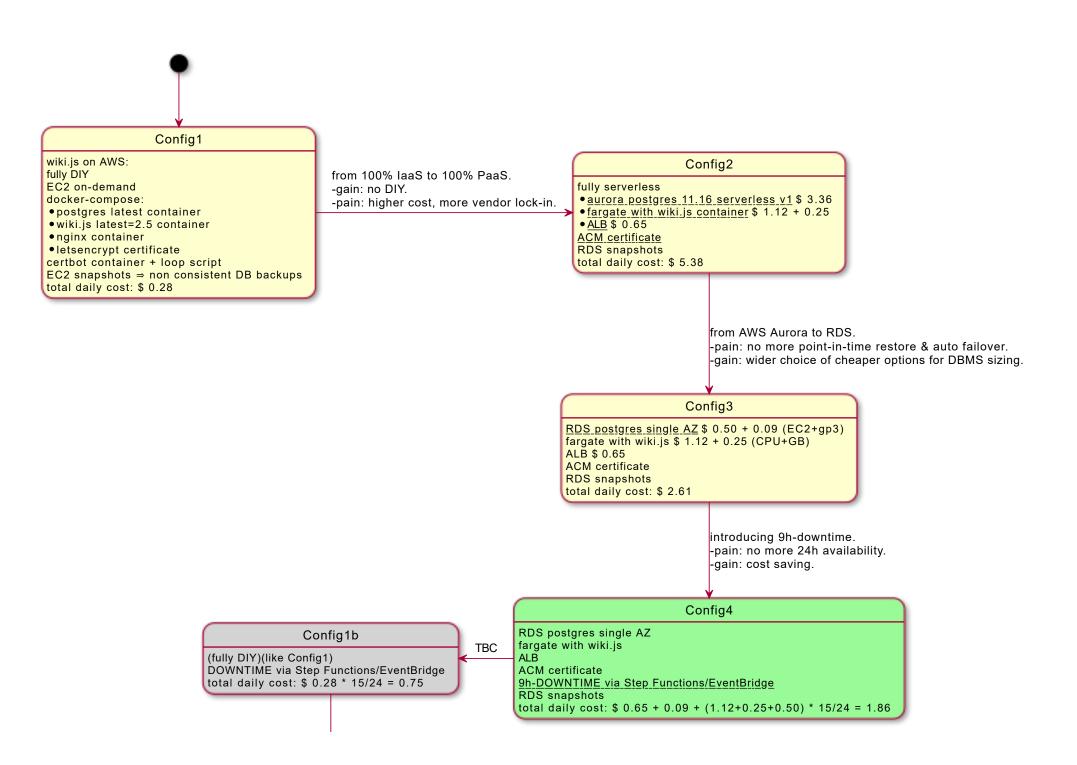🏠 / **cookbook** / **am-wikijs** / **roadmap**

roadmap & costs of wiki deployment

tech roadmap and cost analysis

costs are given as USD/day

Config1

wiki.js on AWS:
fully DIY
EC2 on-demand
docker-compose:
- postgres latest container
- wiki.js latest=2.5 container
- nginx container
- letsencrypt certificate
certbot container + loop script
EC2 snapshots ⇒ non consistent DB backups
total daily cost: $ 0.28

from 100% IaaS to 100% PaaS.
-gain: no DIY.
-pain: higher cost, more vendor lock-in.

Config2

fully serverless
- aurora postgres 11.16 serverless v1 $ 3.36
- fargate with wiki.js container $ 1.12 + 0.25
- ALB $ 0.65
ACM certificate
RDS snapshots
total daily cost: $ 5.38

from AWS Aurora to RDS.
-pain: no more point-in-time restore & auto failover.
-gain: wider choice of cheaper options for DBMS sizing.

Config3

RDS postgres single AZ $ 0.50 + 0.09 (EC2+gp3)
fargate with wiki.js $ 1.12 + 0.25 (CPU+GB)
ALB $ 0.65
ACM certificate
RDS snapshots
total daily cost: $ 2.61

introducing 9h-downtime.
-pain: no more 24h availability.
-gain: cost saving.

Config4

RDS postgres single AZ
fargate with wiki.js
ALB
ACM certificate
9h-DOWNTIME via Step Functions/EventBridge
RDS snapshots
total daily cost: $ 0.65 + 0.09 + (1.12+0.25+0.50) * 15/24 = 1.86

TBC

Config1b

(fully DIY)(like Config1)
DOWNTIME via Step Functions/EventBridge
total daily cost: $ 0.28 * 15/24 = 0.75

> ⚠️ running the Postgres DB on a docker on EC2 and taking *volume* snapshots does not guarantee a consistent DB backup. EBS Snapshots are a point-in-time copy of the data but do not include in-memory and cached data.

‣ https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ebs-creating-snapshot.html ↗)

‣ https://www.geeksforgeeks.org/write-through-and-write-back-in-cache/ ↗

‣ https://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/USER_CreateSnapshot.html ↗

> " Creating this DB snapshot on a Single-AZ DB instance results in a brief I/O suspension that can last from a few seconds to a few minutes

> ⚠️ running the wiki.js application, which does not require CD/CI, on AWS Fargate, which specializes in supporting blue/green deployment, is a poor cost/benefit choice.

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