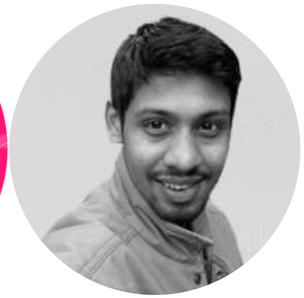
Troubleshooting Spinnaker



Shubhasish Panda

Infra & Platform Engineer

@linkedin | www.linkedin.com/in/subhasishpanda

Overview

Discuss general troubleshooting steps

Setup a logging platform

- Configure log levels
- Collect audit logs

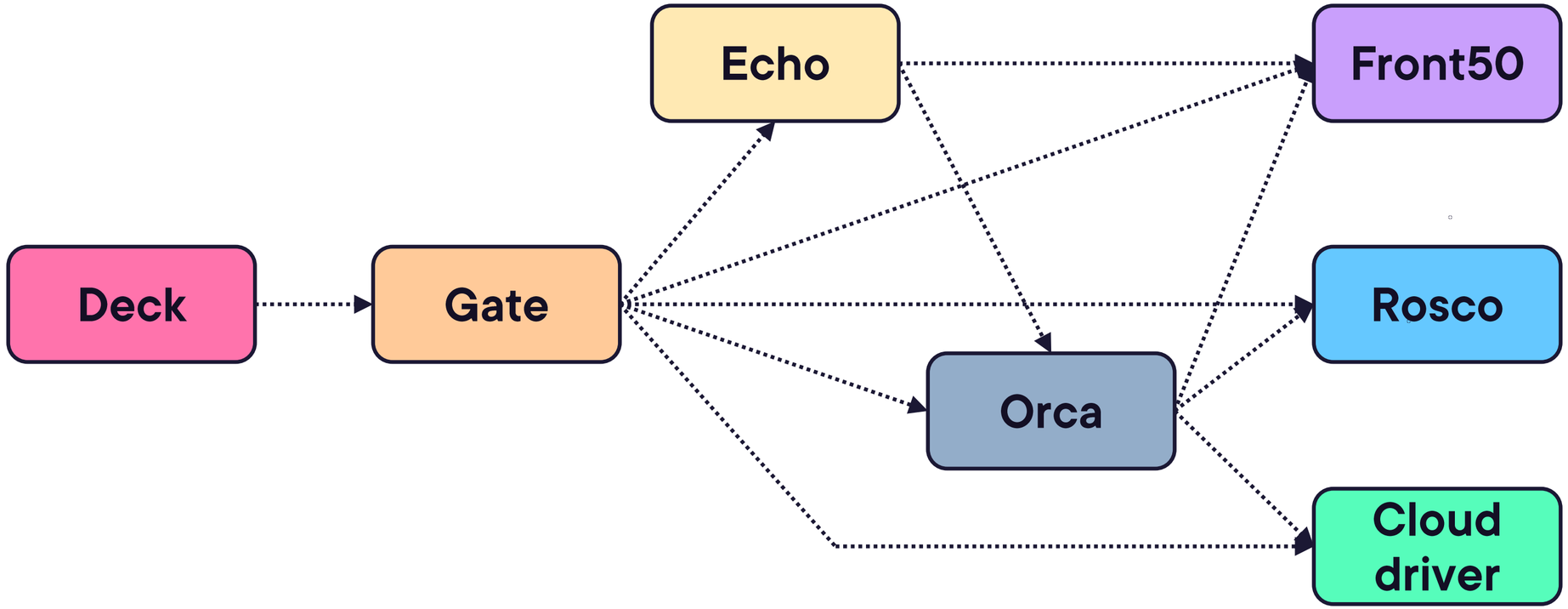
Setup a monitoring platform

- Install Prometheus & Grafana
- Expose application metrics
- Configure alerts

Able to troubleshoot Spinnaker

General Troubleshooting

Spinnaker Microservices



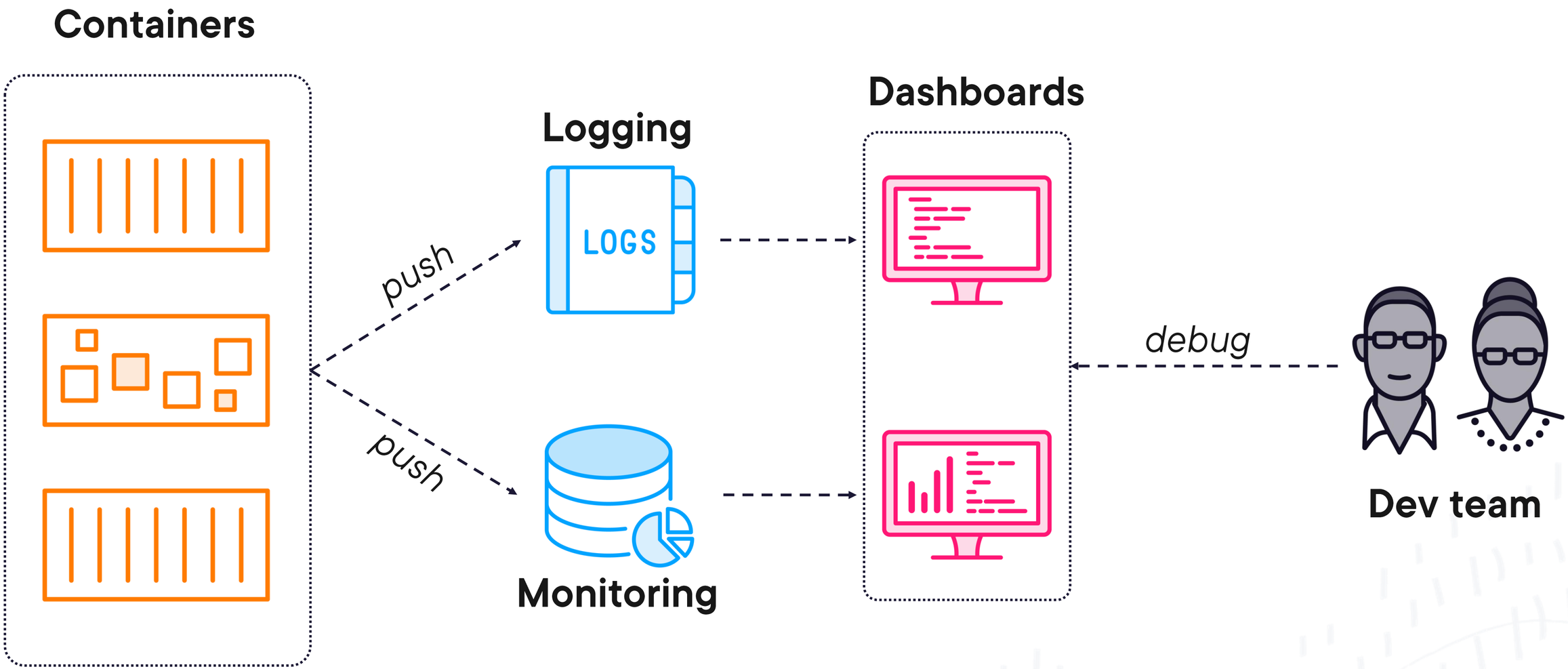
Steps to Troubleshoot

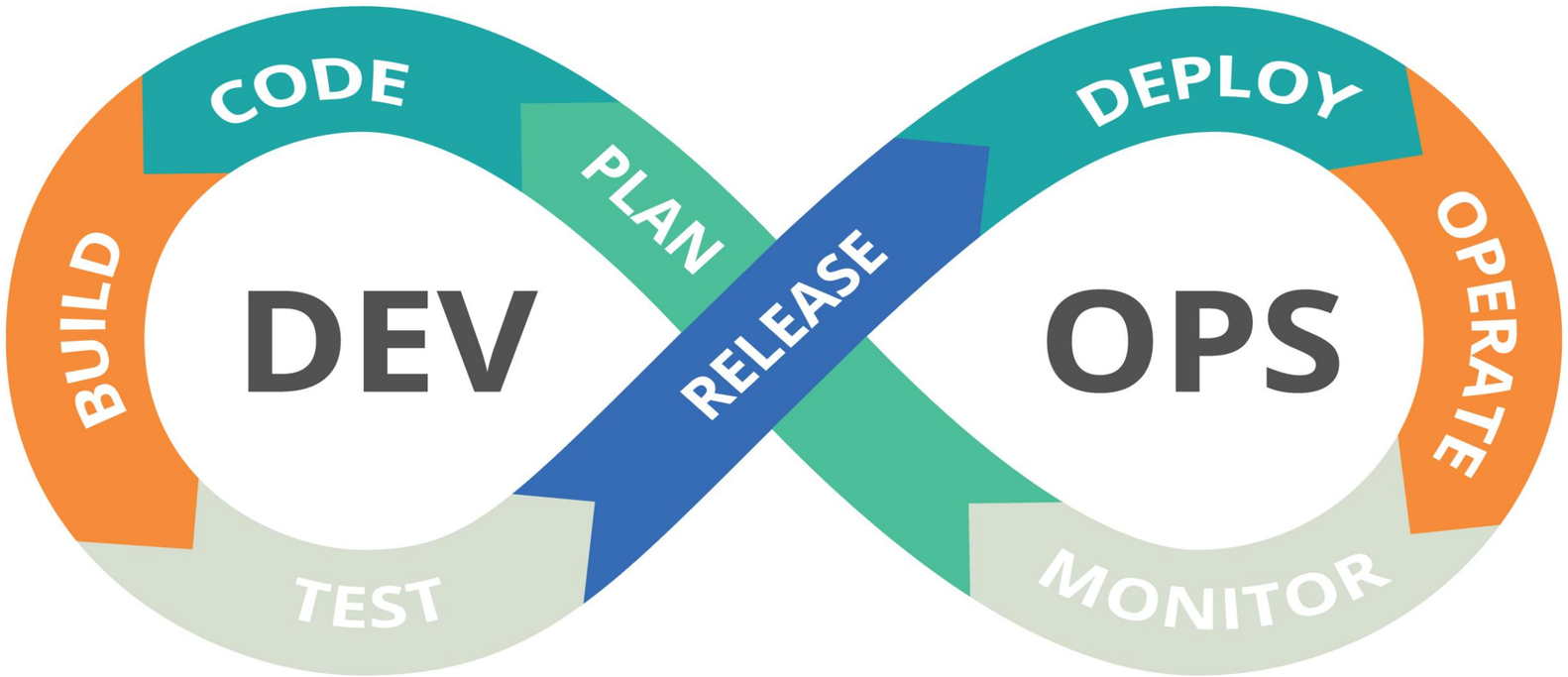
Check the browser's developer console

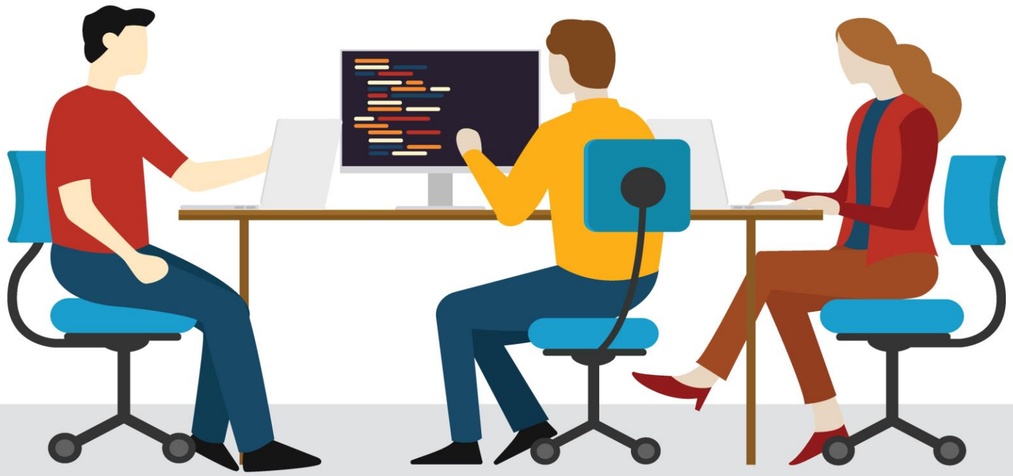
Find out the failing API and map it

Check the application logs

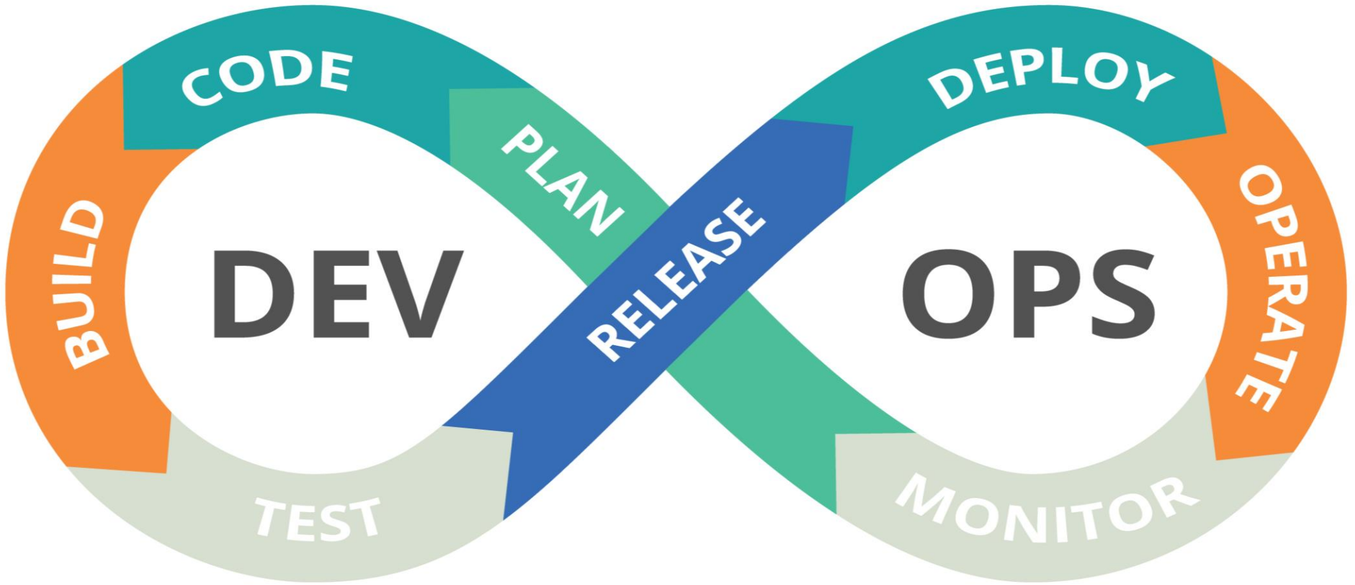
Port Number	Microservice
Deck	9000
Clouddriver	7002
Echo	8089
Front50	8080
Gate	8084
Igor	8088
Orca	8083
Rosco	8087
Rush	8085


Containers
Logging
LOGS
Dashboards
push
push
debug
Monitoring
Dev team


CODE
PLAN
BUILD
DEV
RELEASE
DEPLOY
OPERATE
OPS
TEST
MONITOR



Essential for operating software in production



Logging

Application Logging

Is a process of collecting general, events, & audit logs
Is critical in running application production.

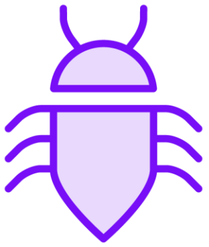
Application Logging

Is a process of collecting general, events, & audit logs

Is critical in running application production

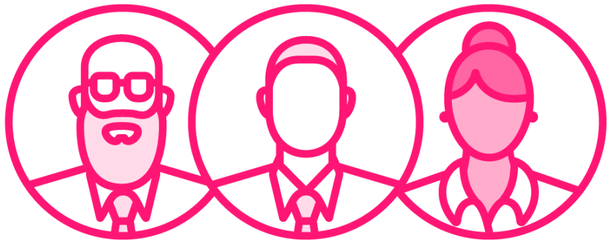
Developers

Event logs

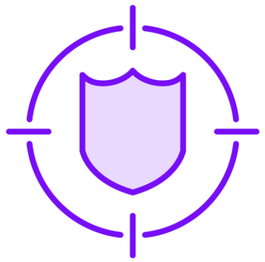


Debug their code

System admins



Audit logs



Detect malicious attacks

Log Management Steps

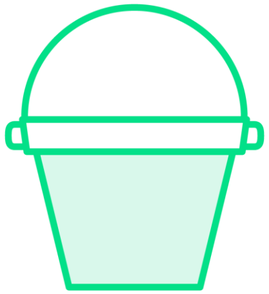
Setting up logging tool

Enabling application logs

Collecting logs centrally

Securing & scaling log platform

Object storage



Store

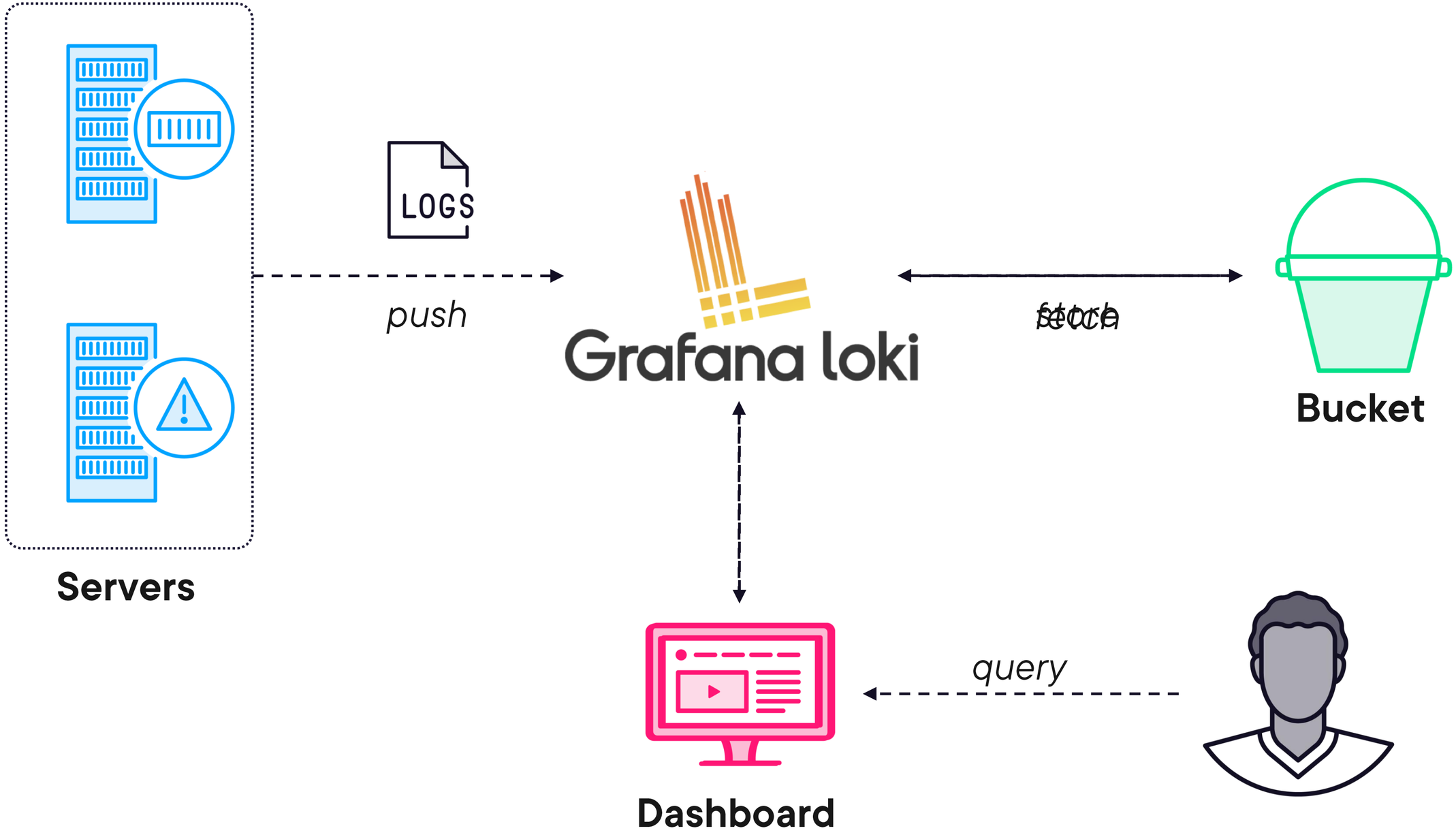
Grafana loki

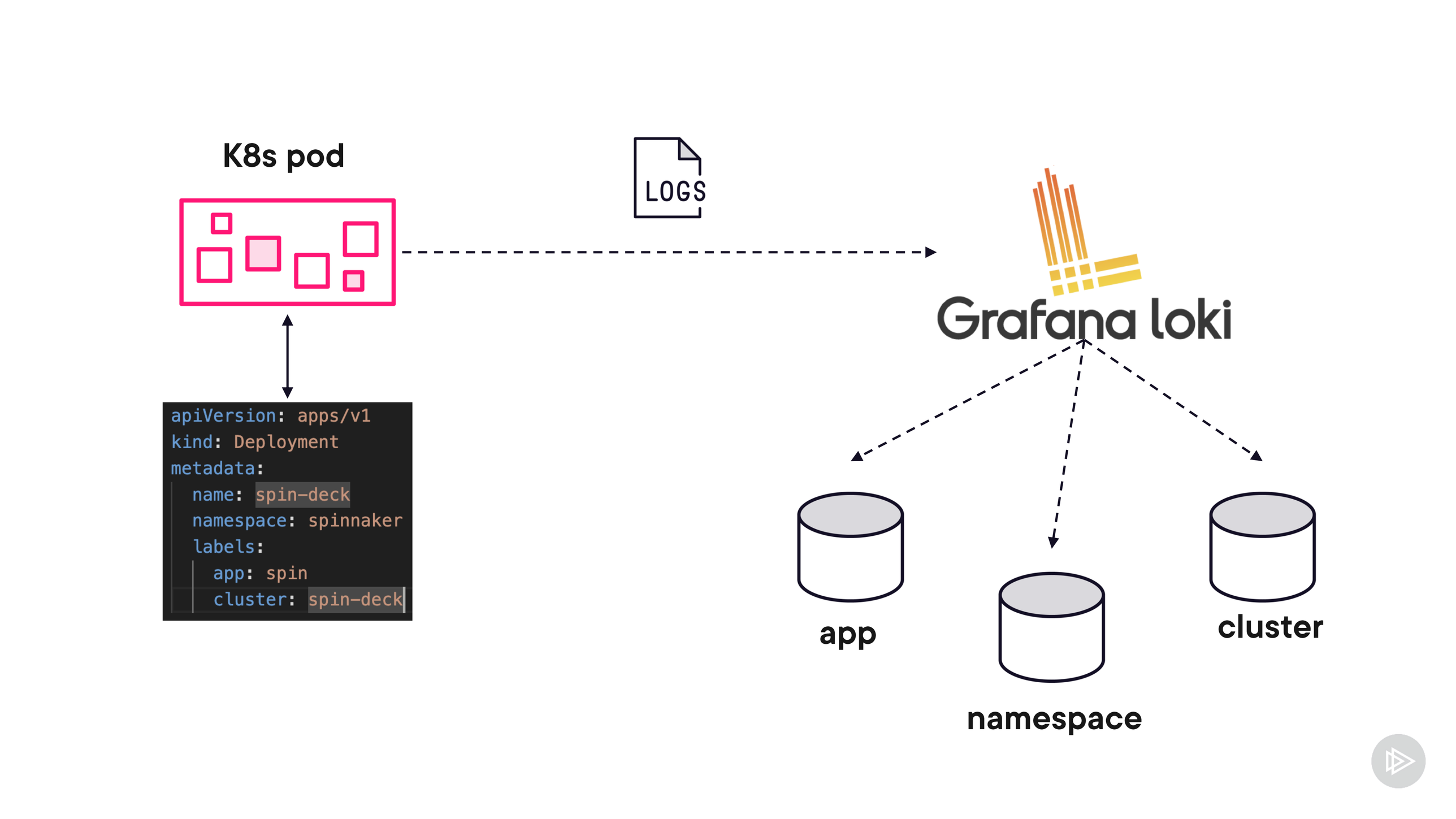
≃

Loki

Cost effective

Scalable

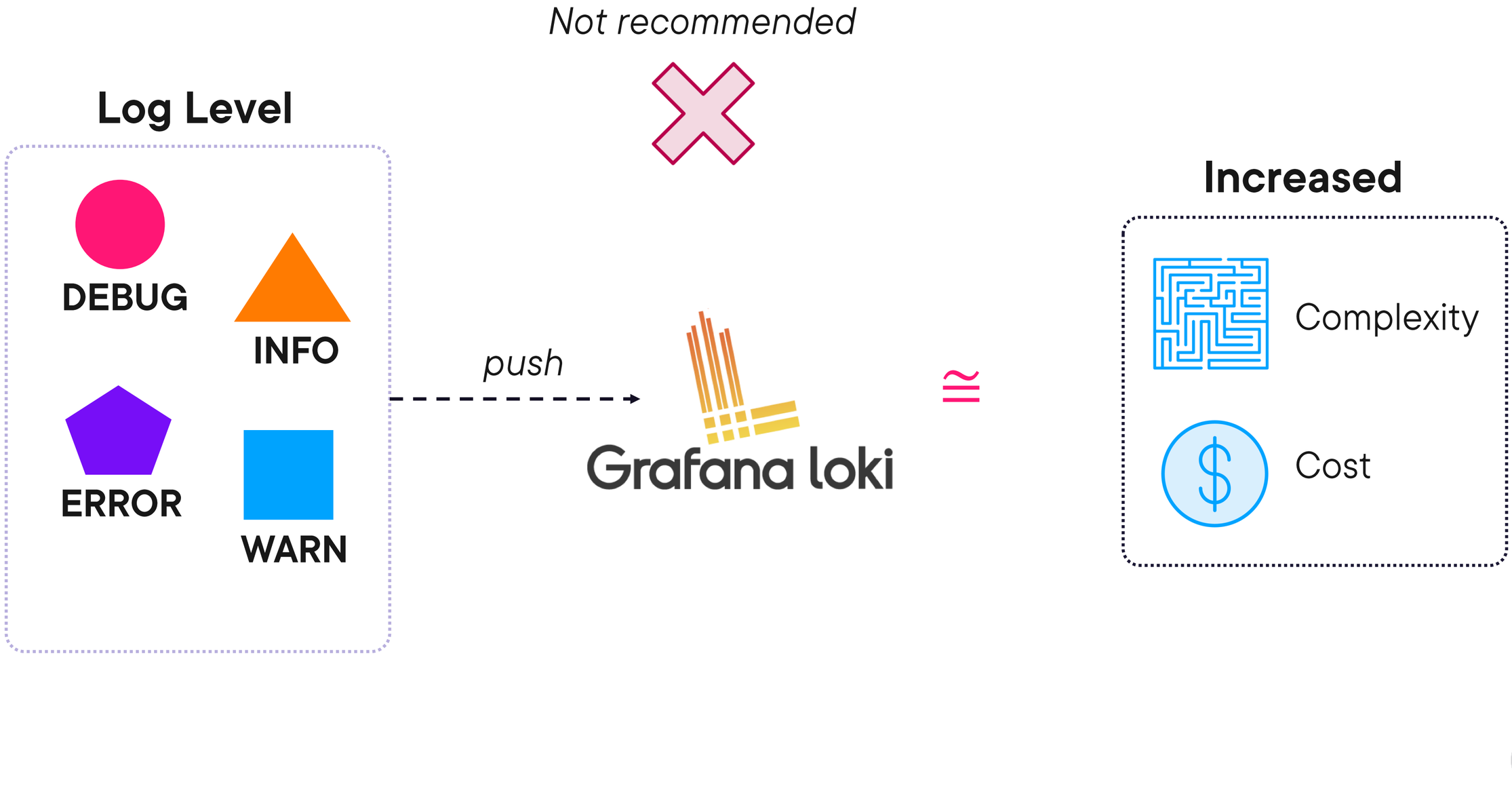

LOGS
push
Grafana loki
fetch
Bucket
Servers
Dashboard
query

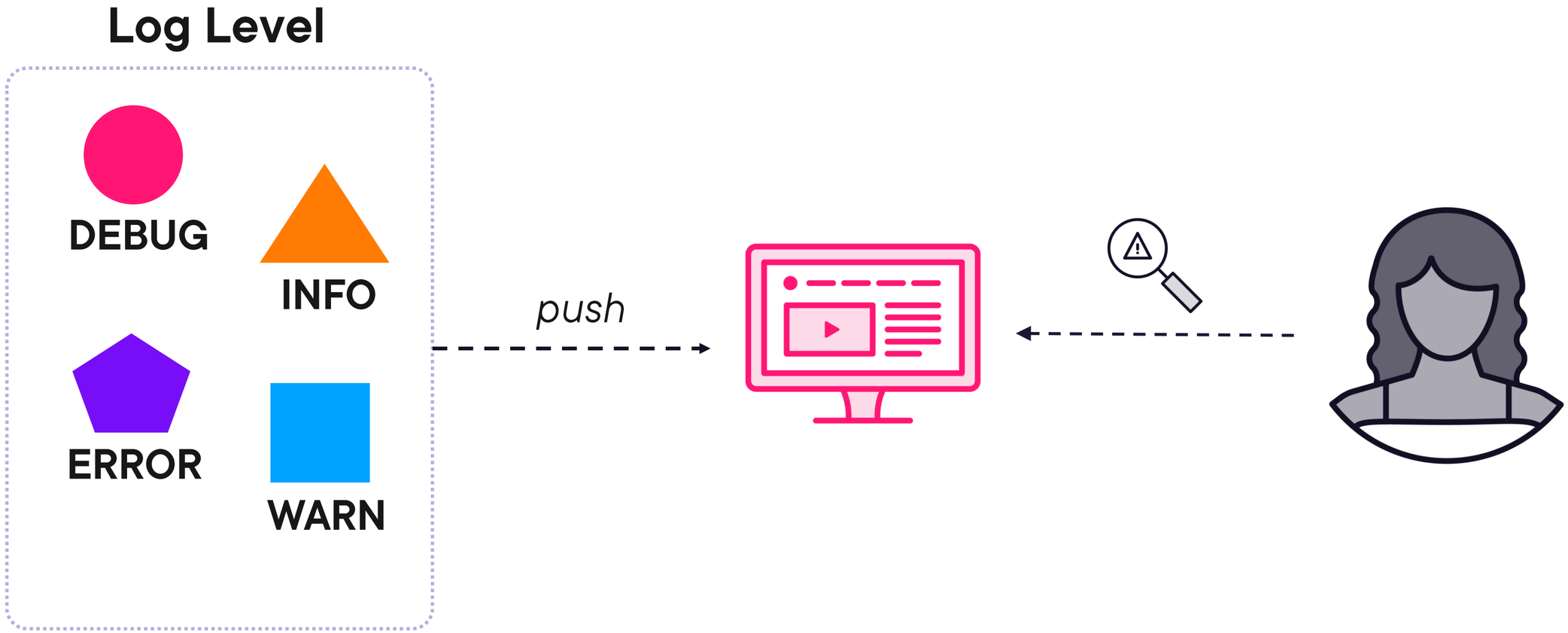

K8s pod
LOGS
Grafana loki
apiVersion: apps/v1
kind: Deployment
metadata:
name: spin-deck
namespace: spinnaker
labels:
app: spin
cluster: spin-deck
app
namespace
cluster

Demo

Install & configure Loki

- Use AWS s3

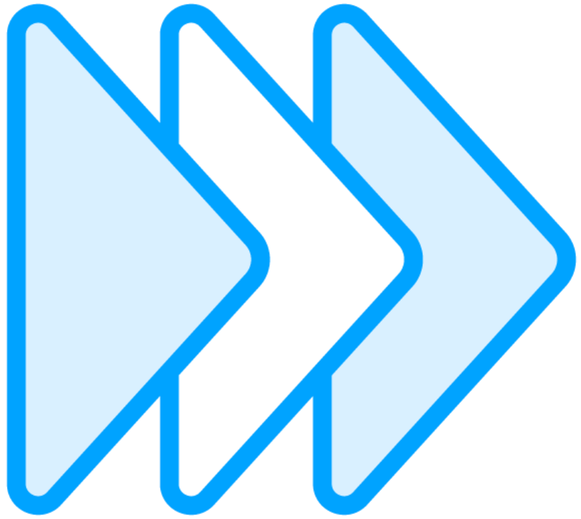

Not recommended
Log Level
DEBUG
INFO
ERROR
WARN
push
Grafana loki
≃
Increased
Complexity
Cost


Log Level
DEBUG
INFO
ERROR
WARN
push

Demo

Change the log level of gate & echo service

Advanced Logging Settings



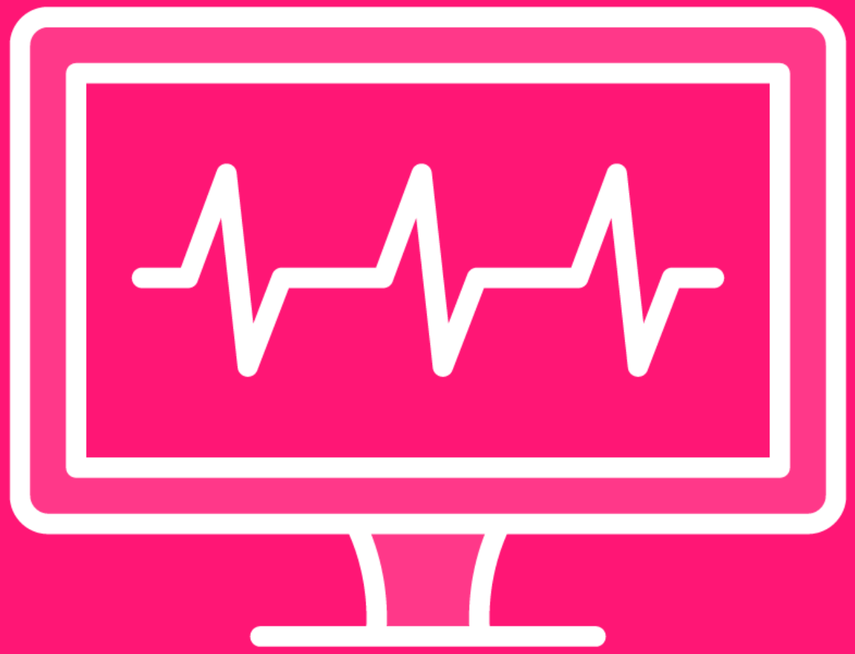
Enables:

- JSON formatting
- Log level per java class
- Log keys filter
- Use “logback.xml” file

Demo

Enable & push audit logs

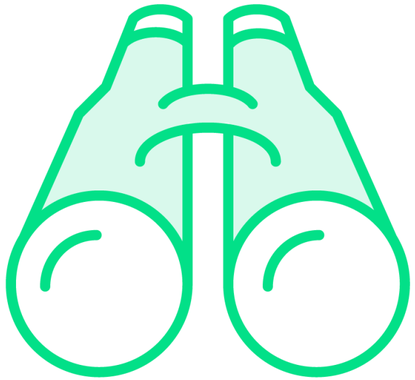
Monitoring



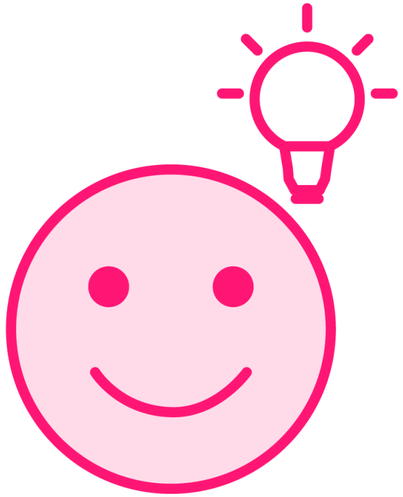
Application Monitoring

Process of collecting performance, availability, & usage data and using that data to improve customer's experience

Why Monitor?



To observe performance & health

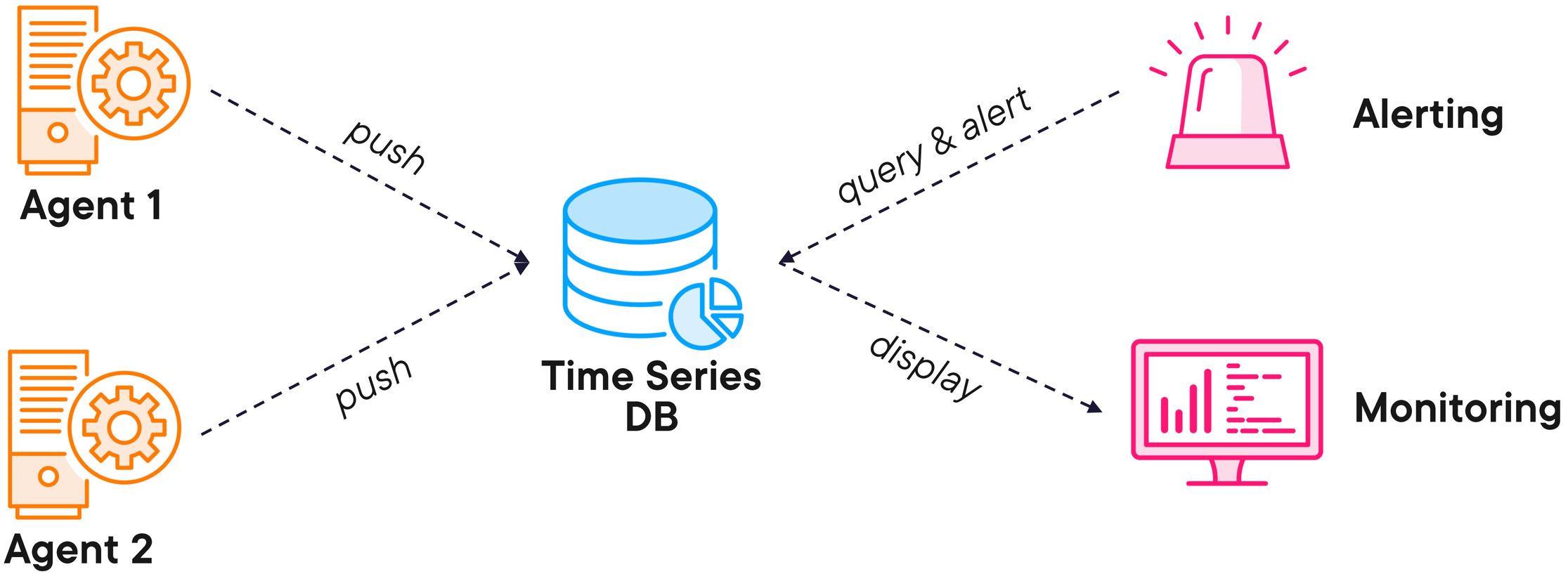


To take data driven decision

To detect anomaly beforehand

To troubleshoot an incident faster

Monitoring System



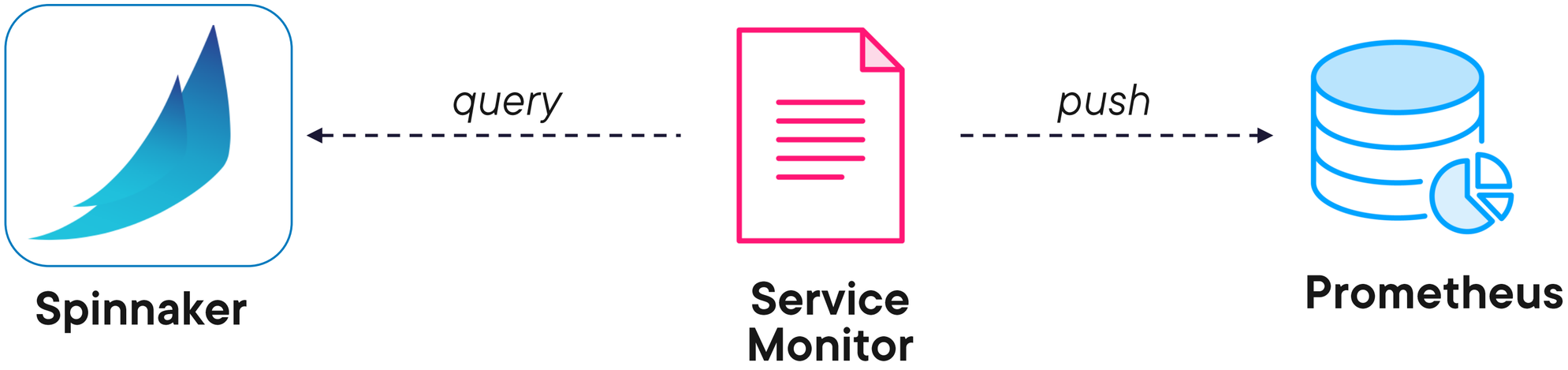
Demo

Install prom-stack

Demo

Add Spinnaker's infra & application metrics dashboard to Grafana

Application Metrics



Demo

Configure alerts

Alerting System

Grafana Dashboard

Threshold

Alert

Summary

Explore other monitoring & logging tools

Skills to troubleshoot Spinnaker

Setup logging & monitoring platform

Setup alerts