

# SCALABILITY WITH DOCKER, KUBERNETES AND GCE







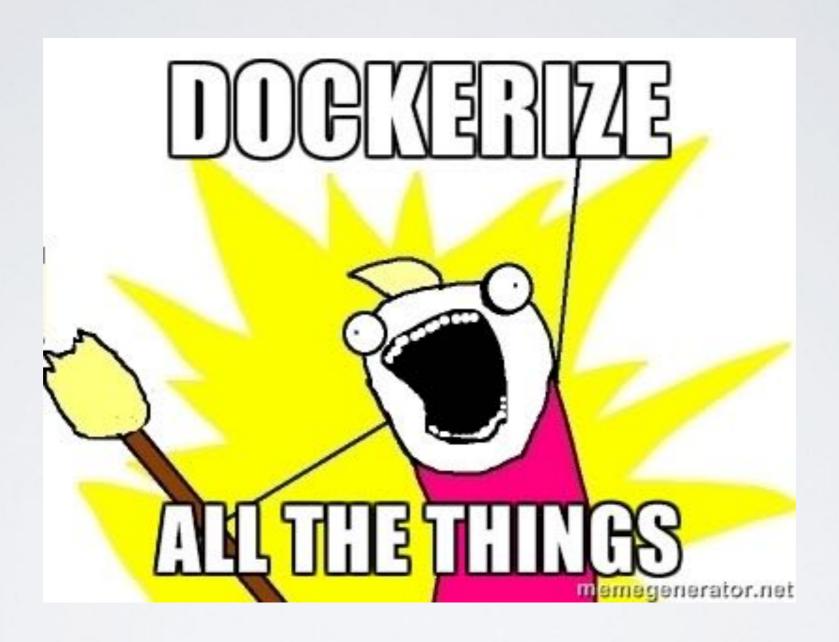
#### OUR PRODUCT @ SCALE

- Our B2B product: Automation Marketing
- A mono repository with 150 applications

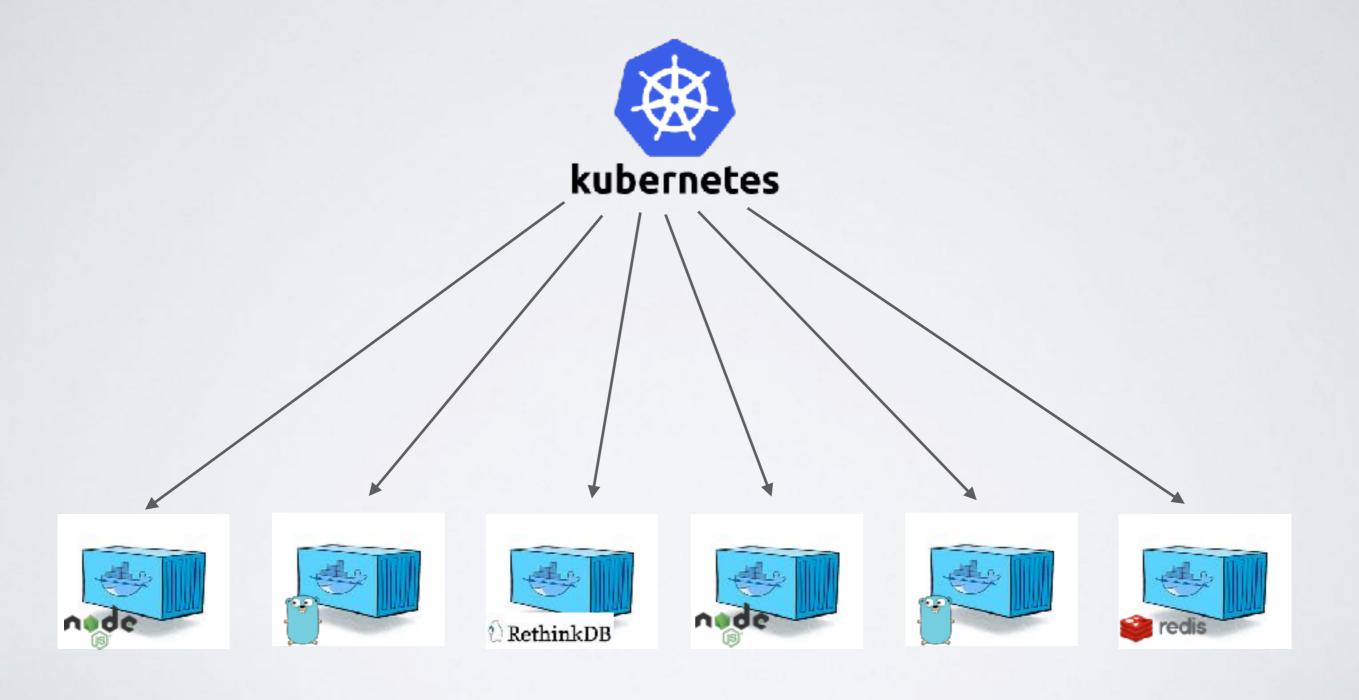
#### HOW CAN WE SCALE?

- How can we manage that many applications in term of deployment?
- How can we scale that many applications in production?
- We are all developers, not sysadmin!

#### SOLUTION?



### CONTAINER @ SCALE



#### **BUT WHY?**

- Unified access interface to all applications
  - docker {build, run, logs, restart...}
     Simplicity
- Unified running environment
  - Build, ship, run anywhere



Dev ~ Test ~ Staging ~ Production

Consistency Repeatability

#### SO?

Simplicity

Maintainability

Consistency

Extendability

Repeatability

#### **BUT HOW SIMPLE?**

- Manage multiple kind of applications (node, go, db...) with docker
- Scale application with Kubernetes (in Google Cloud)

### LOCAL DEVELOPMENT WITH DOCKER & DOCKER-COMPOSE

- One CLI to bring up the whole local dev environment -Simplicity
- Configure once, reused & replicated by all developers Repeatability
- · If it runs on my local, it will run on production Consistency
  - The different between DEV & PROD should only be environment variable values!

#### DEMO

https://github.com/ntquyen/demo\_docker\_k8s\_gke

# LOCAL DEVELOPMENT WITH DOCKER & DOCKER-COMPOSE



# RUNNING DOCKER IN GOOGLE CONTAINER ENGINE (GKE)

- One CLI to create a cluster, ready within 4 mins
- Cool Kubernetes Dashboard to let you manage almost everything
  - Create/Delete application
  - Rolling Update application with zero downtime
- Cluster auto scaling
- Container auto scaling



### QUESTIONS?

Hey btw, we are hiring!