



Building serverless APIs

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AWS Lambda

A photograph of Werner Vogels, CTO of Amazon.com, standing on a stage during the AWS re:Invent 2015 conference. He is positioned in the center-left of the frame, facing slightly to the right. The stage is lit with warm, orange-toned lights. Behind him is a large screen displaying the text "No Server Is Easier To Manage Than No Server". The screen has a background of diagonal lines. On either side of the stage, there are podiums with the AWS logo. The audience is visible in the foreground, mostly in silhouette.

No Server Is Easier To Manage Than No Server

Werner Vogels, CTO, Amazon.com
AWS re:Invent 2015

Serverless architecture

=

Managed services



Amazon API
Gateway



Amazon
Kinesis Streams



Amazon
DynamoDB



Amazon S3

+

AWS Lambda

AWS Lambda



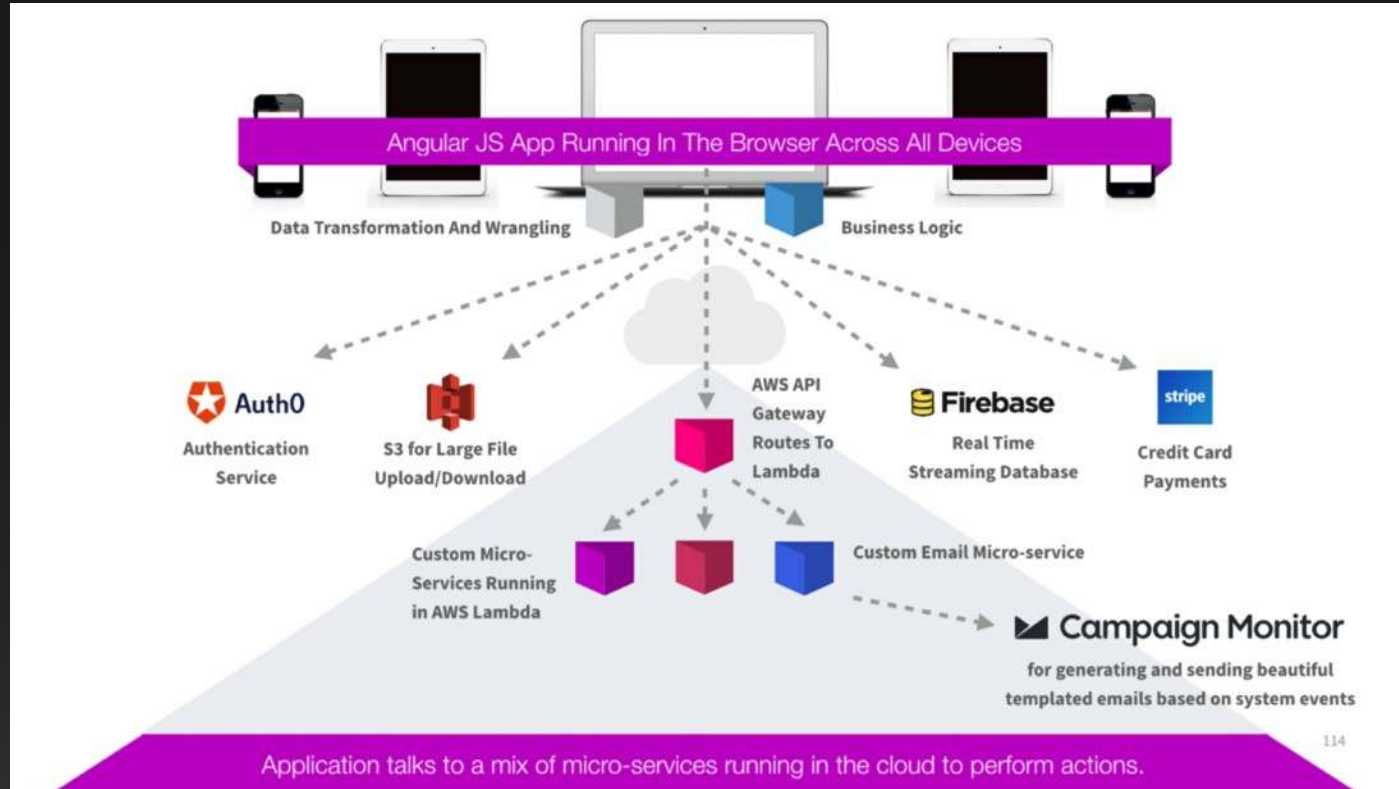
- Announced at re:Invent 2014
- Deploy **pure functions** in Java, Python, Node.js and C#
- Just **code**, without the infrastructure drama
- Built-in **scalability** and **high availability**
- **Integrated** with many AWS services
- **Pay as you go**
 - Combination of execution time (100ms slots) & memory used
 - Starts at \$0.000000208 per 100ms
 - Free tier available: first 1 million requests per month are free

What can you do with AWS Lambda?



- Infrastructure **automation**
- Build **event-driven** applications
 - Example: <http://www.slideshare.net/JulienSIMON5/building-a-serverless-pipeline>
- Build **APIs** together with Amazon API Gateway
 - RESTful APIs
 - Resources, methods
 - Stages

A Cloud Guru: 100% Serverless



Simplifying development with Open Source

Serverless

The most popular serverless framework

Built with and for Node.js.
Python and Java: YMMV

Rich features, many event sources

Not a web framework

Gordon

Great challenger!

Node.js, Python, Java,
Scala, Golang

Comparable to Serverless
feature-wise

Not a web framework

Chalice

AWS project, in beta

Python only

Does only one thing, but
does it great

Dead simple, zero config

Flask web framework

New Lambda videos from re:Invent 2016

AWS re:Invent 2016: What's New with AWS Lambda (SVR202) <https://www.youtube.com/watch?v=CwxWhyGteNc>

AWS re:Invent 2016: Serverless Apps with AWS Step Functions (SVR201) <https://www.youtube.com/watch?v=75MRve4nv8s>

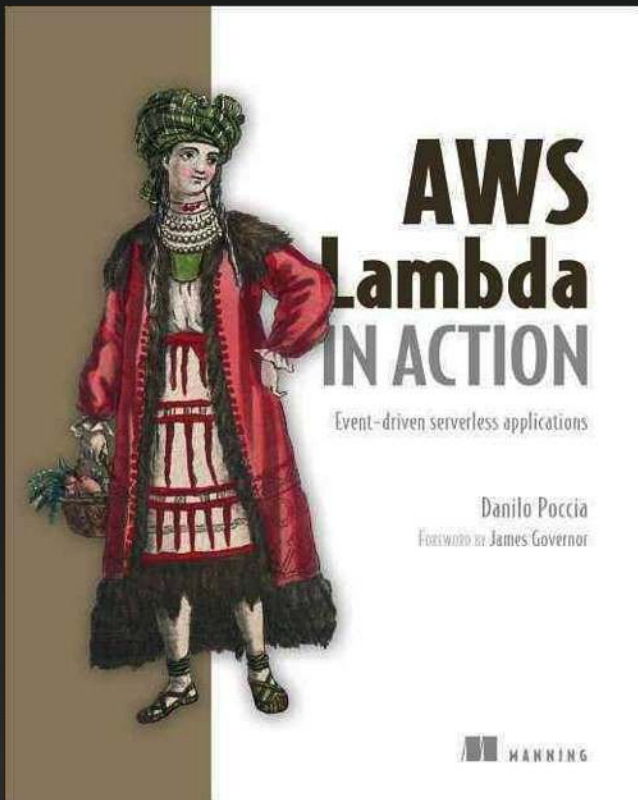
AWS re:Invent 2016: Real-time Data Processing Using AWS Lambda (SVR301) <https://www.youtube.com/watch?v=VFLKOy4GKXQ>

AWS re:Invent 2016: Serverless Architectural Patterns and Best Practices (ARC402) <https://www.youtube.com/watch?v=b7UMoc1iUYw>

AWS re:Invent 2016: Bringing AWS Lambda to the Edge (CTD206) <https://www.youtube.com/watch?v=j26novaqF6M>

AWS re:Invent 2016: Ubiquitous Computing with Greengrass (IOT201) <https://www.youtube.com/watch?v=XQQjX8GTEko>

The only Lambda book you need to read



Written by AWS Technical Evangelist Danilo Poccia

<https://www.amazon.com/Aws-Lambda-Action-Event-driven-Applications/dp/1617293717/>



AWS IoT



Thank you!

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