



AWS DATA AND ANALYTICS SOLUTION SPOTLIGHT

# Optimize your cloud costs on AWS

# AWS has multiple purchase options to optimize compute costs

## On-demand

Pay-for-what you use with no long-term commitments



Stateful spiky workloads

## AWS Savings Plans

Up to 72 percent savings for one- or three-year hourly usage commitments



Committed and steady-state usage

## Spot

Spare capacity at up to 90 percent off on-demand prices



Fault-tolerant, flexible, stateless workloads

***The best practice is to combine all three purchase options***

# Types of Savings Plans



## Compute Savings Plans

Offers the **greatest flexibility** discounts of up to **66 percent**

Automatically applied to any usage across:

- Region
- Instance family
- Instance sizes
- Tenancy
- Operating system
- Compute service Options



## Amazon EC2 Instance Savings Plans

Provides the **deepest savings** discounts of up to **72 percent**

Automatically applied to selected Amazon EC2 instances and regions across:

- Instance sizes
- Tenancy
- Operating system



## Amazon SageMaker Savings Plans

Up to **64 percent** off eligible Amazon SageMaker machine learning instance usage

Flexible across:

- Amazon SageMaker ML usages
- Instance family
- Size
- Region

# Simplified purchasing experience in AWS Cost Explorer

3

Review hourly commitment and purchase by adding to the cart in the AWS Cost Explorer

## Recommendations (1) [Info](#)

Date last updated Jun 25, 2021 05:16:40 UTC

### Before recommended purchase

Current monthly on-demand spend

**\$34,085.52**

(\$46.69 per hour)

### After recommended purchase

Estimated monthly spend

**\$17,694.56**

(\$24.24 per hour)

Estimated monthly savings

**\$16,390.96**

(\$22.45 per hour)

### Recommendation details

**You could save an estimated \$16,391 monthly by purchasing the recommended SageMaker Savings Plan.**

Based on your past 30 days of usage, we recommend purchasing 1 Savings Plan with a total commitment of \$23.619/hour for a 3-year term. With this commitment, we project that you could save an average of \$22.45/hour - representing a 48% savings compared to On-Demand. To account for variable usage patterns, this recommendation maximizes your savings by leaving an average \$0.62/hour of On-Demand spend. Recommendations require up to 24 hours to update after a purchase.

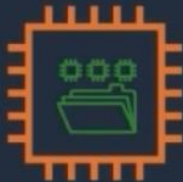


# Amazon storage classes and platforms

- Server/instance storage
- Local filesystems
- Network volumes (Amazon EBS)
- Distributed filesystem
- Object storage
- Backup target – snapshots...



Amazon Elastic Block Store



Amazon EC2 Instance Store



Amazon Elastic File System



Amazon Simple Storage Service



Amazon S3 Glacier

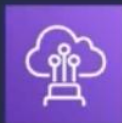
Block

File

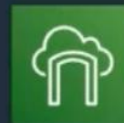
Object

Data Transfer

How do you select your storage solution?



AWS Direct Connect



AWS Storage Gateway



AWS Snowball



# Summary of mechanisms for optimization



Define, agree, and enforce cost allocation tagging



Define metrics, set targets, and review



Enable teams to architect for cost



Assign optimization responsibility






[Cloud Enablement Engine: A Practical Guide](#)

# Cost optimization best practices

## Cost optimization adoption rates

### Top-line improvement

50 percent greater  
(median) savings in  
ongoing cloud costs

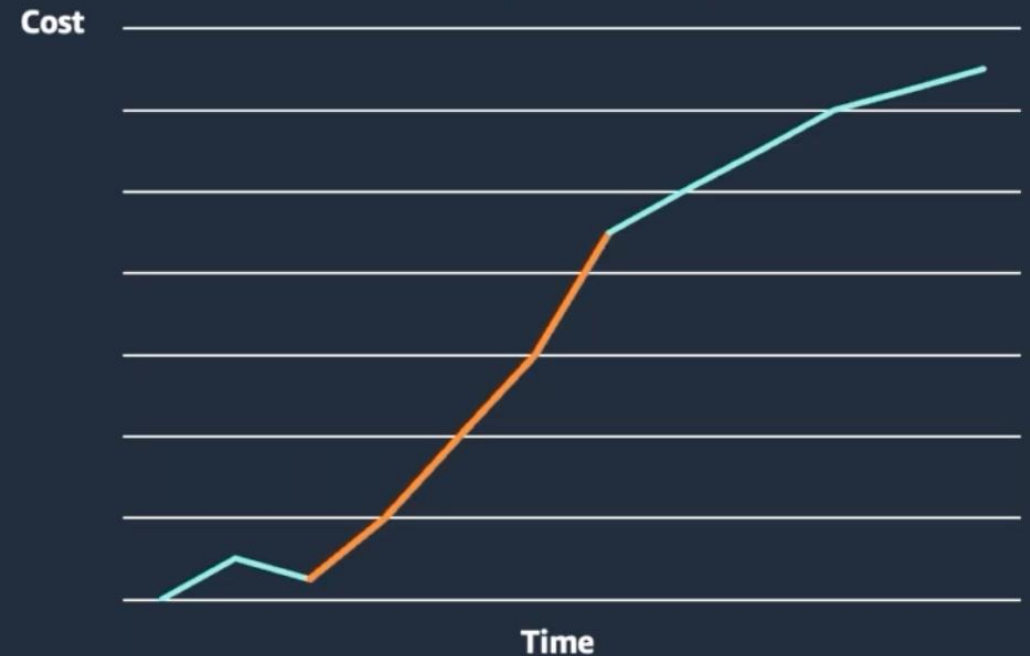
Cost optimization		Adoption rate*
	Rightsizing of cloud resources	76%
	Pricing model-based optimizations	75%
	On-demand or elastic cloud usage	66%
	Use of cloud providers' excess capacity	35%
	Serverless computing (or serverless architectures)	29%
	Active modernization of cloud resources	22%

\*For respondents with top-quartile cloud cost savings (average 73 percent incremental savings).  
[Global 100 Benchmark Study](#) (2022)

# Customer journey — **implementation and testing**

Costs tend to increase significantly during this stage

- Monitor costs
- Review budgets
- Review architectural decisions
- Leverage elasticity
- Review storage choices
- Add additional tagging





# Customer journey – pillars of optimization

Cost

