



AWS Budgets

AWS Budgets is a service that helps you set custom cost and usage budgets for your AWS environment, allowing you to closely monitor your spending and usage. With AWS Budgets, you can create alerts and notifications to stay informed when your costs or usage approach, exceed, or are forecasted to exceed your defined thresholds. Here's a detailed overview of its key features:

Key Features of AWS Budgets:

1. Custom Budgets:

- **Cost Budget:** Set a budget based on the amount of money you want to spend (e.g., \$500 per month) on AWS services.
- **Usage Budget:** Set a budget based on resource usage (e.g., EC2 instance hours or S3 storage).
- **RI and Savings Plans Utilization:** Track and set utilization budgets for **Reserved Instances (RI)** and **Savings Plans** to ensure you're maximizing savings from these commitments.

2. Threshold Alerts:

- **Notification Alerts:** AWS Budgets can send alerts via email or Amazon Simple Notification Service (SNS) when your actual or forecasted costs exceed the predefined thresholds. You can set different alert thresholds, such as 80%, 90%, or 100% of your budget.
- **Forecasted Alerts:** AWS Budgets also provides alerts when your forecasted spend is expected to exceed your budget by the end of the period, giving you proactive warnings before costs are overrun.

3. Types of Budgets:

- **Monthly, Quarterly, or Annual Budgets:** You can create budgets for different time periods based on your needs (e.g., monthly recurring costs or yearly project-based costs).
- **Service-Specific Budgets:** Budgets can be created for individual services, accounts, or resources, allowing granular control over specific AWS spending.

4. Integration with AWS Cost Explorer:

- AWS Budgets integrates with **AWS Cost Explorer** to provide detailed insights into the actual usage and cost data. This enables you to better understand where your costs are coming from and how they're tracking against your budget.

5. Cost Anomaly Detection:

- AWS Budgets works alongside AWS Cost Anomaly Detection to help identify unexpected spikes or drops in spending. You can set up separate alerts for anomalies.

6. Actionable Insights:

- Budgets allow you to take proactive actions, such as adjusting resources or optimizing your usage, to avoid unnecessary expenses. You can make informed decisions by reviewing your spending patterns over time.

7. Advanced Budgeting:

- **Linked Accounts:** For organizations using consolidated billing, you can create budgets for individual linked accounts.
- **Tag-Based Budgets:** You can create budgets based on tags applied to your AWS resources (e.g., department, project, or environment), which helps in tracking spending by specific groups or projects.

8. Performance Tracking:

- AWS Budgets allow you to track **RI coverage** and **Savings Plans performance**, making sure your actual usage aligns with your savings goals. You'll receive alerts when utilization drops below a certain threshold.

Common Use Cases:

- **Cost Management:** Set spending limits for different teams, departments, or projects to control cloud costs.
- **Usage Monitoring:** Track resource usage, such as compute hours, storage, or data transfer, to ensure you stay within operational limits.
- **Savings Monitoring:** Set budgets to monitor the efficiency of Reserved Instances and Savings Plans, ensuring they are being fully utilized.

How to Access:

AWS Budgets can be accessed via the **AWS Management Console**, **AWS Command Line Interface (CLI)**, or **AWS SDKs**, and it integrates seamlessly with other AWS cost management tools like **Cost Explorer**.

Pricing:

AWS Budgets offers a free tier that allows for a certain number of budget alerts each month, but beyond this, there may be a cost associated with setting up multiple budgets and alerts, especially for advanced features like RI or Savings Plans tracking.

In summary, AWS Budgets provides a powerful way to track and control AWS spending, ensuring that cloud costs are predictable and aligned with business goals.

To begin with the Lab:

1. In your AWS Console, navigate to Billing and Cost Management. Then from the left pane scroll down to Budgets and Planning, click on Budgets.
2. Below is the dashboard for budgets. Click on Create.

3. In step 1, for budget setup choose to customize and select Cost Budget, click on Next.

Budget Type	Description
<input checked="" type="radio"/> Cost budget - Recommended	Monitor your costs against a specified dollar amount and receive alerts when your user-defined thresholds are met. Using cost budgets, the budgeted amount you set represents your expected cloud spend. For example, you can set a cost budget for a business unit and then add additional parameters such as the associated member accounts.
<input type="radio"/> Usage budget	Monitor your usage of one or more specified usage types or usage type groups and receive alerts when your user-defined thresholds are met. Using usage budgets, the budgeted amount represents your expected usage. For example, you can use a usage budget to monitor the usage of certain services such as Amazon EC2 and Amazon S3.
<input type="radio"/> Savings Plans budget	Track the utilization or coverage associated with your Savings Plans and receive alerts when your percentage drops below a threshold you define. Setting a coverage target lets you see how much of your instance usage is covered by Savings Plans, while setting a utilization target lets you see if your Savings Plans are unused or underutilized.
<input type="radio"/> Reservation budget	Track the utilization or coverage associated with your reservations and receive alerts when your percentage drops below a threshold you define. Setting a coverage target lets you see how much of your instance usage is covered by reservations, while setting a utilization target lets you see if your reservations are unused or underutilized. Reservation alerts are supported for Amazon EC2, Amazon RDS, Amazon Redshift, Amazon ElastiCache, and Amazon Elasticsearch reservations.

4. Now give your budget a name then scroll down, choose Monthly as your period, and choose recurring budget. Choose your starting month, select fixed as your method then enter your amount based on your choice.

Details

Budget name
Provide a descriptive name for this budget.

Demo-Budget

Names must be between 1-100 characters.

Set budget amount

Period
Daily budgets do not support enabling forecasted alerts, or daily budget planning.

Monthly

Budget renewal type

Recurring budget
Recurring budgets renew on the first day of every monthly billing period.

Expiring budget
Expiring monthly budgets stop renewing at the end of the selected expiration month.

Start month

Sep ▾ 2024 ▾

Budgeting method | [Info](#)

Fixed

Create a budget that tracks against a single monthly budgeted amount.

Enter your budgeted amount (\$)
Last month's cost: \$6.13

10.00

5. Then in the budget scope, you have two options, either choose all the services or you can choose a specific service. For the simplicity of this lab, we'll be choosing All services. Click on Next.

Budget scope Info

Add filtering and use advanced options to narrow the set of cost information tracked as part of this budget

Scope options

All AWS services
(Recommended)
Track any cost incurred from any service for this account as part of the budget scope

Filter specific AWS cost dimensions
Select specific dimensions to budget against. For example, you can select the specific service "EC2" to budget against.

▼ Advanced options

Aggregate costs by

Unblended costs ▾

Supported charge types ▾

Upfront reservation fees X

Recurring reservation charges X

Other subscription costs X

Taxes X

Support charges X

Discounts X

6. After that you must click on Add alert threshold. Here when 75% of the amount is used then you will get notified on the email address that you have mentioned in the email recipients. Click on Next.

▼ Alert #1

Remove

Set alert threshold

Threshold When should this alert be triggered?	Trigger How should this alert be triggered?
<input type="text" value="75"/> % of budgeted amount ▾	<input type="text" value="Forecasted"/> ▾

Summary: When your forecasted cost is greater than **75.00% (\$7.50)** of your **budgeted amount (\$10.00)**, the alert threshold will be exceeded.

Notification preferences
Select one or more notification preferences to receive alerts.

Email recipients
Specify the email recipients you want to notify when the threshold has exceeded.

pulkitkumar2711@gmail.com

Maximum number of email recipients is 10.

► [Amazon SNS Alerts - Optional Info](#)

► [AWS Chatbot Alerts](#)

+ Add alert threshold

- Move to the review page and create your Budget. Below you can see that your budget has been created.

Billing and Cost Management > Budgets > Overview

Budgets (1) <small>Info</small>				Download CSV	Actions ▾	Create budget
<input type="text"/> Find a budget		Type - Show all budgets ▾		< 1 > <small>④</small>		
	Name	Thresholds	Budget	Amount used	Forecasted amount	Current vs. budgeted ▾
<input type="checkbox"/>	Demo-Budget	OK	\$10.00	-	-	0.00%

- As you can see below in my account already \$6 has been utilized so it has given me the alert already.

Billing and Cost Management > Budgets > Budget details

Demo-Budget [Info](#)

Budget health [Info](#)

Current vs. budgeted	61.33%
Amount spent: \$6.13 of \$10.00	
Forecasted vs. budgeted (MTD)	130.96%
Amount spent: \$13.10 of \$10.00	

[Delete](#) [Edit](#)

Alerts [Info](#)

Thresholds	Actions
⚠ Exceeded (1)	-

[View all alerts](#)

Details

Budget name Demo-Budget	Budget amount \$10.00	Start date 2024-09-01
Budget type Cost budget Info	Period Monthly	End date -

[▶ Additional budget parameters](#)

- Plus, I also get the email from AWS. Similarly, when your budget will exceed its limit then you will get notified too.

AWS Budgets: Demo-Budget has exceeded your alert threshold ➔ [Inbox](#)

 budgets@costalerts.amazonaws.com  to me 

5:41PM (1 minute ago)     



AWS Budget Notification September 10, 2024
AWS Account 878893308172

Dear AWS Customer,

You requested that we alert you when the **forecasted cost** associated with your *Demo-Budget* budget exceeds \$7.50 for the current month. The month **forecasted cost** associated with this budget is \$13.10. You can find additional details below and by accessing the AWS Budgets dashboard.

Budget Name	Budget Type	Budgeted Amount	Alert Type	Alert Threshold	FORECASTED Amount
Demo-Budget	Cost	\$10.00	FORECASTED	> \$7.50	\$13.10

[Go to the AWS Budgets dashboard](#)

- In the similar way, you can create multiple budgets for single services if you want.