

# Zero config monitoring

LeasePlan



# Agenda

## **Context**

Teams and technology

## **Original problem to solve**

Technical requirements

## **How we implemented it**

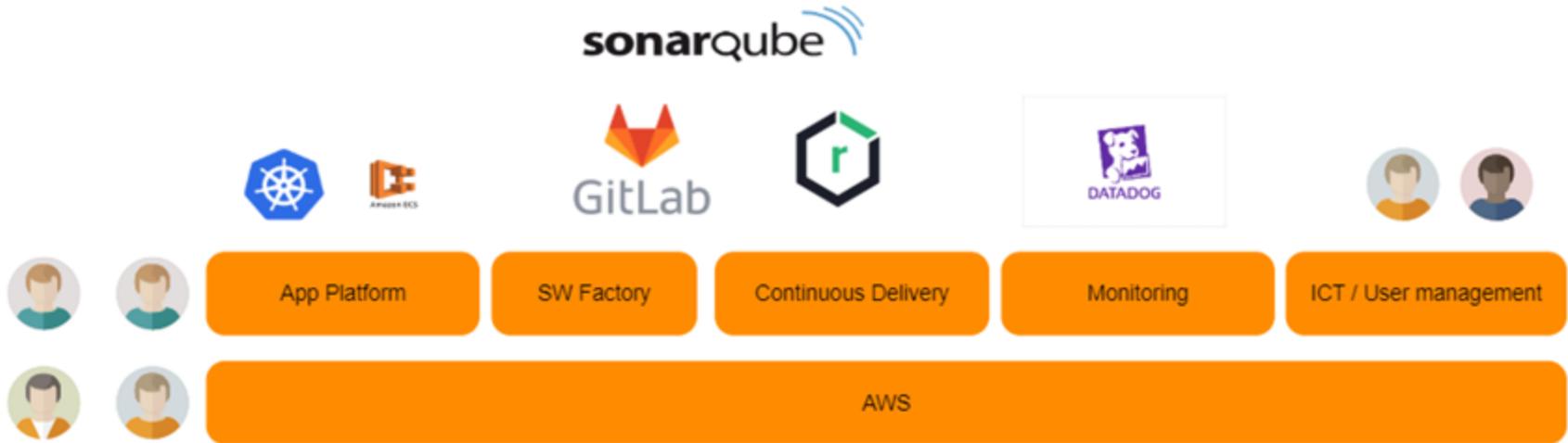
With Datadog



**Platform team**



# Domains





# Application platform

- Applications run on Kubernetes
- Simple way of running workloads
- Monitoring configured out of the box
- Autoscaling (Pods and nodes)

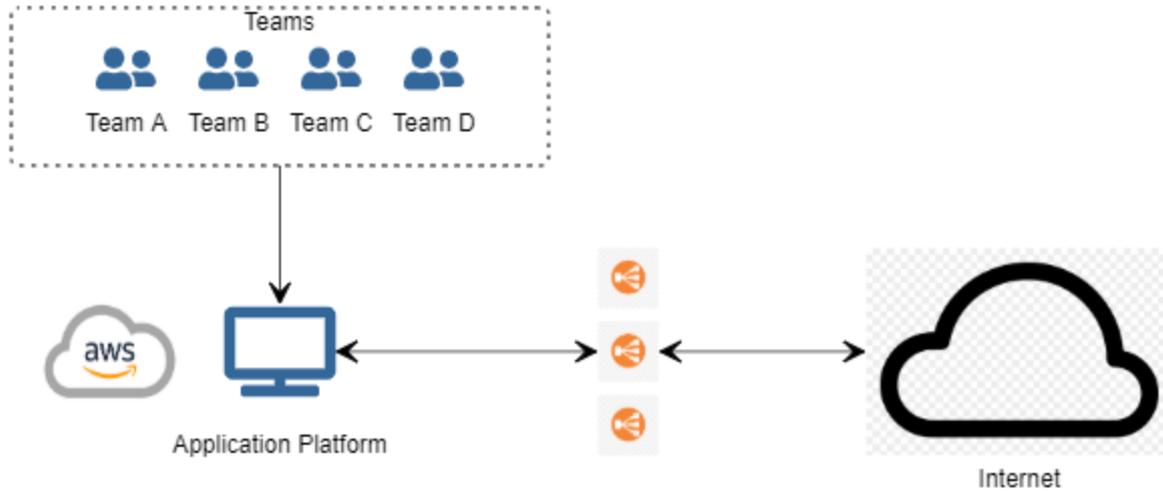
```
Context: lpd-sandbox
Cluster: arn:aws:eks:eu-west-1:473444336670:cluster/sandbox
User: arn:aws:eks:eu-west-1:473444336670:cluster/sandbox
K8s Rev: 0.19.7 [14790]
K8s Rev: v1.15.11-eks-af3caf
CPU: 5%
MEM: 33%
```

NAME	CLUSTER	AUTHINFO
data-dev	arn:aws:eks:eu-west-1:090774417495:cluster/dev	arn:aws:eks:eu-west-1:090774417495:cluster/...
data-sandbox	arn:aws:eks:eu-west-1:750347116489:cluster/sandbox	arn:aws:eks:eu-west-1:750347116489:cluster/...
lpd-dev	arn:aws:eks:eu-west-1:235642323818:cluster/dev	arn:aws:eks:eu-west-1:235642323818:cluster/...
lpd-dev-windows	arn:aws:eks:eu-west-1:235642323818:cluster/windows	arn:aws:eks:eu-west-1:235642323818:cluster/...
lpd-prod	arn:aws:eks:eu-west-1:876802514142:cluster/prod	arn:aws:eks:eu-west-1:876802514142:cluster/...
lpd-prod	arn:aws:eks:eu-west-1:298285318133:cluster/prod	arn:aws:eks:eu-west-1:298285318133:cluster/...
lpd-sandbox3	arn:aws:eks:eu-west-1:473444336670:cluster/sandbox3	arn:aws:eks:eu-west-1:473444336670:cluster/...
lpd-sandbox(+)	arn:aws:eks:eu-west-1:473444336670:cluster/sandbox	arn:aws:eks:eu-west-1:473444336670:cluster/...
lpd-test	arn:aws:eks:eu-west-1:908180097820:cluster/test	arn:aws:eks:eu-west-1:908180097820:cluster/...
lpd-tools	arn:aws:eks:eu-west-1:296895862504:cluster/tools	arn:aws:eks:eu-west-1:296895862504:cluster/...
lpd-tools-dr	arn:aws:eks:eu-central-1:296895862504:cluster/tools-dr	arn:aws:eks:eu-central-1:296895862504:clus...

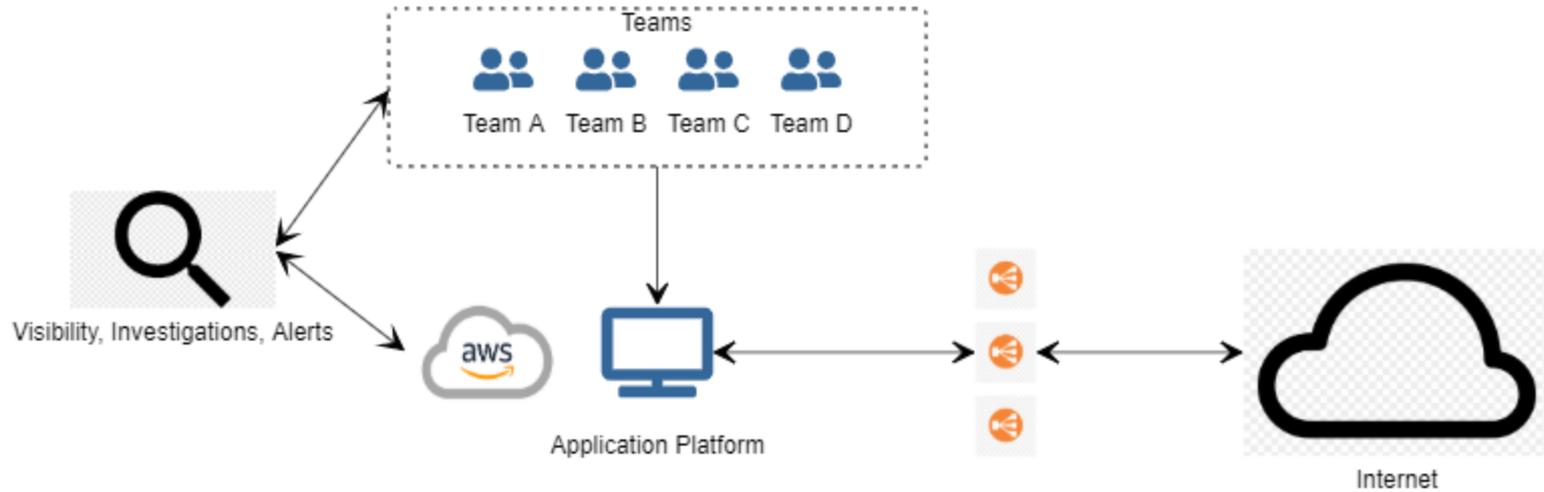
**Problem to solve: Have  
monitoring across all  
our services**



# Application platform - High level



# Application platform - Needs visibility



# Requirements

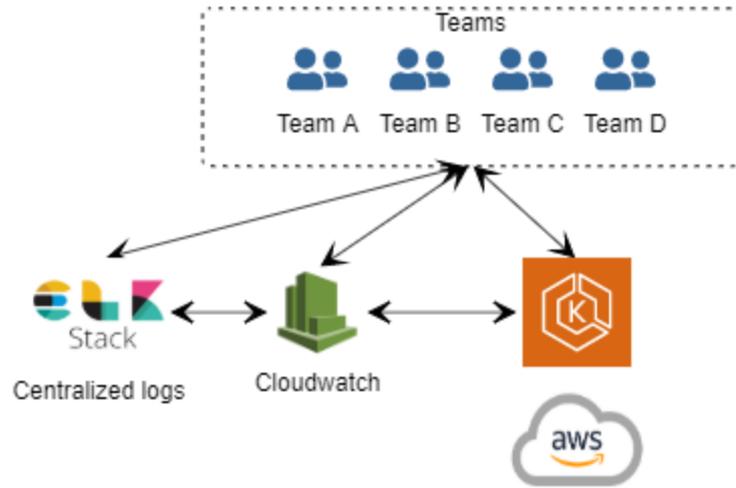
- Logs + metrics + application performance in a single unified platform
- Alerting the easy way
- Create and share dashboards
- Self service monitoring
- Zero config



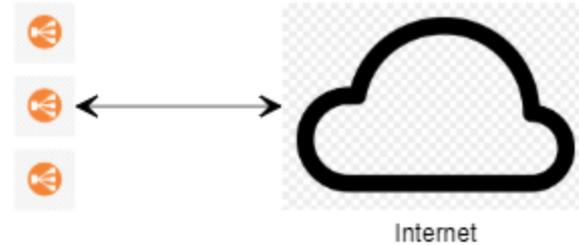
# Implementation



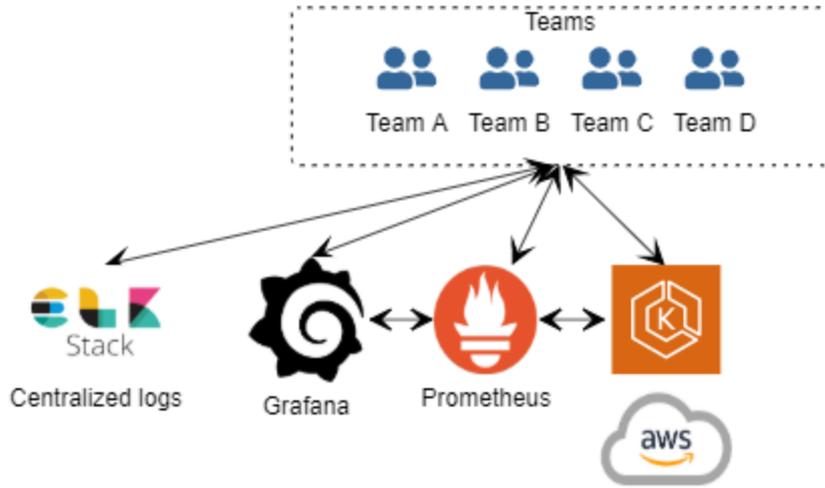
# Cloudwatch, ELK



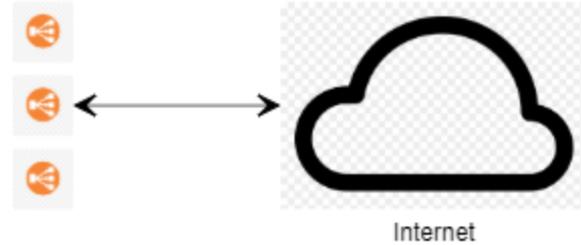
- + Already in AWS
- - Logs not browsable, so ELK
- - Alerts on one dimension
- - Operational burden (Lambda, dashboards, take care of ELK)



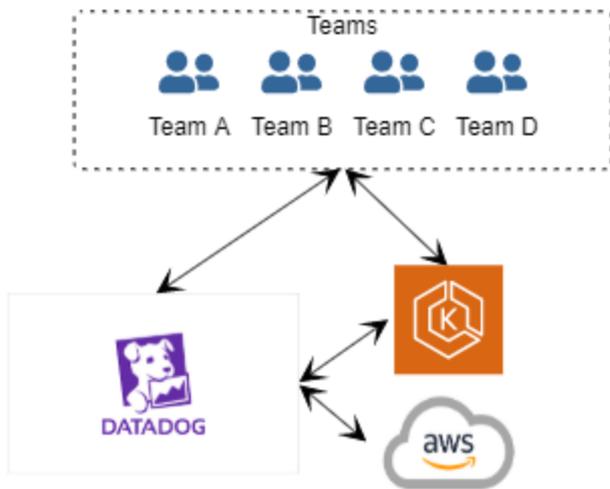
# Prometheus, ELK, Grafana



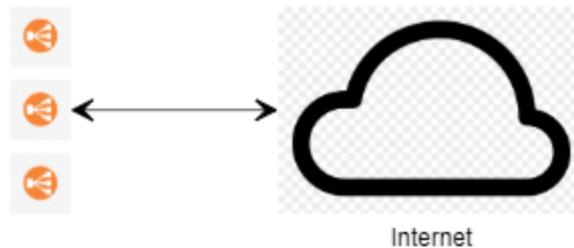
- + Kubernetes native + friendly
- - Logs needs ELK or Loki
- - Too many tools
- - Too many user interfaces
- - Operational burden



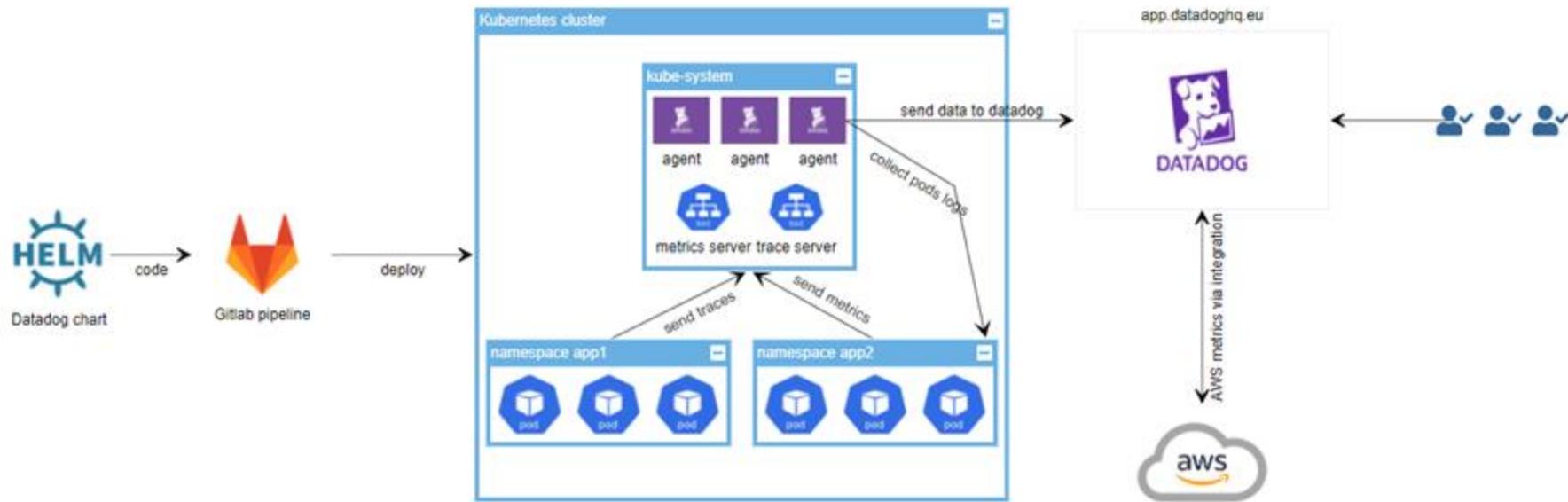
# Datadog

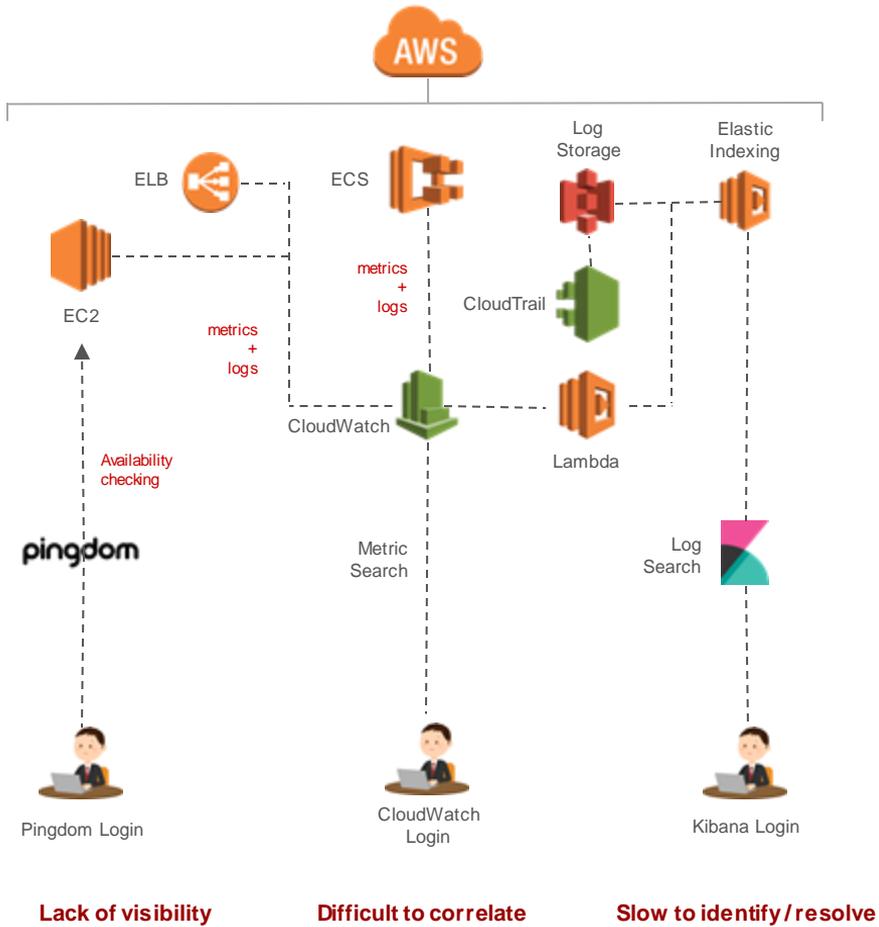


- + Kubernetes friendly
- + Logs, APM, metrics in one place
- + No scaling issues
- + Operational burden is minimal
- +/- Cost seems high but engineering cost is much lower. Like a Pizza oven

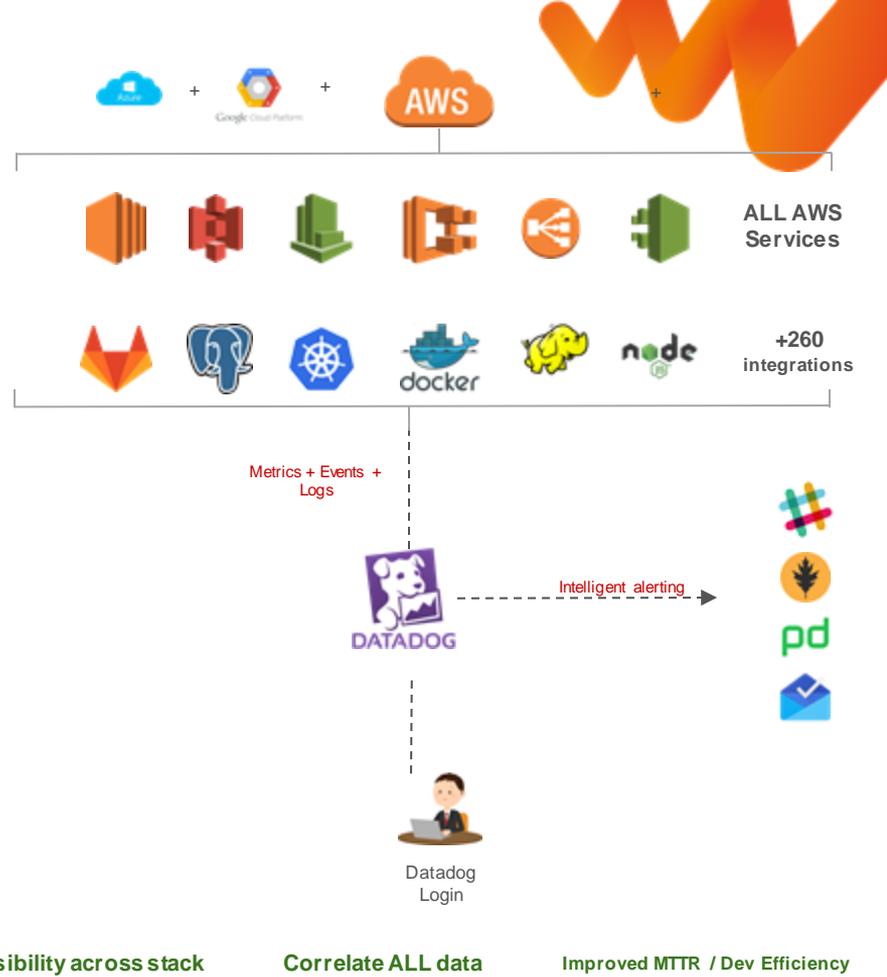


# Implementation





**CURRENT**



**DESIRED**



# Fun numbers

- 3800+ containers
- 300 monitors
- 20M log lines per day
- 300+ hosts
- Just one department :)

# Questions & Answers





# LeasePlan

What's next?