Estimating Costs in the Cloud – TCO Calculator & Pricing Calculator

AWS Total Cost of Ownership (TCO) Calculators

- AWS helps you reduce Total Cost of Ownership (TCO) by **reducing the need to invest in large capital expenditures** and providing a **pay-as-you-go** model
- The TCO calculators allow you to **estimate the cost savings** when using AWS and provide a detailed set of reports that can be used in executive presentations.
- **Compare** the cost of your applications in an **on-premises** or traditional hosting environment **to AWS**: Server, Storage, Network, IT Labor
- https://awstcocalculator.com/

TAG

Cost Allocation Tags

- Use **cost allocation tags** to track your AWS costs on a detailed level
- **AWS generated tags**
  - Automatically applied to the resource you create
  - Starts with Prefix aws: (e.g. aws: createdBy)
- **User-defined tags**
  - Defined by the user
  - Starts with Prefix user:

Total Cost	user:Owner	user:Stack	user:Cost Center	user:Application
0.95	DbAdmin	Test	80432	Widget2
0.01	DbAdmin	Test	80432	Widget2
3.84	DbAdmin	Prod	80432	Widget2
6.00	DbAdmin	Test	78925	Widget1
234.63	SysEng	Prod	78925	Widget1
0.73	DbAdmin	Test	78925	Widget1
0.00	DbAdmin	Prod	80432	Portal
2.47	DbAdmin	Prod	78925	Portal

Tagging and Resource Groups

- **Tags** are used for organizing resources:
  - EC2: instances, images, load balancers, security groups…
  - RDS, VPC resources, Route 53, IAM users, etc…
  - Resources created by CloudFormation are all tagged the same way

- Free naming, common tags are: Name, Environment, Team …

- Tags can be used to create Resource Groups
  - Create, maintain, and view a collection of resources that share common tags
  - Manage these tags using the Tag Editor
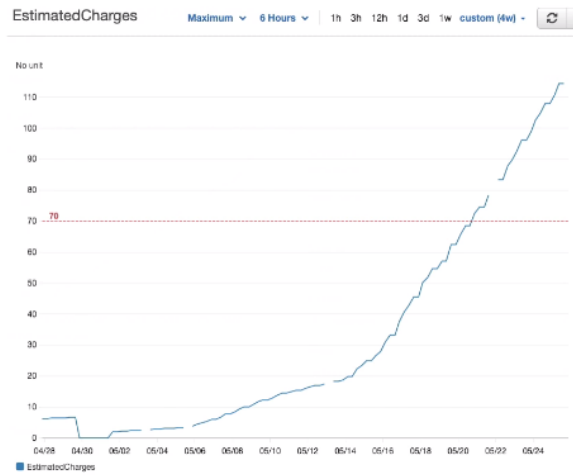
Cost Explorer

- Visualize, understand, and manage your AWS costs and usage over time
- Create custom reports that analyze cost and usage data.
- Analyze your data at a high level: total costs and usage across all accounts
- Or Monthly, hourly, resource level granularity
- Choose an optimal **Savings Plan** (to lower prices on your bill)
- Forecast usage up to 3 months based on previous usage

Billing and Costing Tools

- **Estimating costs in the cloud:**
  - TCO Calculator
  - Simple Monthly Calculator / Pricing Calculator

- **Tracking costs in the cloud:**
  - Billing Dashboard
  - Cost Allocation Tags
  - Cost and Usage Reports
  - Cost Explorer

Billing Alarms in CloudWatch

- Billing data metric is stored in CloudWatch us-east-1

- Billing data are for overall worldwide AWS costs

- It's for actual cost, not for projected costs

- Intended a simple alarm (not as powerful as AWS Budgets)

EstimatedCharges   Maximum ⌄   6 Hours ⌄   1h 3h 12h 1d 3d 1w custom (4w) ⌄

No unit

110
100
90
80
70 70
60
50
40
30
20
10
0

04/28 04/30 05/02 05/04 05/06 05/08 05/10 05/12 05/14 05/16 05/18 05/20 05/22 05/24

■ EstimatedCharges