AWS cost reduction - *example report*

Customer *Acme Corp.*

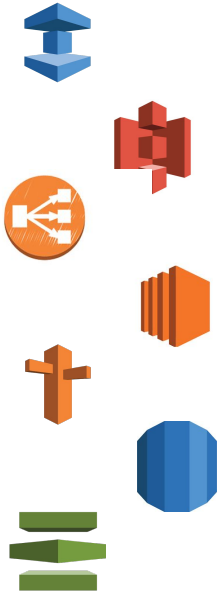
analysis: Aug 2018 - July 2019

Ricardo Oliveira

eurotux

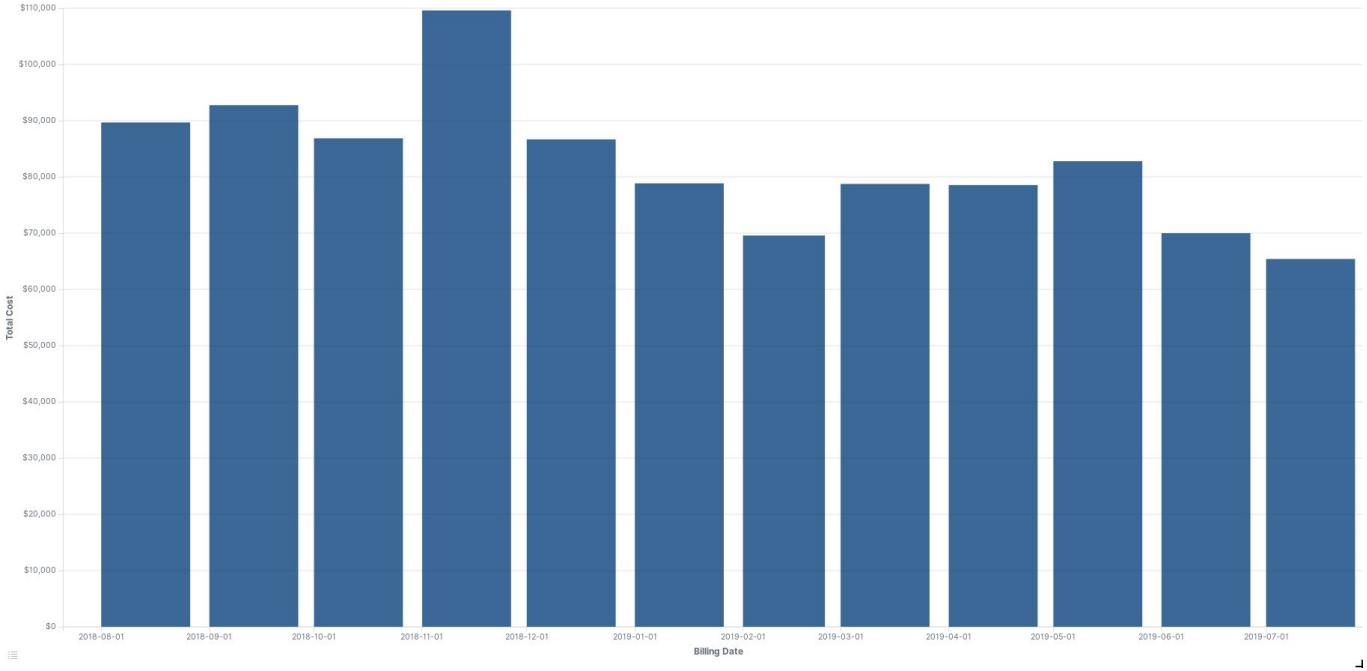
Monthly savings overview - account 52x72x7574x1

Elasticache	5.1k£
S3	1k£
Elastic Load Balancer	0.8k£
EC2	9k£
Route 53	0.8k£
RDS	1.5k£
ACM	1.4k£
Total (monthly savings)	**~19.6k£ (31%)**



Costs - last year - account 52x72x7574x1

Period: Sept/2018 - Aug/2019



Elasticache

Currently, the biggest cost factor are the cache.r3.large / cache.r3.xlarge which are billed on-demand. AWS has currently similar instances (resource-wise) at a lower cost, and the direct substitution would reduce costs without any impact in the service functionality nor performance. During the last year, the clusters (24 redis + 4 memcached) have also had a steady usage which, if expected in the future, also makes way for a change in the comsumption model:

- change from cache.r3.large/cache.r3.xlarge to similar cache.r5 instances: 5% reduction
- move from on-demand to reserved consumption model: avg 30% reduction

total: monthly reduction of 5.1k£

S3

The most relevant cost factors are EU-TimedStorage-ByteHrs (Standard S3 storage), EU-Requests-Tier1 and EU-TimedStorage-GlacierByteHrs. The three most utilized buckets are:

- xpto-data: 21TB
- xpto-work: 19.1TB
- xptodb-backup: 4.75TB

The xptodb-backup bucket is used exclusively for backups, which implies it could benefit from a 82% cost reduction, assuming the restore operations are executed according to last year's pattern. On the other hand, the Request-Tier2 (GET/HEAD) requests is considerably lower than the Request-Tier1 (POST/PUT/Upload), which implies those could benefit from S3 Infrequent Access (about 42% cost reduction).

There are also no active S3 VPC Gateways; therefore, all the data transfers are billed as Interzone-Out. Very significant additional savings could also be achieved deploying S3 VPC Gateways.

AWS Certificate Manager

We have identified 41 wildcard SSL certificates, as well as 4 single domain certificates, all of them active in Amazon's Certificate Manager, created by external Certificate Authorities.

AWS ACM created and managed SSL certificates are free of change, and can be used both in ALB and Cloudfront. The replacement of the current certificates would result in a saving of 100%.