247 services
1895 price components *

* just kidding

How to estimate your AWS WAF and AWS Shield Advanced cost?

by Bowen Wang | on 14 JAN 2021 | in Amazon Athena, AWS Cost And Usage Report, AWS Cost Management, AWS Firewall Manager, AWS Shield, AWS WAF, Security, Identity, & Compliance, Technical How-to | Permalink | ↪ Share

This blog post is contributed by Benjamin Lecoq, AWS Senior Technical Account Manager

"Once CUR is enabled and integrated with Athena, you can now run the following query to get the current usage of the resource you would like to protect, in case you are considering using AWS Shield Advanced For instructions on how to queries using Amazon Athena, please read this user guide"

```
SELECT
  product_product_name AS Product,
  line_item_resource_id AS ResourceID,
  ROUND(SUM(CAST(line_item_usage_amount AS double)),0) AS DTO,
  pricing_unit AS Unit
FROM
  cur_YourPayerAccountIdHere_202009
WHERE
  product_product_name IN ('Elastic Load Balancing','Amazon Elastic Compute
Cloud','Amazon CloudFront')
  AND product_product_family = 'Data Transfer'
  AND product_transfer_type IN ('AWS Outbound','CloudFront Outbound')
  AND line_item_resource_id IN ( -- Please enter here the ARNs)
    'arn:partition:service:region:account-id:resource-id1',
    'arn:partition:service:region:account-id:resource-id2')
GROUP BY
  product_product_name,
  line_item_resource_id,
  pricing_unit
```

$0.008 per LCU-hour (or partial hour)

LCU Details

An LCU measures the dimensions on which the Application Load Balancer processes your traffic (averaged over an hour). The four dimensions measured are:

- **New connections:** Number of newly established connections per second. Typically, many requests are sent per connection.

- **Active connections:** Number of active connections per minute.

- **Processed bytes:** The number of bytes processed by the load balancer in Gigabytes (GB) for HTTP(S) requests and responses.

- **Rule evaluations:** It is the product of number of rules processed by your load balancer and the request rate. The first 10 processed rules are free (Rule evaluations = Request rate * (Number of rules processed - 10 free rules)

You are charged only on the dimension with the highest usage. An LCU contains:

- 25 new connections per second.

- 3,000 active connections per minute.

- 1 GB per hour for EC2 instances, containers and IP addresses as targets and 0.4 GB per hour for Lambda functions as targets

- 1,000 rule evaluations per second

days

years

hours

months

weeks

multi cloud / migrations

reserved capacity

no

EDP

vendor lock in

spot

credits

regions

Home

Cost Management

Cost Explorer

Budgets

Budgets Reports

Savings Plans

Cost & Usage Reports

Cost Categories

Cost allocation tags

Billing

Bills

Orders and invoices

Credits

Purchase orders

Preferences

Billing preferences

Payment methods

Consolidated billing ⧉

Tax settings

Billing & Cost Management Dashboard

You Need Permissions
You don't have permission to access billing information for this account. Contact your AWS administrator if you need help. If you are an AWS administrator, you can provide permissions for your users or groups by making sure that (1) this account allows IAM and federated users to access billing information and (2) you have the required IAM permissions.

enable billing & cost management for your DevOps team

#measure

tags, not too many

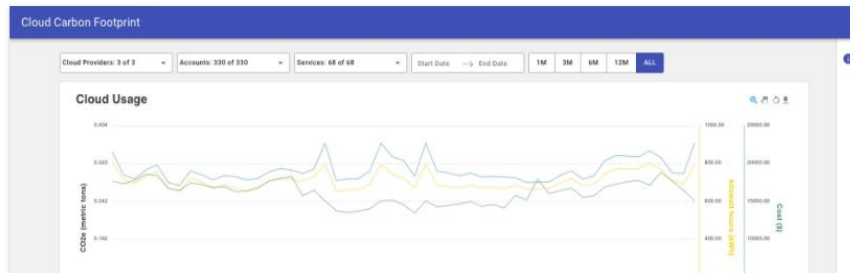| Nov	Dec	Jan	Feb
38151 USD	40440 USD	42586 USD	45138 USD
38151 USD	**40067 USD**	42070 USD	44058 USD

Would anyone notice your work?

Cloud Carbon Footprint

Free and Open Source

Cloud Carbon Emissions Measurement and Analysis Tool

Understand how your cloud usage impacts our environment and what you can do about it

TRY NOW

Get to know the carbon footprint of your cloud usage - and reduce it

"When savings can be measured, they can be recognized, and **cost efficiency projects become exciting opportunities**. As of early 2021, the most viewed dashboard at Airbnb is a dashboard of AWS costs."

Anna Matlin, Airbnb

#compute

as elastic as your wallet

Avoid fix IPs whenever you can

Using AWS Lambda to enable static IP addresses for Application Load Balancers

by Long Ren | on 18 AUG 2021 | in Elastic Load Balancing | Permalink | ↪ Share

Update:

On September 27th, 2021, we launched **Application Load Balancer(ALB)-type target groups for Network Load Balancer (NLB)**. With this launch, you can register ALB as a target of NLB to forward traffic from NLB to ALB without needing to actively manage ALB IP address changes through Lambda.

You can also use **AWS Global Accelerator** to get static IP addresses that act as a fixed entry point to your application endpoints in a single or multiple AWS Regions, such as your Application Load Balancers, Network Load Balancers or Amazon EC2 instances. These IP addresses are announced from multiple AWS edge locations at the same time via anycast, enabling traffic to ingress onto the AWS global network as close to your users as possible.

Go Graviton (ARM)

Achieve up to 52% better price/performance with Amazon RDS using new Graviton2 instances

Posted On: Oct 15, 2020

PERCONA

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PostgreSQL on ARM-based AWS EC2 Instances: Is It Any Good?

AWS Lambda Functions Powered by AWS Graviton2 Processor – Run Your Functions on Arm and Get Up to 34% Better Price Performance

by Danilo Poccia | on 29 SEP 2021 | in AWS Lambda, Compute, Graviton, Serverless | Permalink | 💬 Comments | ↱ Share

▶ 🔘————————————————— 0:00 / 0:00 🔊 ———●

Voiced by Amazon Polly

Many of our customers (such as Formula One, Honeycomb, Intuit, SmugMug, and Snap Inc.) use the Arm-based AWS Graviton2 processor for their workloads and enjoy better price performance. Starting today, you can get the same benefits for your AWS Lambda functions. You can now configure new and existing functions to run on **x86** or **Arm/Graviton2** processors.

With this choice, you can save money in two ways. First, your functions run more efficiently due to the Graviton2 architecture. Second, you pay less for the time that they run. In fact, Lambda functions powered by Graviton2 are designed to deliver **up to 19 percent better performance** at **20 percent lower cost**.

With Lambda, you are charged based on the number of **requests** for your functions and the **duration** (the time it takes for your code to execute) with millisecond granularity. For functions using the Arm/Graviton2 architecture, duration charges are **20 percent lower** than the current pricing for x86. The same 20 percent reduction also applies to duration charges for functions using Provisioned Concurrency.

Go vintage, Lightsail

Amazon Lightsail

Virtual private server for a low, predictable price

Self-Hosted WordPress: It's Easier Than You Think

Learn how you can build a fault-tolerant WordPress site using Amazon Lightsail as well as other AWS services.

Learn more »

Amazon Lightsail   **Overview**   Features   Pricing   Resource Center   FAQs   Customers

Use Amazon Lightsail for...

Lightsail is ideal for simpler workloads, quick deployments, and getting started on AWS. It's designed to help you start small, and then scale as you grow.

Simple web applications   **Websites**   **Business software**   **Dev/test environments**

Our AWS bill is ~ 2% of revenue. Here's how we did it

- Use lightsail instances (20$ per instance) instead of EC2 instances (37$ per instance)
- Use a lightsail database (60$ per DB) instead of RDS (200$ per DB)
- Use a self hosted redis server on a compute instance (40$) instead of ElastiCache (112$)
- If feasible, use a free CDN (cost savings depends on traffic size)
- Use a self hosted NGINX server (20$ fixed cost) instead of ELB (cost depends on traffic and usage)

https://www.sankalpjonna.com/posts/our-aws-bill-is-2-of-revenue-heres-how-we-did-it

#datatransfer

think upfront

AWS Data Transfer Costs

UPDATED SEP 11, 2019

Numbers and data transfer costs are shown in $/GB

EXTERNAL / NON-AWS

.03-.11

.02-.25

.008

~.008

~.006

.05-.09

.045

CLB

ALB

NLB

DIRECT CONNECT

CLOUD FRONT

AWS REGION

.02

.02

S3, KINESIS, DYNAMODB, EFS, SQS, ETC.

AWS REGION

.01

.02

RDS

EC2

PVT LNK

.01

.01

EC2

.01-.02

.01-.02

EC2

AZ

AZ OR PEERED VPC

.01

.01

AZ OR PEERED VPC

EC2

.01

RDS

.01-.02

.01-.02

RDS

AWS REGION

MANAGED NAT GATEWAY

Still confused as hell? Get help at duckbillgroup.com

Inbound traffic is typically free – outbound is not. Some (but not all) internal traffic is **free.**

1 Direct outbound data starts at **$.09/GB** for less than 10TB, and discounts with volume. **First 1GB is free.**

2 Region-to-region traffic is **$.02/GB** when it exits a region for indicated services except between us-east-1 and us-east-2, where it's **$.01/GB.** Even data wants to get out of Ohio.

3 Outbound CloudFront prices are highly variable by geography and regional edge cache and start at **$.085/GB** in US/Canada.

4 Internal traffic via public or elastic IPs incurs **additional fees** in both directions.

5 Cross-AZ EC2 traffic within a region costs half as much as region-to-region! ELB-EC2 traffic is **free** except outbound crossing AZs.

6 Elastic Load Balancing: Classic and Network LB is priced per GB. Application LB costs are in LCUs, not $/GB.

7 Traffic via Managed NAT Gateway – regardless of destination – costs an additional **$.045/GB** on top of other transfer, including internal transfer (S3, Kinesis, etc.).

Inspired by Open Guide to AWS's data transfer diagram
github.com/open-guides/og-aws

source: https://www.lastweekinaws.com

Multi AZ: always better? 3 zones better than 2?

Multi region? If you **really** have to

Multi cloud: check all components

BACKBLAZE

Migrate Your Data Out of Amazon S3 for Free and Reduce Your MonthlyCloud Storage Bill by 75%

It's never been easier to switch to a more affordable and reliable cloud storage provider!

We will **cover migration fees** for customers migrating over 50 TB of data from US, Canada, and Europe regions, and storing it with us for at least 12 months.

"

NODECRAFT

"The combination of Cloudflare and Backblaze B2 Cloud Storage saves Nodecraft almost 85% each month on the data storage and egress costs versus Amazon S3"

JAMES ROSS, CO-FOUNDER/CTO NODECRAFT

Take the First Step

First Name (Required)

Last Name (Required)

Company (Required)

Email (Required)

Phone

Storage Size:

< 10TB

Have under 10TB? Get started here.

How do you want to use B2?

Send

CDN (CloudFront) might be cheaper

CloudFront Security Savings Bundle

InfoQ

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Cloudflare Challenges AWS with R2 Storage and No Egress Fees

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OCT 16, 2021 • 2 MIN READ

by

Renato Losio

Cloud architect, remote work enthusiast and speaker.

Cloudflare has recently announced R2 storage, a S3-compatible service to store large amounts of data with no egress bandwidth fees associated. An automatic migration of objects from Amazon S3 to Cloudflare R2 will be offered to facilitate the transition or integration for existing AWS deployments.

Cloudflare claims that they will eliminate egress fees, deliver an object storage that is at least 10% cheaper than S3, and make infrequent access free. In the announcement, Matthew Prince, co-founder and CEO of Cloudflare, explains:

> Since AWS launched S3, cloud storage has attracted, and then locked in, developers with exorbitant egress fees. (...) Our aim is to make R2 Storage the least expensive, most reliable option for storing data, with no egress charges.
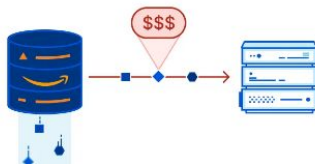
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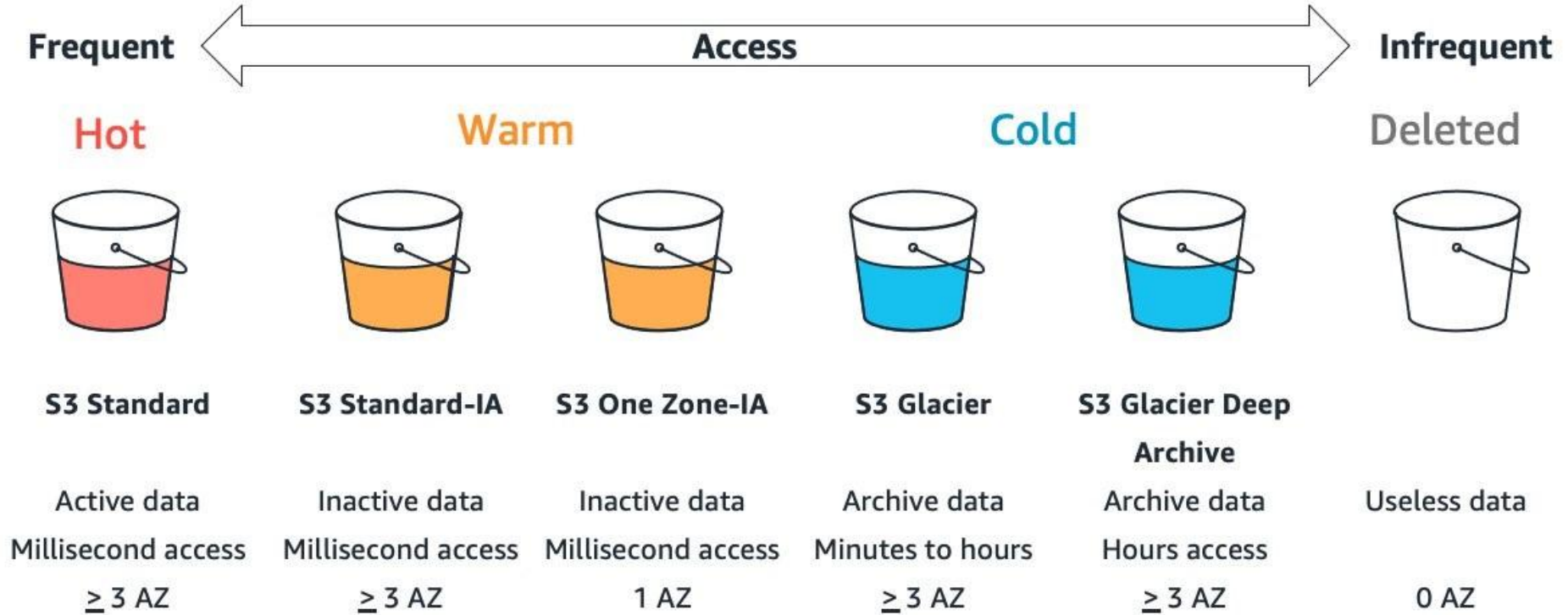OCT 06, 2021

Ballerina Swan Lake: 10 Compelling Language Characteristics for Cloud Native Programming

#storage

cold? frozen? hot? chaos?

Performance across the S3 Storage Classes

	S3 Standard	S3 Intelligent-Tiering*	S3 Standard-IA	S3 One Zone-IA†	S3 Glacier	S3 Glacier Deep Archive
Designed for durability	99.999999999% (11 9's)	99.999999999% (11 9's)	99.999999999% (11 9's)	99.999999999% (11 9's)	99.999999999% (11 9's)	99.999999999% (11 9's)
Designed for availability	99.99%	99.9%	99.9%	99.5%	99.99%	99.99%
Availability SLA	99.9%	99%	99%	99%	99.9%	99.9%
Availability Zones	≥3	≥3	≥3	1	≥3	≥3
Minimum capacity charge per object	N/A	N/A	128KB	128KB	40KB	40KB
Minimum storage duration charge	N/A	30 days	30 days	30 days	90 days	180 days
Retrieval fee	N/A	N/A	per GB retrieved	per GB retrieved	per GB retrieved	per GB retrieved

Frequent ◄—— Access ——► Infrequent

Hot — **Warm** — **Cold** — **Deleted**

S3 Standard	S3 Standard-IA	S3 One Zone-IA	S3 Glacier	S3 Glacier Deep Archive	
Active data	Inactive data	Inactive data	Archive data	Archive data	Useless data
Millisecond access	Millisecond access	Millisecond access	Minutes to hours	Hours access	
≥ 3 AZ	≥ 3 AZ	1 AZ	≥ 3 AZ	≥ 3 AZ	0 AZ

source: https://aws.amazon.com/blogs/architecture/optimizing-your-aws-infrastructure-for-sustainability-part-ii-storage

How do you distribute your objects /delete data?

Edit lifecycle rule

Lifecycle rule configuration

Lifecycle rule name

test

Up to 255 characters.

Choose a rule scope
- ● Limit the scope of this rule using one or more filters
- ○ This rule applies to *all* objects in the bucket

Filter type

You can filter objects by prefix, object tags, or a combination of both.

Prefix
Add filter to limit the scope of this rule to a single prefix.

*.jpg

Don't include the bucket name in the prefix. Using certain characters in key names can cause problems with some applications and protocols.

filter by key prefix and object tags

Watch out for automatic and manual backups

There is no additional charge for backup storage, up to 100% of your total database storage for a region. (Based upon our experience as database administrators, the vast majority of databases require less raw storage for a backup than for the primary dataset, meaning that most customers will never pay for backup storage.)

Amazon Relational Database Service Backup Storage		$2,614.92
$0.095 per additional GB-month of backup storage exceeding free allocation	27,525.458 GB-Mo	$2,614.92

EBS: forget GP2

	GP2	GP3
IOPS	3 * VolumeSize (G)	3,000 + provisioned
Throughput	VolumeSize (G) * 256K * 3 IOPS	125MBips + provisioned
Max Throughput	250MB/s	1,000MB/s

The storage cost has a discount of 20% ($0.08/GB-month vs $0.1/GB-month of GP2). Adding more provisioned IOPS costs $0.005/p IOPS-month. Adding throughput costs $0.04/ MB/s-month.

GP2 vs GP3 (same or higher IOPS)
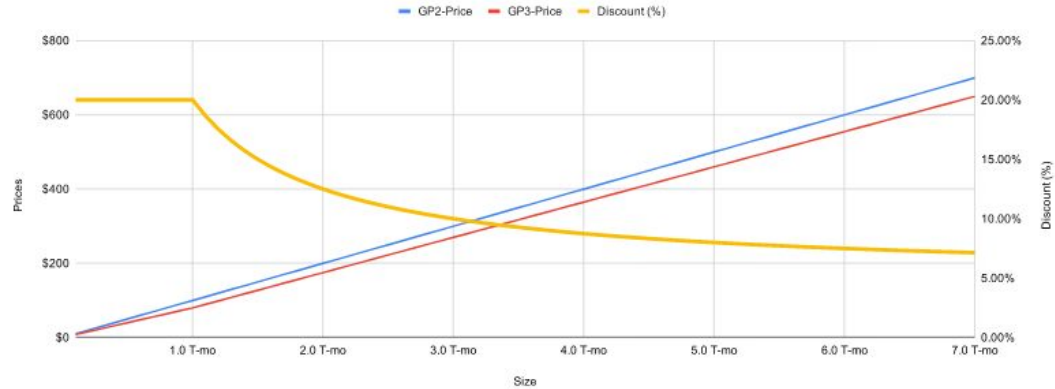
AWS changes quickly

EC2: m5 → m6

EBS: gp2 → gp3

keep up

Dublin not cheapest in EU anymore

Why?

Thank you!

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AWS Data Hero
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