TROUBLESHOOTING AND PRICE CALCULATOR

Aws best practices (cost +security)

cost

Perform workload cost modelling : Consider the requirements of the workload components and understand the potential pricing models. Define the availability requirement of the component. Determine if there are multiple independent resources that perform the function in the workload, and what the workload requirements are over time. Compare the cost of the resources using the default On-Demand pricing model and other applicable models. Factor in any potential changes in resources or workload components.

Perform regular account level analysis: Performing regular cost modelling ensures that opportunities to optimize across multiple workloads can be implemented. For example, if multiple workloads use On-Demand, at an aggregate level, the risk of change is lower, and implementing a commitment-based discount will achieve a lower overall cost. It is recommended to perform analysis in regular cycles of two weeks to one month. This analysis allows you to make small adjustment purchases, so the coverage of your pricing models continues to evolve with your changing workloads and their components.

Use the AWS Cost Explorer recommendations tool to find opportunities for commitment discounts.

To find opportunities for Spot workloads, use an hourly view of your overall usage, and look for regular periods of changing usage or elasticity.

Pricing models: AWS has multiple pricing models that allow you to pay for your resources in the most cost-effective way that suits your organization's needs. The following section describes each purchasing model:

- On-Demand Instances
- Spot Instances
- Commitment discounts - Savings Plans
- Commitment discounts - Reserved Instances/Capacity
- Geographic selection
- Third-party agreements and pricing

Security

 Amazon Web Services (AWS) delivers a scalable cloud computing platform designed for   high availability and dependability, providing the tools that enable you to run a wide range of applications. Helping to protect the confidentiality, integrity, and availability of your systems and data is of the utmost importance to AWS, as is maintaining your trust and confidence. This document is intended to provide an introduction to AWS' approach to security, including the controls in the AWS environment and some of the products and features that AWS makes available to customers to meet your security objectives. Security Products and Features AWS and its partners offer a wide range of tools and features to help you to meet your security objectives.

 These tools mirror the familiar controls you deploy within your on-premises environments. AWS provides security-specific tools and features across network security, configuration management, access control and data security.

 In addition, AWS provides monitoring and logging tools that provide full visibility into what is happening in your environment. Topics • Infrastructure Security • Inventory and Configuration Management • Data Encryption • Identity and Access Control • Monitoring and Logging • Security Products +in AWS Marketplace

Security Products and Features

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 Topics

• Infrastructure Security

• Inventory and Configuration Management

 • Data Encryption

 • Identity and Access Control

 • Monitoring and Logging

 Infrastructure Security

 AWS provides several security capabilities and services to increase privacy and control network access.

 These include:

• Network firewalls built into Amazon VPC let you create private networks and control access to your instances or applications. Customers can control encryption in transit with TLS across AWS services.

 • Connectivity options that enable private, or dedicated, connections from your office or on premises environment.

• DDoS mitigation technologies that apply at layer 3 or 4 as well as layer 7. These can be applied as part of application and content delivery strategies.

• Automatic encryption of all traffic on the AWS global and regional networks between AWS secured facilities. Infrastructure Security 4 Introduction to AWS Security AWS Whitepaper

 Inventory and Configuration Management

 AWS offers a range of tools to allow you to move fast, while still enabling you to ensure that your cloud resources comply with organizational standards and best practices. These include:

 • Deployment tools to manage the creation and decommissioning of AWS resources according to organization standards.

• Inventory and configuration management tools to identify AWS resources and then track and manage changes to those resources over time.

 • Template definition and management tools to create standard, preconfigured, hardened virtual machines for EC2 instances.

 Data Encryption

 AWS offers you the ability to add a layer of security to your data at rest in the cloud, providing scalable and efficient encryption features. These include:

 • Data at rest encryption capabilities available in most AWS services, such as Amazon EBS, Amazon S3,

 Identity and Access Control

 AWS offers you capabilities to define, enforce, and manage user access policies across AWS services. These include:

 Monitoring and Logging

 AWS provides tools and features that enable you to see what's happening in your AWS environment. These include:

 • With AWS CloudTrail, you can monitor your AWS deployments in the cloud by getting a history of AWS API calls for your account, including API calls made via the AWS Management Console, the AWS SDKs, the command line tools, and higher-level AWS services. You can also identify

which users and accounts called AWS APIs for services that support CloudTrail, the source IP address the calls were made from, and when the calls occurred.

• Amazon CloudWatch provides a reliable, scalable, and flexible monitoring solution that you can start using within minutes. You no longer need to set up, manage, and scale your own monitoring systems and infrastructure.

• Amazon Guard Duty is a threat detection service that continuously monitors for malicious activity and unauthorized   behavior   to protect your AWS accounts and workloads. Amazon Guard Duty exposes notifications via Amazon CloudWatch so you can trigger an automated response or notify a human.

Aws calculator & consolidate

A calculator is a device that performs arithmetic operations on numbers. Basic calculators can do only addition, subtraction, multiplication and division mathematical calculations.

However, more sophisticated calculators can handle exponential operations, square roots, logarithms, trigonometric functions and hyperbolic functions. Internally, some calculators perform all these functions by repeated addition processes.

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

  For example, if you are an existing AWS customer and you want to add another EC2 instance to handle to your weekly spike traffic. You can specify your weekly peak information, then choose your EC2 instance and payment options. AWS Pricing Calculator generates an estimate that includes the upfront, monthly, annual costs. You can use the estimate to make an informed decision before using AWS services.

Features of AWS Pricing Calculator

With AWS Pricing Calculator, you can do the following tasks:

View transparent prices – View the calculations behind the estimated prices for your service configurations. You can view price estimates by service or by groups of services to analyze your architecture costs.

Use groups for hierarchical estimates – Sort your estimates into groups to align with your architecture for clear service cost analysis.

Save your estimates – Save the link to each estimate to share or revisit at a later time. Estimates are saved to the AWS public servers.

Export your estimates – Export your estimates in CSV or PDF format to share locally with your stakeholders.

Pricing for AWS Pricing Calculator

AWS Pricing Calculator is a free tool to use. It provides an estimate of your AWS fees and charges, but the estimate doesn't include any taxes that might apply. AWS Pricing Calculator provides pricing details for only the information you enter. If the prices on the marketing pages are different from the prices on AWS Pricing Calculator, AWS uses the prices from the marketing pages when generating your estimates. For more information about AWS service pricing.

Consolidation

The matching criteria to be used during the auto-merging process.

Consolidation is the **situation** in which two or more things,
for **example companies** or **organizations**, are **joined** together:
Greater market share can be achieved in the long term through **industry** consolidation.
The takeovers came amid a **wave** of consolidation as the so-called Big Oil companies gobbled up competitors.
We have recently seen a consolidation of booksellers and distributors.
consolidation of sth and sth (into sth) _the consolidation of the repair and service operations into one department_
The company can offer various options for the consolidation of your outstanding debts.
Contents

Matching Attributes List

A list of matching criteria.

Type: Array of arrays of strings

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Array Members: Minimum number of 1 item. Maximum number of 20 items.

Length Constraints: Minimum length of 1. Maximum length of 255.

Required: Yes

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