

Deployment Process as Code

Mar 2020, Vitaliy Melnychuk

Yes, we do have
process

Projects & Priorities

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Asana

No requirements!

- Board per project
-

Asana

No requirements!

- Board per project
 - Own and manage your project
-

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 - Shared status board
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Asana

No requirements!

- Board per project
 - Own and manage your project
 - Shared status board
 - Store all business context there
-

Github

Something for developers

- Repositories



Github

Something for developers

- Repositories
- Labels to manage status



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 - Github linting feature for PR dependencies
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 - Proof of concepts
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Github

Something for developers

- Repositories
 - Labels to manage status
 - Github linting feature for PR dependencies
 - Proof of concepts
 - Notifications
-

Slack

Communication is important

- Private is not good
-

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- Private is not good
- Use mentions in channels



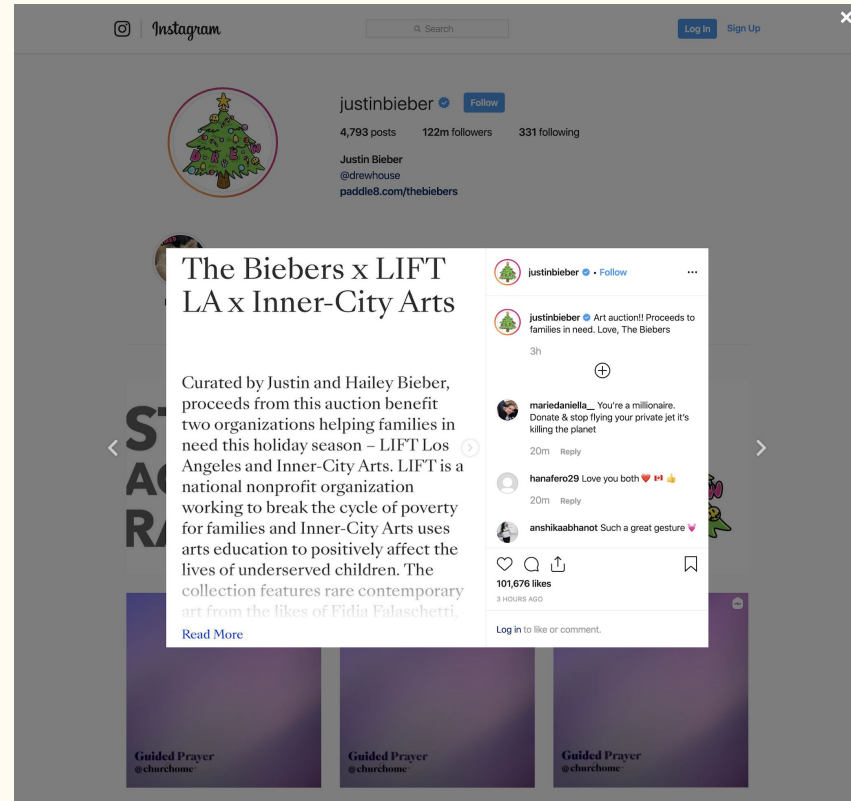
Slack

Communication is important

- Private is not good
 - Use mentions in channels
 - Communication and notifications
-

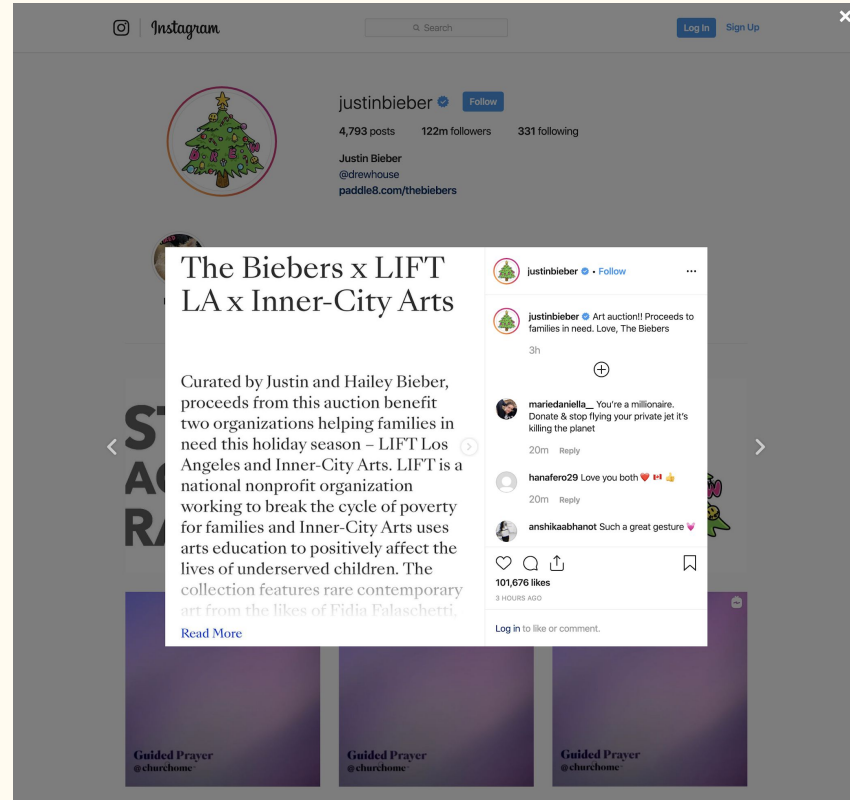
k8s & Deployment velocity

1. Confidence in changes
2. Deployment velocity

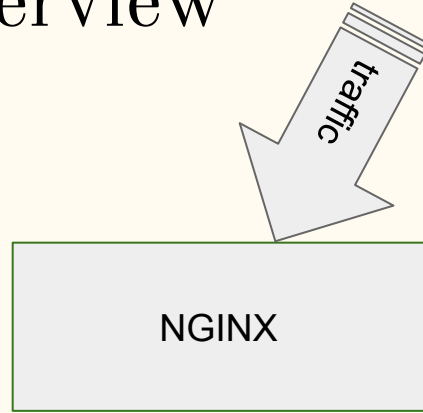


k8s & Deployment velocity

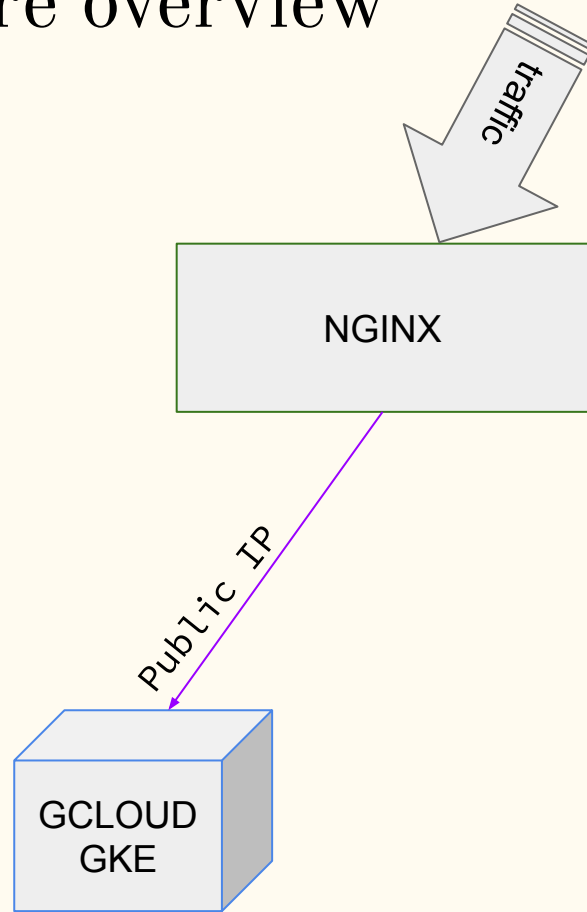
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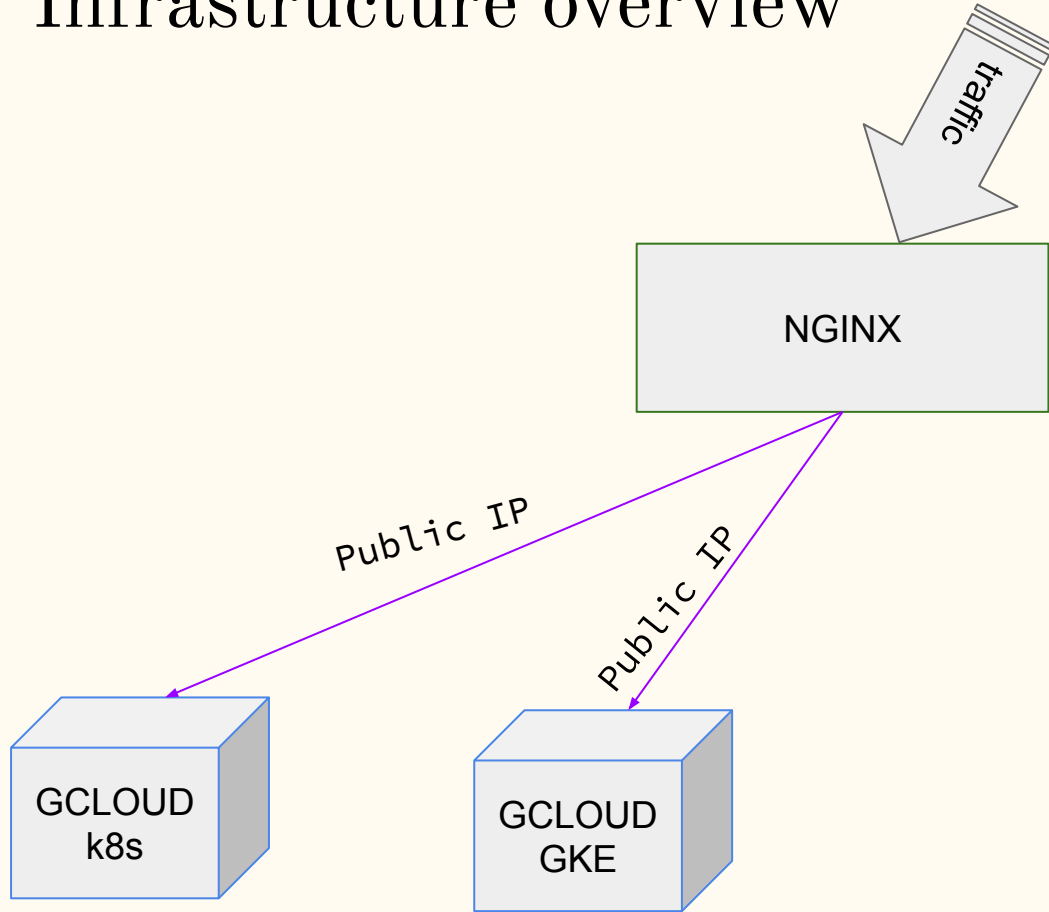
Infrastructure overview



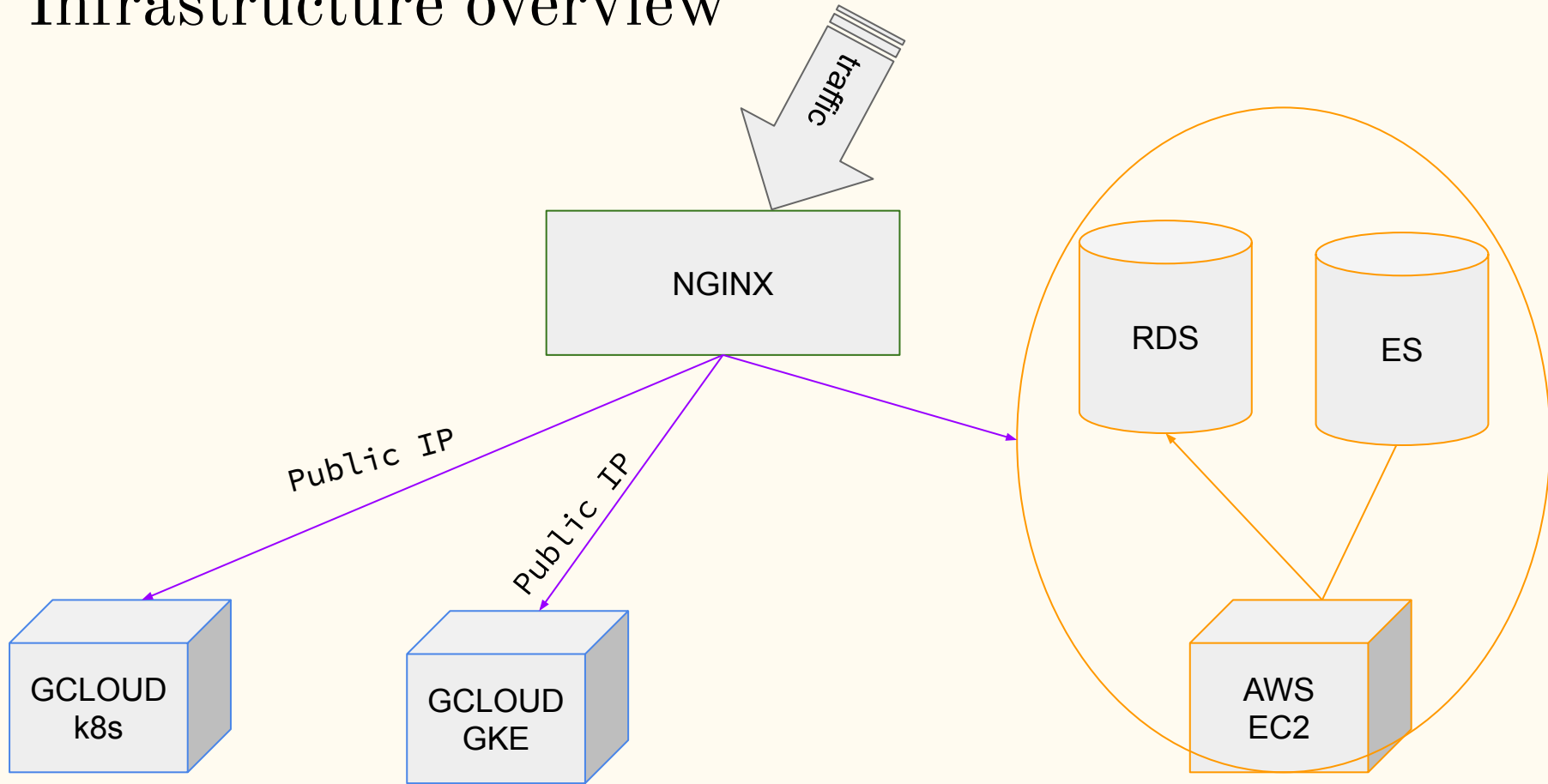
Infrastructure overview

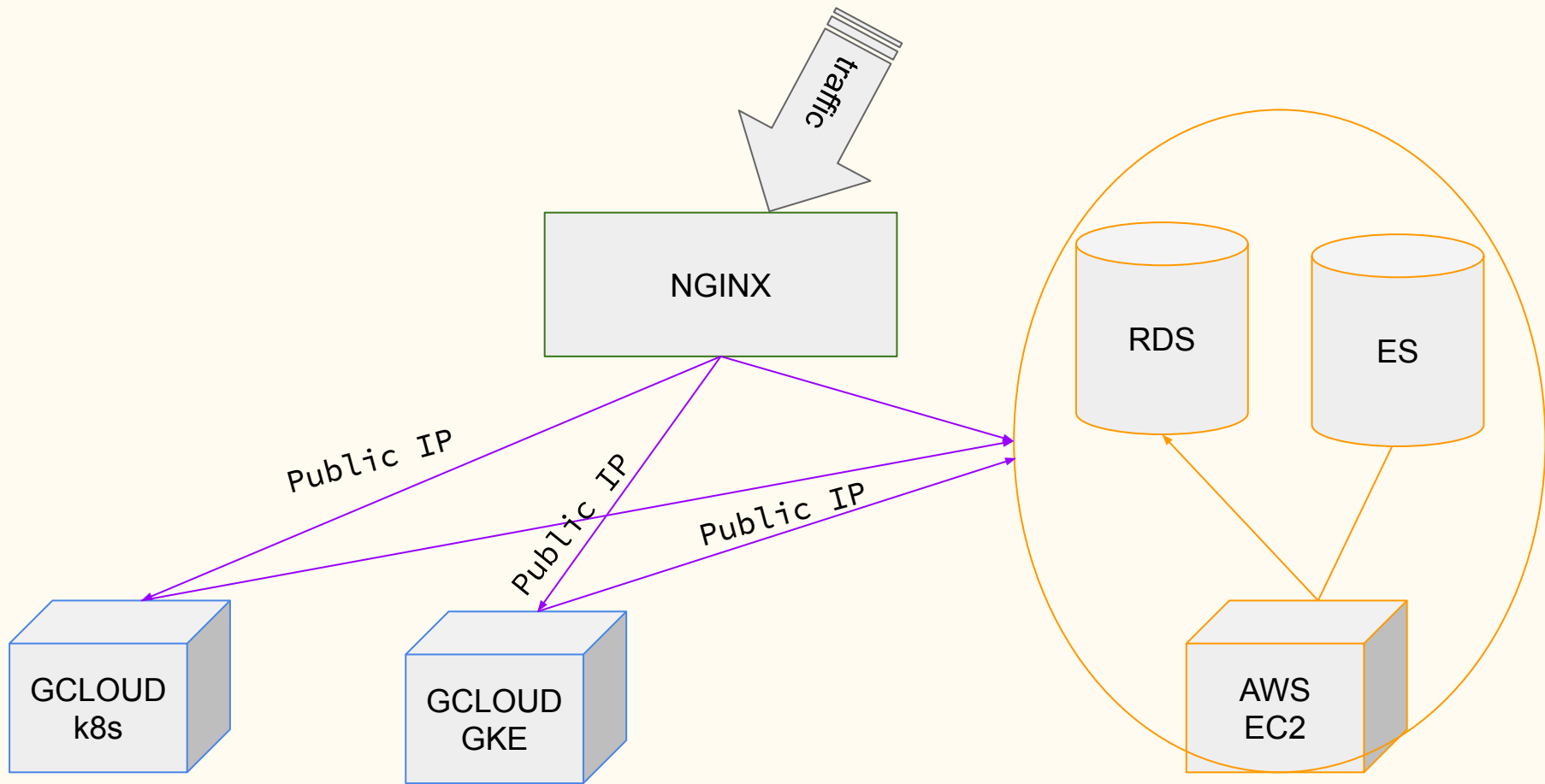


Infrastructure overview

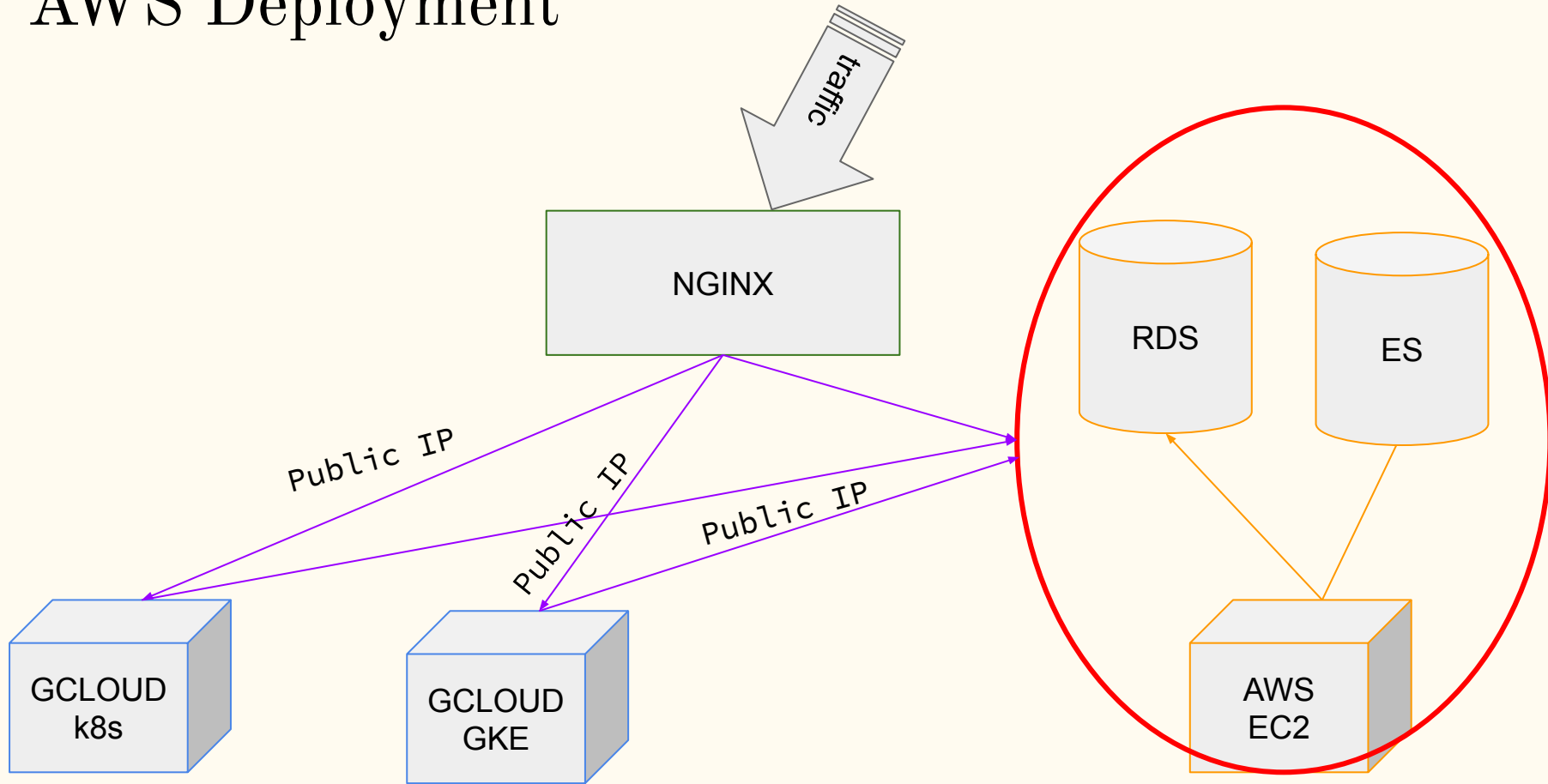


Infrastructure overview



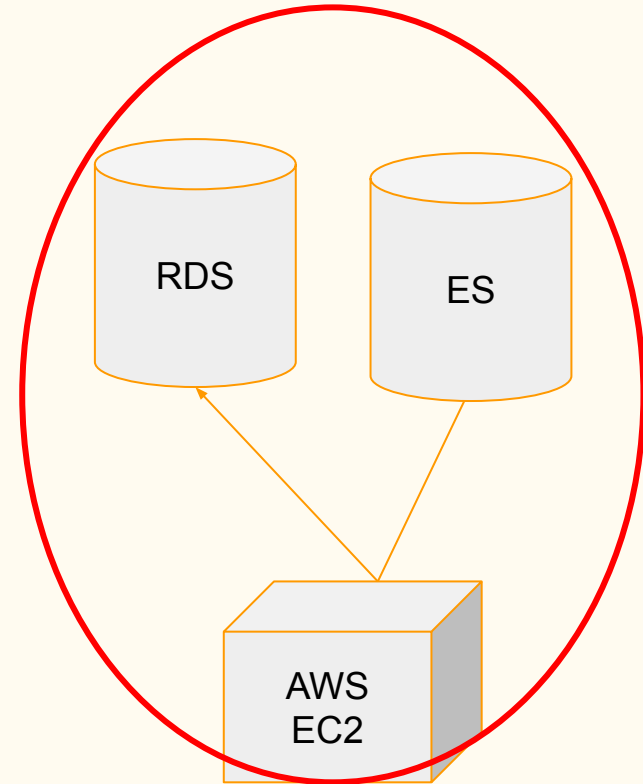


AWS Deployment

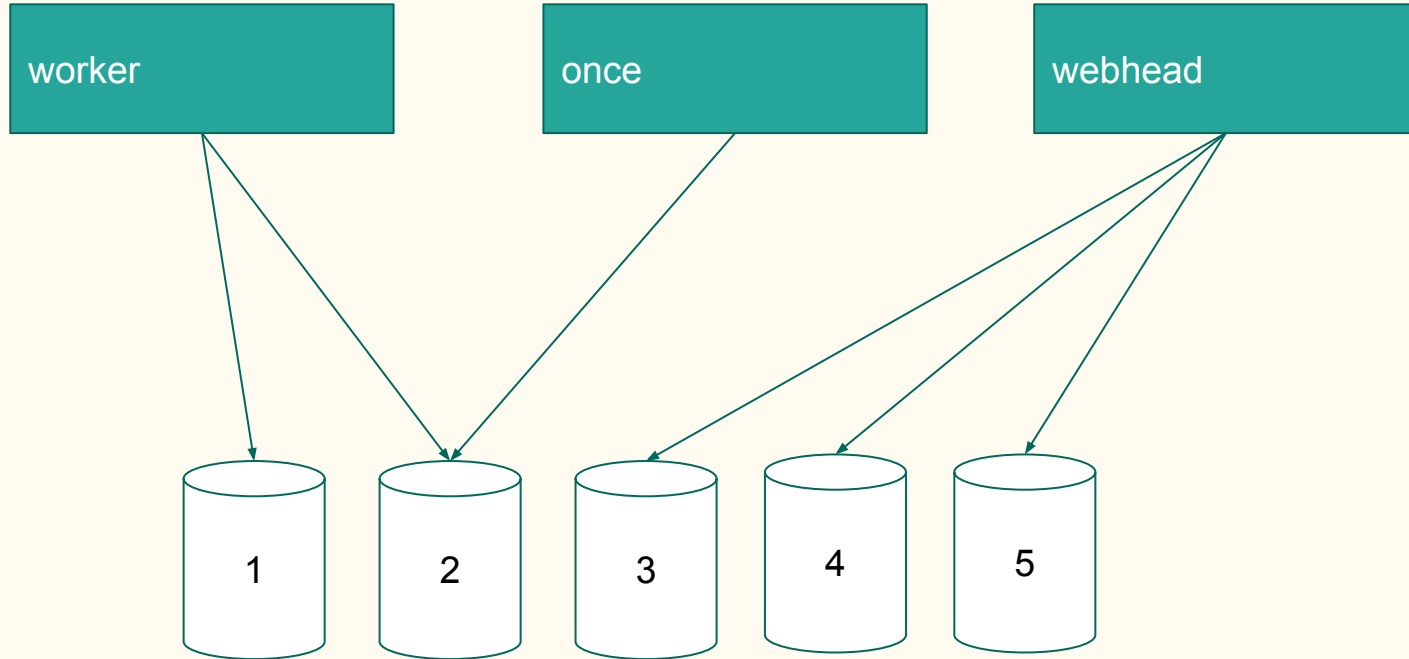


AWS Deployment


- <https://fabric.io>
- <https://aws.amazon.com/opsworks>



Fabric & OpsWorks roles



Fabric & OpsWorks deployment



It's Friday!
Time to deploy



Fabric & OpsWorks deployment

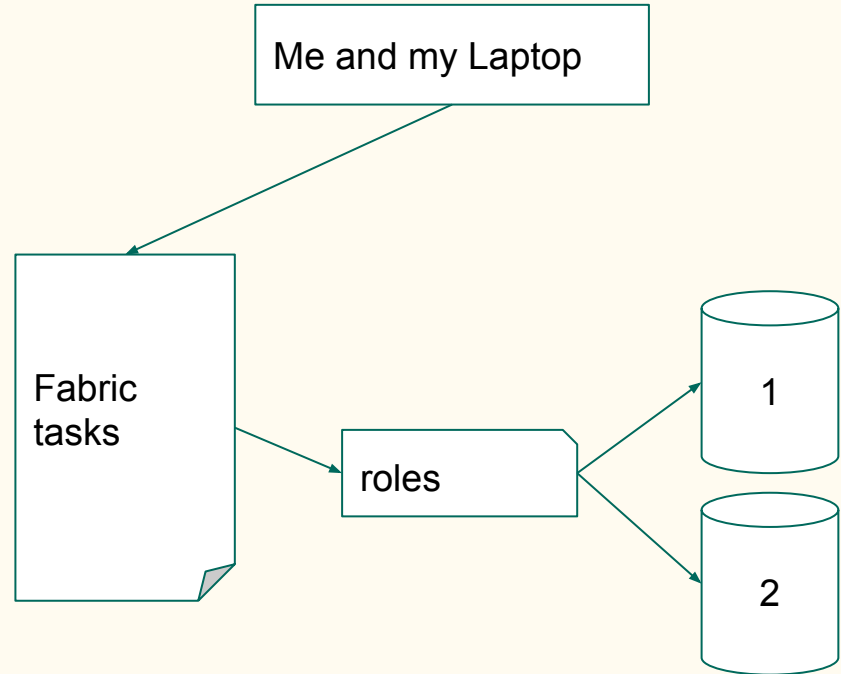
A word on deploying *from your computer*

Nauman and PHP both require you to use your own computer for deployment. Because of this, please take some pre-cautionary steps to ensure your computer will run smoothly while deploying:

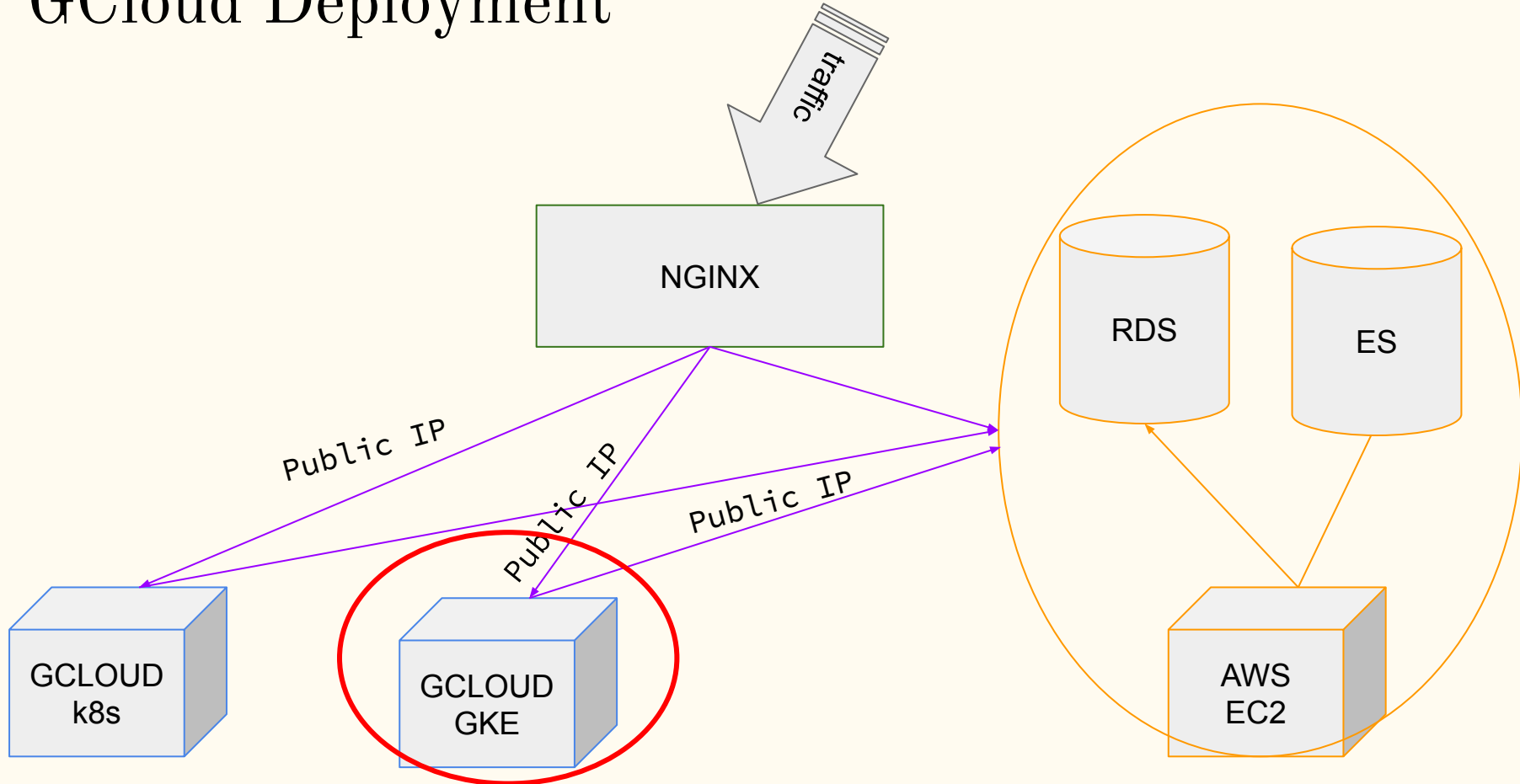
- Laptop connected to power source or enough battery (30% +)
- Reliable internet connection
- No impending sudden restarts (by a OS update or otherwise)
- etc.

Fabric & OpsWorks deployment

1. Charge my laptop
2. Check internet connection
3. Disable auto updates
4. Find environment variables for deployment
5. Try on staging!



GCloud Deployment



Git and bash scripts

SSH

Find right user

Run bash script

```
# Git pull  
# Update all dependencies  
# Tell gunicorn to reload  
# Enjoy or not!
```

Git and bash scripts

SSH

Find right user

Run bash script

- # Git pull
- # Get commit hash
- # Update all dependencies
- # Tell gunicorn to reload
- # Add status file available online
- # Show both -> previous and current versions
- # **Be ready to rollback as quickly as possible**

Canary deployment

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We need better
deployment!

CircleCI

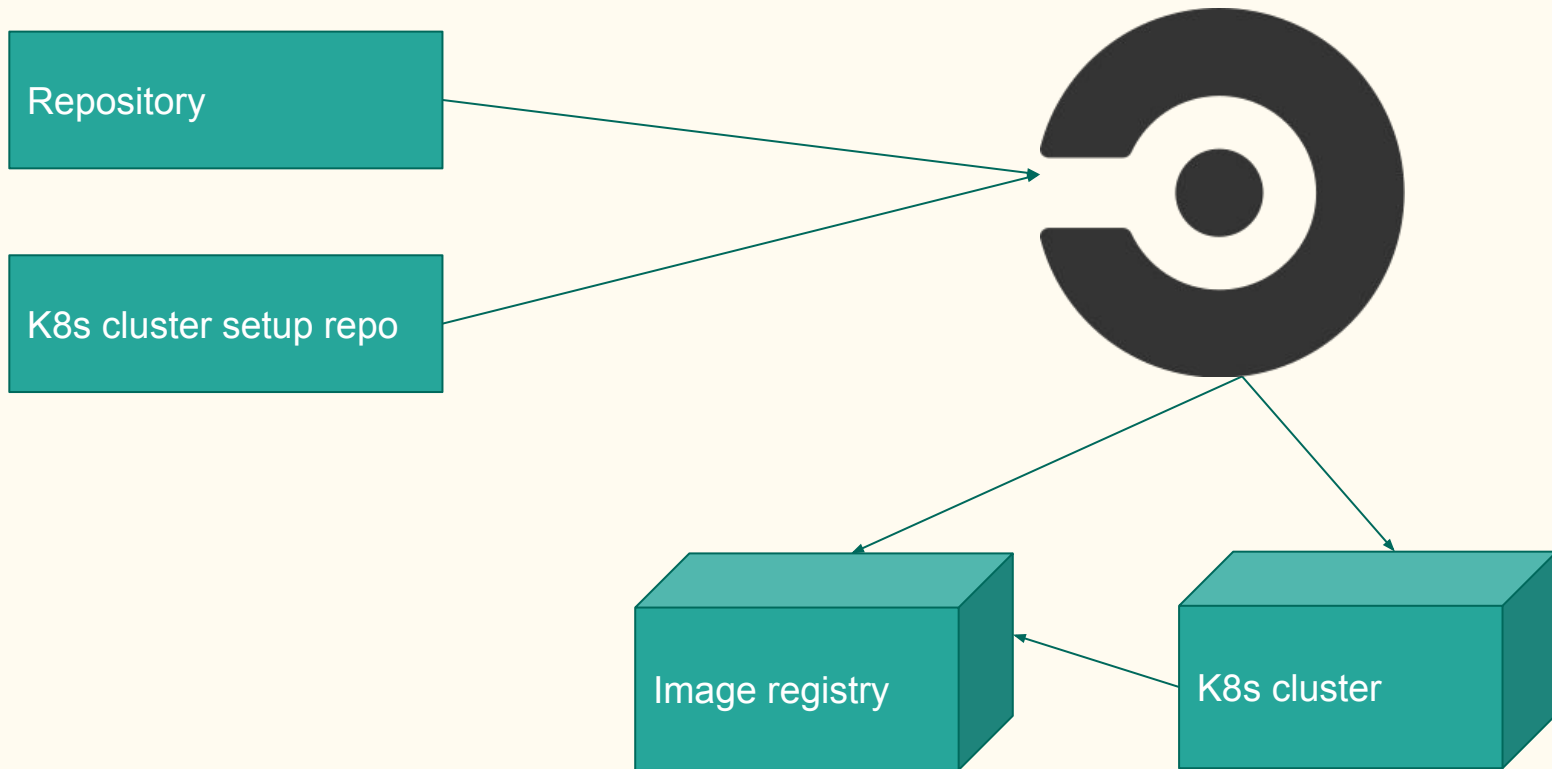


Are we ready to
deploy with
CircleCI?

Attention!



A word about setup



deployments and services

- K8s config inside each repo
 - One repository
-

Cluster per
environment

Application CircleCI job

- Run linting/formatting checks
- Run tests
- Build image
- Push image to registry

K8s all branches CircleCI job

- Get Gcloud credentials
- Apply deployment services for staging

You are good to
deploy more than
one app

You cannot deploy
everything

Migration/Task/Deployment

Approve
Merge
Deploy

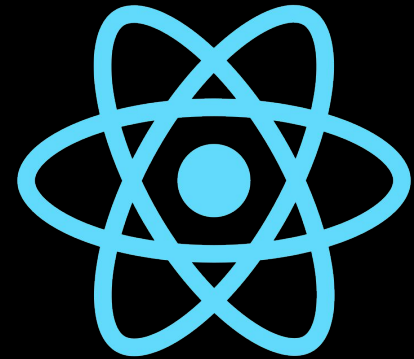
- CircleCI - build agent
 - Docker & K8s - infrastructure as Code
 - Github - Deployment as Code
-

Mobile apps



Attention!

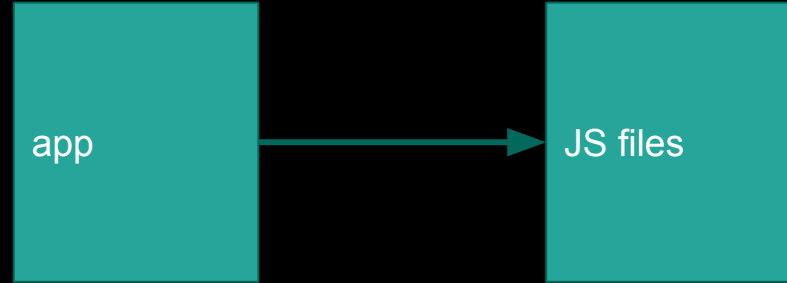
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It's not about Apple

A word about React Native

- Expo
- Versionable
- OTA
- Use hash to find right JS



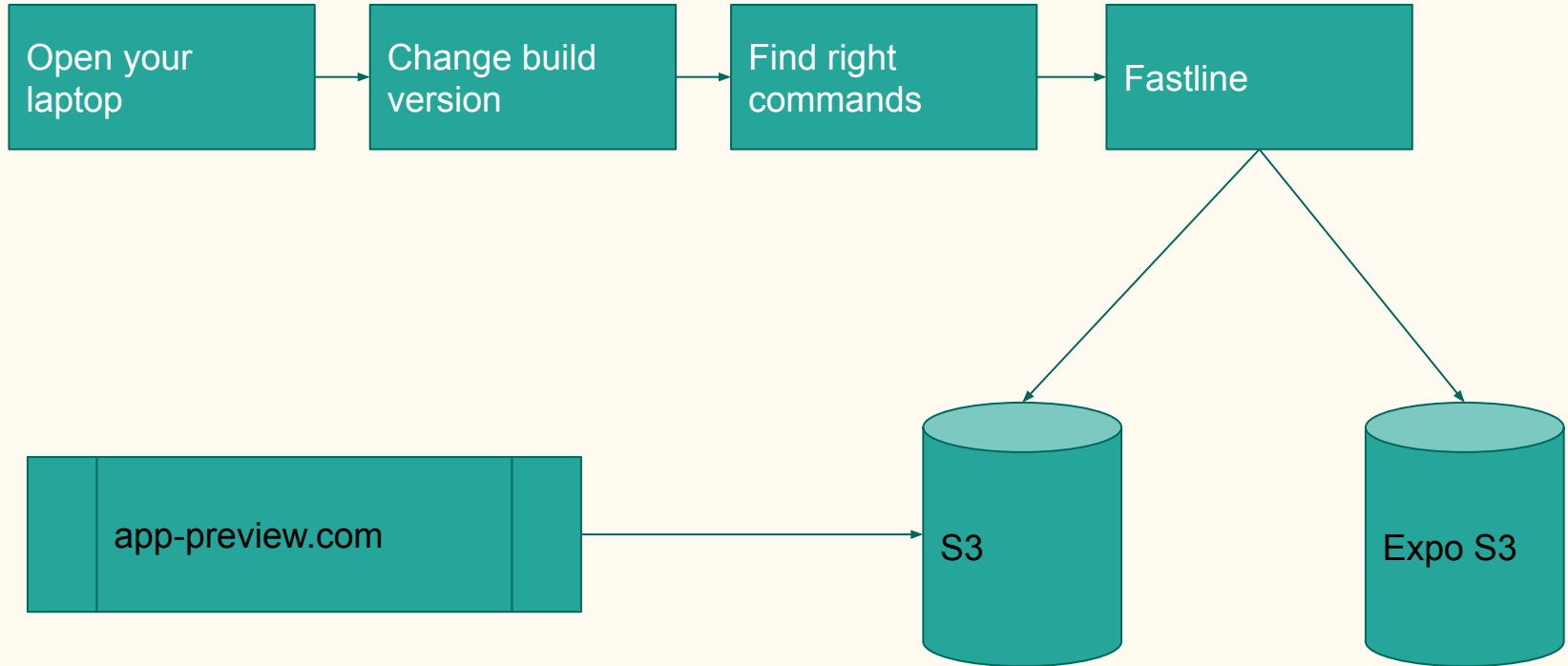
Mobile apps deployment



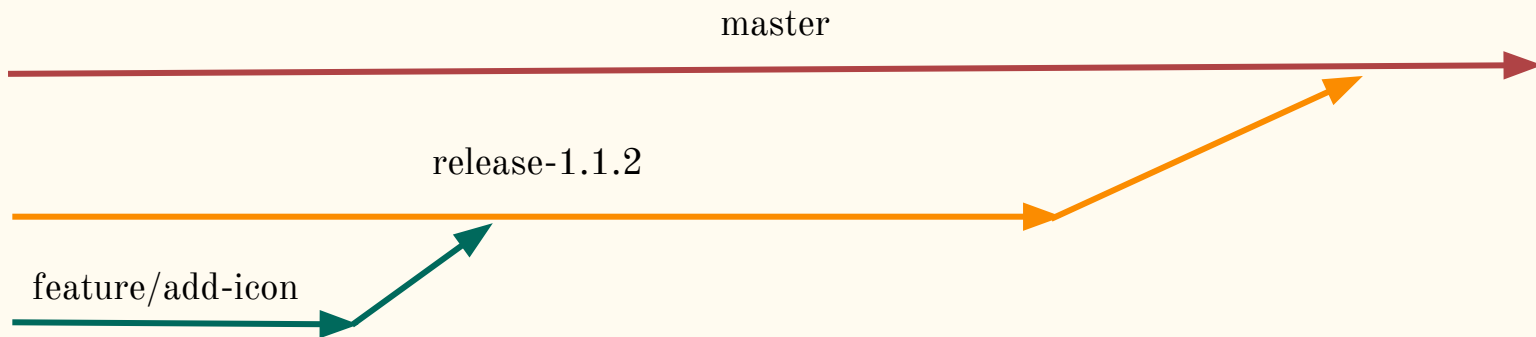
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Time to deploy



I have a laptop



CircleCI and Gitflow



CircleCI for release branches

- Create release branch
- Change and commit version
- CircleCI builds JS based on commit and version
- CircleCI builds app
- CircleCI pushes to S3

CircleCI for master

- Merge release to master
- Circle builds everything

Questions?

