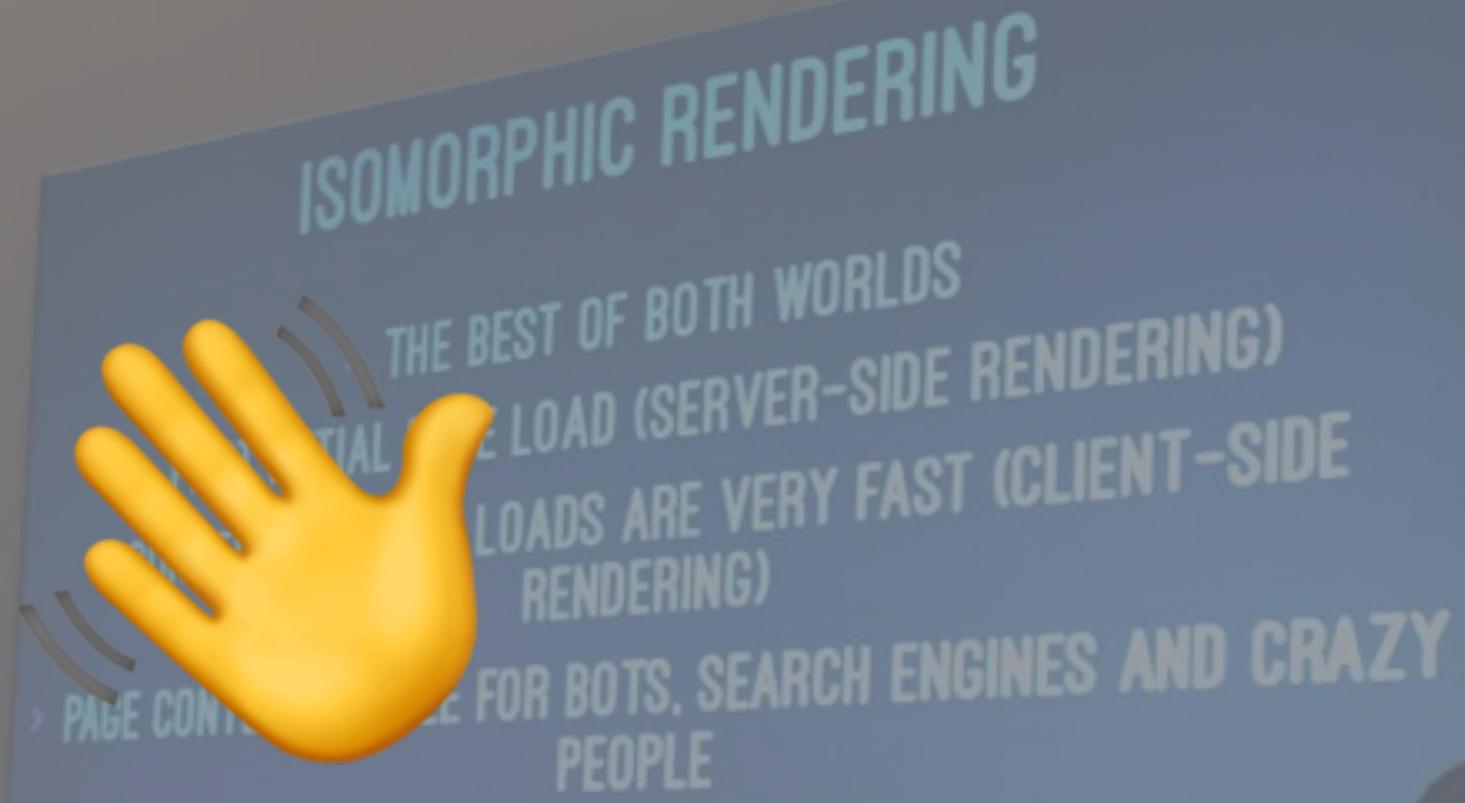


**Server-Side
Swift
In Production**

@ksmandersen





SPIL
PRISEN
2018



**Server-Side
Swift
In Production**

Is it ready?

It depends

Let's grade Vapor

→ Performance **A+**

Let's grade Vapor

→ Performance **A+**

→ Stability **A-**

Let's grade Vapor

- Performance **A+**
- Stability **A-**
- Framework and language changes **C**

Let's grade Vapor

- Performance **A+**
- Stability **A-**
- Framework and language changes **C**
- Eco-system **E/F**

Let's grade Vapor

- Performance **A+**
- Stability **A-**
- Framework and language changes **C**
- Eco-system **E/F**
- Community **A-**

Security

Headers

→ Cross-site Scripting (XSS)

 → SSL downgrade

 → Content Injection

 → Click-jacking

👉 [brokenhandsio/VaporSecurityHeaders](https://github.com/brokenhandsio/VaporSecurityHeaders)

SSL

letsencrypt.org

SSL

letsencrypt.org

- Remember Strict-Transport-Security (HSTS)
 - Auto-renewal
- Wildcard certificates (introduced in march)

Deployment

This, Jen, is The Internet

Deployment

→ Vapor Cloud

→ Docker

→ Heroku

→ Dokku

vapor cloud

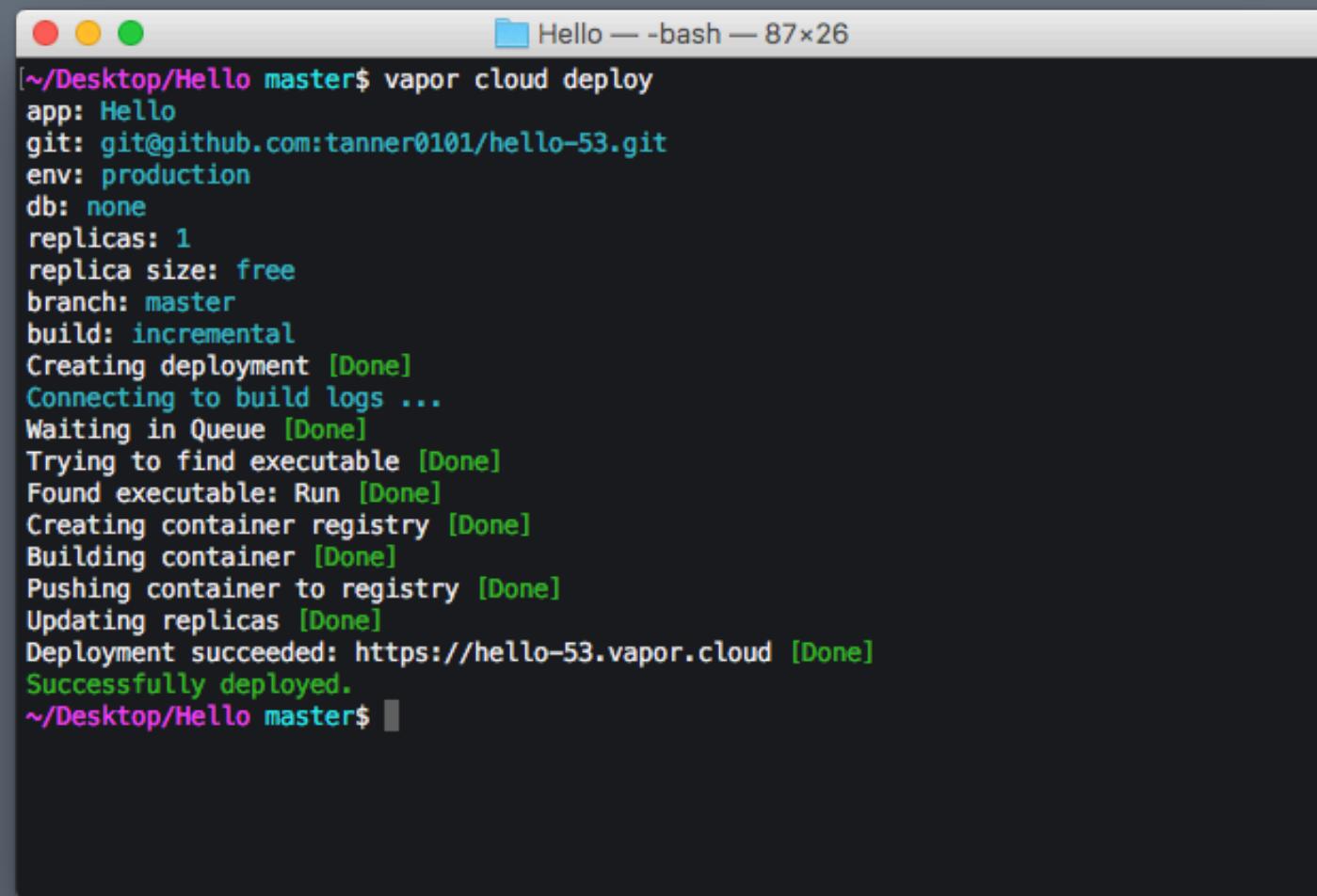
Vapor Cloud

- Designed specifically for Vapor by the Vapor team
 - Reasonable pricing with a free plan
 - Well-documented
 - Great CLI support

Vapor Cloud

- Highly scalable
- Caching with Redis
- Zero-downtime deploys
- Monitoring & Metrics
- Easy S3 & CDN integration

Vapor Cloud



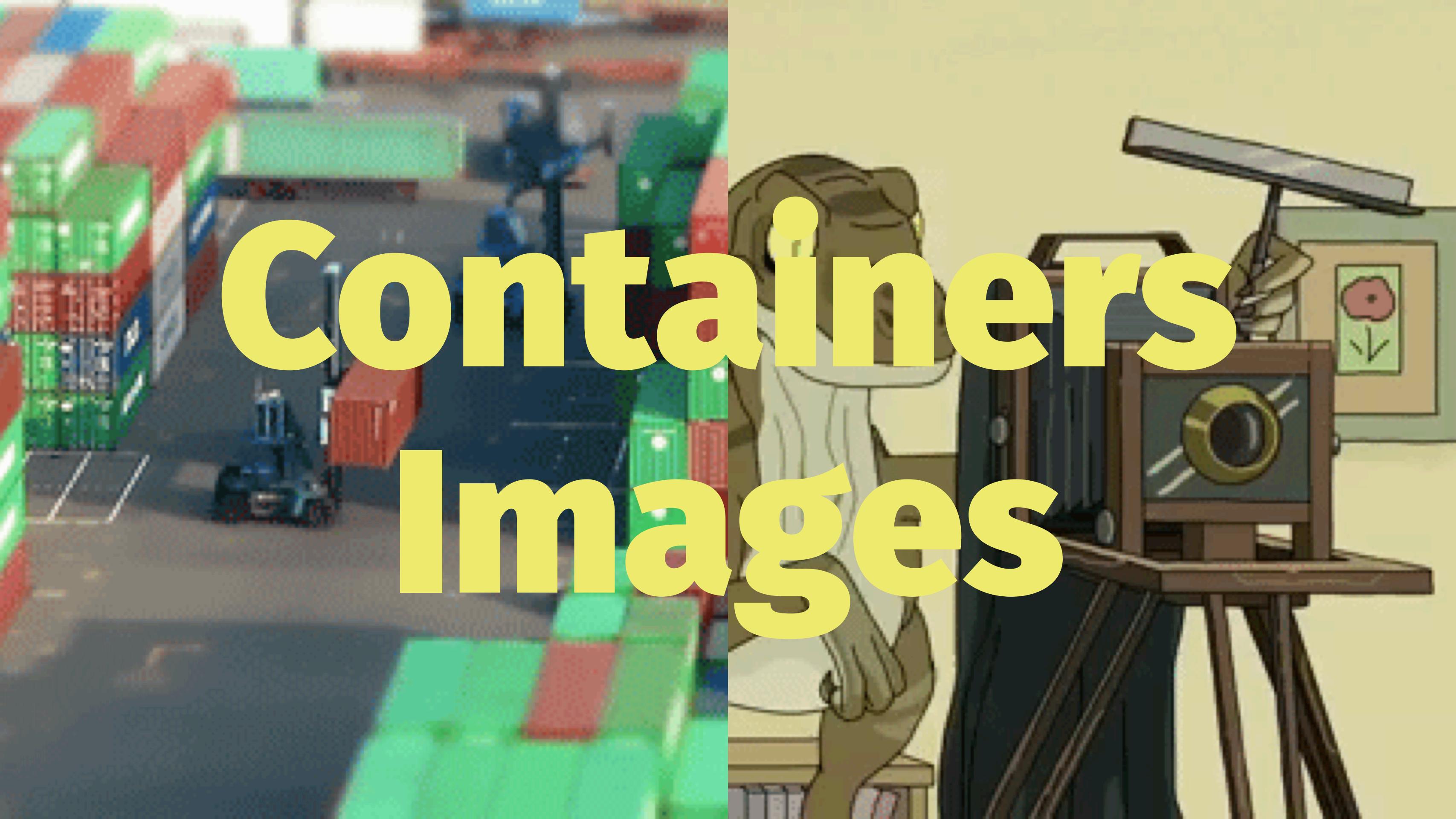
```
[~/Desktop/Hello master$ vapor cloud deploy
app: Hello
git: git@github.com:tanner0101/hello-53.git
env: production
db: none
replicas: 1
replica size: free
branch: master
build: incremental
Creating deployment [Done]
Connecting to build logs ...
Waiting in Queue [Done]
Trying to find executable [Done]
Found executable: Run [Done]
Creating container registry [Done]
Building container [Done]
Pushing container to registry [Done]
Updating replicas [Done]
Deployment succeeded: https://hello-53.vapor.cloud [Done]
Successfully deployed.
~/Desktop/Hello master$ ]
```

Docker

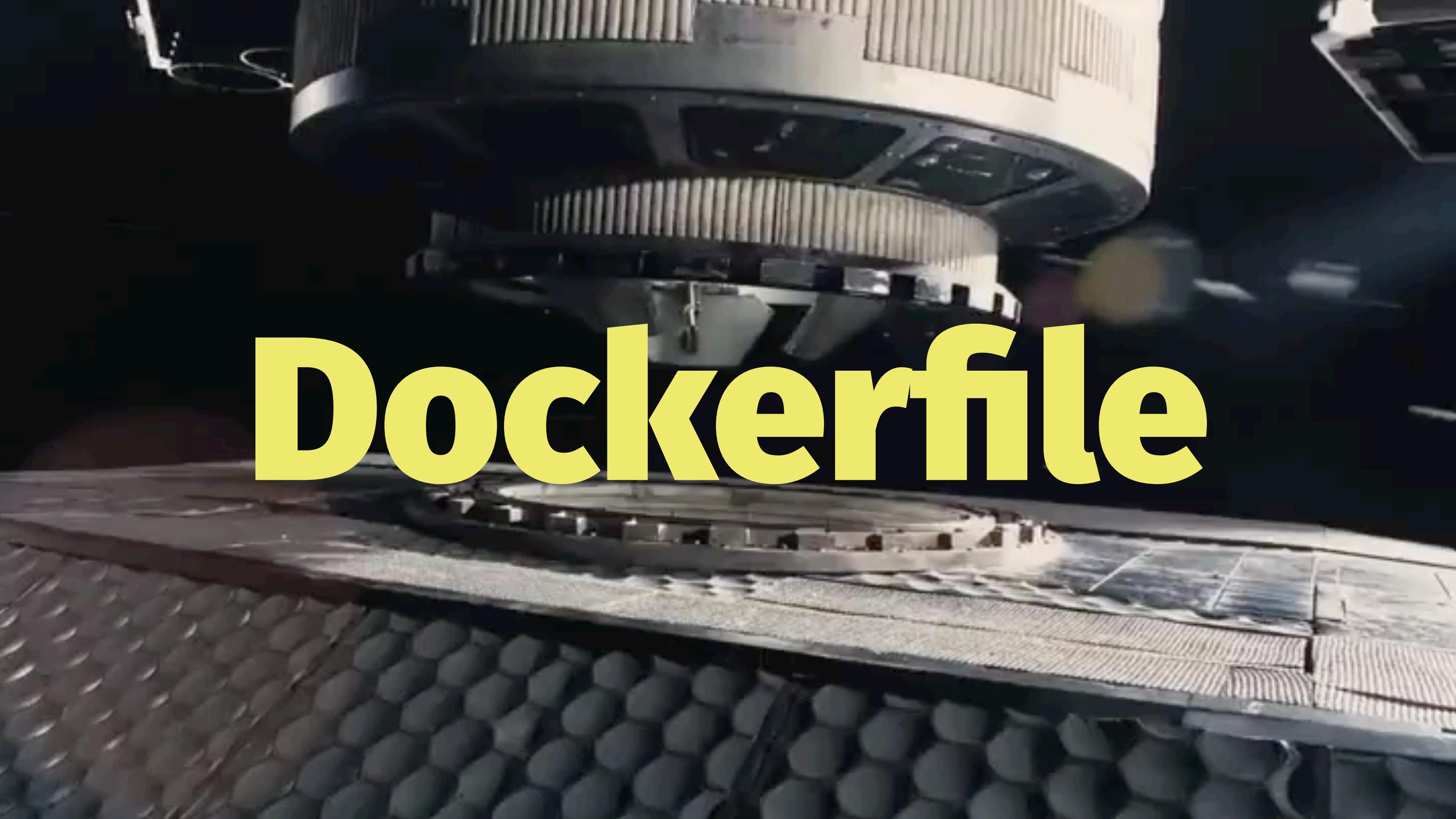
Docker

- Runs everywhere
- Open Source
- Endlessly configurable
- Run on Linode for \$5

**WTF is
Docker?**

A collage of images illustrating various types of containers and images. On the left, there's a stack of colorful shipping containers in green, red, and blue. In the center, a person wearing a white lab coat and a yellow hard hat is holding a large, dark brown leather briefcase. To the right, there's a vintage-style camera mounted on a tripod, pointing towards the right side of the frame.

Containers Images

A black and white photograph of a vintage typewriter's keyboard and carriage mechanism. The keys are visible, along with the metal frame and the carriage return lever. The lighting is dramatic, highlighting the textures of the metal and the keys.

Dockerfile

Dockerfile

```
FROM swift:4.1 as builder
RUN apt-get -qq update && apt-get -q -y install \
    your-dependencies-here # e.g. libmysqlclient-dev
WORKDIR /app
COPY . .
RUN mkdir -p /build/lib && cp -R /usr/lib/swift/linux/*.so /build/lib
RUN swift build -c release && mv `swift build -c release --show-bin-path` /build/bin

FROM ubuntu:16.04
RUN apt-get -qq update && apt-get install -y \
    libicu55 libxml2 libbsd0 libcurl3 libatomic1 \
    your-release-dependencies-here \ # e.g. libmysqlclient20
    && rm -r /var/lib/apt/lists/*
WORKDIR /app
COPY Resources/ ./Resources/
COPY Public/ ./Public/
COPY --from=builder /build/bin/myappbinary .
COPY --from=builder /build/lib/* /usr/lib/
EXPOSE 8080
CMD ["./myappbinary", "serve", "--env", "production", "--hostname", "0.0.0.0"]
```

Demystifying Docker

demystifying
docker



#1: docker vs vagrant

Dokku

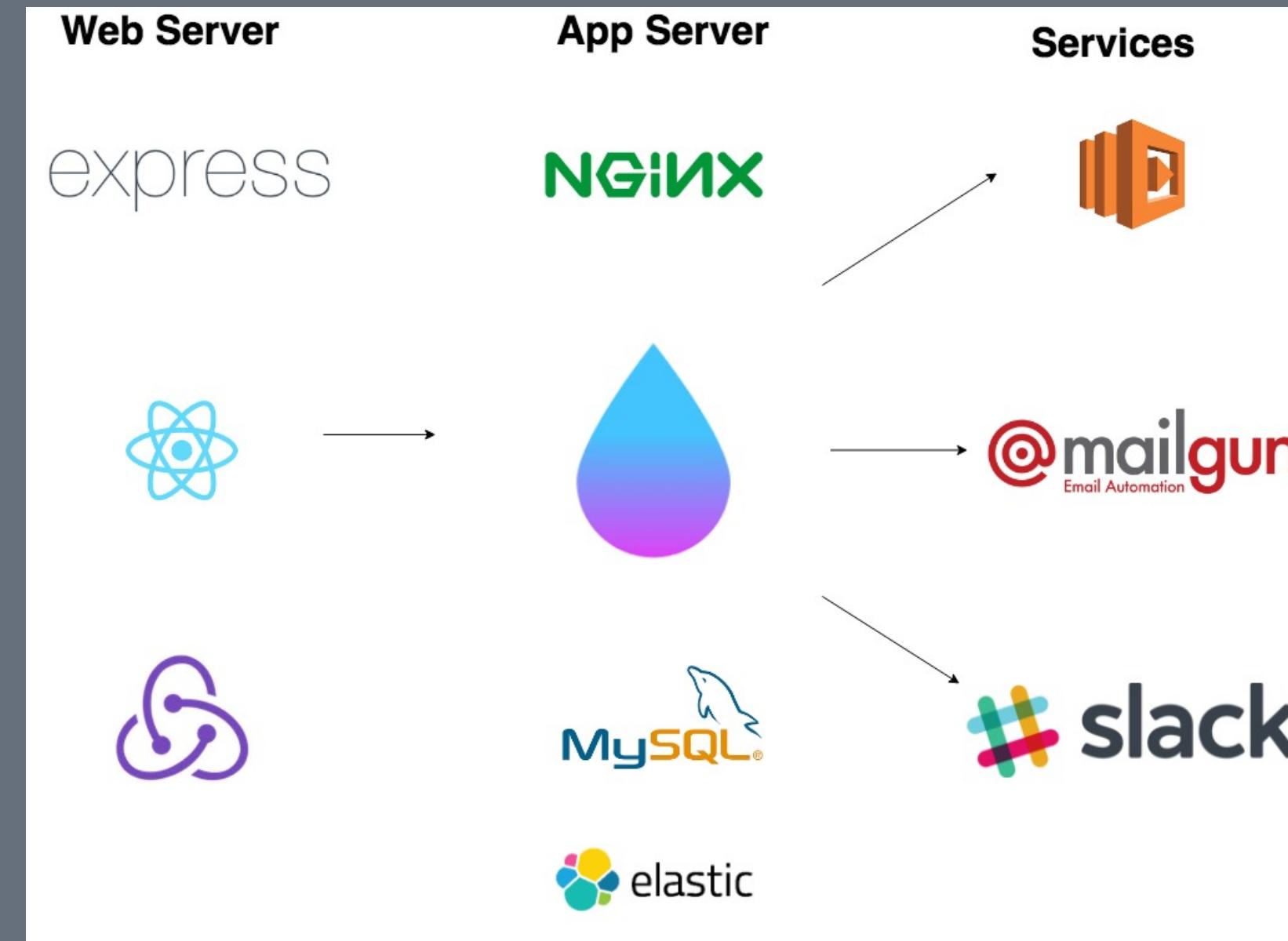
Dokku

- Runs almost anywhere
 - Open Source
- Uses docker for infrastructure
 - Deploy with git

Dokku

- Any Database you want: mysql / postgres / sqlite
- Automated Lets Encrypt enrollment and renewal
 - Many community plugins

Our stack



Demotime



@ksmandersen