CLOUD ECONOMICS AND BILLING

THREE PRICING MODELS

Computing:

- Charges hours by second

Storage:

- Charges by GB

Data transfer:

- Also charges by GB

- Inbound has no charges

- Outbound has no charges

AWS pricing model

Three fundamental drivers of cost with AWS

Compute	Storage	Data transfer
• Charged per hour/second* • Varies by instance type *Linux only	• Charged typically per GB	• Outbound is aggregated and charged • Inbound has no charge (with some exceptions) • Charged typically per GB

HOW TO PAY FOR AWS SERVICES

Pay for what you use

Pay less when you reserve

Pay less when you use more and as AWS grows

PROS TO BUYING AWS SERVICES

- Pay for what you use

- No long-term contracts needed

- You can start and stop at any time

- Some services are free:
  - Amazon VPC
  - Elastic Beanstalk
  - Autoscaling

TOTAL COST OF OWNERSHIP

Estimate of the direct and indirect cost of a system.

Why you should use TOC:
- Easy to compare the prices to a on-prem. set up
- Budgets and builds the move onto AWS
- TOC takes server, storage, and network cost into consideration

AWS PRICING CALCULATOR

What it does:

- Estimates monthly cost

- Shows opportunities to lower the monthly cost

- Models a variety of solutions for monthly cost

- Goes in dept about the monthly cost

- Finds available instance types that suit your business needs

AWS ORGANIZATION

What is it:

This is a free account
management service
that helps users control
what kinds of services
they need to use

Benefits to using this service:

- Controlled access to AWS services

- Automated account creation

- Consolidated billing for multiple accounts

- Policy-based account management

- Created group polices across multiple accounts

AWS ORGANIZATION SECURITY

Security with AWS Organizations

How it works:

Controlled access with AWS Identity and Access Management (AWS IAM)

IAM polices allow users to easily control services, groups and roles

Allows users to use service control polices (SCPs) which allows you to grant or deny access to services for an organization unit (OU) or a group of accounts

STEPS OF ORGANIZATION

- First, you must create an organization

- Second, you must set up organizational units (OUs)

- Third, create service control polices (SCPs)
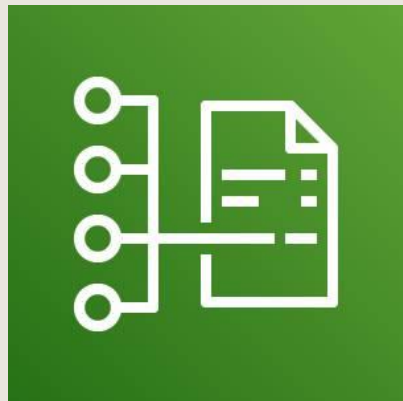
- Finally, test the restrictions of the polices
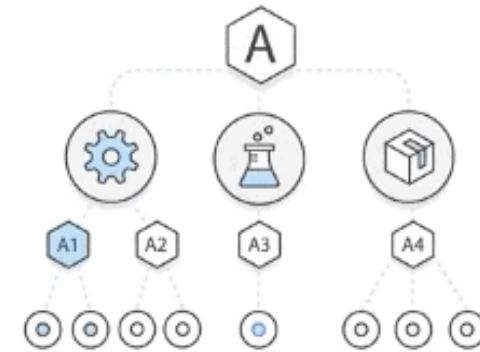
AWS Organizations

AWS BILLING DASHBOARD

What is it:

- Allows users to look at their monthly spendings and identifies which services take up most of your monthly spendings.

Tools in AWS Billing Dashboard

- AWS Budgets
  - Status of your budget
- AWS Cost and Usage Report
- AWS Cost Explorer
  - AWS cost data in a graph
- AWS Bills Page
  - costs over the past month for each AWS service

AWS SUPPORT

What does this provide?

- AWS support plans

- Technical Account Manager (TAMs)
  - TAMs provides proactive guidence

- AWS Trusted Advisor
  - Customized cloud expert and allows users to use resources to look for opportunities

- AWS Support Concierge
  - A billing and account expert that helps fix billing and account problems

Support Plans:

- Basic:
  - 24/7 access

- Developer
  - Quickly helps set AWS up

- Business
  - Helps run multiple applications

- Enterprise
  - Focuses on proactive managment