Cost Management

- First, set up your billing to match your requirements.
- For individuals or small organizations, AWS will automatically charge the credit card provided.
- For larger organizations, you can use AWS Organizations to consolidate your charges across multiple AWS accounts.
- You can then configure invoicing, tax, purchase order, and payment methods to match your organization's procurement processes.

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.

AWS Free Tier

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

- You’re within the active trial period for the AWS Free Tier offering. For example, within 12 months for a 12-month free type of service like Amazon Elastic Compute Cloud (Amazon EC2).
- You use only AWS services that offer AWS Free Tier benefits.
- Your usage stays within the AWS Free Tier limits of those services.
- Link : https://aws.amazon.com/free/

AWS Pricing Calculator

- AWS Pricing Calculator is a free web-based planning tool that you can use to create cost estimates for using AWS services. You can use AWS Pricing Calculator for the following use cases:
- Model your solutions before building them
- Explore AWS service price points
- Review the calculations behind your estimates
- Plan your AWS spend
- Find cost saving opportunities

Link : https://calculator.amazonaws.cn/

AWS Budgets

- You can use AWS Budgets to track and take action on your AWS costs and usage.
- You can use AWS Budgets to monitor your aggregate utilization and coverage metrics for your Reserved Instances (RIs) or Savings Plans. If you're new to AWS Budgets

Use cases

- Setting a monthly cost budget with a fixed target amount to track all costs associated with your account. You can choose to be alerted for both actual (after accruing) and forecasted (before accruing) spends.
- Setting a monthly cost budget with a variable target amount, with each subsequent month growing the budget target by 5 percent. Then, you can configure your notifications for 80 percent of your budgeted amount and apply an action. For example, you could automatically apply a custom IAM policy that denies you the ability to provision additional resources within an account.
- Setting a monthly usage budget with a fixed usage amount and forecasted notifications to help ensure that you are staying within the service limits for a specific service. You can also be sure you are staying under a specific AWS Free Tier offering.
- Setting a daily utilization or coverage budget to track your RI or Savings Plans. You can choose to be notified through email and Amazon SNS topics when your utilization drops below 80 percent for a given day.

AWS Trusted Advisor

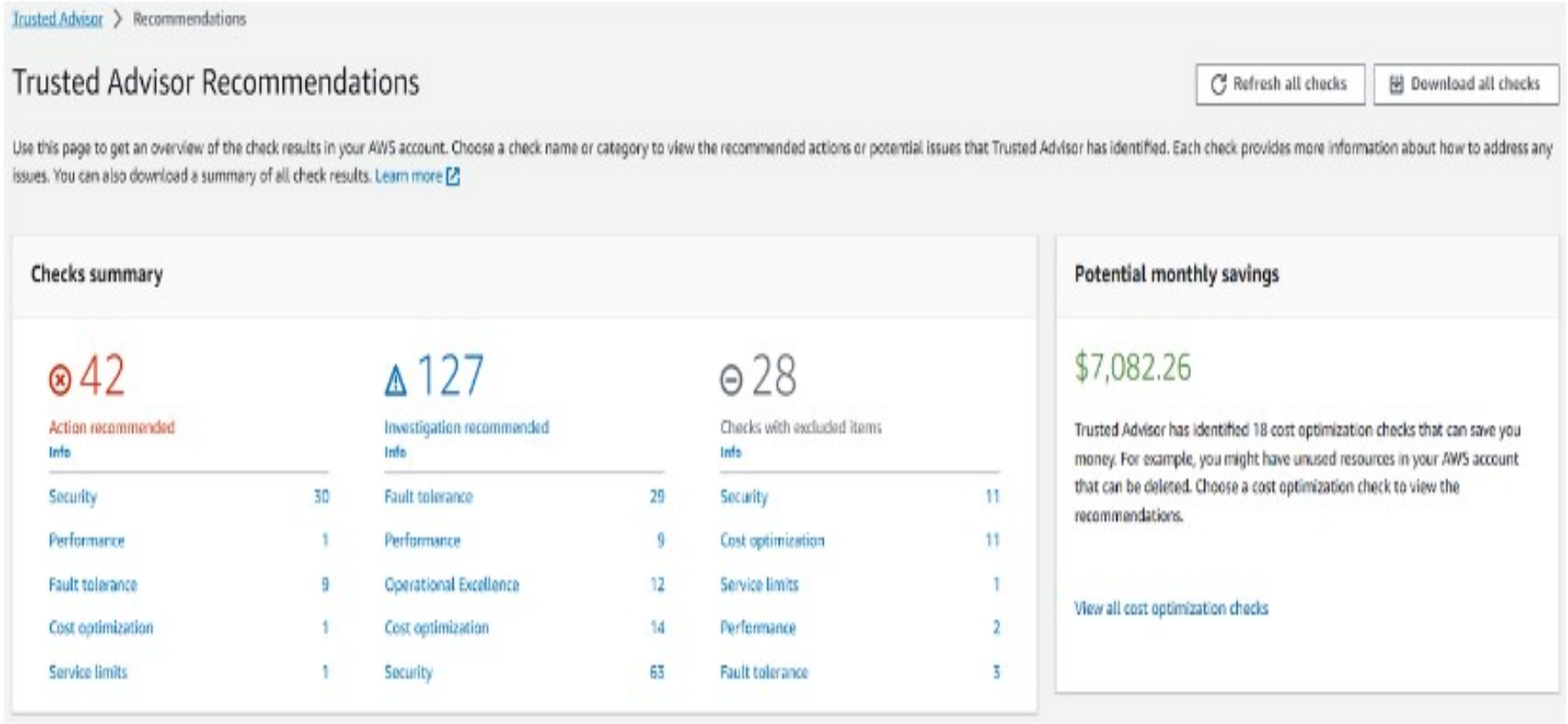
- AWS Trusted Advisor helps you optimize costs, increase performance, improve security and resilience, and operate at scale in the cloud.
- Trusted Advisor inspects your AWS environment, and then makes recommendations when opportunities exist to save money, improve system availability and performance, or help close security gaps.
- Trusted Advisor Priority helps AWS Enterprise Support customers focus on the most important recommendations by providing both context-driven and prioritized recommendations from your AWS account team.

- If you have a Basic or Developer Support plan, you can use the Trusted Advisor console to access all checks in the Service Limits category and six checks in the Security category.
- If you have a Business, Enterprise On-Ramp, or Enterprise Support plan, you can use the Trusted Advisor console and the AWS Trusted Advisor API to access all Trusted Advisor checks.
- It is allowed to use Amazon CloudWatch Events to monitor the status of Trusted Advisor checks.

Trusted Advisor Recommendations

- You can use the Trusted Advisor Recommendations page of the Trusted Advisor console to review check results for your AWS account and then follow the recommended steps to fix any issues.
- For example, Trusted Advisor might recommend that you delete unused resources to reduce your monthly bill, such as an Amazon Elastic Compute Cloud (Amazon EC2) instance.

Link : https://docs.aws.amazon.com/awssupport/latest/user/get-started-with-aws-trusted-advisor.html#sign-in-the-trusted-advisor-console


Trusted Advisor > Recommendations
Trusted Advisor Recommendations
Refresh all checks
Download all checks
Use this page to get an overview of the check results in your AWS account. Choose a check name or category to view the recommended actions or potential issues that Trusted Advisor has identified. Each check provides more information about how to address any issues. You can also download a summary of all check results. Learn more
Checks summary
42
Action recommended
Info
Security 30
Performance 1
Fault tolerance 9
Cost optimization 1
Service limits 1
127
Investigation recommended
Info
Fault tolerance 29
Performance 9
Operational Excellence 12
Cost optimization 14
Security 63
28
Checks with excluded items
Info
Security 11
Cost optimization 11
Service limits 1
Performance 2
Fault tolerance 3
Potential monthly savings
$7,082.26
Trusted Advisor has identified 18 cost optimization checks that can save you money. For example, you might have unused resources in your AWS account that can be deleted. Choose a cost optimization check to view the recommendations.
View all cost optimization checks

- View check categories
- View specific checks
- Filter your checks
- Refresh check results
- Download check results

Set up notification preferences

- Specify who can receive the weekly Trusted Advisor email messages for check results and the language.
- You receive an email notification about your check summary for Trusted Advisor Recommendations once a week.
- The email notifications for Trusted Advisor Recommendations don't include results for Trusted Advisor Priority.

AWS Trusted Advisor API

- The AWS Trusted Advisor API Reference is intended for programmers that need detailed information about the Trusted Advisor API operations and data types.
- This API provides access to Trusted Advisor recommendations for your account or all the accounts within your AWS Organization.
- The Trusted Advisor API uses HTTP methods that returns results in JSON format.

Organizational view for AWS Trusted Advisor

- Organizational view lets you view Trusted Advisor checks for all accounts in your AWS Organizations
- After you enable this feature, you can create reports to aggregate the check results for all member accounts in your organization.
- The report includes a summary of check results and information about affected resources for each account.
- For example, you can use the reports to identify which accounts in your organization are using AWS Identity and Access Management (IAM) with the IAM Use check
- whether you have recommended actions for Amazon Simple Storage Service (Amazon S3) buckets with the Amazon S3 Bucket Permissions check.