

Serverless & DevOps

@jonatasbaldin

What is DevOps?

**It's an agile
collaboration between
Devs & Operations**

**The goal is to eliminate silos,
improve feedback across teams,
reduce risks and
deliver value more quickly**

The Ops role in the DevOps culture

What is Serverless?

**VIRTUAL
SERVERS**



**CLOUD
COMPUTING**



CONTAINERS



SERVERLESS



FaaS

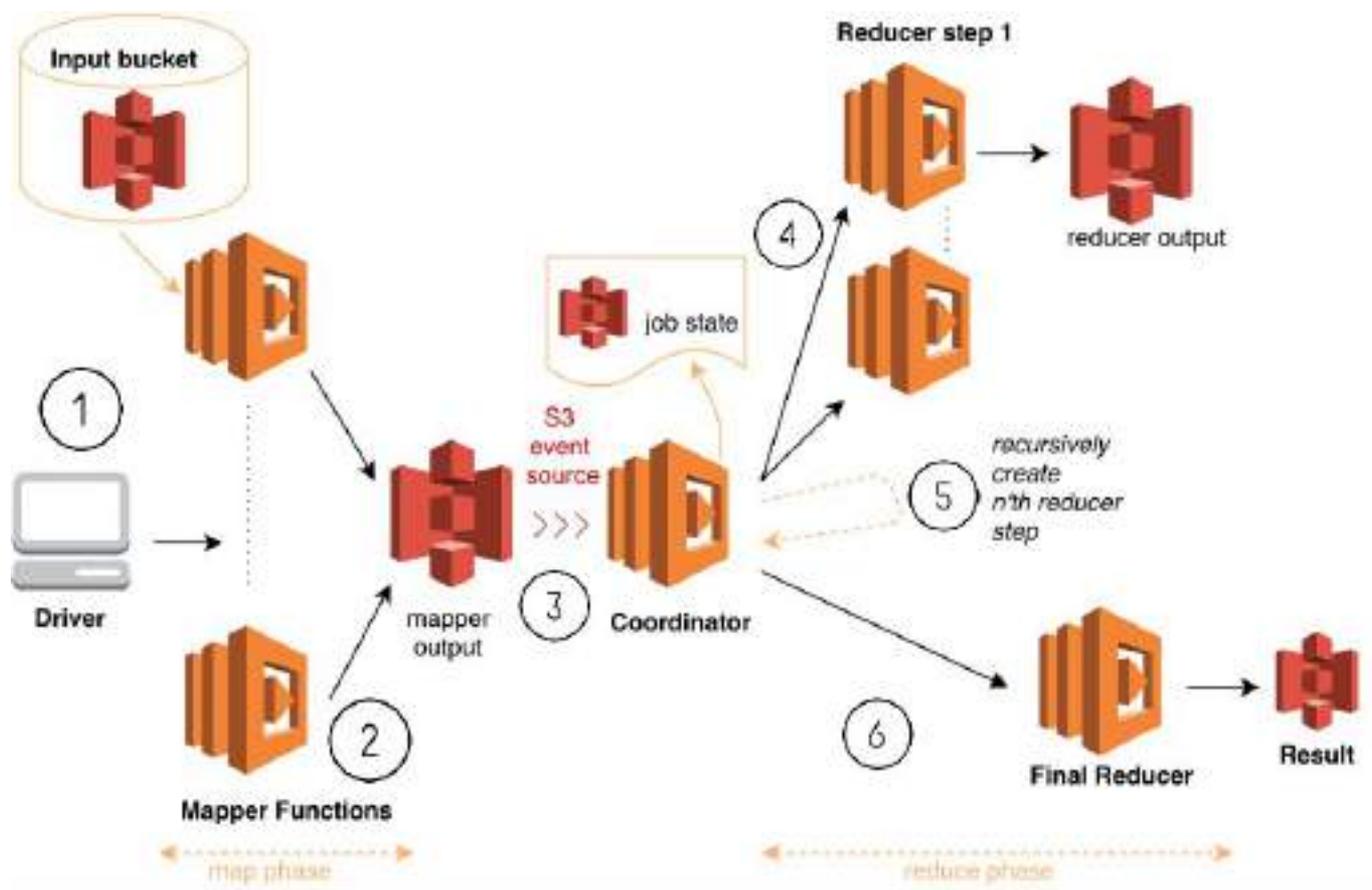
execute code

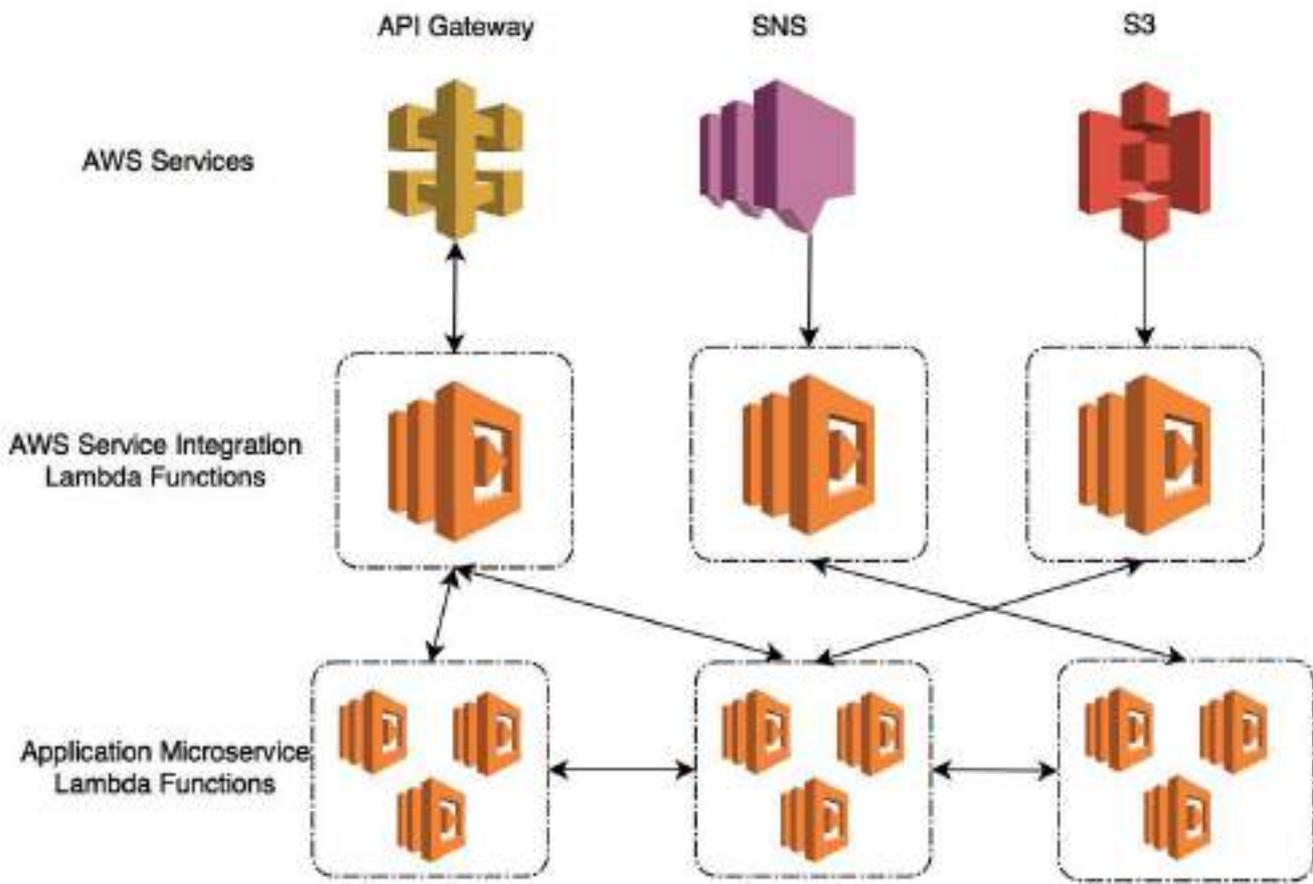
BaaS

third-party services

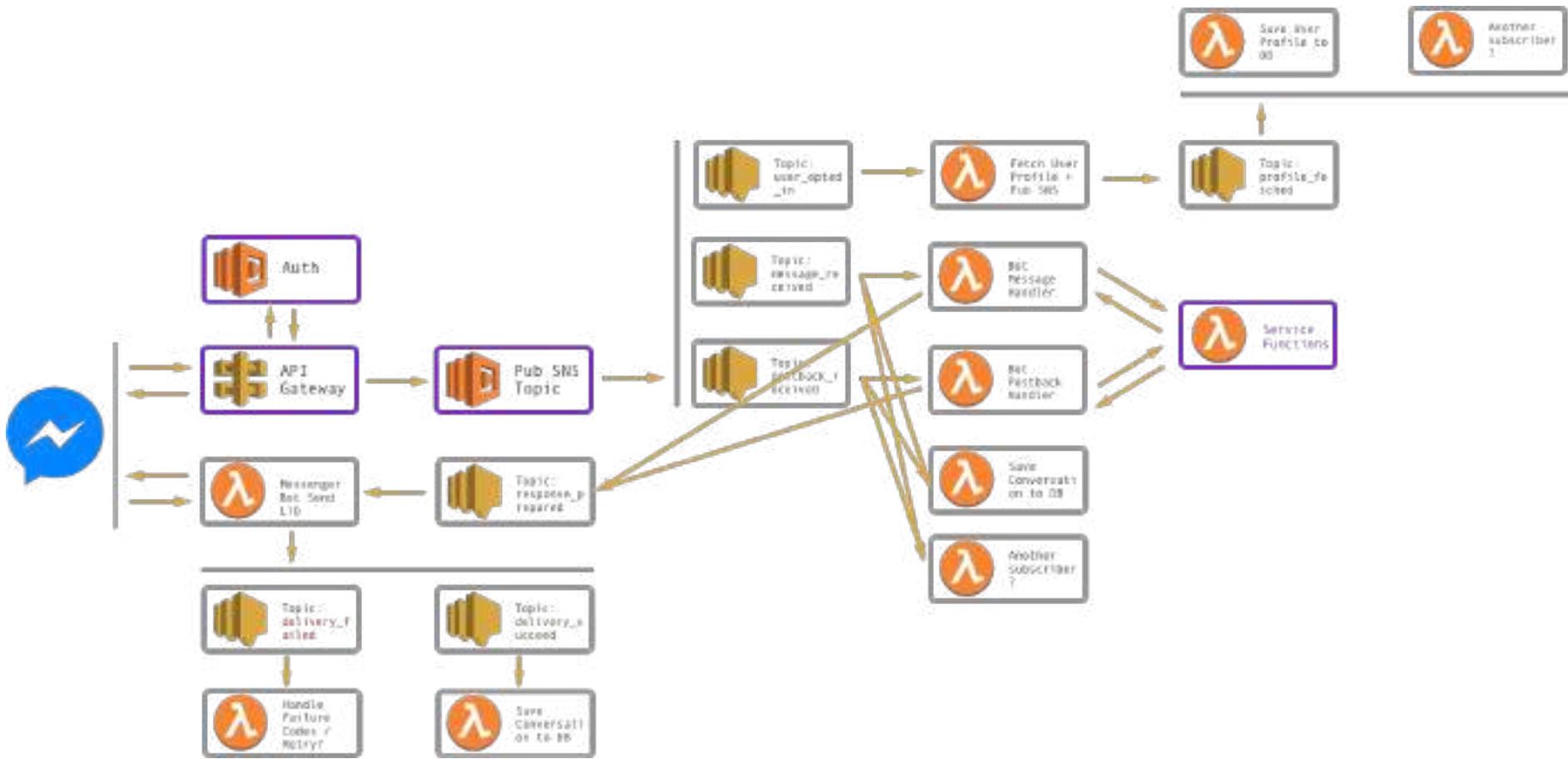
Principles of Serverless

Single Purpose Functions



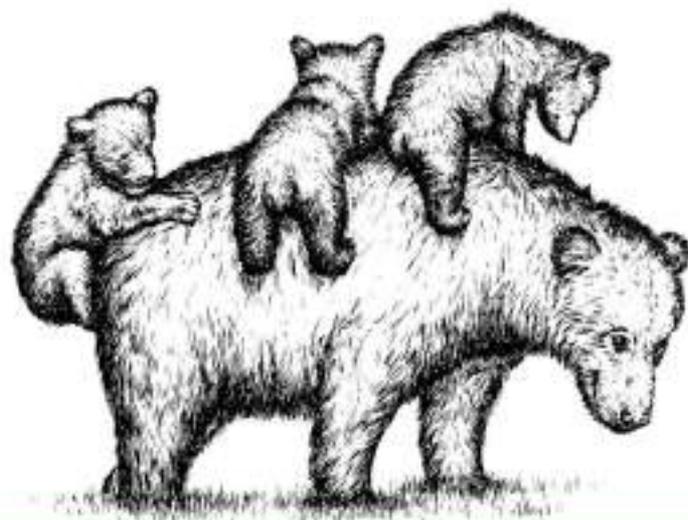


Event Driven Architecture



Infinity Scalability

Getting the wrong idea from that conference talk you attended



Solving Imaginary Scaling Issues

At Scale

ORLY?

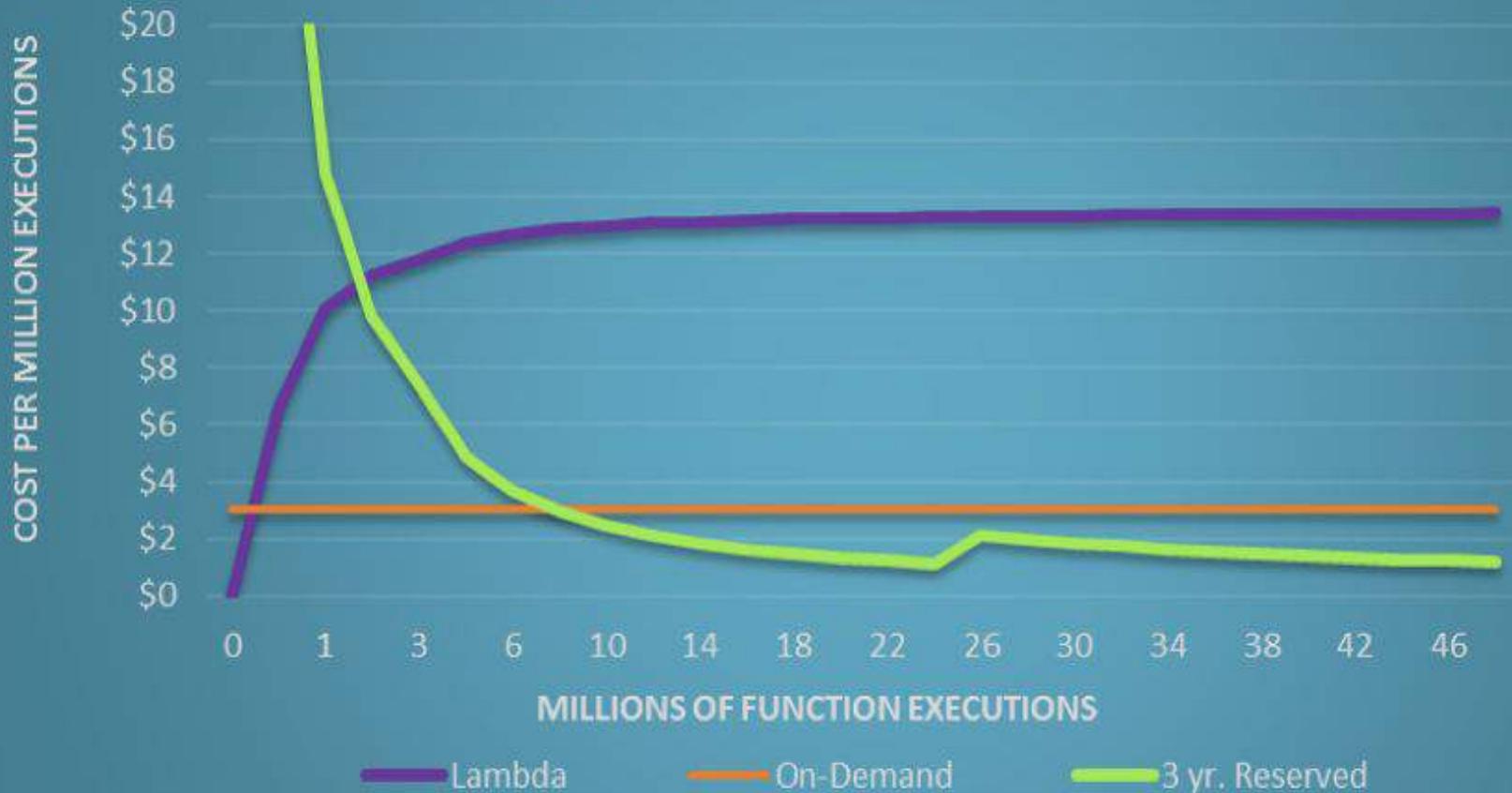
@ThePracticalDev

Pay by Execution

*** First 1 million requests per month are free**

*** \$0.20 per 1 million requests thereafter (\$0.0000002 per request)**

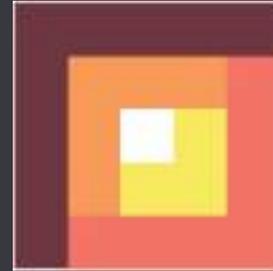
Lambda Pricing vs. EC2: 100 ms execution times



*Note: Lambda includes more management than EC2, and On-Demand instances don't provide equal performance.

Lots of Third-Party Services

Commercial Providers



Open source Providers



IronFunctions 

The logo for IronFunctions, featuring the text "IronFunctions" in a bold, black, sans-serif font. To the right of the text is a purple icon consisting of a stylized 'f' and a circular symbol with a cross inside, with three horizontal lines extending to the left of the 'f'.

Use Cases

Mobile Backends

Bots

Data Processing

IoT

Benefits

Infinite Scale
Package and Deploy
Time to Market
Operational Management

Drawbacks

- Vendor control/lock-in*
- No server optimizations
- No in-server state

Drawbacks

Vendor control/lock-in*
No server optimizations
No in-server state

*Serverless Event Gateway



Opportunities

Tooling

Open source projects
Learning and teaching
Improvements

Frameworks



Conferences



JEFFCONF

SERVERLESSCONF



Kelsey Hightower ✓

@kelseyhightower

Following



Serverless is going to kill all computing architectures; after containers kill virtual machines; after virtual machines kill real machines.

10:37 AM - 29 Aug 2017

822 Retweets 1,626 Likes



117



822



1.6K



The Ops role in the Serverless Era

Well...

#NoOps

Just... don't...



patrickdebois

@patrickdebois

Following



microservices - the code needs to fit in the dev's head - but will the deployment/architecture still fit in ops head?

10:21 AM - 1 May 2016

60 Retweets 56 Likes



9



60



56



**Serverless doesn't remove Ops
complexity, it increases it
exponentially**

**The future of IT Operations and
Application Development is less
about servers and more about
services**

EPX Labs

**We now have services
for everything!**

**The Ops efforts should be aimed
more towards architecting
these services**

**All services have some kind of limit,
and they aren't always clear on the
documentation**

**Services providers should be an
extension of your engineering team**

**You should contract services like
contracting a fellow coworker**

If DevOps is the
collaboration between
Devs & Operations

**Serverless is the
collaboration between
Devs, Ops and Third
Parties**

#ServerlessWeekly

eepurl.com/cUU8sD

Serverless & DevOps

@jonatasbaldin