

# Balancing Power & Pain

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Moving a Startup  
from a PaaS to Kubernetes

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**GoSpotCheck**

**Toni Rib**  
**Gusto**

# Dave Sudia



DevOps Engineer

# Software Engineer



# Toni Rib



# The People Platform

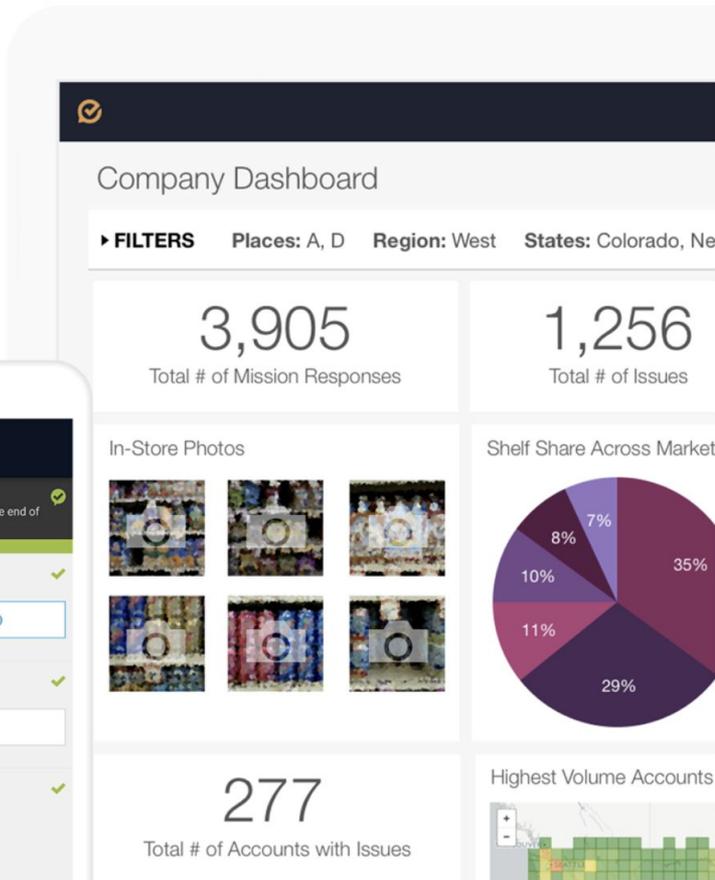
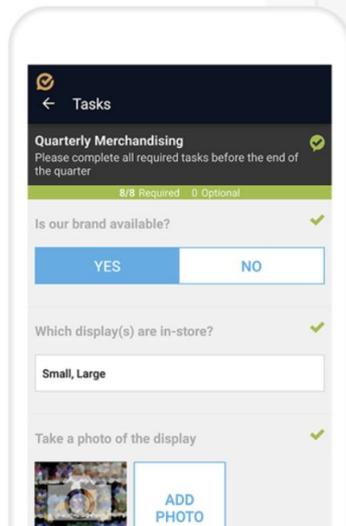
Small business payroll, benefits,  
HR, and everything else





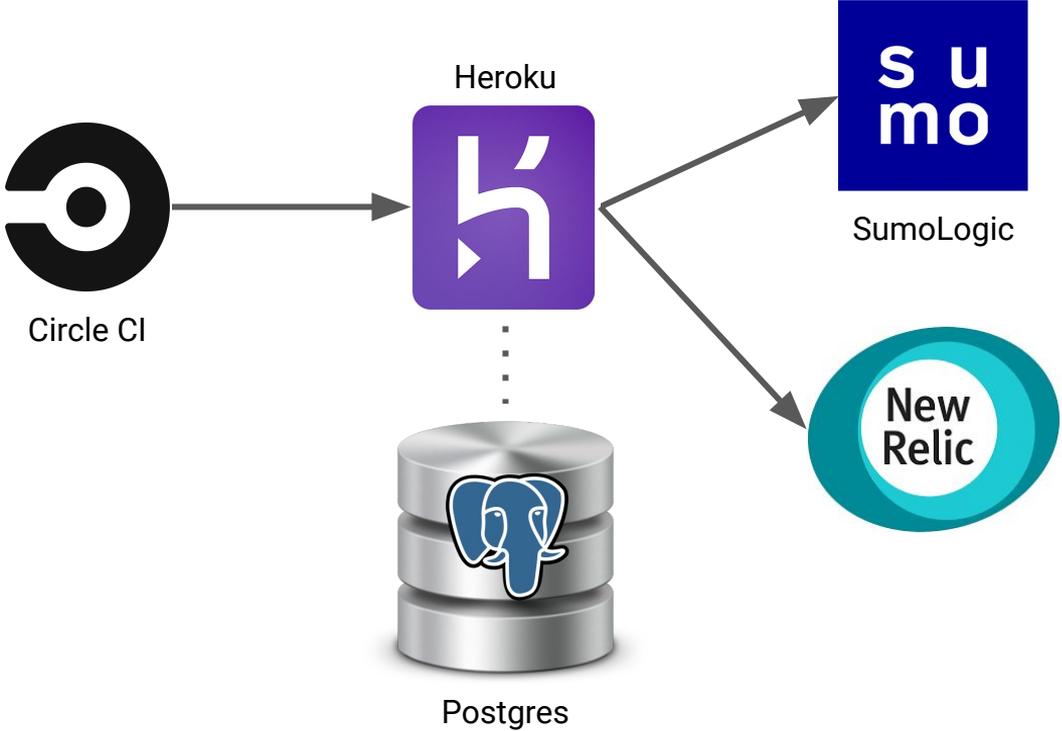
# About GoSpotCheck

- 200+ customers
- 135 Employees
- 8+ years
- \$45m invested
- ~200,000 task responses/day
- ~200,000 auth calls/min



Heroku

# The Stack



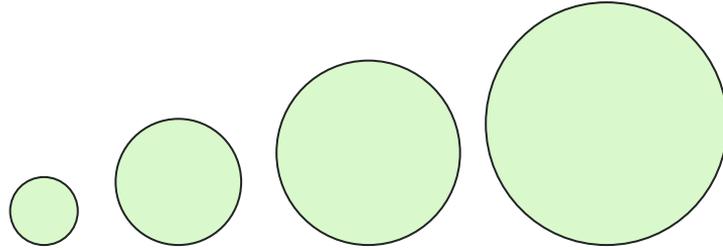
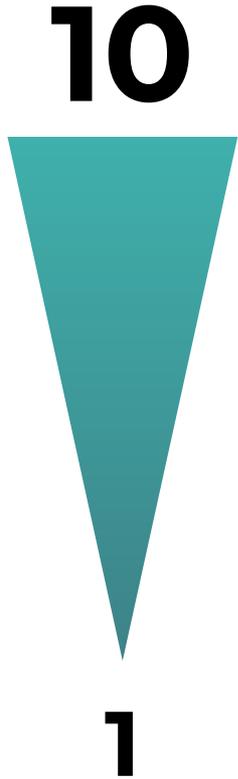
# Running on a PaaS

- 
- Doesn't require DevOps
  - Scales fast
  - Everything can be attached
  - Powerful Ops

- Expensive
- Cookie-cutter
- Only scales so far

Scale

# Limitations



“ Well, that person  
just isn't getting  
their report. ”

- GSC DevOps Lead

*phase one*

Throw money at it!!!

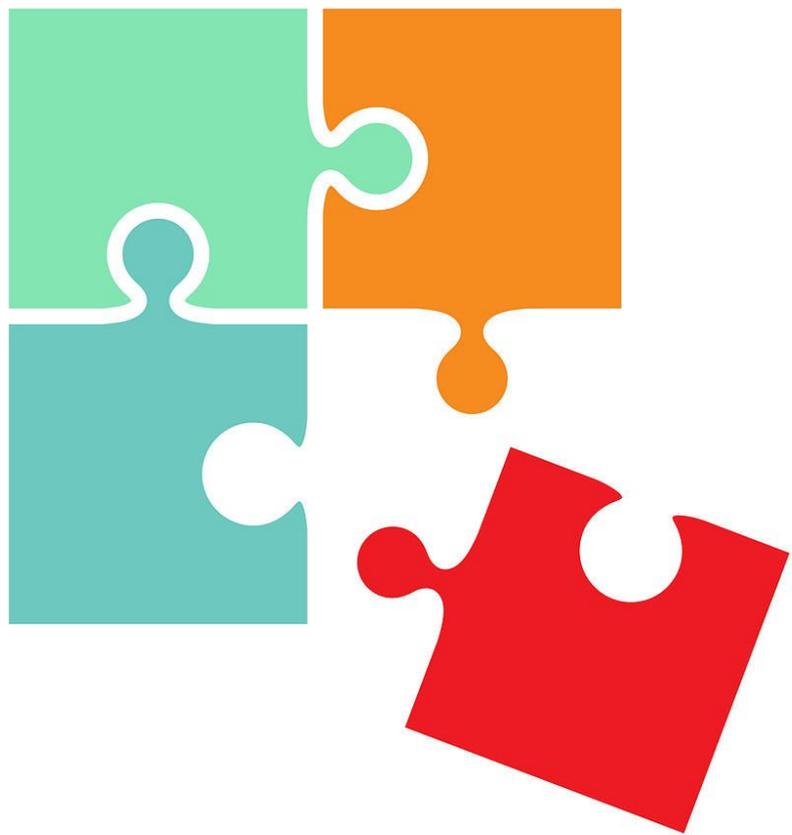
*phase two*

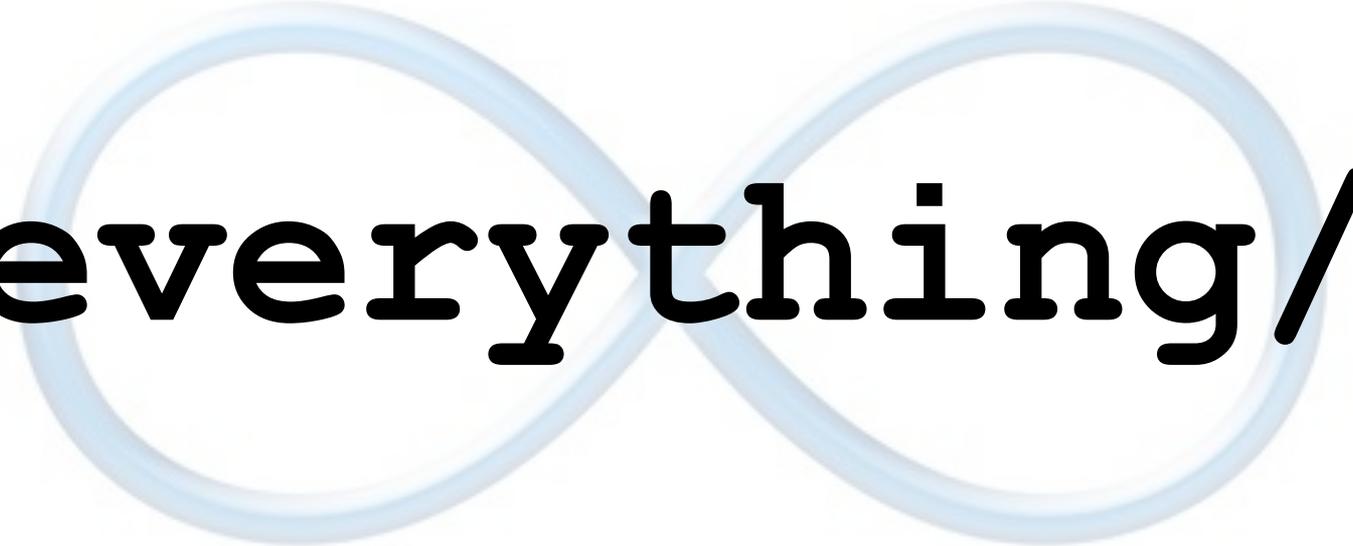
Stop throwing money at it!!!

# Defining the Requirements









**<everything/>**





*How do  
we do...*

**Containers?**

**Metrics?**

**Tracing?**

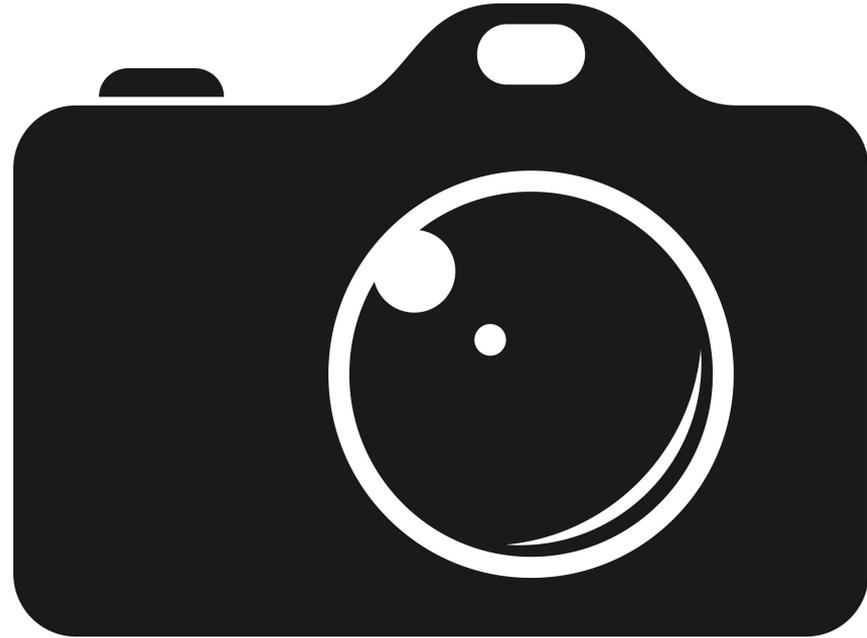
**Logging?**

**Deployment?**

**Networking?**

**TRAINING?**





# Migration

Vendors  
poorly  
support open  
standards

DIY until  
support  
comes

Advocate for  
open  
standards

DevOps  
iterating as  
fast as  
developers

Infra as Code  
  
Evolutionary  
architecture

Can't iterate  
fast enough

Giving  
people  
tools and  
freedom

More tools  
than devs  
can learn at  
once

Team champion

Training &  
pairing

Containerizing  
an  
existing app

Trial & error

DevOps +  
developer  
pairing

Translating  
PaaS  
concepts

Make a map

Choose what  
you can lose

Where to  
deploy clusters  
to prevent  
network  
latency

Deploy it  
around and  
test

Continuous  
Delivery  
pipeline  
accessibility

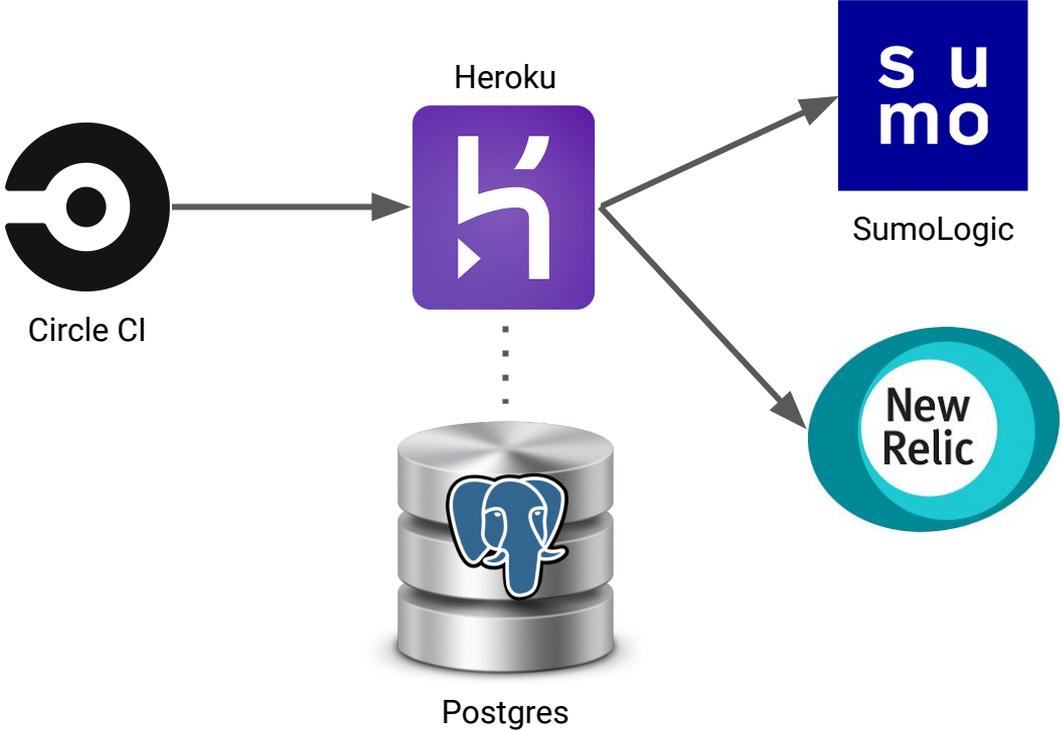
Use a  
GUI-based  
CD solution

Routing issues  
(http vs. https)

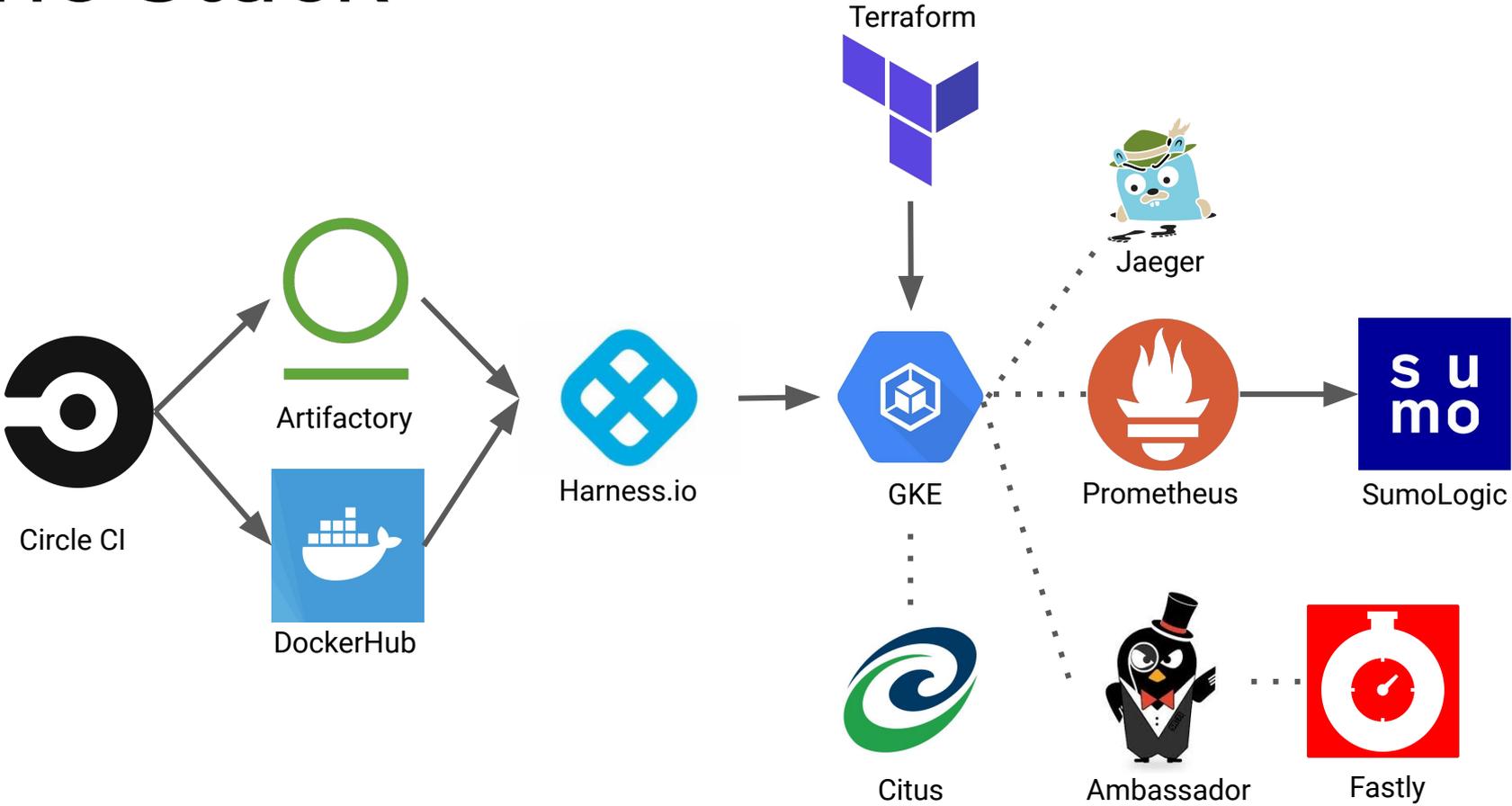
Rails 5  
upgrade +  
Ambassador

# Going to Production & Reflections

# The Stack



# The Stack



# Production Ready



April 2019

# *Capabilities we gained*

Still have easy deploys, now with additional verification

More control over migrations & rolling back

More control over scale

Roll back and roll forward at will, with containers

Blue/green deploys

Run pretty close to a real DevOps model

# Reflections

**Everything goes faster when DevOps & application developers work together**

**Trial and error is part of the process**

**Taking the time for training and documentation is important**

# Reflections

**Know what you want to optimize for**

**Can you wait 6 months?**



# Questions?

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