

Set up cost management and optimization strategies to ensure efficient resource utilization.

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AWS Billing and Cost Management provides a suite of features to help you set up your billing, retrieve and pay invoices, and analyze, organize, plan, and optimize your costs.

Billing and payments

Understand your monthly charges, view, and pay invoices, and manage preferences for billing, invoices, tax, and payments.

- **Bills page** – Download invoices and view detailed monthly billing data to understand how your charges were calculated.
- **Purchase orders** – Create and manage your purchase orders to comply with your organization's unique procurement processes.
- **Payments** – Understand your outstanding or past-due payment balance and payment history.
- **Payment profiles** – Set up multiple payment methods for different AWS service providers or parts of your organization.
- **Credits** – Review credit balances and choose where credits should be applied.
- **Billing preferences** – Enable invoice delivery by email and your preferences for credit sharing, alerts, and discount sharing.

Cost analysis

Analyze your costs, export detailed cost and usage data, and forecast your spending.

- **AWS Cost Explorer** – Analyze your cost and usage data with visuals, filtering, and grouping. You can forecast your costs and create custom reports.
- **Data exports** – Create custom data exports from Billing and Cost Management datasets.
- **Cost Anomaly Detection** – Set up automated alerts when AWS detects a cost anomaly to reduce unexpected costs.
- **AWS Free Tier** – Monitor current and forecasted usage of free tier services to avoid unexpected costs.
- **Split cost allocation data** – Enable detailed cost and usage data for shared Amazon Elastic Container Service (Amazon ECS) resources.
- **Cost Management preferences** – Manage what data that member accounts can view, change account data granularity, and configure cost optimization preferences.

DEMO

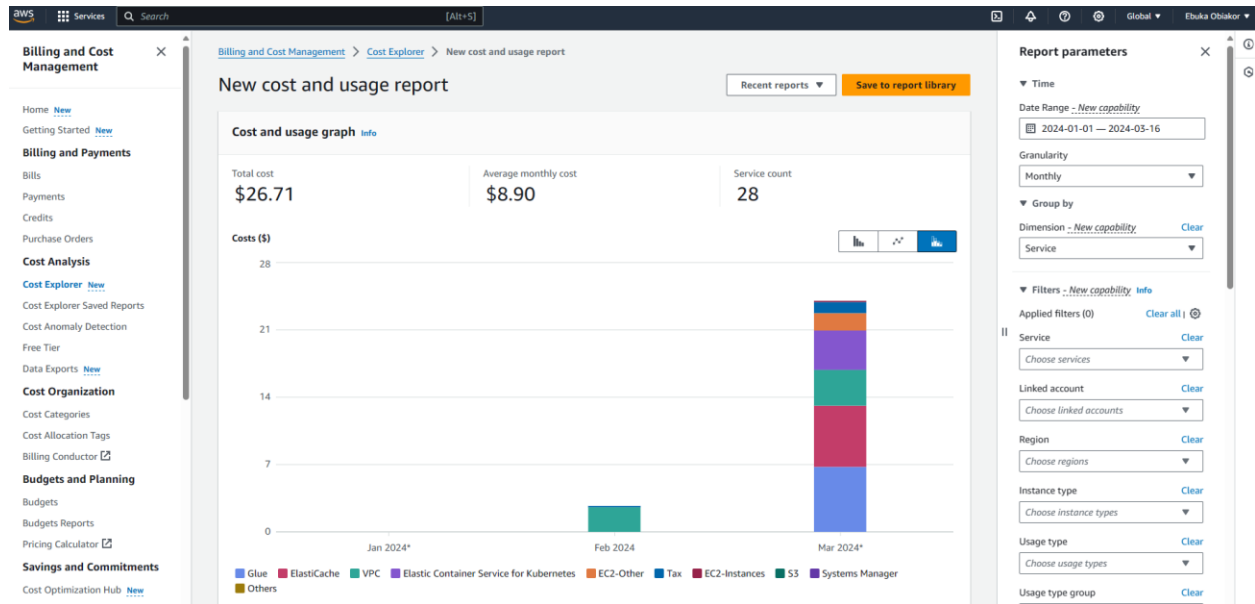
1. Select Billing and Cost Management from the AWS console

The screenshot shows the AWS Billing and Cost Management console. The left sidebar contains navigation links for Home, Getting Started, Billing and Payments, Cost Analysis, Cost Organization, Budgets and Planning, and Savings and Commitments. The main content area is titled 'Billing and Cost Management home' and includes several widgets: 'Cost summary' showing month-to-date cost (\$24.01) and last month's cost (\$0.13); 'Cost monitor' showing budget status (1 over budget) and cost anomalies (1 detected); 'Cost breakdown' showing a bar chart of costs by service; and 'Recommended actions' listing budget status, budget threshold exceeded, and free tier usage.

2. Navigate to any relevant section (Billing, Cost, Budgets, etc.) of need. In this case, I want to view my billing for March.

The screenshot shows the AWS Billing and Cost Management console, specifically the 'Bills' section. The left sidebar is the same as the previous screenshot. The main content area is titled 'Bills' and includes a 'Download all to CSV' button, a 'Print' button, and a 'Billing period: March 2024' dropdown. Below this is the 'AWS estimated bill summary' section, which displays the account ID (058264200429), the billing period (March 1 - March 31, 2024), and the bill status (Pending). The service provider is listed as 'Amazon Web Services Canada, Inc.' and the total in USD is 'USD 24.01'. The 'Estimated grand total' is also 'USD 24.01'. Below this is the 'Payment information' section. The 'Highest estimated cost by service provider' section shows the highest service spend (USD 6.76) and the highest AWS region spend (USD 18.48). The service name is 'Glue' and the region name is 'US West (Oregon)'.

3. Navigate to cost management to view cost associated to different months, services, regions, tag, etc.



4. Can review AWS free tier usage

AWS Free Tier (54)

Find service name

Service	AWS Free Tier usage limit	Current usage	Forecasted usage	MTD actual usage %	MTD forecasted usage %
Amazon Elastic Compute Cloud	30.0 GB-Mo for free for 12 months as part of AWS Free Usage Tier (Global-EBS:VolumeUsage)	30 GB-Mo	62 GB-Mo	100.00%	206.67%
Amazon Elastic Compute Cloud	750.0 Hrs for free for 12 months as part of AWS Free Usage Tier (Global-BoxUsage:freetier.micro)	465 Hrs	961 Hrs	62.01%	128.15%
Elastic Load Balancing	750.0 Hrs for free for 12 months as part of AWS Free Usage Tier (Global-LoadBalancerUsage)	436 Hrs	901 Hrs	58.13%	120.14%
Amazon Simple Storage Service	2000.0 Requests for free for 12 months as part of AWS Free Usage Tier (Global-Requests-Tier1)	947 Requests	1,957 Requests	47.35%	97.86%
Amazon SageMaker	160.0 Hrs for free per month during a short-term trial as part of AWS Free Usage Tier (Global-Canvas:Session-Hrs-Parent)	74 Hrs	153 Hrs	46.22%	95.52%
Amazon Relational Database Service	20.0 GB-Mo for free for 12 months as part of AWS Free Usage Tier (Global-RDS:StorageUsage)	6 GB-Mo	13 GB-Mo	32.28%	66.72%
Amazon Relational Database Service	750.0 Hrs for free for 12 months as part of AWS Free Usage Tier (Global-InstanceUsage:db.t1.micro)	240 Hrs	496 Hrs	32.03%	66.19%
Amazon Elastic Compute Cloud	750.0 Hrs for free for 12 months as part of AWS Free Usage Tier (Global-BoxUsage:freetier.micro)	213 Hrs	441 Hrs	28.42%	58.74%

5. Create or review budgets.

The screenshot shows the AWS Billing and Cost Management console. The left sidebar contains navigation links for Billing and Payments, Cost Analysis, Cost Organization, Budgets and Planning, and Savings and Commitments. The main content area is titled 'Overview' and shows a table of budgets. The table has columns for Name, Thresholds, Budget, Amount used, Forecasted amount, Current vs. budgeted, and Forecasted vs. budgeted. Two budgets are listed: 'My Monthly Cost Budget' with a threshold of OK and 'My Zero-Spend Budget' with a threshold of Exceeded (1). The 'My Zero-Spend Budget' shows a current vs. budgeted ratio of 2380.30%.

Name	Thresholds	Budget	Amount used	Forecasted amount	Current vs. budgeted	Forecasted vs. budgeted
My Monthly Cost Budget	OK	\$30.00	\$24.01	-	80.04%	-
My Zero-Spend Budget	Exceeded (1)	\$1.00	\$23.80	-	2380.30%	-

6. Set up alerts for resource monitoring, notification, and automated action.

The screenshot shows the AWS Billing and Cost Management console, specifically the Alerts page. The left sidebar is the same as in the previous screenshot. The main content area is titled 'Alerts' and shows a list of alerts. There are three alerts listed: 'Actual cost > 85%', 'Forecasted cost > 100%', and 'Actual cost > 100%'. Each alert has a definition, a threshold, and actions. The 'Actual cost > 85%' alert has a threshold of Not exceeded. The 'Forecasted cost > 100%' alert has a threshold of Not exceeded. The 'Actual cost > 100%' alert has a threshold of Not exceeded.

Alert Name	Definition	Threshold	Actions
Actual cost > 85%	When your actual cost is greater than 85% (\$25.50) of your budgeted amount (\$30.00), the alert threshold will be exceeded.	Not exceeded	-
Forecasted cost > 100%	When your forecasted cost is greater than 100% (\$30.00) of your budgeted amount (\$30.00), the alert threshold will be exceeded.	Not exceeded	-
Actual cost > 100%	When your actual cost is greater than 100% (\$30.00) of your budgeted amount (\$30.00), the alert threshold will be exceeded.	Not exceeded	-

References

<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/billing-what-is.html>

https://youtu.be/t7lb395iyzw?si=F9oTJ8qMY_edp-v6

<https://youtu.be/-n1ftVF6gU?si=XqKjVbC2ZZrL6V8g>