

SERVERLESS

PYWAW. 20.03.2017

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- **FOGBUGZ**
- **STACKOVERFLOW (& SE)**
 - **TRELLO**

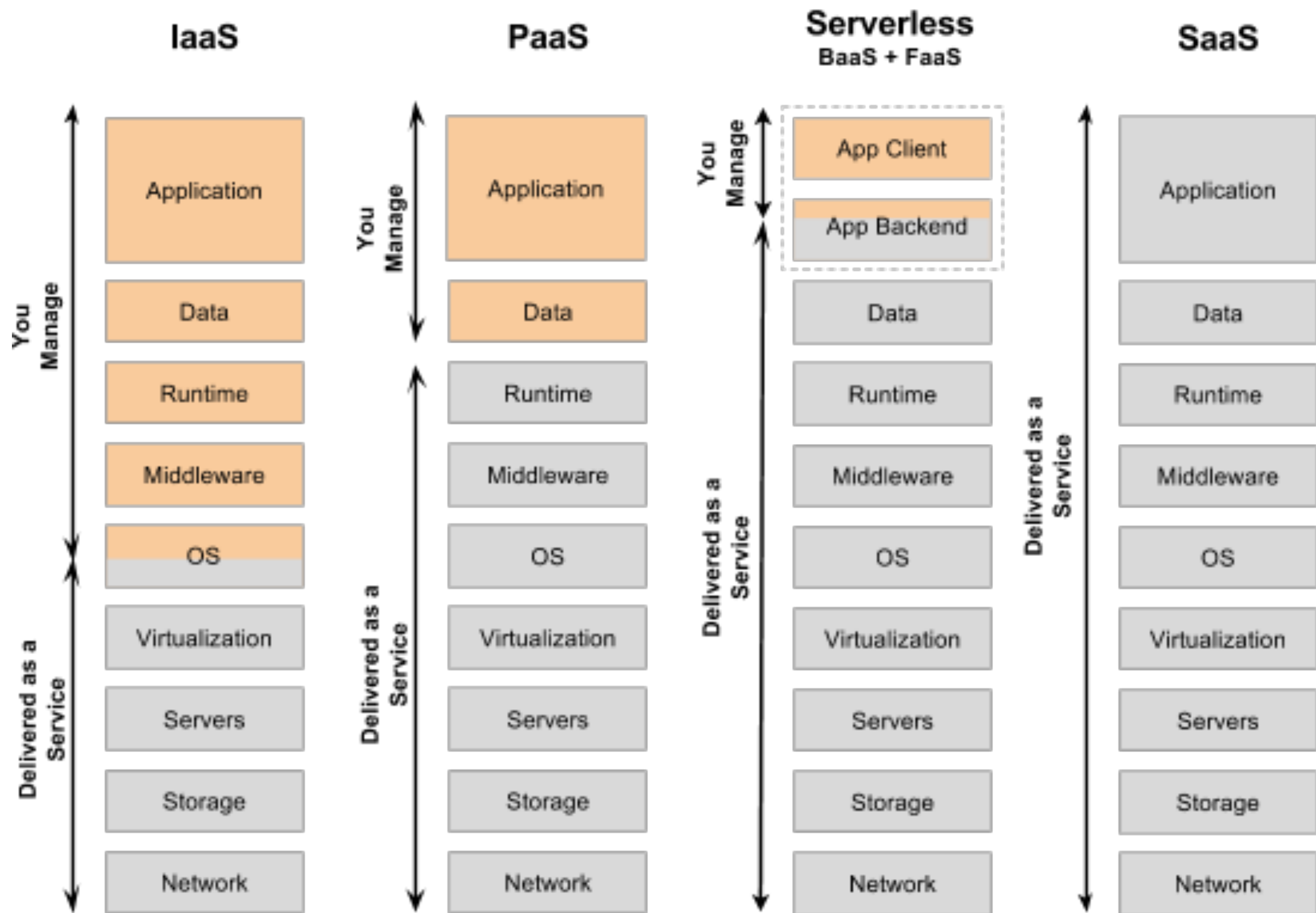
- **FOGBUGZ**
- **STACKOVERFLOW (& SE)**
 - **TRELLO**
 - **GLITCH**

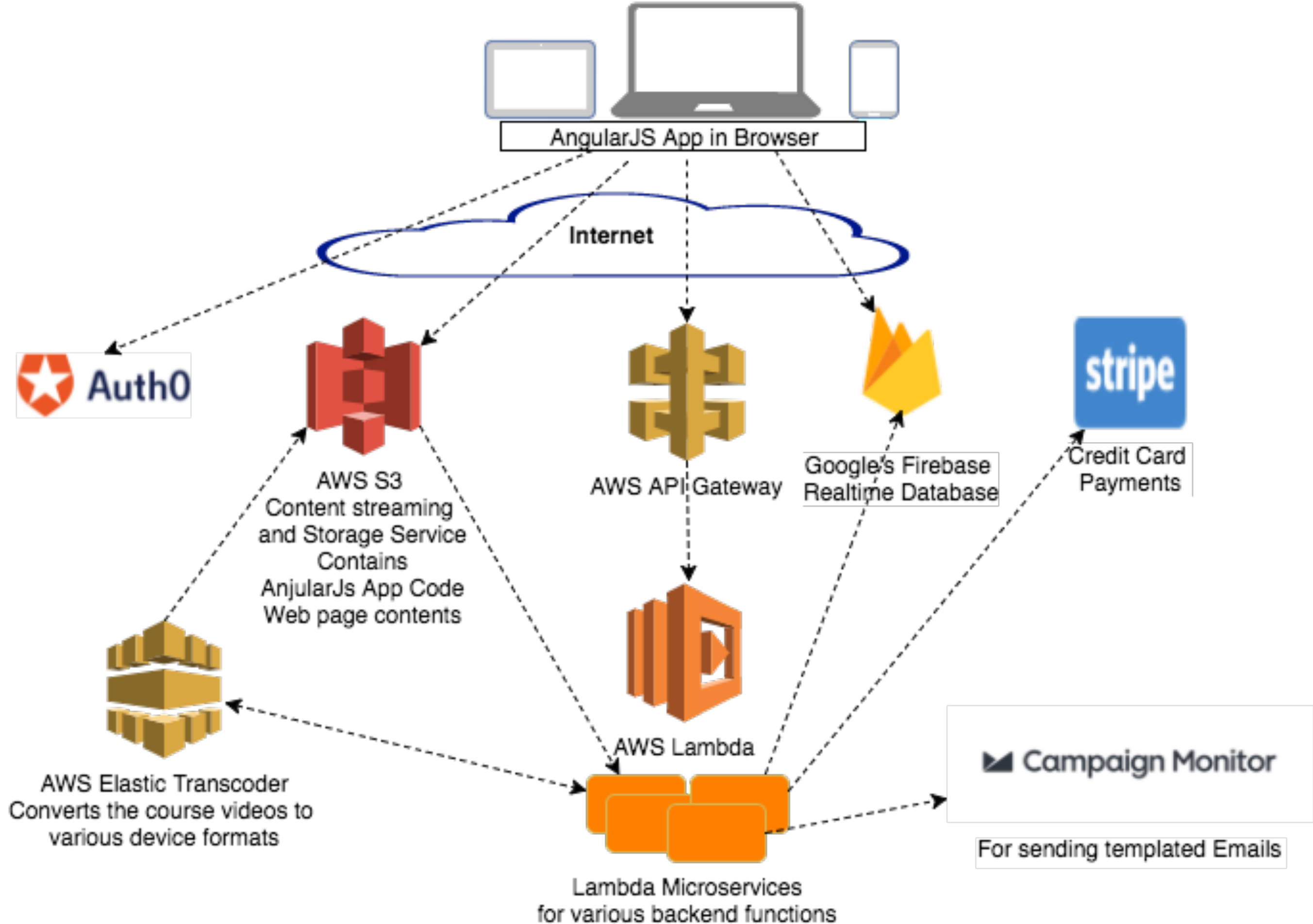
SERVERLESS?

FUNCTION AS A SERVICE [FAAS]



Server less
 λ





- **AWS LAMBDA**
- **GOOGLE CLOUD FUNCTIONS**
 - **AZURE FUNCTIONS**

Lambda > Functions > myFunctionName

Qualifiers ▾

Test

Actions ▾

Code

Configuration

Triggers

Monitoring

Code entry type

Edit code inline ▾

```
1 from __future__ import print_function
2
3 import json
4
5 print('Loading function')
6
7
8 def lambda_handler(event, context):
9     print("Received event.")
10
11     operation = event['httpMethod']
12
13     response = {
14         'statusCode': '200',
15         'body': 'Hello from lambda fun! V2!',
16         'headers': {
17             'Content-Type': 'application/json',
18         },
19     }
20
21     return response
22
23
```

Runtime

Python 2.7



Handler

lambda_function.lambda_handler



Role

existing



Existing role

arn:aws:iam::710067685471:role/service-r



Description

A simple backend (read/write to DynamoDE

TRIGGERS INCLUDE:

- * SNS**
- * HTTP (API GATEWAY)**
- * S3**
- * DYNAMODB**
- * CODECOMMIT**

HELLO WORLD:

> 3 SERVICES

> ~ 25 STEPS

GREAT WINS?

GREAT WINS:

- > SCALABILITY**
- > PRICING**
- > NOOPS**

GREAT WINS:

- > SCALABILITY, BUT...**
 - > PRICING**
 - > NOOPS**

GREAT WINS:

- > SCALABILITY, BUT...**
- > PRICING, BUT...**
- > NOOPS**

GREAT WINS:

- > SCALABILITY, BUT...**
- > PRICING, BUT...**
- > NOOPS, BUT...**

CHALLENGES?

BAAIDE [BROWSER AS AN IDE] 🤔

.zip DEPLOYMENT
ALSO VIA CLI, CD-FRIENDLY

~~BAAIDE [BROWSER AS AN IDE]~~ 😊

UNIT AND INTEGRATION TESTING 🙄

AWS LAMBDA HAS A TINY API

```
def lambda_handler(event, context):
```

TINY, BUT TROUBLESOME...

~~UNIT AND INTEGRATION TESTING~~ 😞

COMPLEX DOMAIN IN TINY APP 🤔

SHARING CODEBASE (NOT A MICROSERVICE ANYMORE)

EXTRACTING SCALING PARTS ONLY

~~COMPLEX DOMAIN IN TINY APP~~

STEEP LEARNING CURVE

**HIGHER LEVEL FRAMEWORKS
SERVERLESS, PYTHON-LAMBDA, ZAPPA**

WARMING UP 

LIMITS

- **HOW TO AVOID THEM?**
- **SHOULD YOU AVOID THEM?**

PYTHON 2.7 🤔

LACK OF CONTENERIZATION

MULTITENANCY

AND ALL OF THE PROBLEMS OF MICROSERVICES

SOURCES

<https://martinfowler.com/articles/serverless.html>

<https://github.com/Miserlou/Zappa>

<https://serverless.com/>

<https://aws.amazon.com/lambda/>

<https://cloud.google.com/functions/>

<https://azure.microsoft.com/en-us/services/functions/>