Load Testing the Hard Way

(with JMeter and DigitalOcean)

Micah Silverman | Principal Technical Platform Instructor

July 12, 2018

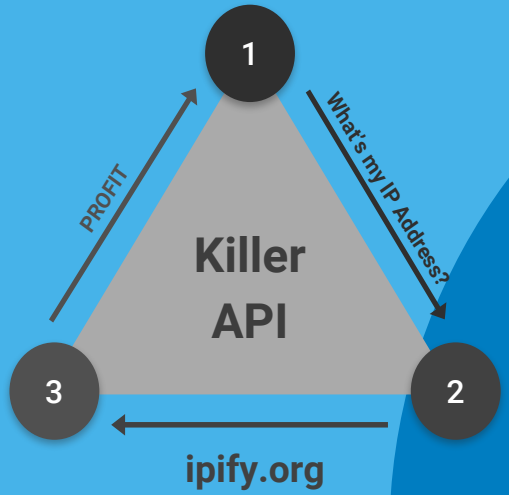
Welcome!

- Agenda
  - The Challenge (5 min)
  - Distributed JMeter (5 min)
  - Digital Ocean (5 min)
  - The Solution (5 min)
  - Docker (5 min)
  - Load Testing the Hard Way (20 min)
  - Okta Overview (5 min)
  - Questions (10 min)

The Challenge:

- You expect your killer API to have millions of users.

- You want to make sure that your killer API can handle the traffic.



Professional Load Testing Cost: $30,000

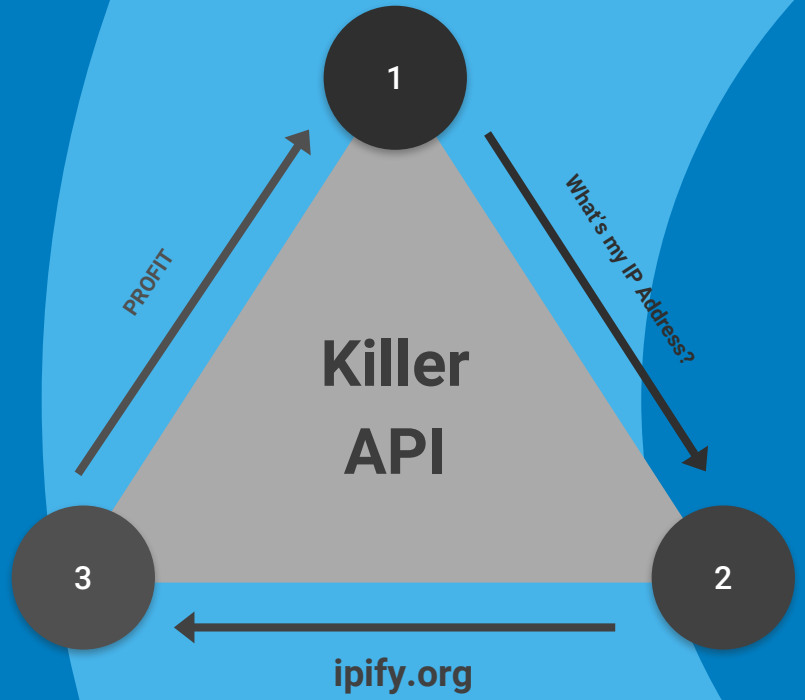
APACHE

JMeter™

DigitalOcean

JMeter + DigitalOcean

- 200 “users” per JMeter server
- 100 JMeter servers
- JMeter servers could be in different regions
- 20,000 simultaneous requests



100 - 8GB, 4CPU Droplets = $0.06 * 100 = $6 / hour
1 - 8GB, 4CPU Droplet = $0.06 / hour

Total cost for 100,000,000 requests = $6.06

docker

The Hard Way

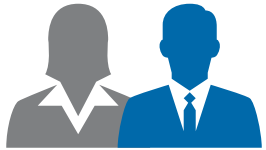
The Hard Way Components:

- Spring Boot
- Apache HTTPClient
- DigitalOcean API
- SSH
- Distributed JMeter

The Hard Way Process:

1. Create *n* DO server droplets
    a. confirm all created
2. Wait for all server droplets to be active
3. Add all server droplets to firewall
4. Start JMeter on all server droplets
    a. confirm JMeter started on all
5. Create DO client droplet
    a. confirm created
6. Wait for client droplet to be active
7. Add client droplet to firewall
8. Push test plan to client droplet
9. Start JMeter on client droplet
    a. confirm JMeter started

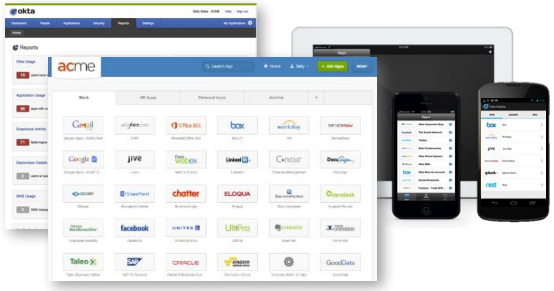
Okta Enables Companies to Secure Both IT & API

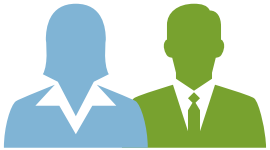


Employees,
Contractors

okta

Identity Service:
Identity Management
Strong Authentication

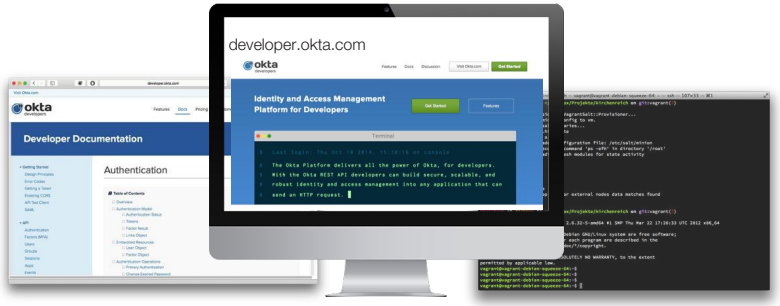




Partners,
Customers

okta

Identity API Products:
Identity API for Any App
Developer Tools
and Community



Shout out!

- ipify.org
- whoisxmlapi.com
- geoipify.whoisxmlapi.com

Resources

- Load Testing the Hard Way Code
  - https://github.com/dogeared/load-testing-the-hard-way-example
- JMeter - https://jmeter.apache.org/
- Digital Ocean API
  - https://developers.digitalocean.com/documentation/v2
- Docker - https://www.docker.com/
- Docker + JMeter - https://github.com/ajeetraina/jmeter-docker
- Free Okta Org for Developers - https://developer.okta.com
- Okta Training - https://www.okta.com/services/training/
- Twitter - @afitnerd @OktaDev

okta
Thank You