

# Billing and Pricing Study Notes

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## AWS Budgets

AWS Budgets are a service that helps you plan **service usage**, **service costs**, and **instance reservations**.



### Costs

First two budgets are free of charge. Each budget is **\$0.02 per day** with a **20,000** budget limit.

## Key Points

- **AWS Budgets** give you the ability to setup alerts if you exceed or are approaching your defined budget
- **Types of budgets:**
  - 1 ■ Cost
  - 2 ■ Usage
  - 3 ■ Reservation
- Budgets can be tracked at the **monthly**, **quarterly**, or **yearly** levels with customizable start and end dates.
- Alerts support **EC2**, **RDS**, **Redshift**, and **ElastiCache** reservations
- Your budget can be based on a fixed cost or you can plan your upfront cost

based on your chosen level.

- Budgets can easily be managed from the **AWS Budgets** dashboard or via the **Budgets API**
- You can get notified by providing an email or **chatbot** and give a threshold for how close to the current or forecasted budget you would like to spend before being alerted.

## AWS Cost and Usage Report

### Key Points

- You can generate a **detailed spreadsheet**, enabling you to better **analyze** and understand your AWS costs.
- The reports are placed in to S3
- You can use **Athena** to turn the report into a queryable database.
- You can use **QuickSight** to visualize your billing data as graphs.

**Athena:** Amazon Athena is an interactive query service that makes it easy to analyze data in Amazon S3 using standard SQL.

**QuickSight:** Amazon QuickSight is a fast, cloud-powered business intelligence service that makes it easy to deliver insights to everyone in your organization.

## Consolidated Billing

Allows you to have one bill for all of your accounts

## Key Points

- You can consolidate your billing and payment methods **across** multiple AWS accounts into **one bill**.
- For billing AWS treats all accounts in an organization as if they were one account
- You can designate one **master account** that pays the charges of all the other **member accounts**
- There is no extra cost to use consolidated billing
- You can use AWS **Cost Explorer** to visualize usage for consolidated billing

## Cost Explorer

AWS Cost Explorer lets you **visualize, understand, and manage** your AWS costs and usage over time.

## Key Points

- Costs for multiple AWS accounts within an AWS Organization will be consolidated in a **master account**.
- You can use **default reports** to help gain insight into your cost rivers and usage trends
- You can use **forecasting** to get an idea of future costs
- You can choose to view your data at a **monthly** or **daily** level of granularity
- You can use **filter** and **grouping** functionalities to dig deeper into your data

## TCO Calculator

The Total Cost of Ownership (TCO) allows you to estimate how much you would save moving to AWS from on-premise.

### Key Points

- It provides you with a **detailed set of reports** that can be used in executive presentations
- The tool is built on underlying calculation models that generate fair assessments of value that you can achieve given the data provided
- Helps reduce the need to invest in large capital expenditures
- The tool is for **approximation purposes** only

## AWS Trusted Advisor

AWS Trusted Advisor advises you on **security, saving money, performance, service limits**, and **fault tolerance**

### Key Points

- All accounts receive 7 free Trusted Advisor Checks. Business and Enterprise accounts you receive all Trusted Advisor Checks.
- The 5 areas Trusted Advisor will check you on:
  - 1 ■ Cost Optimization
  - 2 ■ Performance
  - 3 ■ Security

4 ■ Fault Tolerance

5 ■ Service Limits

- Each category has the potential to check many different services.

### **Most common checks in each category:**

#### **Cost Optimization**

- Idle Load Balancers
- Unassociated Elastic IP Addresses

#### **Performance**

- High Utilization Amazon EC2 Instances

#### **Security**

- MFA on Root Account
- IAM Access Key Rotation

#### **Fault Tolerance**

- Amazon RDS Backups

#### **Service Limits**

- VPC

For the complete list you can visit [this page](#).

## AWS Free Services

Certain AWS services are free, but the resources they set up may cost you.

### Free services

- Identity Access Management (IAM)
- Amazon VPC
- Organizations & [Consolidated Billing] (<https://docs.aws.amazon.com/awsaccountbilling/latest/aboutv2/consolidated-billing.html>)
- AWS Cost Explorer

### Free Services with resources that cost money:

- Auto Scaling
- Cloud Formation
- Elastic Beanstalk
- Opsworks
- Amplify
- AppSync
- CodeStar

## AWS Landing Zone

**AWS Landing Zone** helps Enterprises quickly set-up a secure, AWS multi-

account.

## Key Points

- Set up through **AWS Account Vending Machine** (AVM)

AVM allows customers to create new AWS accounts in Organizational Units (OUs) preconfigured with an account security baseline, and a predefined network.

- AVM automatically provisions and configures new accounts via **AWS Service Catalog**
- Uses **Single Sign-on** (SSO) for managing and accessing accounts
- The environment is customizable to allow customers to implement their own account baselines through a **Landing Zone configuration** and update pipeline

**The AWS Landing Zone solution includes four accounts:**

- 1 AWS Organization account
- 2 Shared Services account
- 3 Log Archive account
- 4 Security account

## AWS Quick Starts

**AWS Quick Starts** are prebuilt templates by AWS and AWS Partners to help you deploy popular stacks on AWS.

## Key Points

- It can reduce hundreds of manual procedures into a few steps
- A `Quick Start` is composed of 3 parts:
  - 1 ■ A reference architecture for the deployment
  - 2 ■ AWS CloudFormation templates that automate and configure the deployment
  - 3 ■ A deployment guide explaining the architecture and implementation in detail
- Most Quick Start reference deployments enable you to spin up a fully functional architecture in **less than an hour**.

## AWS Support Plans

AWS Support offers a range of plans that provide access to tools and expertise that support the success and operational health of your AWS solutions.

## Key Points

There are **4 support plans** available.

**Basic Plan**- \$0 USD / month

- Every AWS account has access to this free basic plan.
- It provides Email Support for Billing and Accounts.

**Developer Plan**- \$29 USD / month



- Great for learning how to use a lot of AWS services or for help configuring things while learning.
- Provides tech support via email -24hrs until reply
- Provides general support and help if your system is impaired
- Does not provide help with 3rd party products

**Business Plan**- \$100 USD / month

- Provides tech support via email -24hrs until reply
- Provides tech support via chat and phone 24 hours a day. Often can reach a support engineer within 10-15 minutes.
- Receive all Trusted Advisor Checks
- Will try to provide help with 3rd party products

**Enterprise Plan**- \$15,000 USD / month

- All of the services of the other plans included with this one
- Will respond within **15 minutes** if there is a business critical system down
- Your account is given a **Personal Concierge**
- Your account is given a **Technical Account Manager (TAM)**



## TAMs and Concierges

A TAM is a designated point of contact to all necessary AWS expertise. A Personal Concierge (Support Concierge) is a dedicated team of enterprise account specialist to help with billing and account subjects.

## Key Points

- Tags are words or phrases that act as metadata for organizing your AWS resources
- Resource Groups are a collection of resources that share one or more tags
- Both help you organize and consolidate information based on your project and the resources that you use.
- Resource Groups can display details about a group based on:
  - Metrics
  - Alarms
  - Configuration Settings
- At any time you can modify the settings of your resource groups to change what resources appear

## Key Points

AWS Marketplace is a curated digital catalogue with *thousands* of software listings from independent software vendors.

## Key Points:

- You can easily find, buy, test, and deploy software that already runs on AWS
- The product can be **free to use** or can have an **associated charge**. The charge becomes part of your AWS bill, and once you pay, AWS Marketplace pays the provider
- The sales channel for Independent Software Vendors (ISVs) and Consulting Partners allows you to **sell your solutions** to other AWS customers

**Products can be offered as:**

- Amazon Machine Images (AMIs)
- AWS CloudFormation templates
- Software as a service (SaaS) offerings
- AWS WAF rules