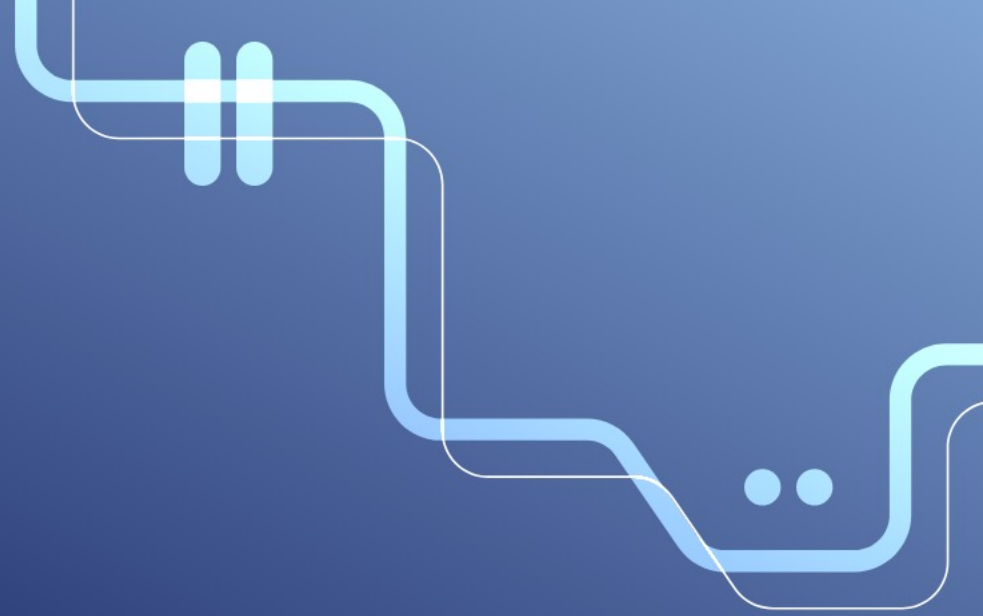


VERY TECH TRIP TALK

Powered by OVHcloud

CaaS, Serverless, scale to zero.

Késako and how to build it easily with Knative?

Belinda Fewings

Stéphane Philippart

- DevRel@OVHCloud 🥑 🦄 🎉
- Co-creator of TADx (Agile meetups, Dev, DevOps)

☁️ Often head in the clouds ☁️

- 🦤 @wildagsx
- 📝 https://philippart-s.github.io/blog
- 🐙 https://github.com/philippart-s/
- 🌍 https://www.linkedin.com/in/philippartstephane/

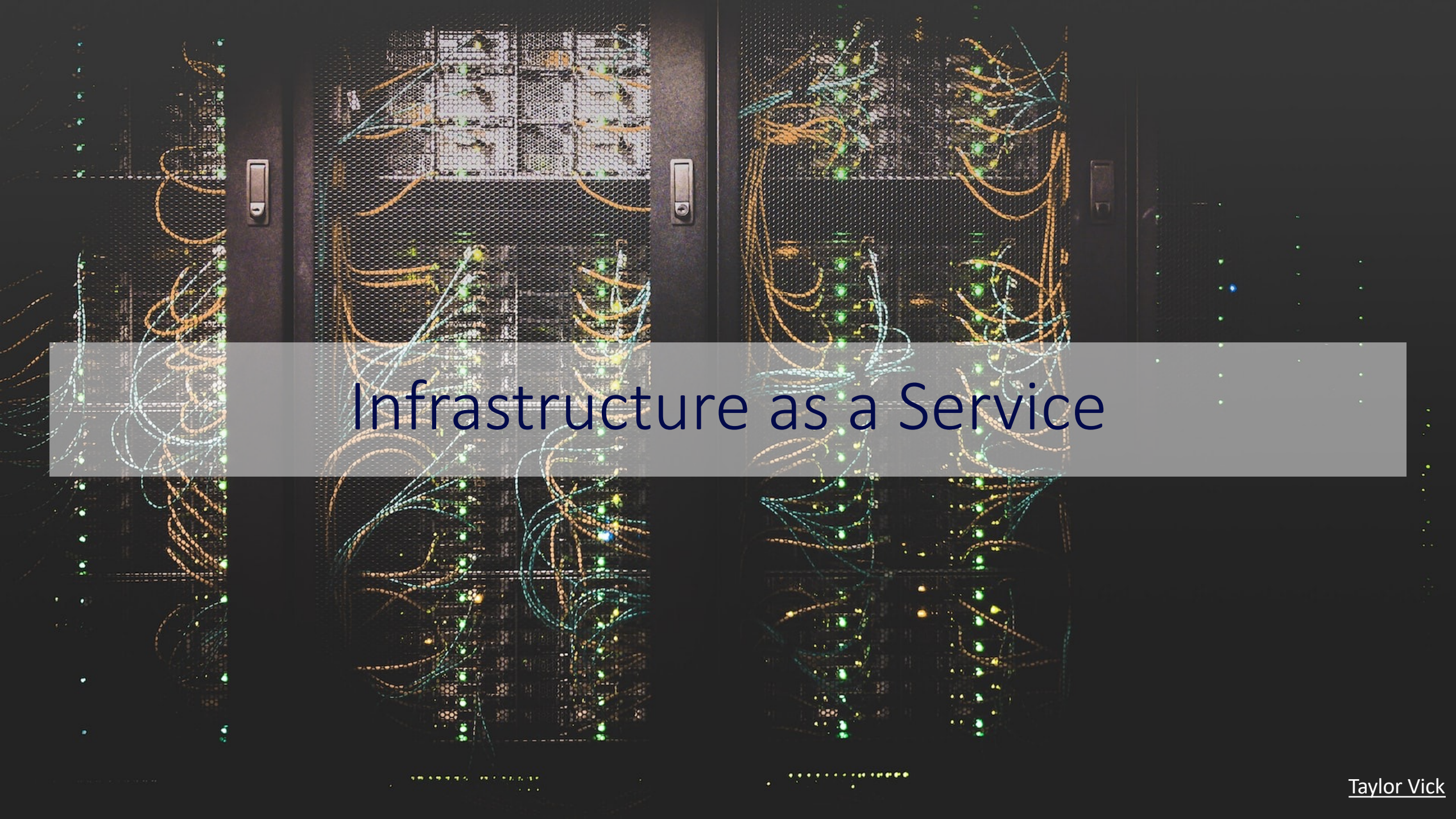
TADx

Let's get to know each other

- 👉 Who’s using a service or infrastructure from a cloud provider?
- 👉 Do you know what IaaS, PaaS and SaaS are?
- 👉 And FaaS, CaaS and Serverless?
- 👉 Who knows Knative?
- 👉 Who uses Knative?

Why choose a cloud provider?

C Dustin

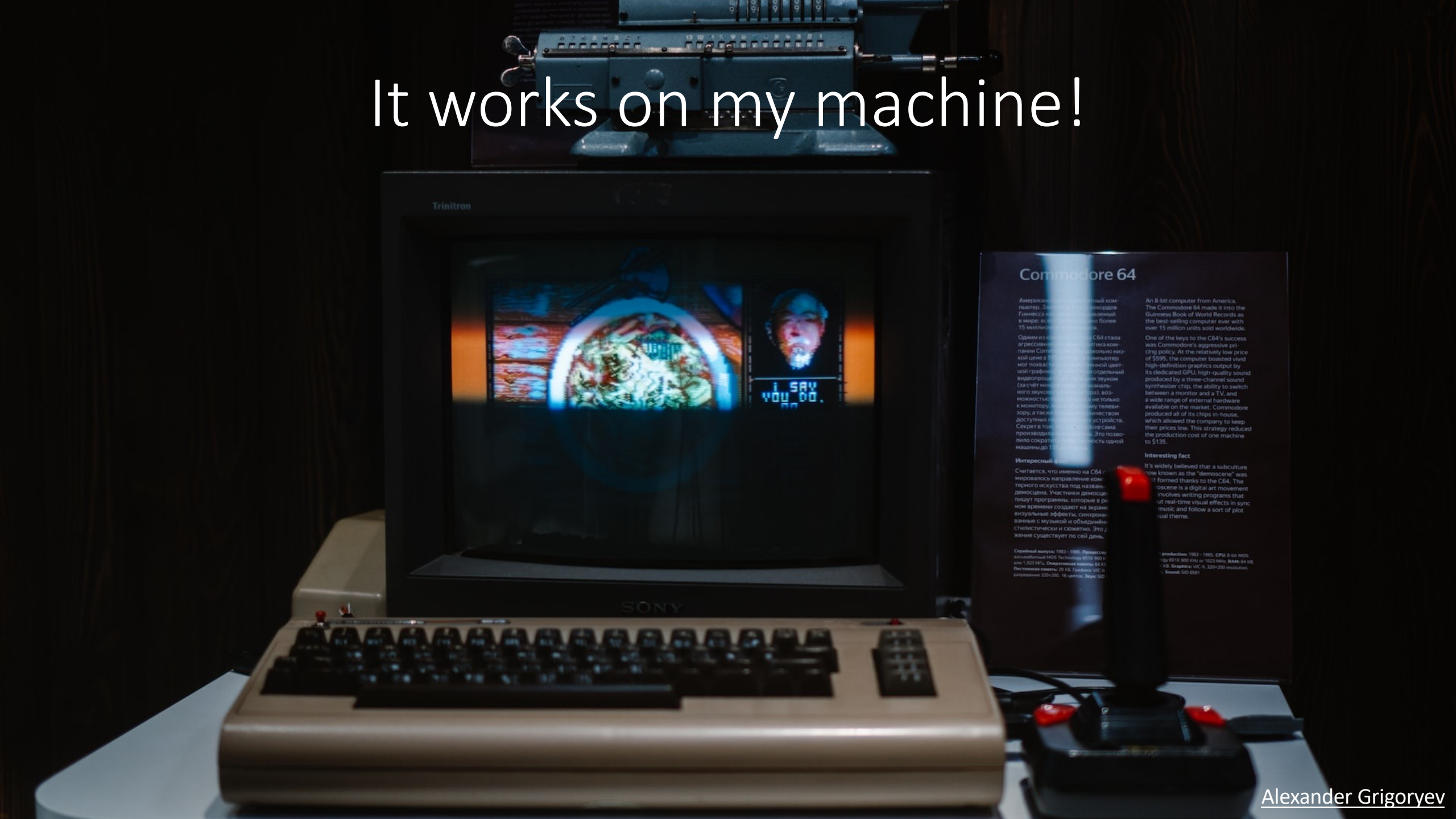


Infrastructure as a Service

Taylor Vick

Xavi Cabrera

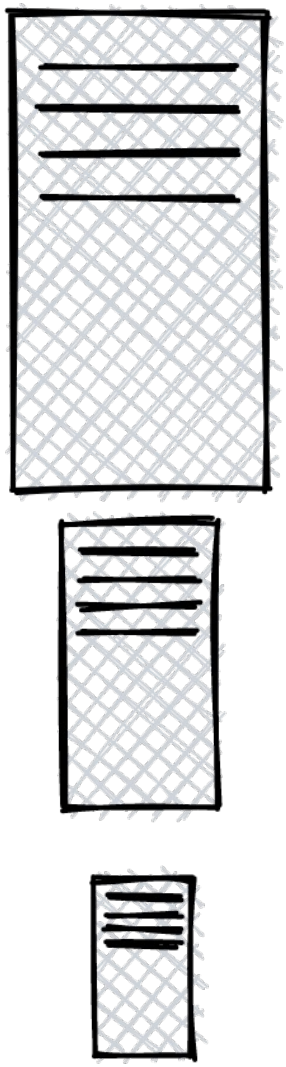
It works on my machine!

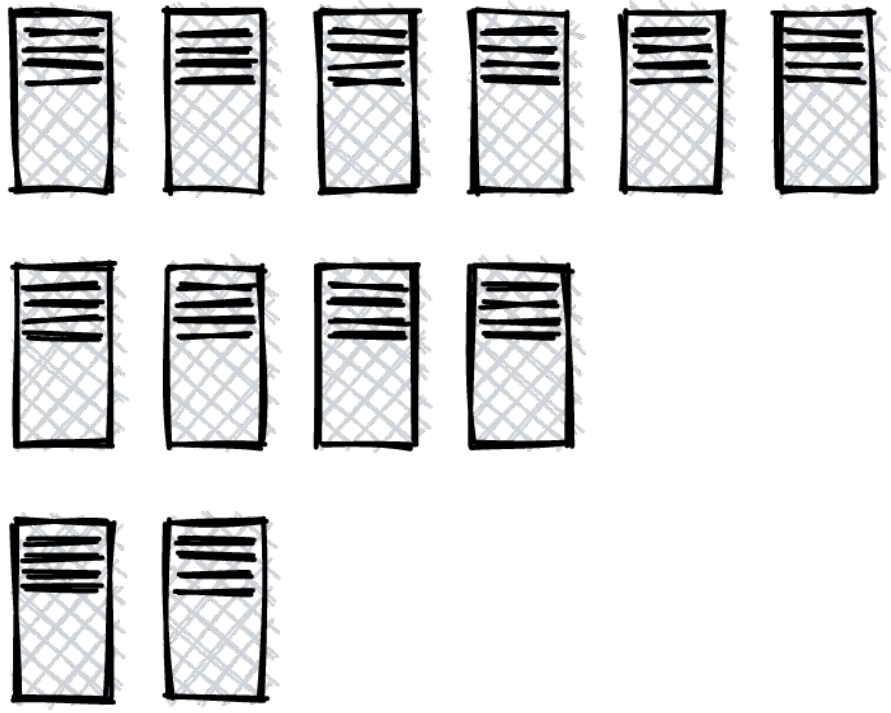


Alexander Grigoryev

Johannes Plenio

Performances





Vertical scaling

Horizontal scaling

Autoscaler

Monitoring and measurment

Ibrahim Boran

Please wait while we install a system update

HARDENED

No OPS?

Pay as you go

Fabian Blank

Certifications

ISO 27001 / 27017 / 27018

ISO/IEC 27001:2013 Certification and ISMS relating to information security management systems for cloud

ISO 27701

ISO/IEC 27701:2019 Certification and PIMS relating to personal data processing security management

Find out more →

GDPR

Compliance with Regulation (EU) 2016/679, known as the General Data Protection Regulation (GDPR)

SOC 1, 2, 3

AICPA certification SSAE 16/ISAE 3402 Type 2 for control over financial reporting

Find out more →

HDS

Certification by the French Digital Health Agency (ANS) for hosting healthcare data

Find out more →

Healthcare data in Europe

Compliance for hosting healthcare data from French, British, Italian, German and Polish citizens

HIPAA & HITECH

Compliance with the United States Health Insurance Portability and Accountability Act in our US datacentres.

Find out more →

PCI DSS

Lever 1 Payment Card Industry Data Security Standard certification relating to payment data hosting

Find out more →

EBA

Compliance with the European Banking Authority (EBA) Outsourcing Guidelines for Financial Service Operators in Europe

ACPR Outsourcing Guidelines (France)

Compliance for the provision of outsourced essential services from the French Prudential Supervision and Resolution Authority (ACPR)

Find out more →

SWIPO

Signatory of the SWIPO IaaS Code of Conduct on cloud service portability

C5

Cloud Computing Compliance Criteria Catalogue

Find out more →

AgID

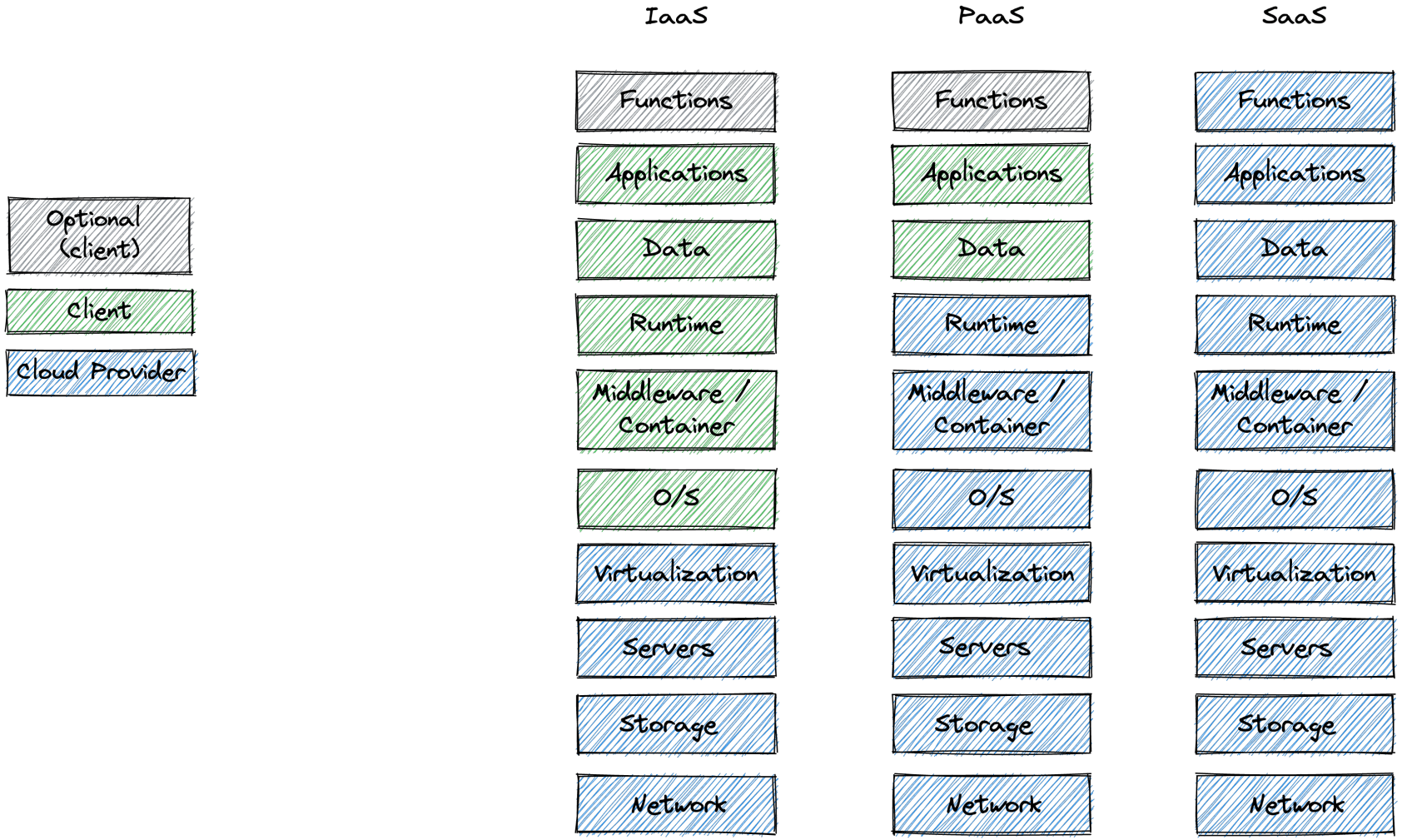
Certification for the delivery of cloud services to the public sector in Italy

ENS

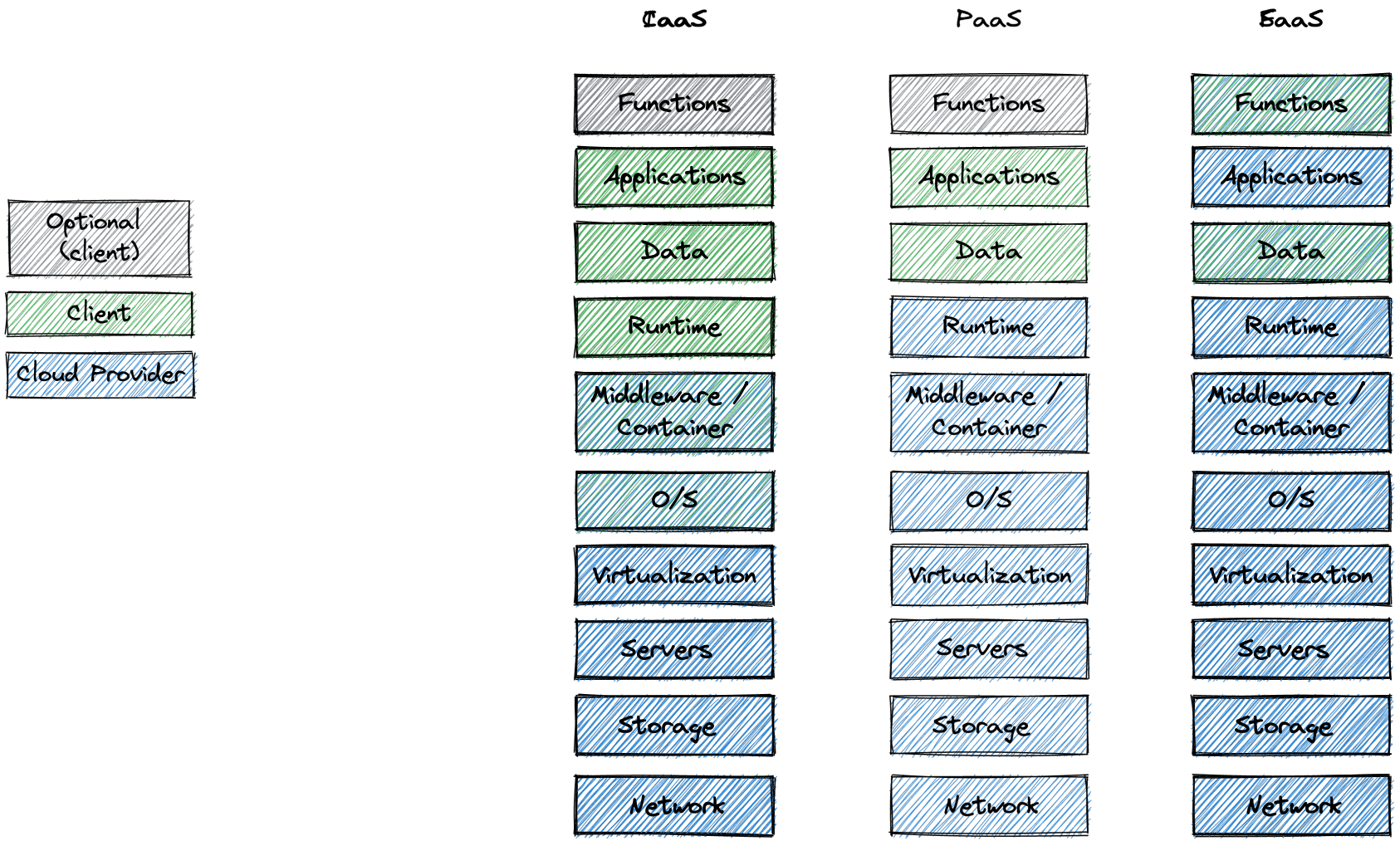
Compliance with the Esquema Nacional de Seguridad (ENS) high-level certification, which defines security standards for government agencies and public organisations in Spain.

Choose the right offer

IaaS, Paas, CaaS, Serverless, FaaS, XaaS, …



IaaS, Paas, CaaS, Serverless, FaaS, XaaS, …

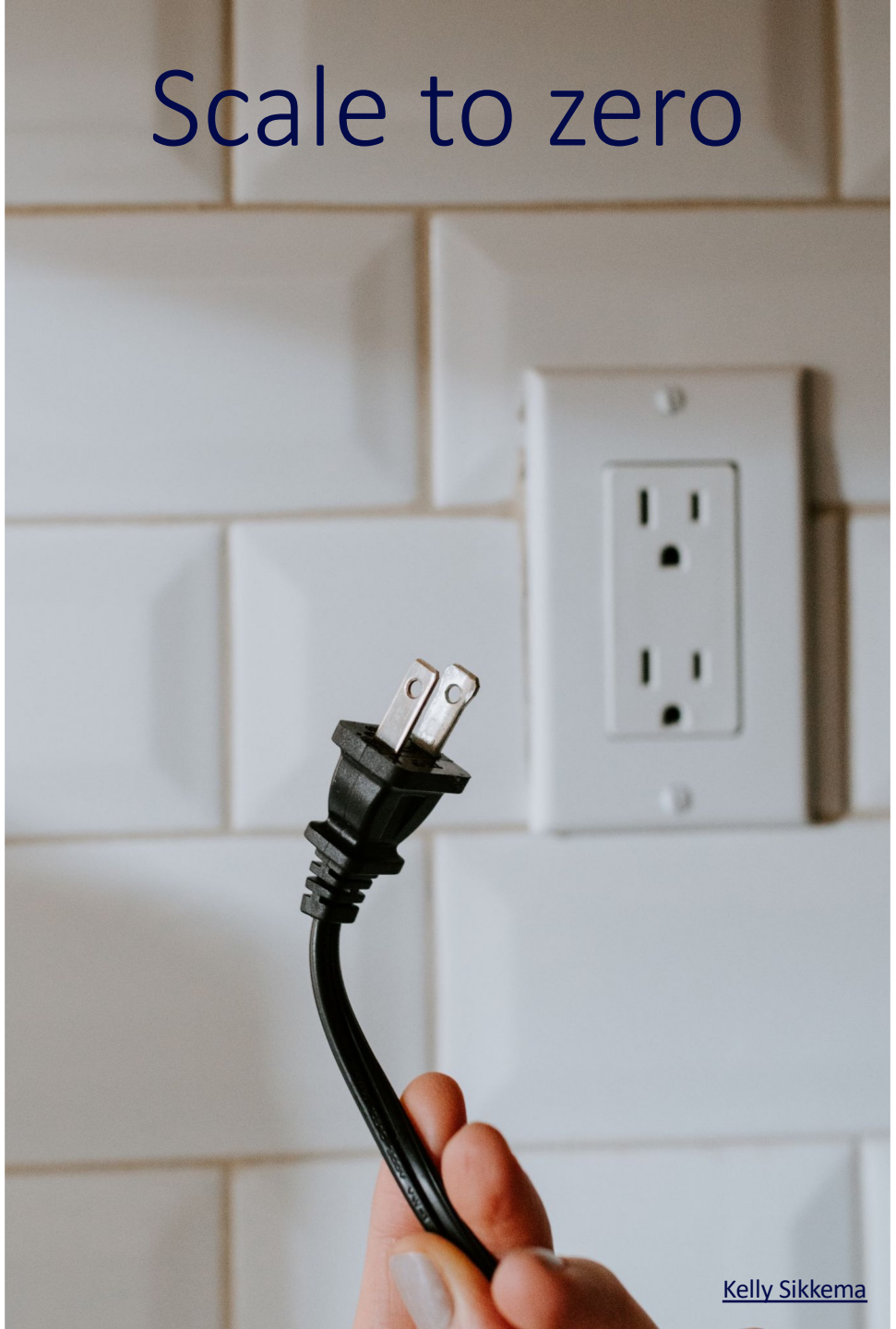


Serverless?

Pay as you go

Fabian Blank

Scale to zero



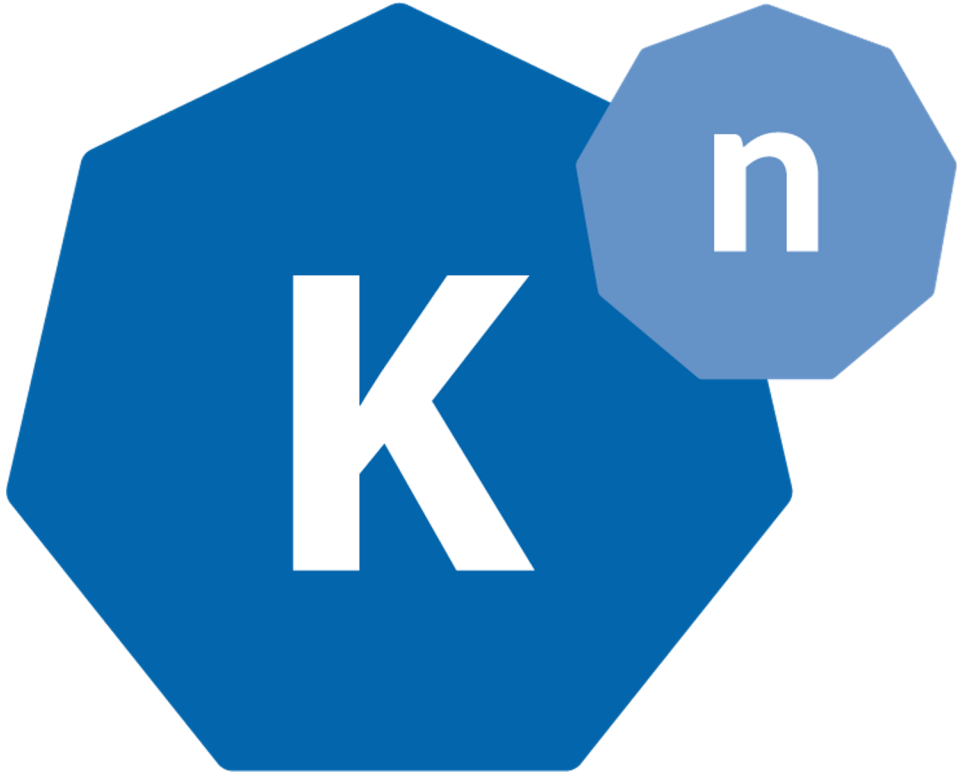
Kelly Sikkema

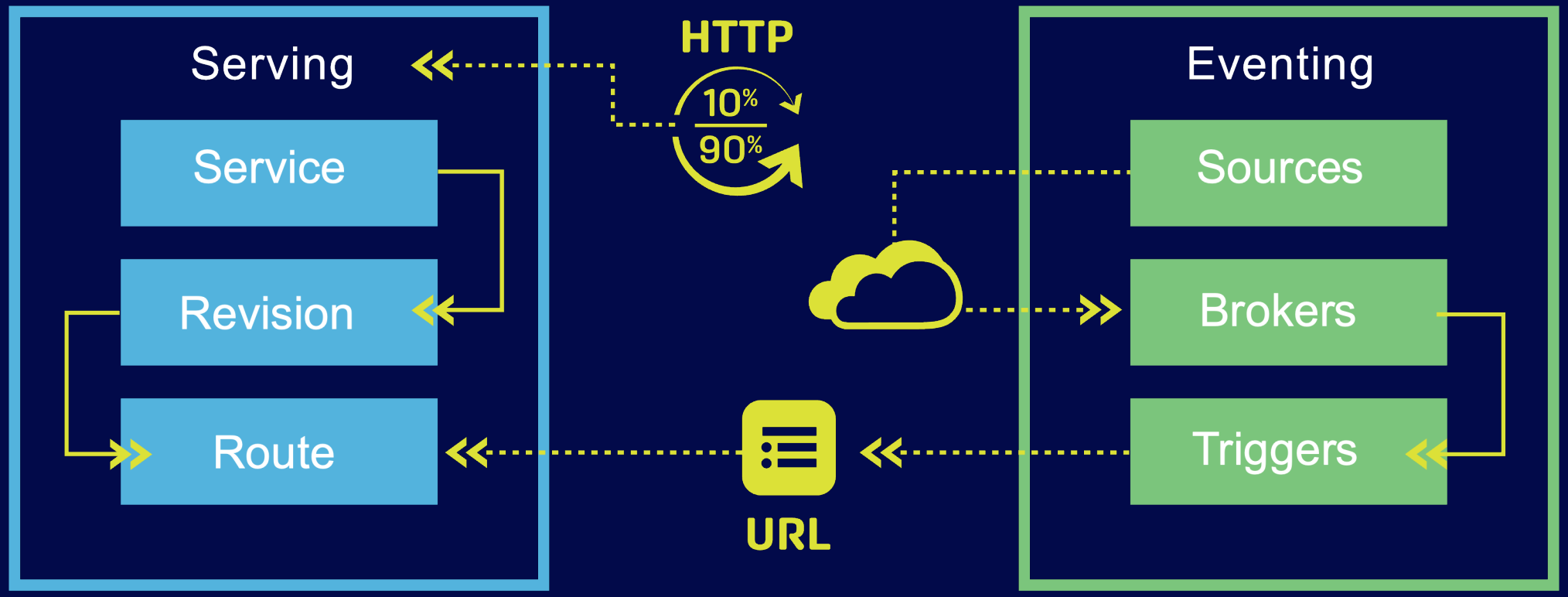
Google Cloud Functions

Cássio Paixão

hackviking

Knative



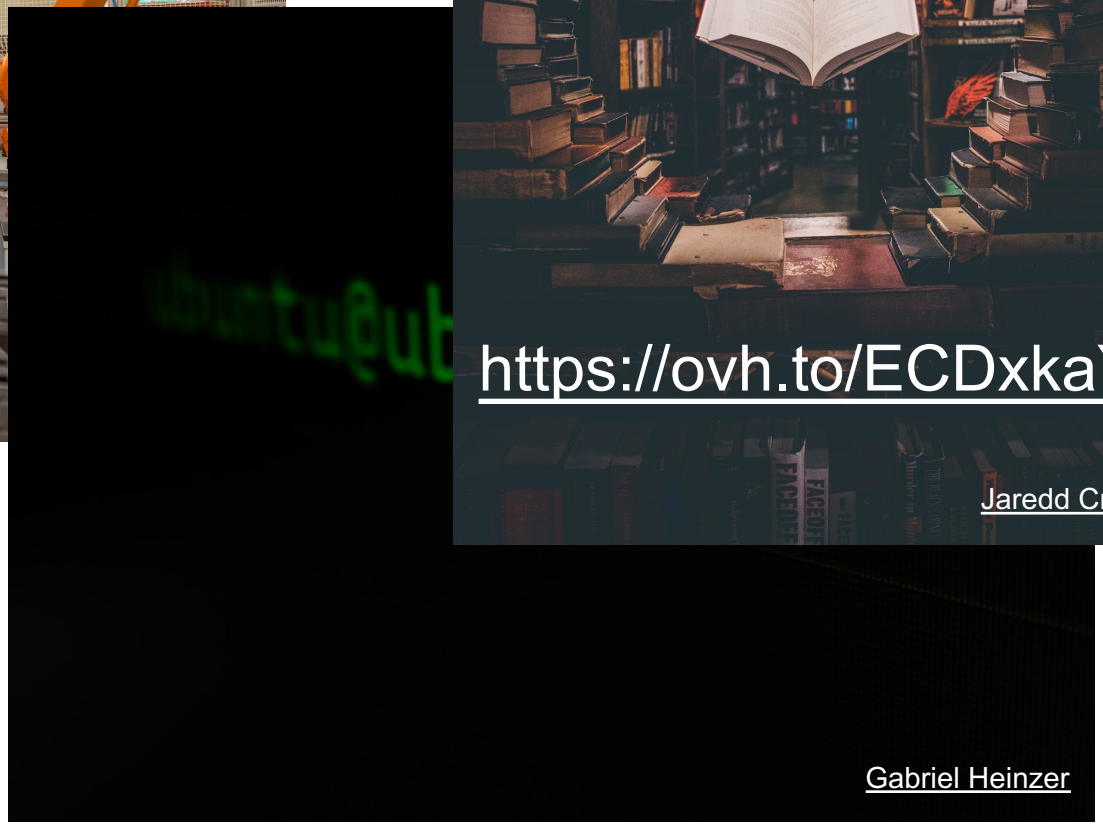


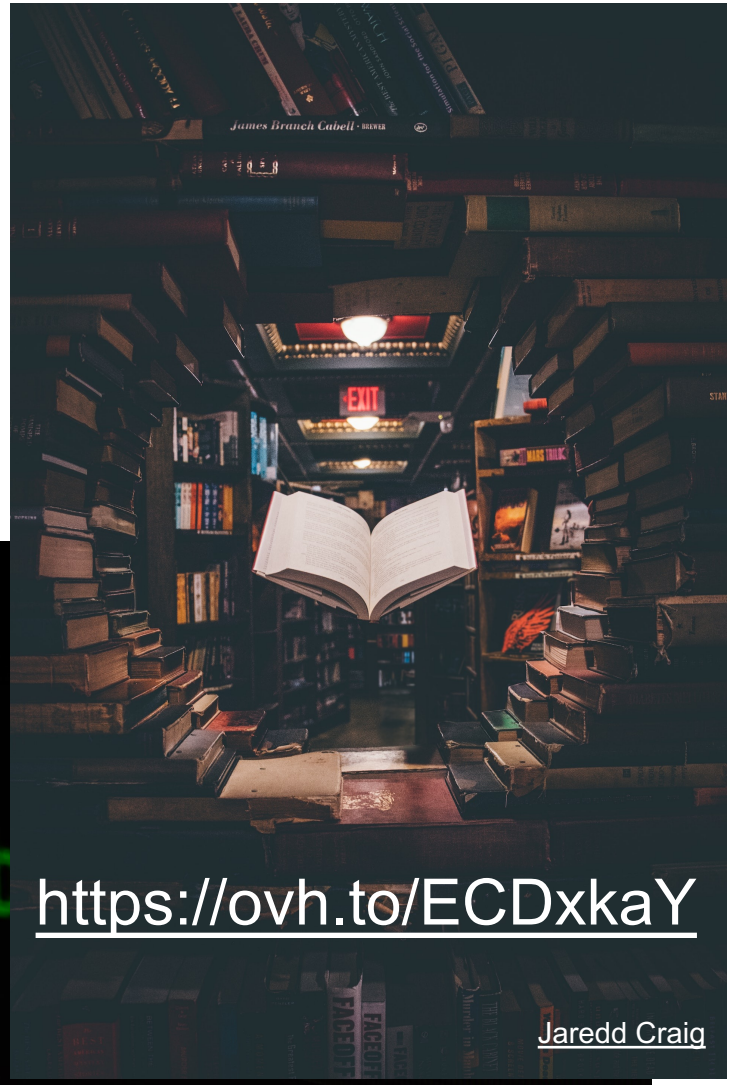
https://knative.dev/docs/

🏗️ Installing Knative

```yaml
apiVersion: apiex
kind: CustomResou
metadata:
  name: certifica
  labels:
    app.kubernete
    app.kubernete
    app.kubernete
    knative.dev/c
spec:
  group: networki
  versions:
    - name: v1alpha1
      served: true
      storage: true
      subresources:
        status: {}
# blabla wonderful YAML 😅
```

https://github.com/knative/serving/releases/download/knative-v1.8.3/serving-crds.yaml





https://ovh.to/ECDxkaY

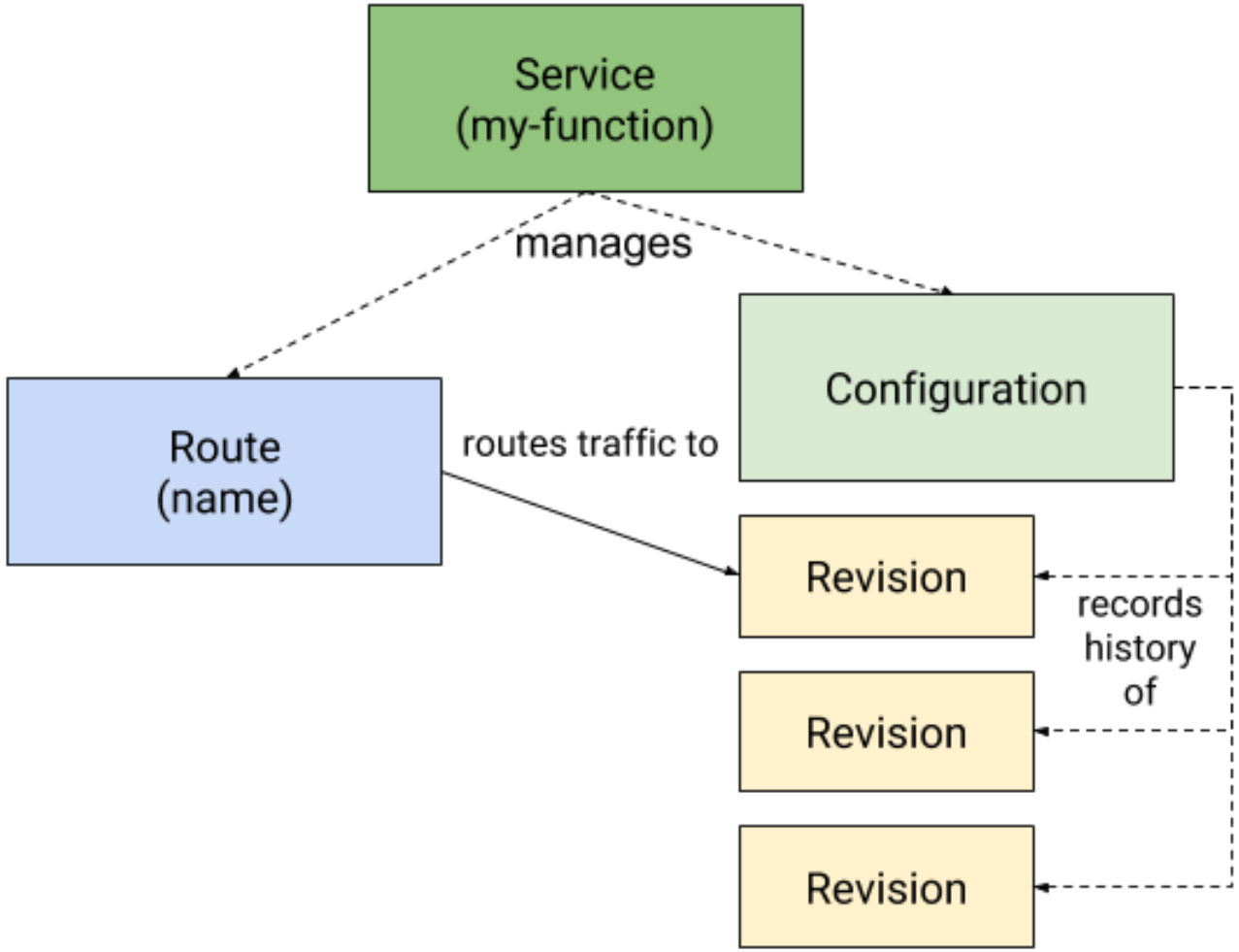
Jaredd Craig

Gabriel Heinzer

Serverless, are you kidding me?

Dasha Urvachova

Knative Serving



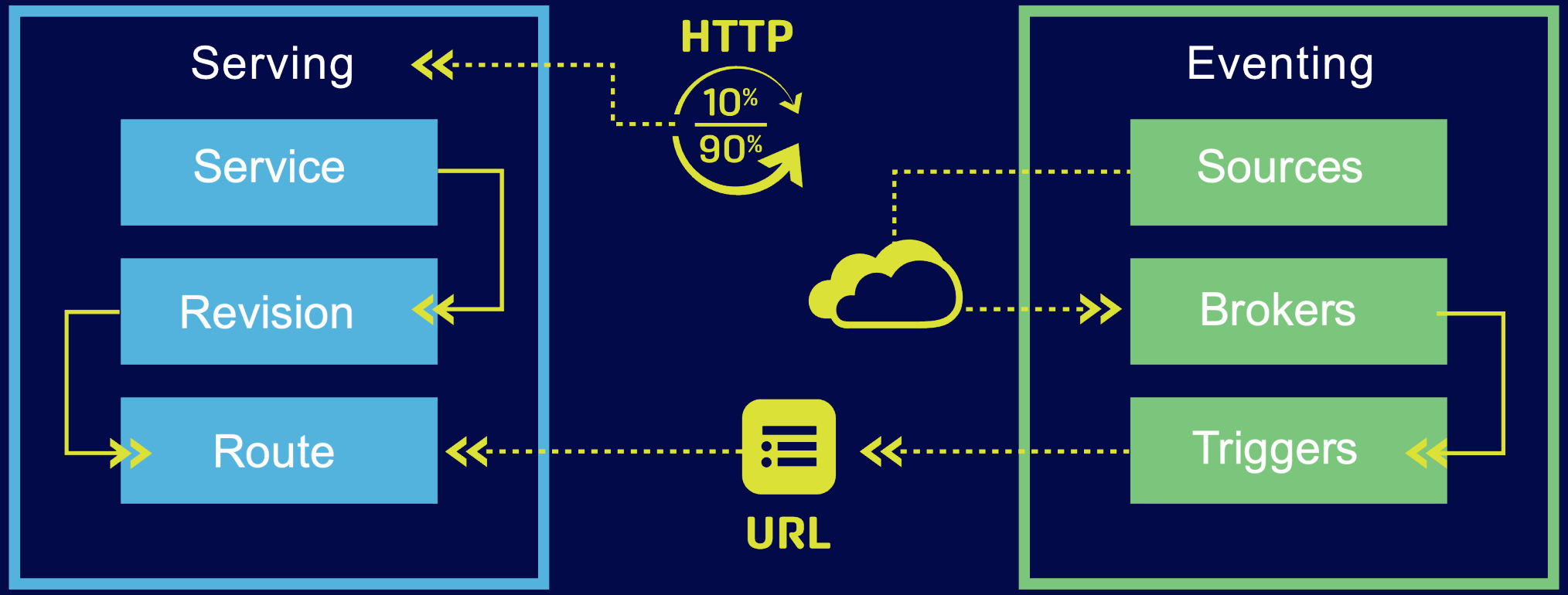
https://knative.dev/docs/serving/

Custom Resource Definition

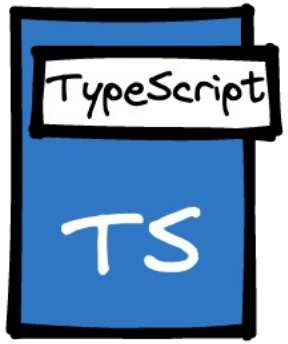
```yaml
apiVersion: apiextensions.k8s.io/v1
kind: CustomResourceDefinition
metadata:
  name: services.serving.knative.dev
  labels:
    app.kubernetes.io/name: knative-serving
    app.kubernetes.io/version: "1.8.3"
    knative.dev/crd-install: "true"
    duck.knative.dev/addressable: "true"
    duck.knative.dev/podspecable: "true"
spec:
  group: serving.knative.dev
  names:
    kind: Service
    plural: services
    singular: service
    categories:
      - all
      - knative
      - serving
    shortNames:
      - kservice
      - ksvc
  scope: Namespaced
  versions:
    - name: v1
  # ...
```

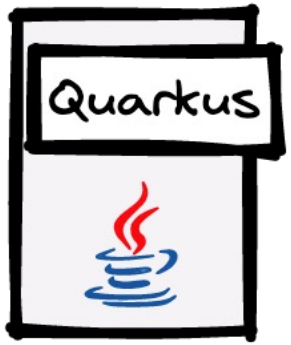
```yaml
apiVersion: serving.knative.dev/v1
kind: Service
metadata:
  name: helloworld-from-quarkus
  namespace: knative-samples
spec:
  template:
    spec:
      containers:
        - image: wilda/hello-world-from-quarkus
```

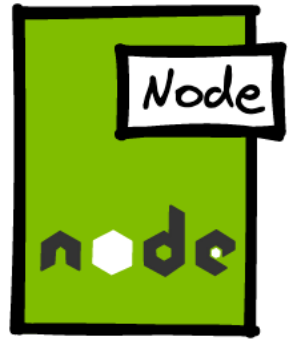
Knative Eventing



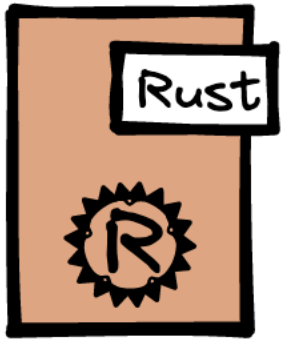
https://knative.dev/docs/

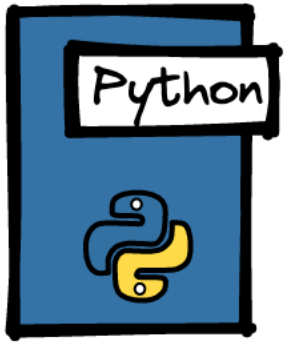




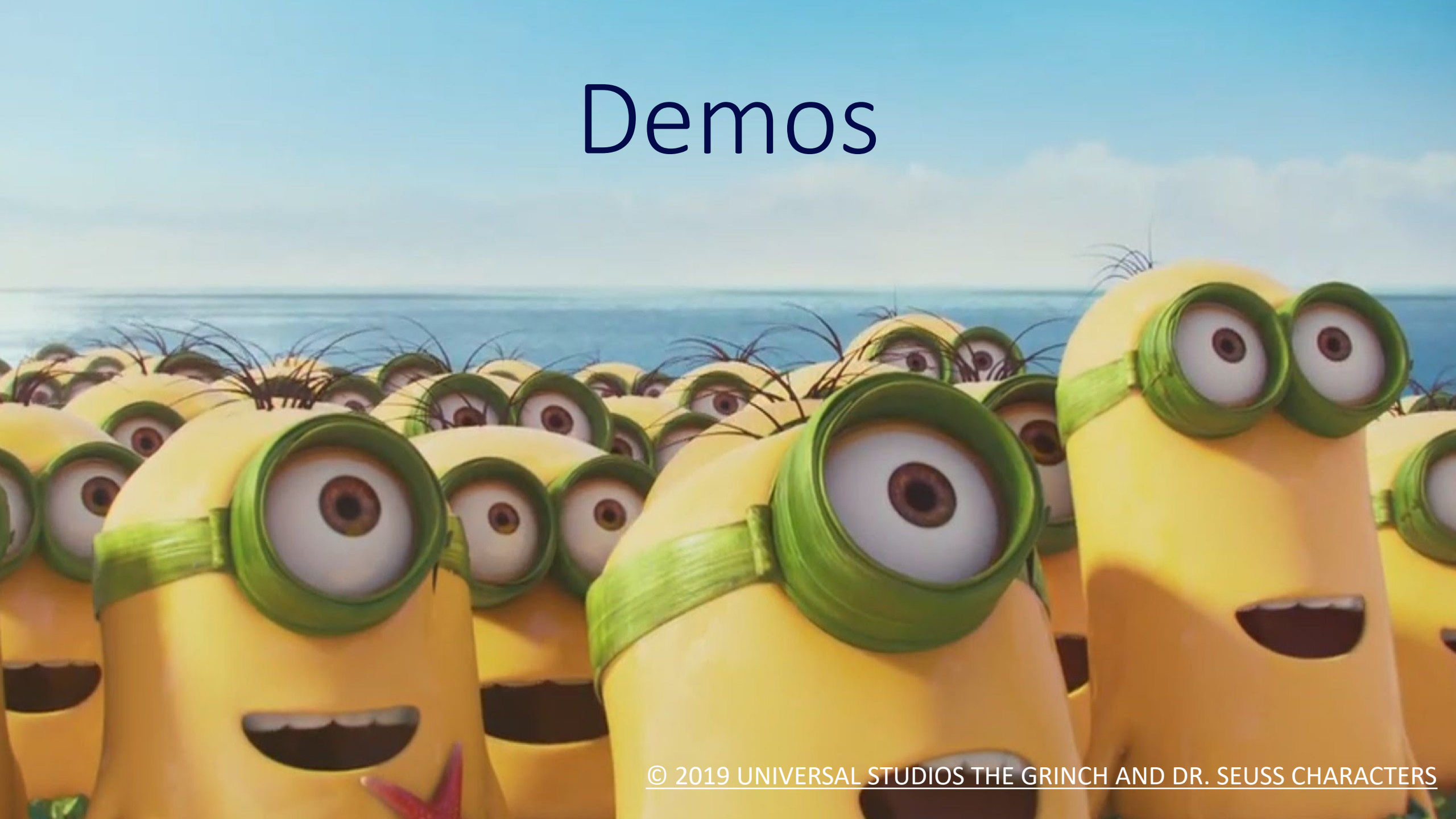


Knative Functions ❤️ FaaS





Demos



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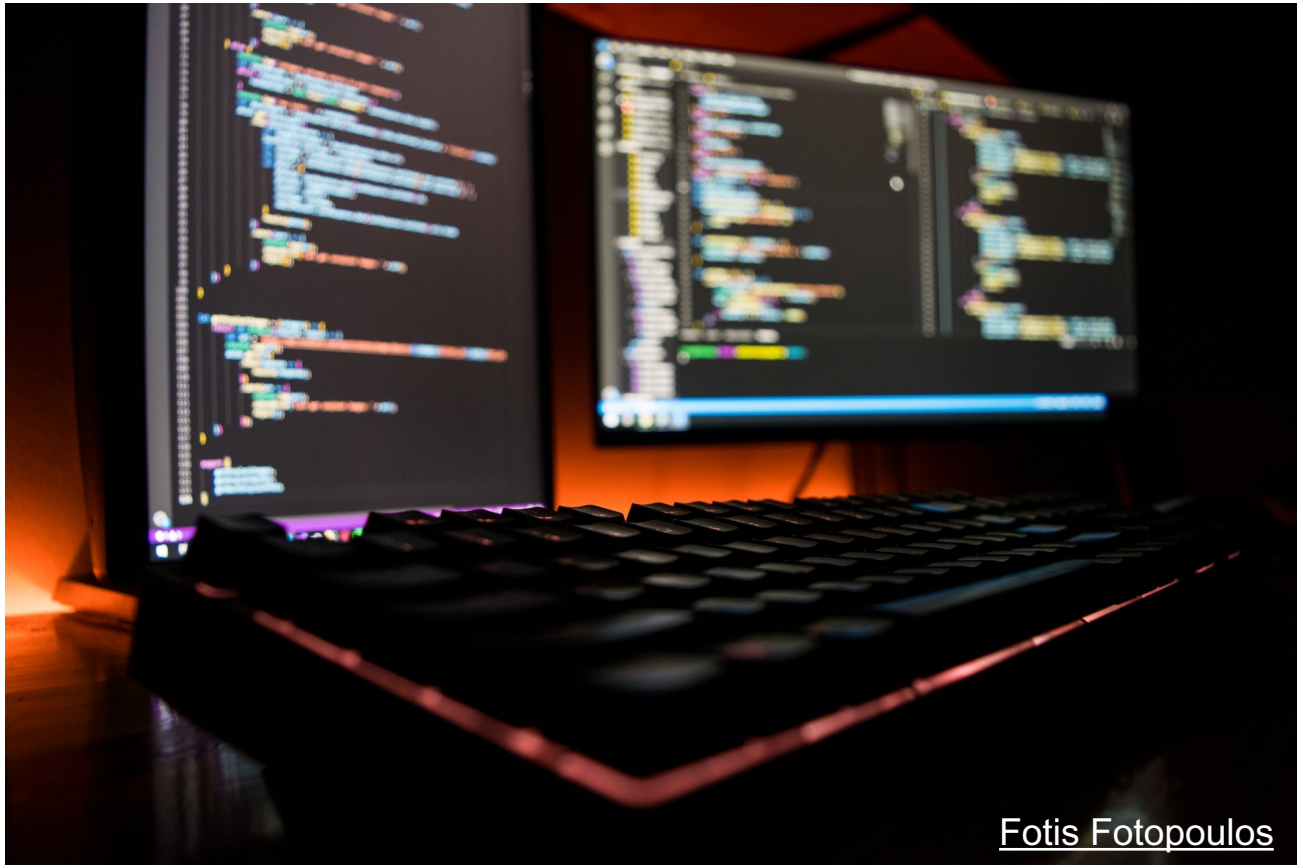
Have you met Quarkus?

SUPERSONIC /
SUBATOMIC /
JAVA

https://github.com/philippart-s/hello-world-from-quarkus

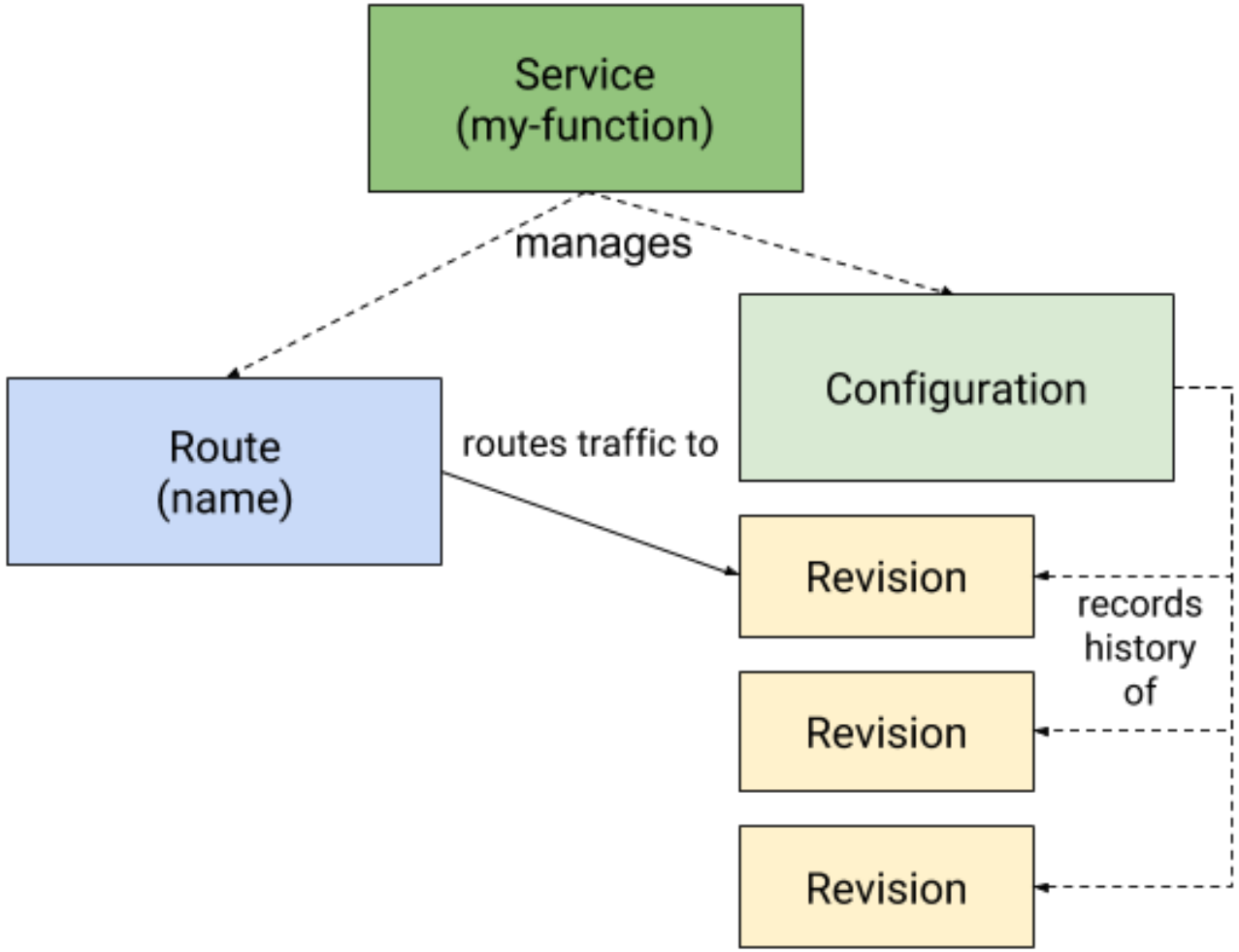
https://quarkus.io/

What we will try to do?



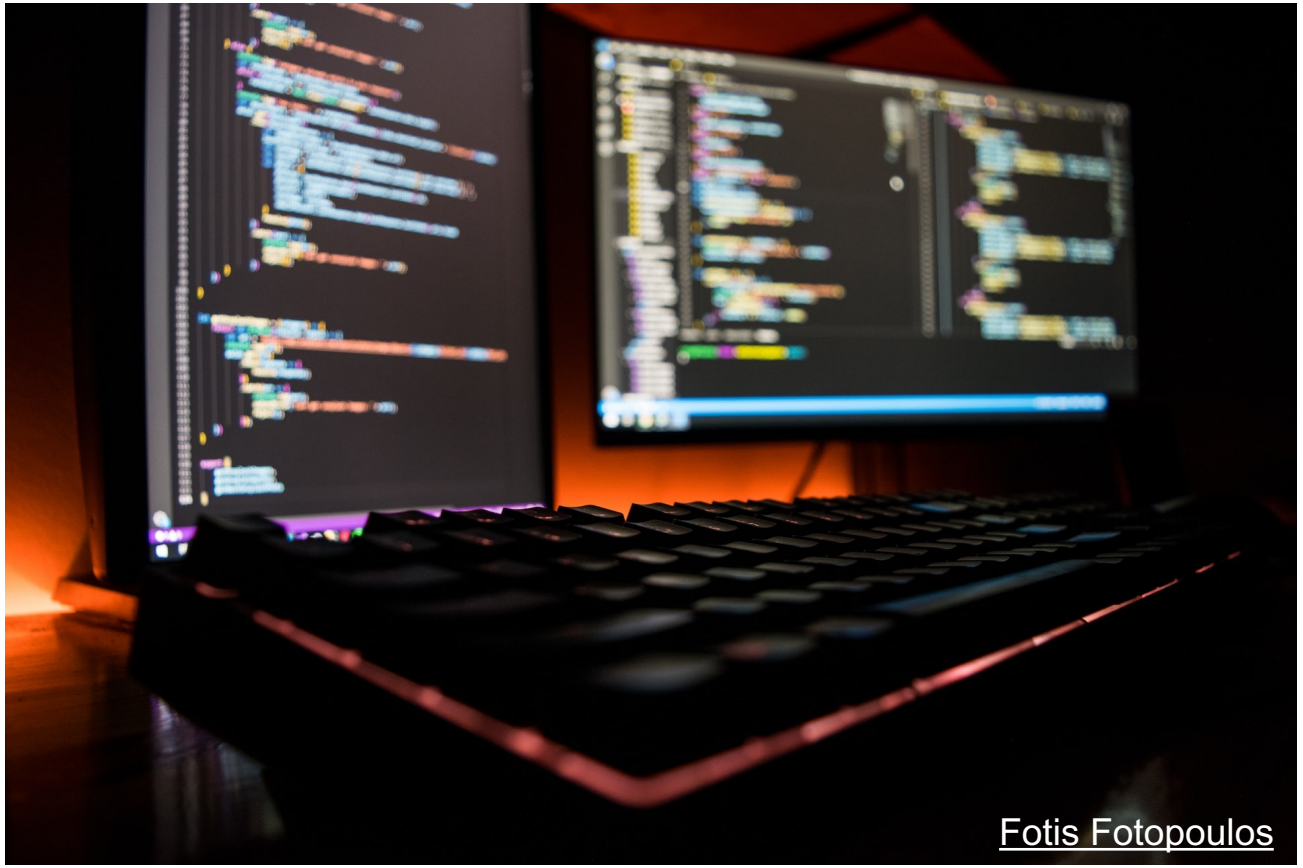
- 🏗️ Deploy a Quarkus application
- 0️⃣ Scale to zero

Knative Serving



https://knative.dev/docs/serving/

What we will try to do?



🏗️ Deploy a Quarkus application

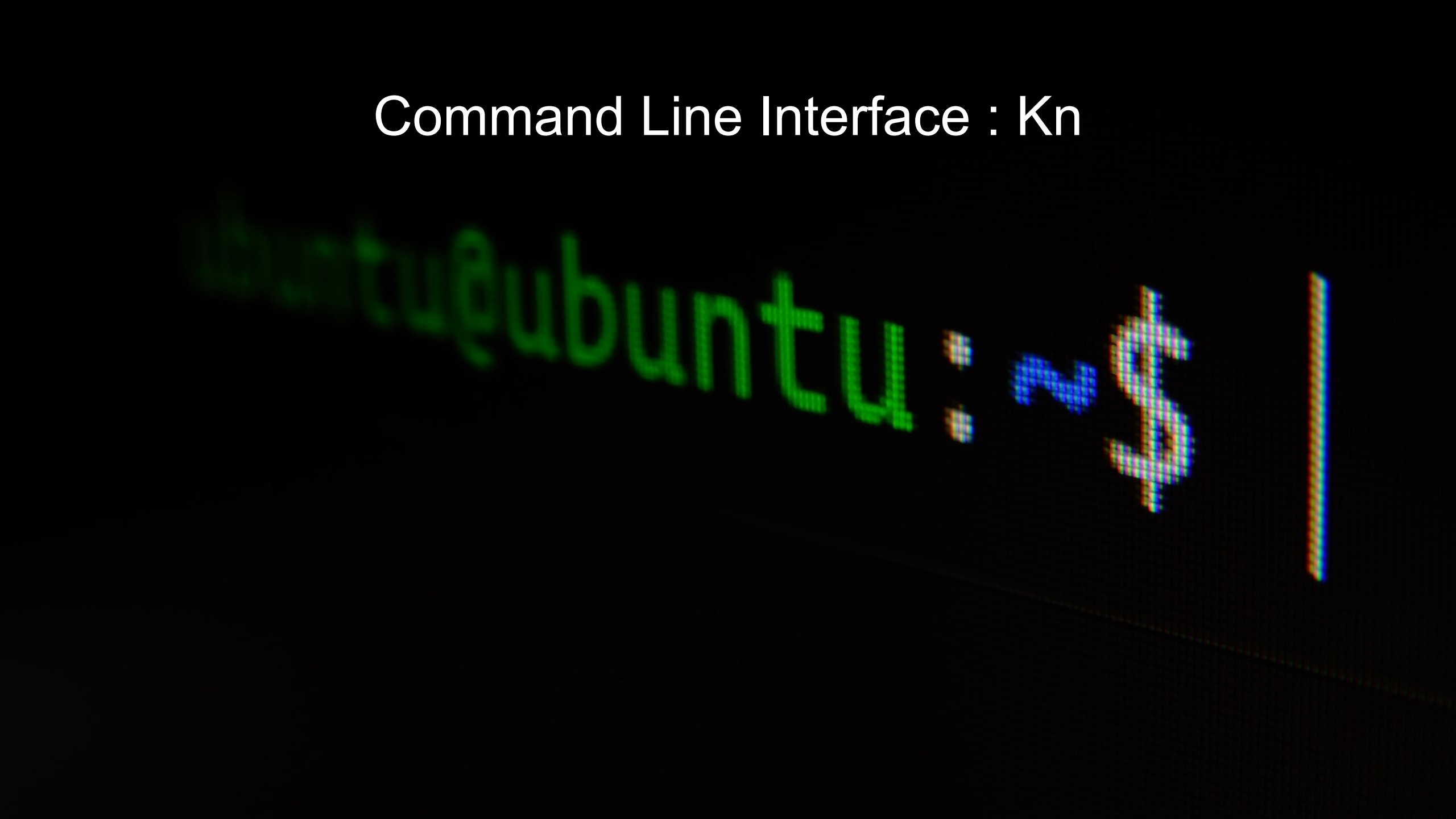
0️⃣ Scale to zero

🐤 Canary / blue-green deployment

Traffic Routing

Bahador

Command Line Interface : Kn



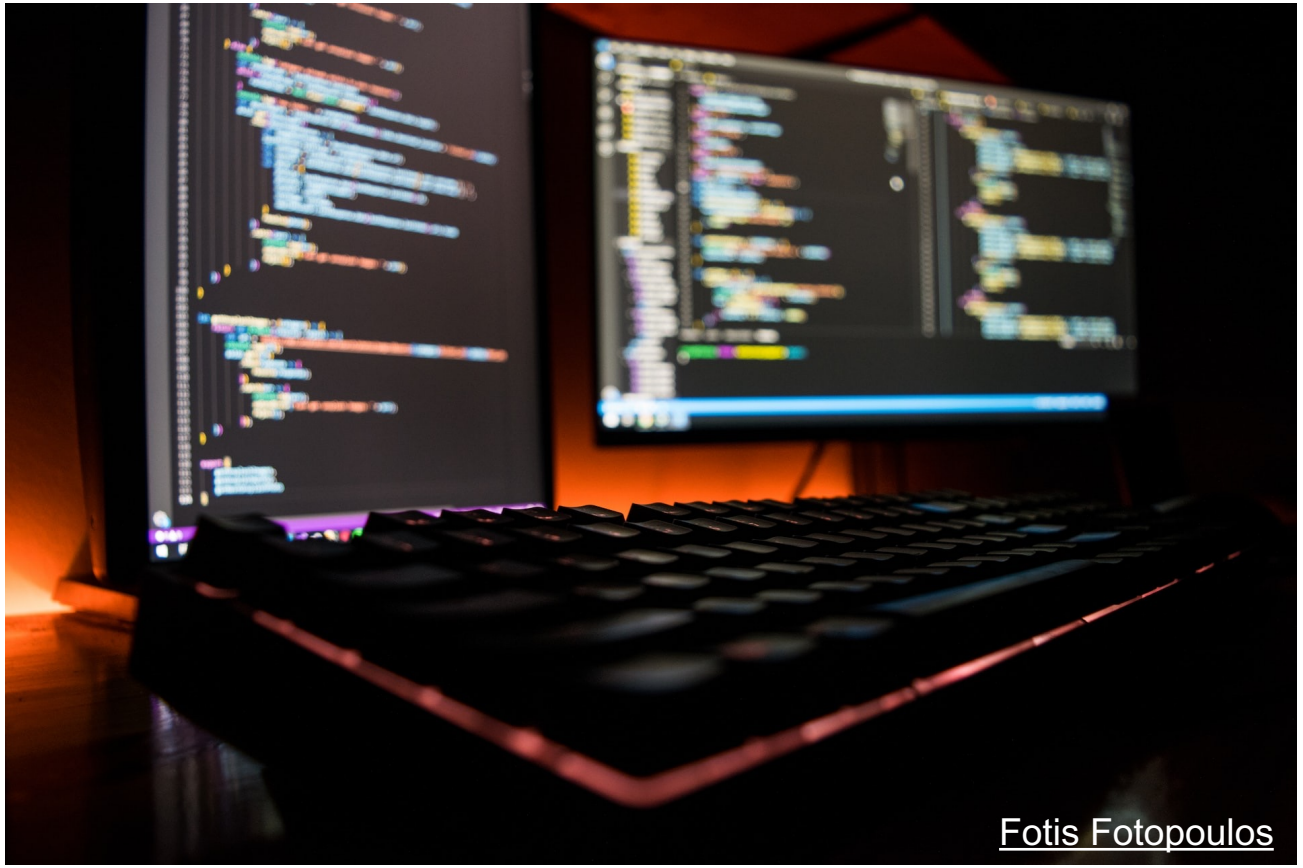
YAML?

WHERE WE ARE GOING,

WE DONT NEED YAML

Dr. Emmett Brown

What we will try to do?



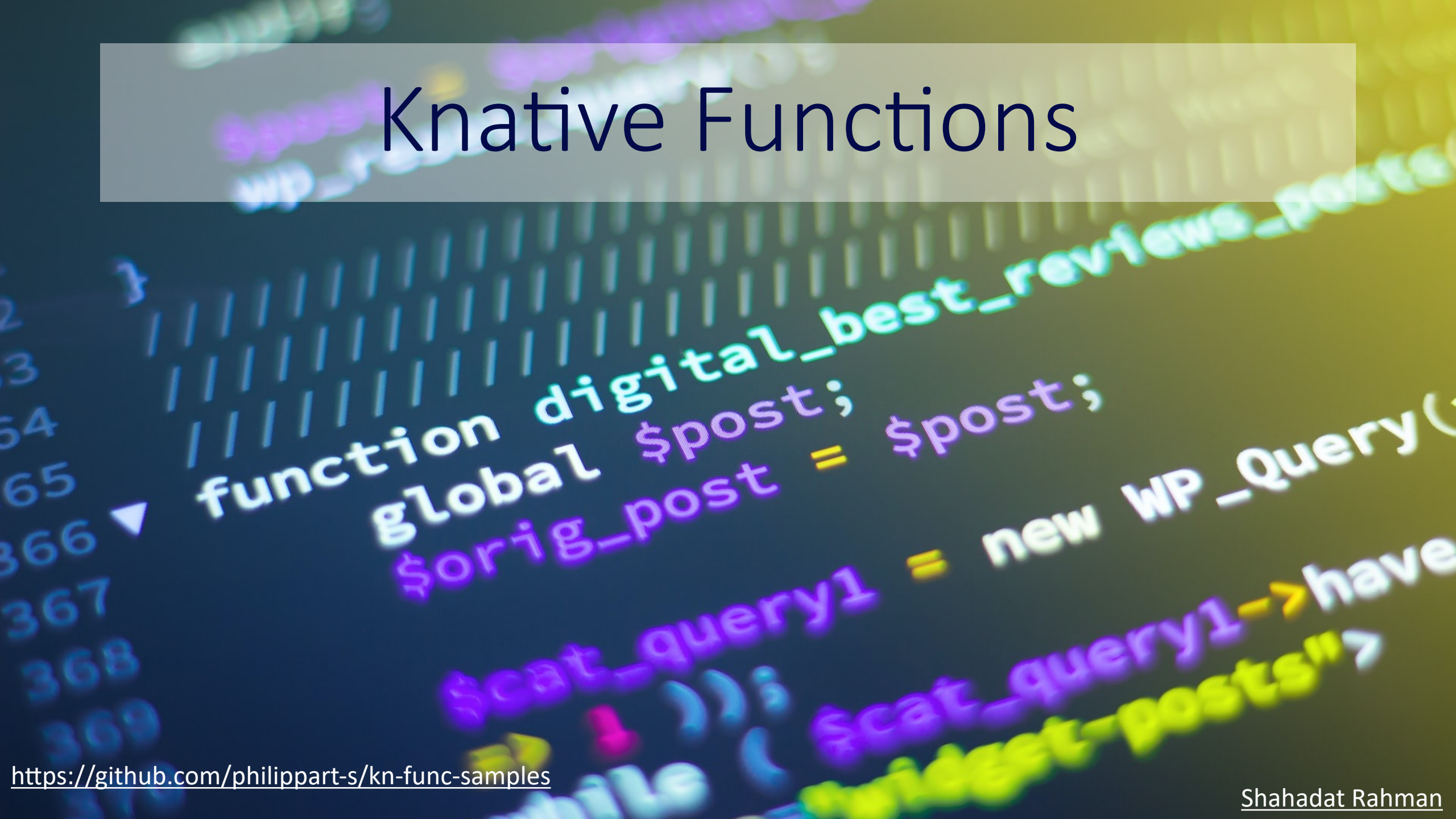
🏗️ Deploy a Quarkus application

0️⃣ Scale to zero

🐤 Canary / blue-green deployment

👷 Function as a Service

Knative Functions



https://github.com/philippart-s/kn-func-samples

Shahadat Rahman

Knative Serving ↔ CaaS

Knative Functions ↔ FaaS

CaaS with OVHAI

Milad Fakurian

Time to choose

OVHcloud

- **Web Cloud & Telcom**
- **Private Cloud**
- **Public Cloud**
- **Storage**
- **Network & Security**

30 Data Centers
in 12 locations

34 Points of Presence
on a 20 TBPS Bandwidth Network

2200 Employees
worldwide

115K Private Cloud
VMS running

300K Public Cloud
instances running

380K Physical Servers
running in our data centers

1 Million+ Servers
produced since 1999

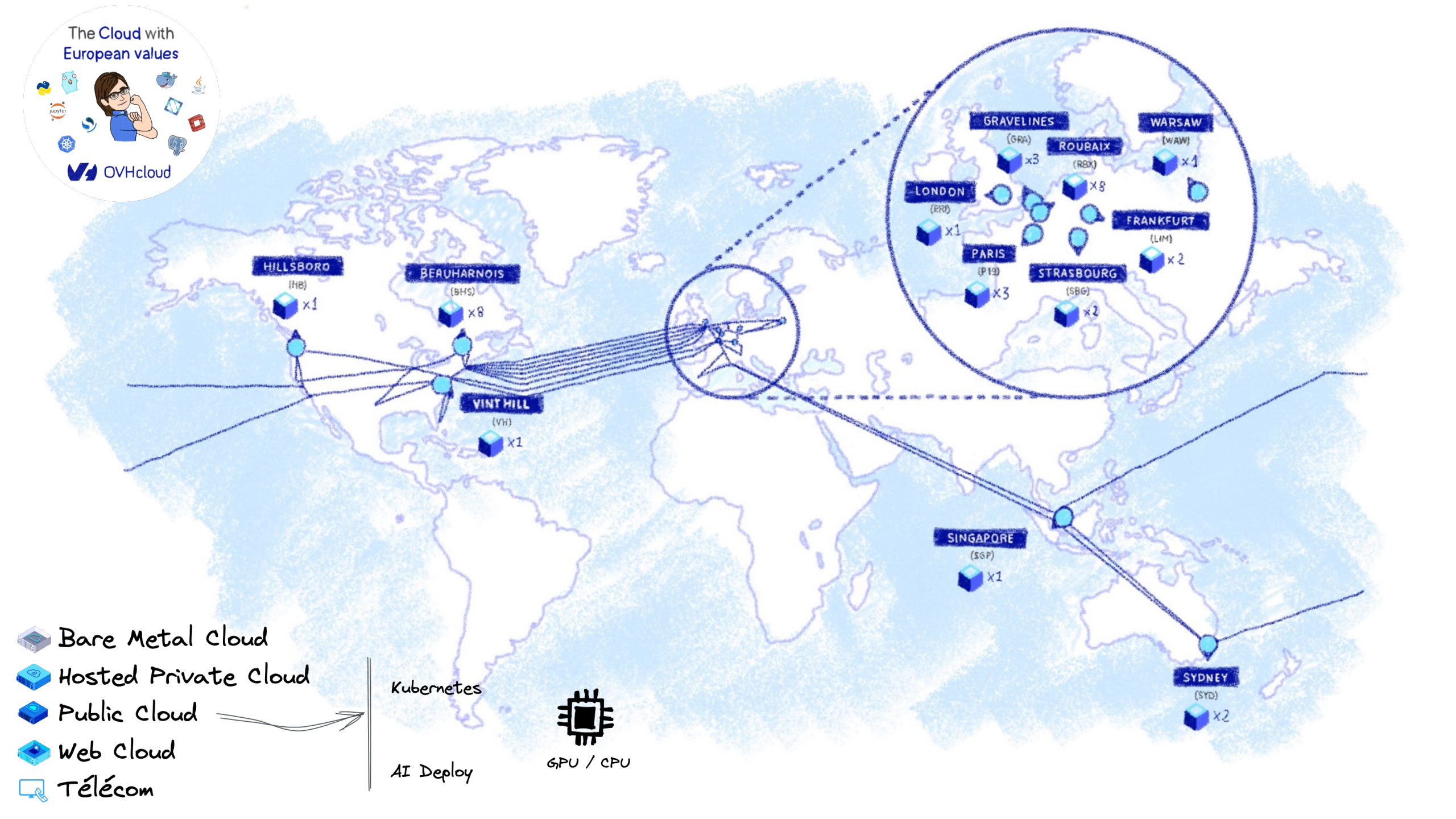
1.5 Million Customers
across 132 countries

3.8 Million Websites
hosting

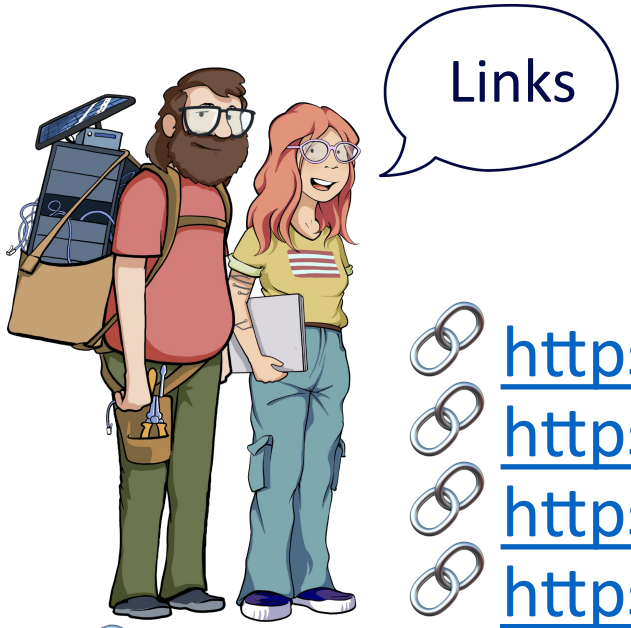
1.5 Billion Euros Invested
since 2016

P.U.E. 1.09
Energy efficiency indicator

20+ Years in Business
Disrupting since 1999


The Cloud with European values
OVHcloud
GRAVELINES
(GRA)
x3
ROUBAIX
(RBX)
x8
WARSAW
(WAW)
x1
LONDON
(ERI)
x1
FRANKFURT
(LIM)
x2
PARIS
(P19)
x3
STRASBOURG
(SBG)
x2
HILLSBORO
(HB)
x1
BEAUHARNOIS
(BHS)
x8
VINT HILL
(VH)
x1
SINGAPORE
(SGP)
x1
SYDNEY
(SYD)
x2
Bare Metal Cloud
Hosted Private Cloud
Public Cloud
Web Cloud
Télécom
Kubernetes
AI Deploy
GPU / CPU

https://ovh.to/tFHgKRe



- https://docs.ovh.com/gb/en/kubernetes/installing-knative/
- https://knative.dev/docs/
- https://cloudevents.io/
- https://quarkus.io/
- https://github.com/philippart-s/kn-serving-samples
- https://github.com/philippart-s/kn-func-samples
- https://www.ovhcloud.com/fr/public-cloud/ai-deploy/

VERY
TECH
TRIP
Powered by OVHcloud