

Analyze the effectiveness of spend-based commitments

Overview

[Spend-based committed use discounts \(/docs/cuds-spend-based\)](/docs/cuds-spend-based) (CUD) provide a discount in exchange for your commitment to spend a minimum amount for a service or product. The discount applies to all of your vCPU and memory usage for the service.

The committed use discount dashboard provides a summary of your commitments, including region, cost, term, start and end dates, and trailing 30-day calculations for commitment cost, savings, utilization, and coverage.

The commitment analysis report helps you to visualize and understand the effectiveness and financial impact of the committed use discounts you have purchased.

Using the dashboard and analysis report, you can analyze your usage alongside your commitments to answer questions such as:

- How much are my committed use discounts saving me on my bill?
- Am I fully utilizing my existing commitments?
- How much of my eligible usage is covered by commitments?
- Is there an opportunity to save more by increasing my commitments?
- Can I improve my commitment utilization by enabling discount sharing?

Viewing commitments

You can view a summary of all the committed use discounts you've purchased for your Cloud Billing account in the dashboard. To view a detailed analysis of a specific commitment, select it from the list of commitments in the dashboard.

Permissions required

To view spend-based committed use discounts for your Cloud Billing account, you must be a [Billing Account Administrator \(/billing/docs/how-to/billing-access\)](/billing/docs/how-to/billing-access) or [Billing Account Viewer \(/billing/docs/how-to/billing-access\)](/billing/docs/how-to/billing-access) on the Cloud Billing account.

Accessing the dashboard or analysis report

To view the dashboard or analysis report for your spend-based committed use discounts, first access the Google Cloud console using the following steps:

1. Sign in to the Google Cloud console.

[Sign in to console](https://console.cloud.google.com/) (https://console.cloud.google.com/)

2. Open the console **Navigation menu** , and then select **Billing**.

If you have more than one Cloud Billing account, do one of the following:

- To manage Cloud Billing for the current project, select **Go to linked billing account**.
- To locate a different Cloud Billing account, select **Manage billing accounts** and then choose the account that you want to manage.

3. To view the **dashboard**, select **Commitments** from the **Cloud Billing** menu.

For more details, see [understanding the dashboard](#) (#understanding_dashboard).

4. To view the **analysis report**, use the following steps:

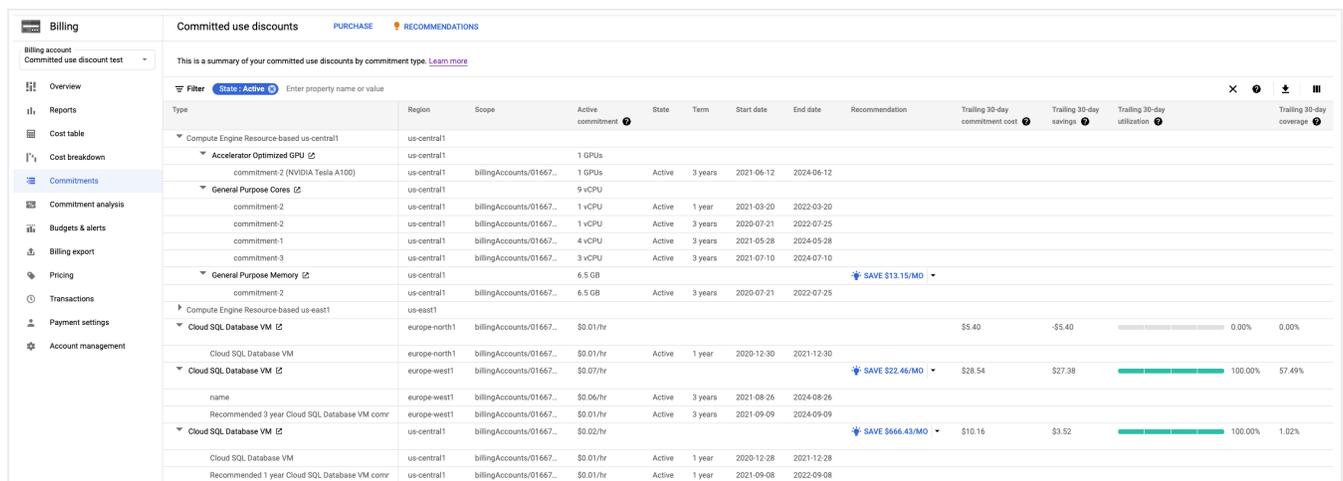
- Select **Commitment analysis** from the **Cloud Billing** menu.
- Select the commitment to view from the **Commitment type** list.

You can also access the detailed analysis for a commitment through the dashboard. While viewing the dashboard, select the commitment for which you'd like to view the details.

For more details, see [understanding the analysis report](#) (#understanding_analysis).

Understanding the dashboard

The committed use discount dashboard shows a summary of your discounts. The initial view is filtered to only show *Active* commitments. To filter the dashboard on additional parameters, click the **Filter** tree and select from the list of options.



Type	Region	Scope	Active commitment	State	Term	Start date	End date	Recommendation	Trailing 30-day commitment cost	Trailing 30-day savings	Trailing 30-day utilization	Trailing 30-day coverage
Compute Engine Resource-based us-central1	us-central1											
Accelerator Optimized GPU	us-central1		1 GPUs									
commitment-2 (NVIDIA Tesla A100)	us-central1	billingAccounts/01667...	1 GPUs	Active	3 years	2021-06-12	2024-06-12					
General Purpose Cores	us-central1		9 vCPU									
commitment-2	us-central1	billingAccounts/01667...	1 vCPU	Active	1 year	2021-03-20	2022-03-20					
commitment-2	us-central1	billingAccounts/01667...	1 vCPU	Active	3 years	2020-07-21	2022-07-25					
commitment-1	us-central1	billingAccounts/01667...	4 vCPU	Active	3 years	2021-05-28	2024-05-28					
commitment-3	us-central1	billingAccounts/01667...	3 vCPU	Active	3 years	2021-07-10	2024-07-10					
General Purpose Memory	us-central1		6.5 GB					SAVE \$13.15/MO				
commitment-2	us-central1	billingAccounts/01667...	6.5 GB	Active	3 years	2020-07-21	2022-07-25					
Compute Engine Resource-based us-east1	us-east1											
Cloud SQL Database VM	eu-central1	billingAccounts/01667...	\$0.01/hr						\$5.40	-\$5.40	0.00%	0.00%
Cloud SQL Database VM	eu-central1	billingAccounts/01667...	\$0.01/hr	Active	1 year	2020-12-30	2021-12-30					
Cloud SQL Database VM	eu-central1	billingAccounts/01667...	\$0.07/hr					SAVE \$22.46/MO	\$28.54	\$27.38	100.00%	\$7.49%
name	eu-west1	billingAccounts/01667...	\$0.06/hr	Active	3 years	2021-08-26	2024-08-26					
Recommended 3 year Cloud SQL Database VM comr	eu-west1	billingAccounts/01667...	\$0.01/hr	Active	3 years	2021-09-09	2024-09-09					
Cloud SQL Database VM	us-central1	billingAccounts/01667...	\$0.02/hr					SAVE \$666.43/MO	\$10.16	\$3.52	100.00%	1.02%
Cloud SQL Database VM	us-central1	billingAccounts/01667...	\$0.01/hr	Active	1 year	2020-12-28	2021-12-28					
Recommended 1 year Cloud SQL Database VM comr	us-central1	billingAccounts/01667...	\$0.01/hr	Active	1 year	2021-09-08	2022-09-08					

(/static/billing/docs/images/cud-dashboard.png)

The dashboard provides the following information.

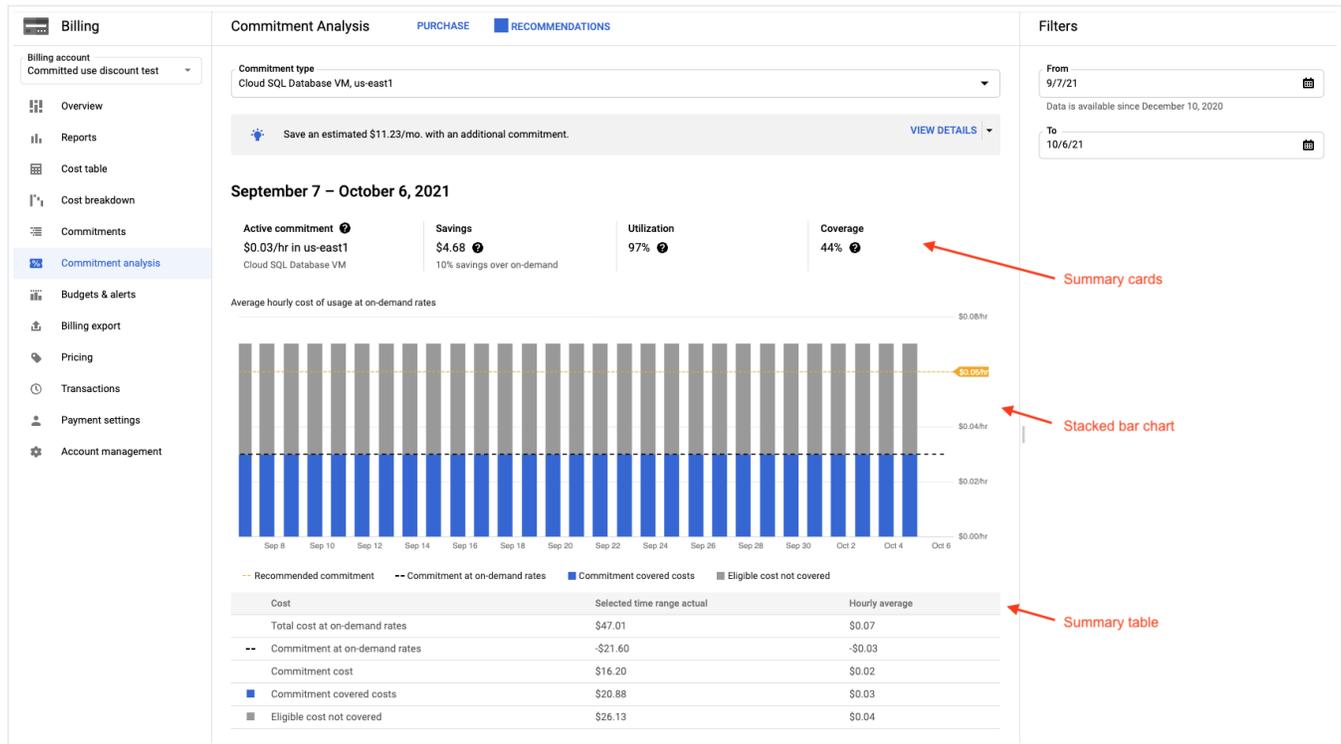
- **Type** - The type of commitment purchased, such as Cloud SQL database instances.
- **Region** - If the commitment is restricted to a specific region, identifies the region for which the usage commitments and utilization data is displayed, such as `us-central1`.
- **Scope** - The resource or context in which the commitment is applied, such as a project or billing account.
- **Active commitment** - The current quantity of commitments you have purchased for the given set of filters you select.
- **State** - Identifies the state of the commitment as one of the following.
 - **Creating** - The commitment is being created.
 - **Not yet active** - The commitment has been created but is not yet active.
 - **Active** - The commitment is active.

Spend-based commitments (https://cloud.google.com/docs/cuds#spend_based_commitments) become active at the *beginning of the next hour*.
 - **Expired** - The commitment has expired.
- **Term** - The term length of the commitment, such as 1 year or 3 years.
- **Start date** - The year, month, and day that the commitment started.
- **End date** - The year, month, and day that the commitment ends.
- **Recommendation** - Estimated savings calculated by the CUD recommender (/docs/cuds-recommender).
- **Trailing 30-day commitment cost** - The cost of ownership of a commitment, independent of your usage.
- **Trailing 30-day savings** - The net savings from the commitments based on the last 30 days of usage. Total committed use discounts (credits) applied to eligible on-demand usage minus the cost of the commitment fee.
- **Trailing 30-day utilization** - The percentage of available committed use discounts that were applied to eligible on-demand usage.
- **Trailing 30-day coverage** - The percentage of eligible usage whose effective cost was reduced by your commitment.

You can also purchase commitments from the committed use discount dashboard. To purchase a new commitment while viewing the dashboard select **Purchase**.

Understanding the analysis report

The committed use discount analysis page shows the details of the selected commitment for the period specified in the filter, including [summary cards](#) (#summary_cards), a [stacked bar chart](#) (#chart), and a [summary table](#) (#summary_table) of the commitment's totals.



You can purchase commitments from the committed use discount analysis page. To purchase a new commitment while viewing the analysis page select **Purchase**.

You can view and purchase [committed use discount recommendations](#) (/docs/cuds-recommender) for the commitment by selecting **Recommendations**.

Summary cards

The summary cards for the analysis appear above the stacked bar chart and show the following details for the selected commitment.

- **Active commitment** - The current quantity of commitments you have purchased for the selected resource.
- **Savings** - The savings from the commitments you have purchased for the specified period.
- **Utilization** - The percentage of the commitments you have purchased that were utilized during the specified period.
- **Coverage** - The percentage of your eligible usage for the specified period that is covered by the commitments you have purchased.

Stacked bar chart

The stacked bar chart appears below the summary cards and above the summary table, and shows the following details for the selected commitment.

- **Recommended commitment** - Estimated savings if you purchase the additional committed use discounts suggested by the [commitment recommender](/docs/cuds-recommender) (/docs/cuds-recommender).
- **Commitment at on-demand rates** - Your pre-purchased commitment quantity (dashed line).
- **Commitment covered costs** - Average hourly cost of usage covered by committed use discount credits (lower part of the bar, using a color other than gray).
- **Eligible cost not covered** - Average hourly cost of usage charged at the standard, non-discounted, usage rate (gray-colored section of the bar).

To understand the monthly cost of your active commitment, see the **Commitment cost** on the [Cost Breakdown report](/billing/docs/how-to/cost-breakdown#how-to-read-the-chart) (/billing/docs/how-to/cost-breakdown#how-to-read-the-chart).

To **view details for an individual day**, hover your pointer over the bar for that day.

Summary table

The summary table appears below the stacked bar chart, at the bottom of the analysis page, displaying aggregate quantities and hourly averages for the time range being shown.

Understanding your bill

Google Cloud uses a balance sheet format for your bill:

1. You are billed a **commitment fee**, which is the discounted cost of your covered usage. You are billed this fee on a recurring basis, regardless of your usage.
2. You are billed for the standard **on-demand costs** for resources that you consume.
3. You receive **committed use discount credits** that appear in your bill as negative costs. These offset the portion of your eligible on-demand charges covered by the commitment.

The net impact of these three components is that you receive a discount on the usage covered by your commitment. The sum of your **commitment fee (1)** and **committed use discount credits (3)** equals the savings from your committed use discounts.

Example of usage equaling commitment

This example shows a Cloud Billing account where the spend-based committed use discount equals the usage for the one-hour period.

You purchase a one-year commitment for \$50/hour of on-demand spend on Cloud SQL databases in the us-central-1 region. This one-year commitment gives you a 25% discount on covered usage, resulting in your net

cost being \$37.50/hour.

1. You are charged a \$37.50 commitment fee.
2. You are charged \$50 of on-demand costs for the one hour.
3. You receive \$50 in credit that offsets your \$50 of on-demand costs.

Total costs = $\$37.50 + \$50 - \$50 = \mathbf{\$37.50}$

In this example, your committed use discount covers all of your usage and there is no overage. Your final cost for the hour is \$37.50 with the committed use discount. Without the discount, the total cost for the hour would have been \$50.

Example of using more than commitment

This example shows a Cloud Billing account where the actual usage is *more than* the spend-based committed use discounts purchased. This results in an overage, where you pay the on-demand rate for the amount beyond your commitment.

You purchase a one-year commitment for \$40/hour of on-demand spend on Cloud SQL databases in the us-central-1 region. This one-year commitment gives you a 25% discount on covered usage, resulting in your net cost being \$30/hour.

1. You are charged a \$30 commitment fee.
2. You are charged \$50 of on-demand costs for the one hour.
3. You receive \$40 in credit that offsets your \$40 of on-demand costs.

Total costs = $\$30 + \$50 - \$40 = \mathbf{\$40}$

In this example, your committed use discount covers some of your usage. You paid \$10 in overage at the on-demand rates and received a 25% discount on the \$40 of on-demand equivalent costs covered by your commitment. Your final cost for the hour is \$40 with the committed use discount. Without the discount, the total cost for the hour would have been \$50.

Example of using less than commitment

This example shows a Cloud Billing account where the actual usage is *less than* the spend-based committed use discounts purchased. This results in an unused portion of the commitment.

You purchase a one-year commitment for \$60/hour of on-demand spend on Cloud SQL databases in the us-central-1 region. This one-year commitment gives you a 25% discount on covered usage, resulting in your net cost being \$45/hour.

1. You are charged a \$45 commitment fee.
2. You are charged \$50 of on-demand costs for the one hour.

3. You receive \$50 in credit that offsets your \$50 of on-demand costs.

Total costs = \$45 + \$50 - \$50 = **\$45**

In this example, your committed use discount covers all of your usage and there was no overage. However, you committed to \$60 of on-demand equivalent spend and only spent \$50, failing to use the last \$10 of credit paid for. Your final cost for the hour is \$45 with the committed use discount. Without the discount, the total cost for the hour would have been \$50.

Understanding your invoice or statement

You can view all three components of the spend-based committed use discount on your invoice or statement.

- **Commitment fee** - The SKU description begins with *Commitment - dollar based*. For example, the commitment fee for a Cloud SQL CUD in the us-central-1 region for 3 years would appear as *Commitment - dollar based v1: Cloud SQL database in us-central1 for 3 years*.
- **On-demand costs** - Charges for your usage at the on-demand equivalent cost. For example, *Postgres DB custom CORE running in Americas*.
- **Credits** - These offset the portion of your on-demand equivalent costs that are covered by your committed use discount.

Use the **cost table report** to [view and download the cost details of your invoice or statement](#) (/billing/docs/how-to/cost-table).

Access the **documents** page to [find a Cloud Billing document such as an invoice or statement](#) (/billing/docs/how-to/get-invoice).

Access the **transactions** page to [view your transaction history](#) (/billing/docs/how-to/view-history).

Understanding your Cloud Billing reports

[Cloud Billing reports](#) (/billing/docs/how-to/reports) let you view your Google Cloud usage costs and credits to discover and analyze trends. The Cloud Billing reports provide a variety of user-configurable options to view the costs that are important to you, including options to [view your credits](#) (/billing/docs/how-to/reports#credits).

To view the [individual components](#) (#understanding_cud_invoice) that comprise your committed use discounts, [group your costs by SKU](#) (/billing/docs/how-to/reports#group-by-sku). The default report view (not grouped by SKU) does not break out the CUD components but instead includes the net of the three components.

To view only your ongoing [commitment fees](#) (#understanding_cud_bill), limit the report results to the relevant commitment fee SKUs using the [SKUs filter](#) (/billing/docs/how-to/reports#filter-by-sku). For example, select the **SKUs filter** and type `Commitment [YOUR COMMITMENT TYPE]`.

To understand how your commitment fees and credits are applied to your Cloud Billing account and projects, see [Attribution of committed use discount fees and credits \(/docs/cuds-attribution\)](/docs/cuds-attribution).

Viewing CUD fees and credits in your data exports

If you are [exporting your Cloud Billing data to BigQuery \(/billing/docs/how-to/export-data-bigquery\)](/billing/docs/how-to/export-data-bigquery), you can use queries to analyze the data.

For examples of how you might use BigQuery queries to view your commitment fees and credits in your Cloud Billing data exports, see [Committed use discount queries \(/billing/docs/how-to/bq-examples#cud-queries\)](/billing/docs/how-to/bq-examples#cud-queries).

Support

If you have questions regarding committed use discounts on your bill, contact [Cloud Billing Support \(/support/billing\)](/support/billing) for help.

Related topics

- [Learn more about committed use discounts \(/docs/cuds\)](/docs/cuds)
- [Purchase spend-based committed use discounts \(/docs/cuds-spend-based#purchasing\)](/docs/cuds-spend-based#purchasing)
- [View your Cloud Billing reports and cost trends \(/billing/docs/how-to/reports#credits\)](/billing/docs/how-to/reports#credits)
- [Understand your savings with cost breakdown reports \(/billing/docs/how-to/cost-breakdown\)](/billing/docs/how-to/cost-breakdown)
- [Export Cloud Billing data to BigQuery \(/billing/docs/how-to/export-data-bigquery\)](/billing/docs/how-to/export-data-bigquery)
- [View your cost and payment history \(/billing/docs/how-to/view-history\)](/billing/docs/how-to/view-history)

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