user can access.

For more information, see Configuring Cost and Usage Reports by billing group.

AWS managed policies for AWS Billing Conductor

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

AWS services maintain and update AWS managed policies. You can't change the permissions in AWS managed policies. Services occasionally add additional permissions to an AWS managed policy to support new features. This type of update affects all identities (users, groups, and roles) where the policy is attached. Services are most likely to update an AWS managed policy when

a new feature is launched or when new operations become available. Services do not remove permissions from an AWS managed policy, so policy updates won't break your existing permissions.

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

AWS managed policy: AWSBillingConductorFullAccess

The AWSBillingConductorFullAccess managed policy grants complete access to AWS Billing Conductor console and APIs. Users can list, create, and delete AWS Billing Conductor resources.

To view the permissions for this policy, see <u>AWSBillingConductorFullAccess</u> in the *AWS Managed Policy Reference*.

AWS managed policy: AWSBillingConductorReadOnlyAccess

The AWSBillingConductorReadOnlyAccess managed policy grants read-only access to AWS Billing Conductor console and APIs. Users can view and list all AWS Billing Conductor resources. Users can't create or delete resources.

To view the permissions for this policy, see <u>AWSBillingConductorReadOnlyAccess</u> in the *AWS Managed Policy Reference*.

AWS Billing Conductor updates to AWS managed policies

View details about updates to AWS managed policies for AWS Billing Conductor since this service began tracking these changes. For automatic alerts about changes to this page, subscribe to the RSS feed on the AWS Billing Conductor Document history page.

Change	Description	Date
AWSBillingConductorFullAcce ss - Update to existing policies	We added the organizat ions:DescribeRespo nsibilityTransfer and organizations:List InboundResponsibil	November 19, 2025

Change	Description	Date
	<pre>ityTransfers actions to the AWSBillingConducto rFullAccess policy.</pre>	
AWSBillingConductorFullAcce ss - Update to existing policies	We added the following actions to the AWSBillin gConductorFullAcce ss policy: • organizations:List Roots • organizations:List OrganizationalUnit sForParent • organizations:List Children • organizations:Desc ribeAccount	September 9, 2025
	pricing:GetAttribu teValuespricing:GetProducts	

Change	Description	Date
AWSBillingConducto rReadOnlyAccess - Update to existing policies	We added the following actions to the AWSBillin gConductorReadOnly Access policy:	September 9, 2025
	 billingconductor:G etBillingGroupCost Report 	
	organizations:List Roots	
	 organizations:List OrganizationalUnit sForParent 	
	• organizations:List Children	
	• organizations:Desc ribeAccount	
	 pricing:GetAttribu teValues 	
	pricing:GetProducts	
AWSBillingConducto rReadOnlyAccess	Added GetBillin gGroupCostReport to the AWSBillingConducto rReadOnlyAccess policy.	February 8, 2024
AWSBillingConductorFullAcce ss	Created policy	March 29, 2022
AWSBillingConducto rReadOnlyAccess	Created policy	March 29, 2022

Change	Description	Date
AWS Billing Conductor change log published	AWS Billing Conductor started tracking changes for its AWS managed policies.	March 29, 2022

AWS Billing Conductor resource-based policy examples

Topics

Restricting Amazon S3 bucket access to specific IP addresses

Restricting Amazon S3 bucket access to specific IP addresses

The following example grants permissions to any user to perform any Amazon S3 operations on objects in the specified bucket. However, the request must originate from the range of IP addresses specified in the condition.

The condition in this statement identifies the 54.240.143.* range of allowed Internet Protocol version 4 (IPv4) IP addresses, with one exception: 54.240.143.188.

The Condition block uses the IpAddress and NotIpAddress conditions and the aws:SourceIp condition key, which is an AWS wide condition key. For more information about these condition keys, see Specifying Conditions in a Policy. Theaws:sourceIp IPv4 values use the standard CIDR notation. For more information, see IP Address Condition Operators in the IAM User Guide.

JSON

```
{
  "Version":"2012-10-17",
  "Id": "S3PolicyId1",
  "Statement": [
      {
            "Sid": "IPAllow",
            "Effect": "Allow",
            "Principal": "*",
            "Action": "s3:*",
            "Resource": "arn:aws:s3:::amzn-s3-demo-bucket1/*",
```

```
"Condition": {
    "IpAddress": {"aws:SourceIp": "54.240.143.0/24"},
    "NotIpAddress": {"aws:SourceIp": "54.240.143.188/32"}
    }
}
```

Troubleshooting AWS Billing Conductor identity and access

Use the following information to help you diagnose and fix common issues that you might encounter when working with Billing Conductor and IAM.

Topics

- I am not authorized to perform an action in Billing Conductor
- I am not authorized to perform iam:PassRole
- I want to allow people outside of my AWS account to access my Billing Conductor resources

I am not authorized to perform an action in Billing Conductor

If the AWS Management Console tells you that you're not authorized to perform an action, then you must contact your administrator for assistance. Your administrator is the person that provided you with your user name and password.

The following example error occurs when the mateojackson IAM user tries to use the console to view details about a *Billing Conductor* but does not have Billing Conductor: *GetWidget* permissions.

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

In this case, Mateo asks his administrator to update his policies to allow him to access the my-example-Billing Conductor resource using the Billing Conductor: GetWidget action.

I am not authorized to perform iam:PassRole

If you receive an error that you're not authorized to perform the iam: PassRole action, your policies must be updated to allow you to pass a role to Billing Conductor.

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

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

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

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

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

I want to allow people outside of my AWS account to access my Billing Conductor resources

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

To learn more, consult the following:

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

Logging and monitoring in AWS Billing Conductor

Monitoring is an important part of maintaining the reliability, availability, and performance of your AWS account. There are several tools available to monitor your AWS Billing Conductor 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 <u>Cost and Usage Report Guide</u>.

Logging AWS Billing Conductor API calls using AWS CloudTrail

AWS Billing Conductor is integrated with AWS CloudTrail, a service that provides a record of actions taken by a user, role, or an AWS service in AWS Billing Conductor. CloudTrail captures all API calls for AWS Billing Conductor as events. The calls captured include calls from the AWS Billing Conductor console and code calls to the AWS Billing Conductor API operations. If you create a trail, you can enable continuous delivery of CloudTrail events to an Amazon S3 bucket, including events for AWS Billing Conductor. 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 AWS Billing Conductor, 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, see the AWS CloudTrail User Guide.

AWS Billing Conductor CloudTrail events

This section shows a full list of the CloudTrail events related to Billing and Cost Management.

Event name	Definition
AssociateAccounts	Logs the association of accounts to a billing group.
Associate PricingRules	Logs the association of pricing rules to a pricing plan.

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Event name	Definition
AutoAssoc iateAccount	Logs the automatic association of an account to a billing group.
AutoDisas sociateAccount	Logs the automatic disassociation of an account from a billing group in the next billing period.
BatchAsso ciateReso urcesToCu stomLineItem	Logs the batch association of resources to a percentage custom line item.
BatchDisa ssociateR esourcesF romCustom LineItem	Logs the batch disassociation of resources from a percentage custom line item.
CreateBil lingGroup	Logs the creation of a billing group.
CreateCus tomLineItem	Logs the creation of a custom line item.
CreatePricingPlan	Logs the creation of a pricing plan.
CreatePricingRule	Logs the creation of a pricing rule.
DeleteBil lingGroup	Logs the deletion of a billing group.
DeleteCus tomLineItem	Logs the deletion of a custom line item.
DeletePricingPlan	Logs the deletion of a pricing plan.
DeletePricingRule	Logs the deletion of a pricing rule.

Event name	Definition
Disassoci ateAccounts	Logs the disassociation of accounts from a billing group.
Disassoci atePricingRules	Logs the disassociation of pricing rules from a pricing plan.
ListAccou ntAssociations	Logs the access to the account ids in the billing group.
ListBilli ngGroupCo stReports	Logs the access to the actual AWS charges for the billing group.
ListBillingGroups	Logs the access to the billing groups in a billing period.
ListCusto mLineItems	Logs the access to the custom line items in a billing period.
ListCusto mLineItem Versions	Logs the access to the versions of a custom line item.
ListPricingPlans	Logs the access to the pricing plans in a billing period.
ListPrici ngPlansAs sociatedW ithPricingRule	Logs the access to the pricing plans associated to a pricing rule.
ListPricingRules	Logs the access to the pricing rules in a billing period.
ListPrici ngRulesAs sociatedT oPricingPlan	Logs the access to the pricing rules associated to a pricing plan.

Event name	Definition
ListResou rcesAssoc iatedToCu stomLineItem	Logs the access to the resources associated to a custom line item.
ListTagsF orResource	Logs the access to the tags on a resource.
TagResource	Logs the association of tags on a resource.
UpdateBil lingGroup	Logs the update of a billing group.
UpdateCus tomLineItem	Logs the update of a custom line item.
UpdatePricingPlan	Logs the update of a pricing plan.
UpdatePricingRule	Logs the update of a pricing rule.

AWS Billing Conductor information in CloudTrail

CloudTrail is enabled on your AWS account when you create the account. When activity occurs in AWS Billing Conductor, 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.

For an ongoing record of events in your AWS account, including events for AWS Billing Conductor, 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

All AWS Billing Conductor actions are logged by CloudTrail and are documented in the <u>AWS Billing</u> Conductor API Reference.

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 AWS Identity and Access Management (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.

Understanding AWS Billing Conductor 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 aren't an ordered stack trace of the public API calls, so they don't appear in any specific order.

Topics

- AutoAssociateAccount
- CreateBillingGroup

AutoAssociateAccount

The following example shows a CloudTrail log entry that demonstrates the AutoAssociateAccount action.

```
{
    "eventVersion": "1.09",
    "userIdentity": {
        "accountId": "111122223333",
```

```
"invokedBy": "billingconductor.amazonaws.com"
    },
    "eventTime": "2024-02-23T00:22:08Z",
    "eventSource": "billingconductor.amazonaws.com",
    "eventName": "AutoAssociateAccount",
    "awsRegion": "us-east-1",
    "sourceIPAddress": "billingconductor.amazonaws.com",
    "userAgent": "billingconductor.amazonaws.com",
    "requestParameters": null,
    "responseElements": null,
    "requestID": "1v14d239-fe63-4d2b-b3cd-450905b6c33",
    "eventID": "14536982-geff-4fe8-bh18-f18jde35218d0",
    "readOnly": false,
    "eventType": "AwsServiceEvent",
    "managementEvent": true,
    "recipientAccountId": "111122223333",
    "serviceEventDetails": {
        "requestParameters": {
            "Arn": "arn:aws:billingconductor::111122223333:billinggroup/444455556666",
            "AccountIds": [
                "333333333333"
            ]
        },
        "responseElements": {
            "Arn": "arn:aws:billingconductor::111122223333:billinggroup/444455556666"
        }
    },
    "eventCategory": "Management"
}
```

CreateBillingGroup

The following example shows a CloudTrail log entry that demonstrates the CreateBillingGroup action.

```
"eventVersion": "1.08",
"userIdentity": {
     "accountId":"111122223333",
     "accessKeyId":"ASIAIOSFODNN7EXAMPLE"
},
"eventTime": "2024-01-24T20:30:03Z",
"eventSource": "billingconductor.amazonaws.com",
```

```
"eventName": "CreateBillingGroup",
    "awsRegion": "us-east-1",
    "sourceIPAddress": "100.100.10.10",
    "userAgent": "aws-internal/3 aws-sdk-java/1.11.465
 Linux/4.9.124-0.1.ac.198.73.329.metal1.x86_64 OpenJDK_64-Bit_Server_VM/25.192-b12
 java/1.8.0_192",
    "requestParameters": {
        "PrimaryAccountId": "444455556666",
        "ComputationPreference": {
            "PricingPlanArn": "arn:aws:billingconductor::111122223333:pricingplan/
TgeITi5Bgh"
        },
        "X-Amzn-Client-Token": "32aafb5s-e5b6-47f5-9795-3a69935e9da4",
        "AccountGrouping": {
            "LinkedAccountIds": [
                "444455556666",
                "111122223333"
            ]
        },
        "Name": "***"
    },
    "responseElements": {
        "Access-Control-Expose-Headers": "x-amzn-RequestId,x-amzn-ErrorType,x-amzn-
ErrorMessage, Date",
        "Arn": "arn:aws:billingconductor::111122223333:billinggroup/444455556666"
    },
    "requestID": "fb26ae47-3510-a833-98fe-3dc0f602gb49",
    "eventID": "3ab70d86-c63e-46fd8d-a33s-ce2970441a8",
    "readOnly": false,
    "eventType": "AwsApiCall",
    "managementEvent": true,
    "recipientAccountId": "111122223333",
    "eventCategory": "Management"
}
```

Compliance validation for AWS Billing Conductor

Third-party auditors assess the security and compliance of AWS services as part of multiple AWS compliance programs. AWS Billing Conductor is not in scope of any AWS compliance programs.

For a list of AWS services in scope of specific compliance programs, see . For general information, see .

Compliance validation 87

Your compliance responsibility when using AWS Billing Conductor 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:

- - This collection of workbooks and guides might apply to your industry and location.
- <u>Evaluating Resources with Rules</u> in the AWS Config Developer Guide The AWS Config service assesses how well your resource configurations comply with internal practices, industry guidelines, and regulations.

Resilience in AWS Billing Conductor

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 Conductor

As a managed service, AWS Billing Conductor is protected by AWS global network security. For information about AWS security services and how AWS protects infrastructure, see AWS Cloud Security. To design your AWS environment using the best practices for infrastructure security, see Infrastructure Protection in Security Pillar AWS Well-Architected Framework.

You use AWS published API calls to access Billing Conductor through the network. Clients must support the following:

- Transport Layer Security (TLS). We require TLS 1.2 and recommend TLS 1.3.
- Cipher suites with perfect forward secrecy (PFS) such as DHE (Ephemeral Diffie-Hellman) or ECDHE (Elliptic Curve Ephemeral Diffie-Hellman). Most modern systems such as Java 7 and later support these modes.

Resilience 88

Access AWS Billing Conductor using an interface endpoint (AWS PrivateLink)

You can use AWS PrivateLink to create a private connection between your VPC and AWS Billing Conductor. You can access Billing Conductor as if it were in your VPC, without the use of an internet gateway, NAT device, VPN connection, or Direct Connect connection. Instances in your VPC don't need public IP addresses to access Billing Conductor.

You establish this private connection by creating an *interface endpoint*, powered by AWS PrivateLink. We create an endpoint network interface in each subnet that you enable for the interface endpoint. These are requester-managed network interfaces that serve as the entry point for traffic destined for Billing Conductor.

For more information, see <u>Access AWS services through AWS PrivateLink</u> in the *AWS PrivateLink* Guide.

Considerations for Billing Conductor

Before you set up an interface endpoint for Billing Conductor, review <u>Considerations</u> in the *AWS PrivateLink Guide*.

Billing Conductor supports making calls to all of its API actions through the interface endpoint.

VPC endpoint policies are not supported for Billing Conductor. By default, full access to Billing Conductor is allowed through the interface endpoint. Alternatively, you can associate a security group with the endpoint network interfaces to control traffic to Billing Conductor through the interface endpoint.

Create an interface endpoint for Billing Conductor

You can create an interface endpoint for Billing Conductor using either the Amazon VPC console or the AWS Command Line Interface (AWS CLI). For more information, see Create an interface endpoint in the AWS PrivateLink Guide.

Create an interface endpoint for Billing Conductor using the following service name:

com.amazonaws.region.service-name

AWS PrivateLink 89

If you enable private DNS for the interface endpoint, you can make API requests to Billing Conductor using its default Regional DNS name. For example, service-name.us-east-1.amazonaws.com.

Create an endpoint policy for your interface endpoint

An endpoint policy is an IAM resource that you can attach to an interface endpoint. The default endpoint policy allows full access to Billing Conductor through the interface endpoint. To control the access allowed to Billing Conductor from your VPC, attach a custom endpoint policy to the interface endpoint.

An endpoint policy specifies the following information:

- The principals that can perform actions (AWS accounts, IAM users, and IAM roles).
- The actions that can be performed.
- The resources on which the actions can be performed.

For more information, see <u>Control access to services using endpoint policies</u> in the *AWS PrivateLink Guide*.

Example: VPC endpoint policy for Billing Conductor actions

The following is an example of a custom endpoint policy. When you attach this policy to your interface endpoint, it grants access to the listed Billing Conductor actions for all principals on all resources.

AWS PrivateLink 90

Quotas and restrictions

The following table describes quotas and restrictions within AWS Billing Conductor.

Quotas

Using Billing Conductor as a standalone service

Number of billing groups per payer account	5,000
Number of accounts per billing group	1,000
Number of pricing plans	5,000
Number of pricing rules	50,000
Number of pricing rules that can associate to a pricing plan	500
Number of pricing plans that can associate with a pricing rule	1,000
Number of custom line items	50,000
Number of source values that can associate to a percentage custom line item	100
Number of percentage custom that can associate to a flat custom line item	100
Number of custom line item that configured line item filters per billing group	10
Number of custom line item that configure d "ITEMIZED" as computation rule per billing group	5

Using Billing Conductor with billing transfer

Quotas 91

Number of one-to-one billing group mappings per bill transfer account	Same as the number of billing transfers allowed for the billing transfer account to manage
Number of billing groups per bill source account	1
Number of accounts per billing group	1,000
Number of pricing plans	5,000
Number of pricing rules	50,000
Number of pricing rules that can associate to a pricing plan	500
Number of pricing plans that can associate with a pricing rule	1,000
Number of custom line items	50,000
Number of source values that can associate to a percentage custom line item	100
Number of percentage custom that can associate to a flat custom line item	100

Restrictions

Other restrictions in the following table cannot be increased.

Using Billing Conductor as a standalone service

Number of Cost and Usage Reports per billing	10
group billing view	

Restrictions 92

Number of pro forma for bill transfer account	Same as the number of billing transfers allowed for the billing transfer account to manage
Billing group name	Must be within 128 charactersCannot contain a spaceCannot contain special characters
Billing group description	Must be within 1,024 characters
Pricing plan name	Must be within 128 charactersCannot contain a spaceCannot contain special characters
Pricing plan description	Must be within 1,024 characters
Custom line item name	Must be within 128 charactersCannot contain a spaceCannot contain special characters

Using Billing Conductor with billing transfer

Number of pro forma &CUR for bill transfer account	10
Billing group name	 Must be within 128 characters Cannot contain a space Cannot contain special characters
Billing group description	Must be within 1,024 characters
Pricing plan name	Must be within 128 charactersCannot contain a spaceCannot contain special characters
Pricing plan description	Must be within 1,024 characters

Restrictions 93

Custom line item name	Must be within 128 characters	
	Cannot contain a space	
	Cannot contain special characters	

Restrictions 94

Document history

The following table describes the documentation for this release of AWS Billing Conductor.

Change	Description	Date
Updated documentation for AWS managed policies	Updated the AWSBillin gConductorFullAcce ss policy. See <u>AWS managed</u> policies for AWS Billing Conductor.	November 19, 2025
Updated documentation for AWS managed policies	Updated the AWSBillin gConductorFullAcce ss and AWSBillin gConductorReadOnly Access policies. See AWS managed policies for AWS Billing Conductor.	September 9, 2025
<u>Updated documentation</u>	Reservation and Savings Plans are integrated with Billing Conductor. See Analyzing Savings Plans, reservation coverage, and utilization reports topic.	October 10, 2024
<u>Updated documentation</u>	Updated the What is AWS Billing Conductor? topic.	March 7, 2024
Updated documentation for AWS managed policies	Added GetBillin gGroupCostReport to the AWSBillingConducto rReadOnlyAccess policy. See AWS managed policies for AWS Billing Conductor.	February 8, 2024

Added documentation for margin summary	You can view your margin details by AWS service for your billing group. See Analyzing your margins per billing group.	December 14, 2023
Added documentation about custom line items	You can apply a custom line item for a specific linked account in your billing group. See Creating custom line items per billing group.	December 4, 2023
Added documentation about the primary account	Understand how choosing a primary account can affect your pro forma costs for your billing groups. See <u>Understanding the importance of the primary account join date</u> .	October 26, 2023
Added support for custom line item filters	You can now specify line item filters to your custom line items. For more information, see Creating a percentage charge custom line item.	September 5, 2023
Added documentation about pro forma costs	 See the following topics: Performing ad hoc analysis on pro forma costs in AWS	August 22, 2023

access to pro forma costs

Added support for automatic account association

You can now enable a billing group for automatic account association. For more information, see Creating billing groups, pricing configurations, and custom line items.

July 26, 2023

Added CSV download support

You can now download a CSV file for your billing group margin analysis table. For more information, see Analyzing your margins per billing group. June 6, 2023

Initial release

Initial release of AWS Billing Conductor User Guide and API

Reference.

March 16, 2022