

# AWS Lambda - Overview and Use Cases

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# Cloud Experience?

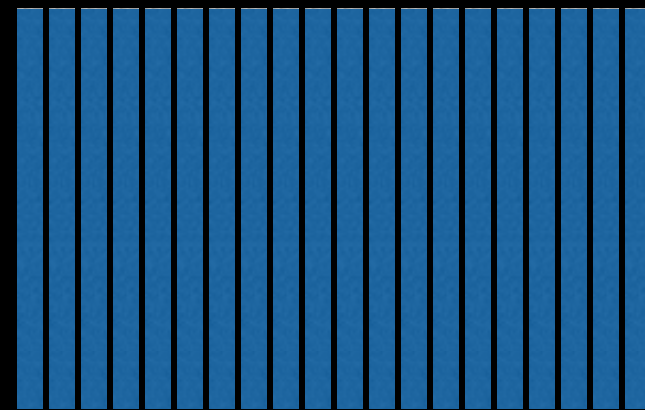
- Amazon Web Services (AWS)
- Microsoft Azure
- Google App Engine
- Heroku
- Rackspace
- DigitalOcean

# Basic Cloud Principles

- Not a silver bullet
- Horizontal Scaling
- Pay as you Go



1 Server - 60 Minutes



60 Servers - 1 Minute

# Traditional Servers vs. Cloud

- Pets vs. Cattle
- Different names by providers:
  - Amazon Elastic Cloud Compute (EC2)
  - Azure Virtual Machine (VM)
  - Google Virtual Machine Instance
- Shared Tenancy
- Pay for when it is turned on
- Level of Indirection/Abstraction



<https://static01.nyt.com/images/2013/01/08/technology/08bits-amazon/08bits-amazon-tmagArticle.jpg>

# AWS Lambda

- Yet another level of indirection
  - Just give me the code!
- Run off of any of a number of triggers
- Pay based on memory size chosen and time to execute code
- Infinitely Scalable



# Use Cases

- <https://github.com/capitalone/cloud-custodian>
- <https://acloud.guru>
- Slack Bots
- Mobile Application Backends
- Alexa Skills
- Cloud Integration with Hardware Hacks
- Run code on a schedule
- Anything else you can create!

# Walkthrough

- Write-up version available on GitHub: <https://github.com/andrewalexander/lambda-talk>
- API Gateway + DynamoDB + Lambda = Fully featured Backend
- Compare to Express/Strongloop + MongoDB + Server