

Co to znaczy **Cloud-Native?**

Piotr Bochyński, SAP
Marzec 06, 2019

PUBLIC



SAP Labs Poland

Top ecommerce,
marketing, billing

Development: Go, Java,
Cloud Native solutions



> 400 pracowników

Najlepszy Pracodawca
2017 w rankingu AON

Jedno z 20 centrów
SAP's Labs Network

**Co to znaczy
Cloud-Native**

06.03.2019

Piotr Bochyński

**Praca zespołowa
w praktyce. Jak
kodzić, żeby było git**

26.03.2019

Paweł Kosiec

**Jak to robią goffery,
czyli wprowadzenie do
języka Go**

07.05.2019

Arkadiusz Galwas
Jan Mędrek

**Wprowadzenie do
Spring Security**

12.03.2019

Tomasz Miler

**Tego nie wiesz o JS:
Scope & Closures -
warsztat**

11.04.2019

Edyta Sporysz
Krzysztof Krupa

**Co powinieneś wiedzieć o
prawidłowym logowaniu
danych w aplikacjach**

21.05.2019

Sebastian Rulik
Dawid Swęda
Henryk Nowakowski

Kogo szukamy?

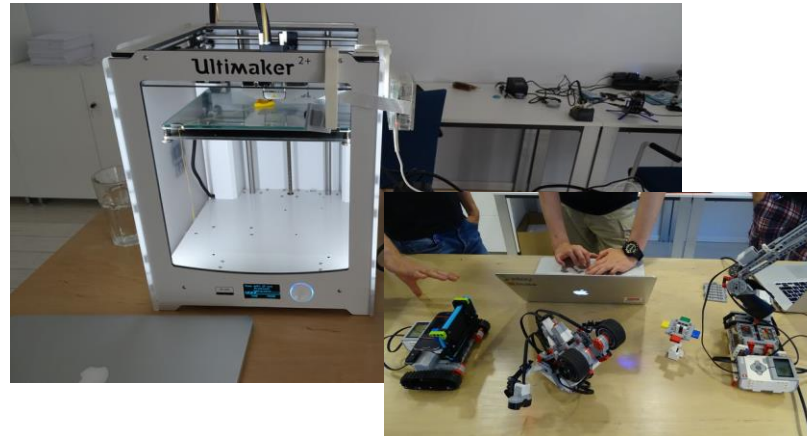


Studentów

- **Students in Development Teams**
(Support engineers, Product Development, Open Source)
- **Hack Team (recruitment starts in April)**
(3 months internship, 2 teams realizing dedicated projects)

Profesjonalistów

- **Software Developers**
(Cloud Native Solutions, Go, Java)
- **DevOps Engineers**
(Kubernetes, Cloud Foundry)
- **Support Engineers**
(Java Spring)



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CNCF Cloud Native Definition v1.0

Cloud native technologies empower organizations to build and run **scalable** applications in **modern, dynamic environments** such as public, private, and hybrid **clouds**. Containers, service meshes, microservices, immutable infrastructure, and declarative APIs exemplify this approach.

These techniques enable loosely coupled systems that are resilient, manageable, and observable. Combined with robust automation, they allow engineers to **make high-impact changes frequently and predictably** with minimal toil.

CNCF Cloud Native Definition v1.0

Technologie cloud-native umożliwiają budowanie i utrzymanie **skalowalnych** aplikacji w **nowoczesnych, dynamicznych środowiskach** takich jak publiczne, prywatne i hybrydowe **chmury**. Kontenery, sieci usług (service mesh), mikroserwisy, niezmienna infrastruktura i deklaratywne API to kluczowe przykłady.

Technologie te pozwalają na tworzenie odpornych na awarie, łatwo zarządzanych, monitorowanych i luźno powiązanych systemów. W połączeniu z niezawodną automatyzacją umożliwiają programistom **dostarczanie znaczących zmian często i przewidywalnie**, ale z minimalnym wysiłkiem.

I TO BYŁ OSTATNI SLAJD PO POLSKU

The Cloud Native Computing Foundation builds sustainable ecosystems and fosters a **community** around a constellation of **high-quality projects** that orchestrate containers as part of a microservices architecture.



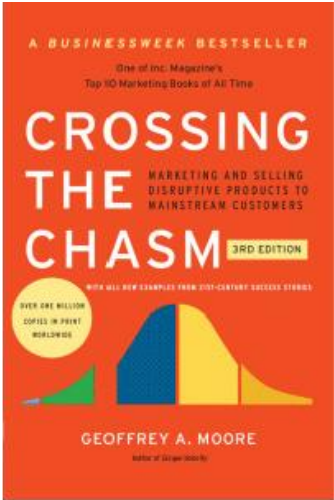
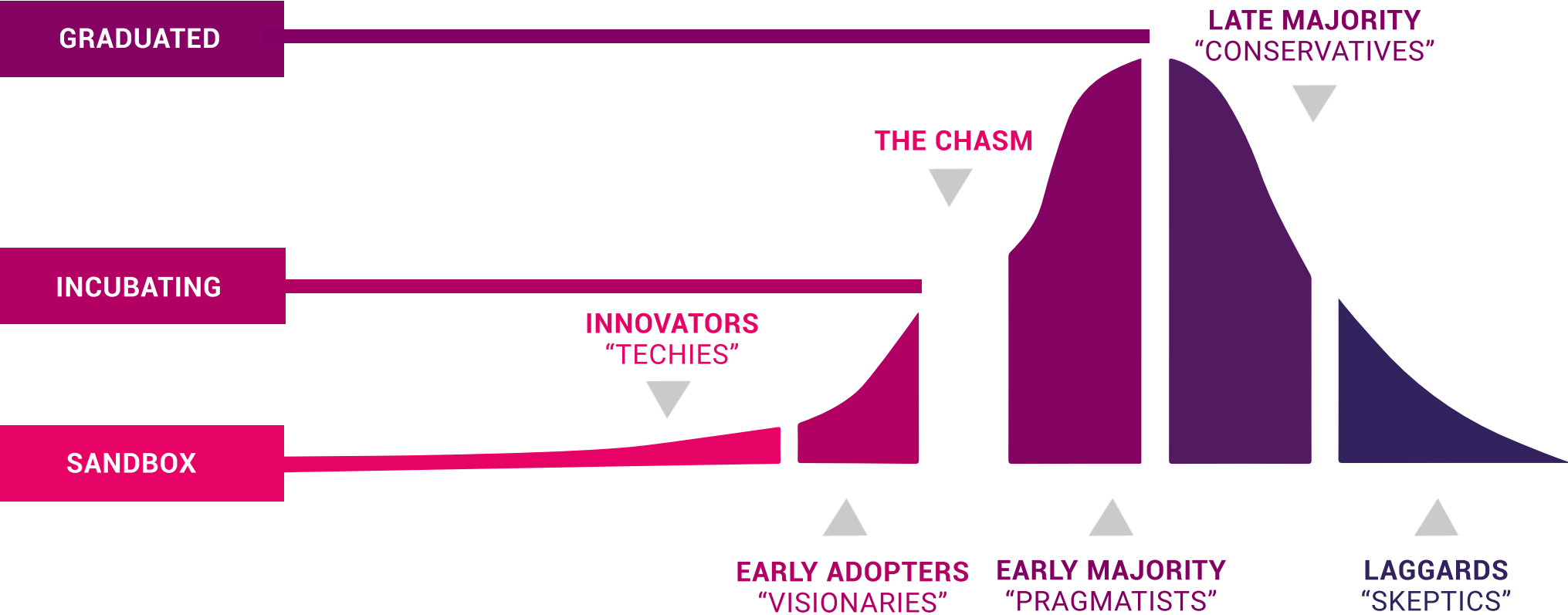
**CLOUD NATIVE
COMPUTING FOUNDATION**



CLOUD NATIVE Landscape

Cloud

Poziomy dojrzałości projektów





Kubernetes

Orchestration



Prometheus

Monitoring



Envoy

Service Proxy



CoreDNS

Service Discovery



containerd

Container Runtime



OpenTracing

Distributed Tracing API



Fluentd

Logging



gRPC

Remote Procedure Call



rkt

Container Runtime



CNI

Networking API



Jaeger

Distributed Tracing



Notary

Security



TUF

Software Update Spec



Vitess

Storage



NATS

Messaging



Linkerd

Service Mesh



Helm

Package Management



Rook

Storage



Harbor

Registry

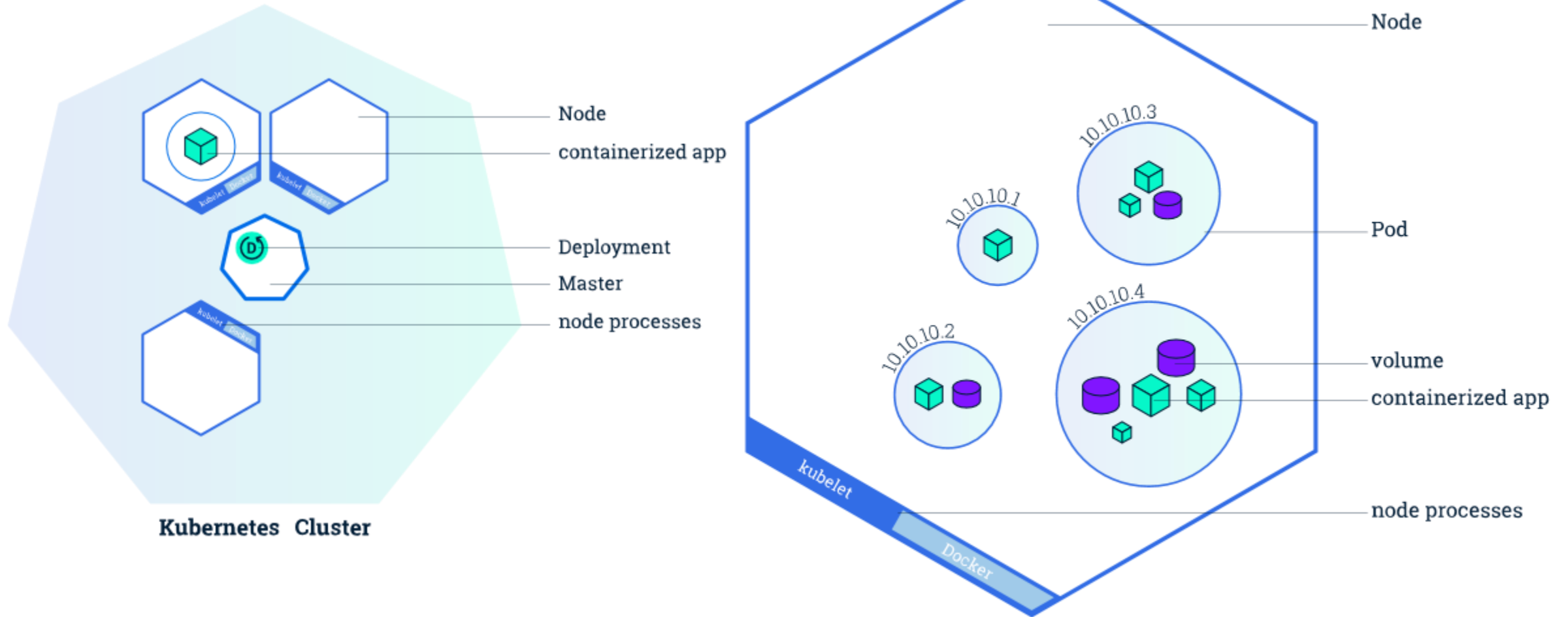


etcd

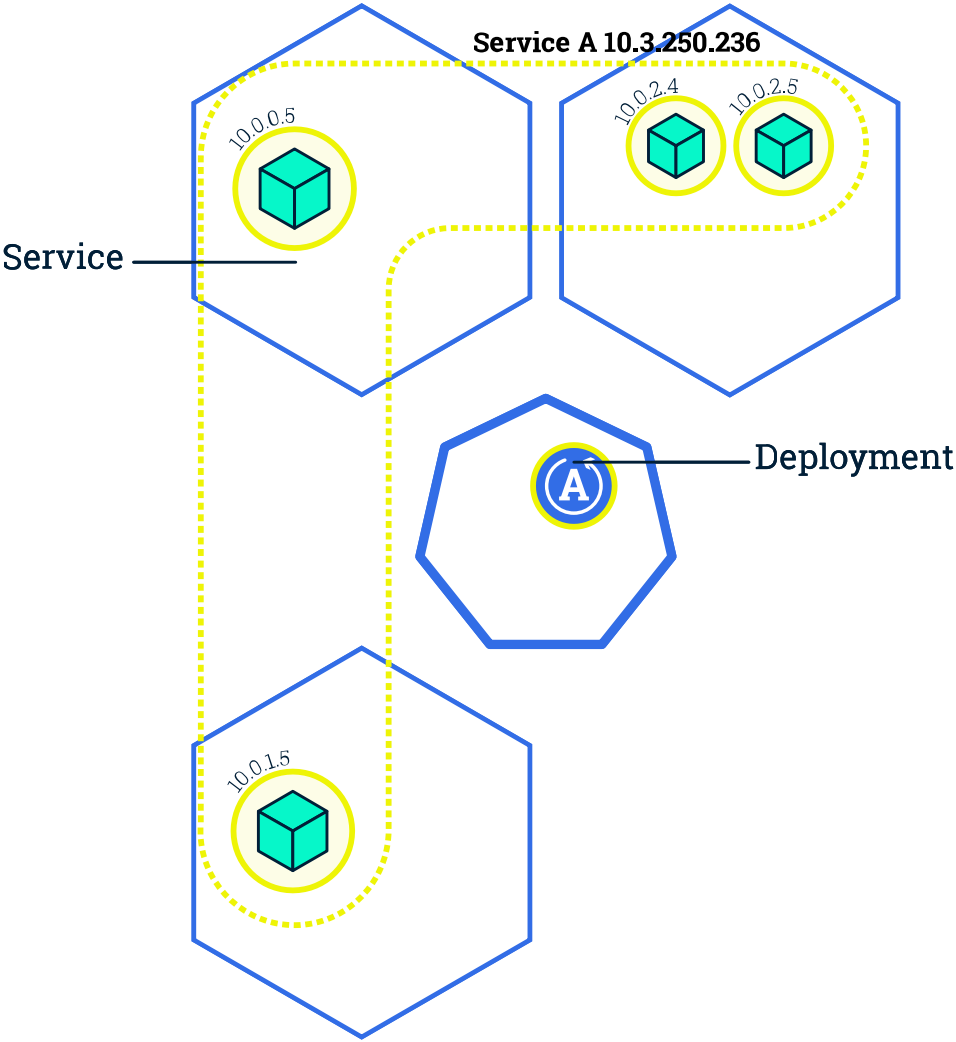
Key/Value Store

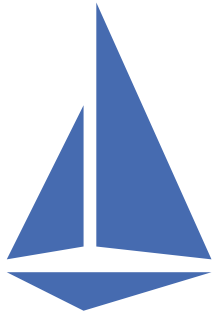


kubernetes



Skalowanie





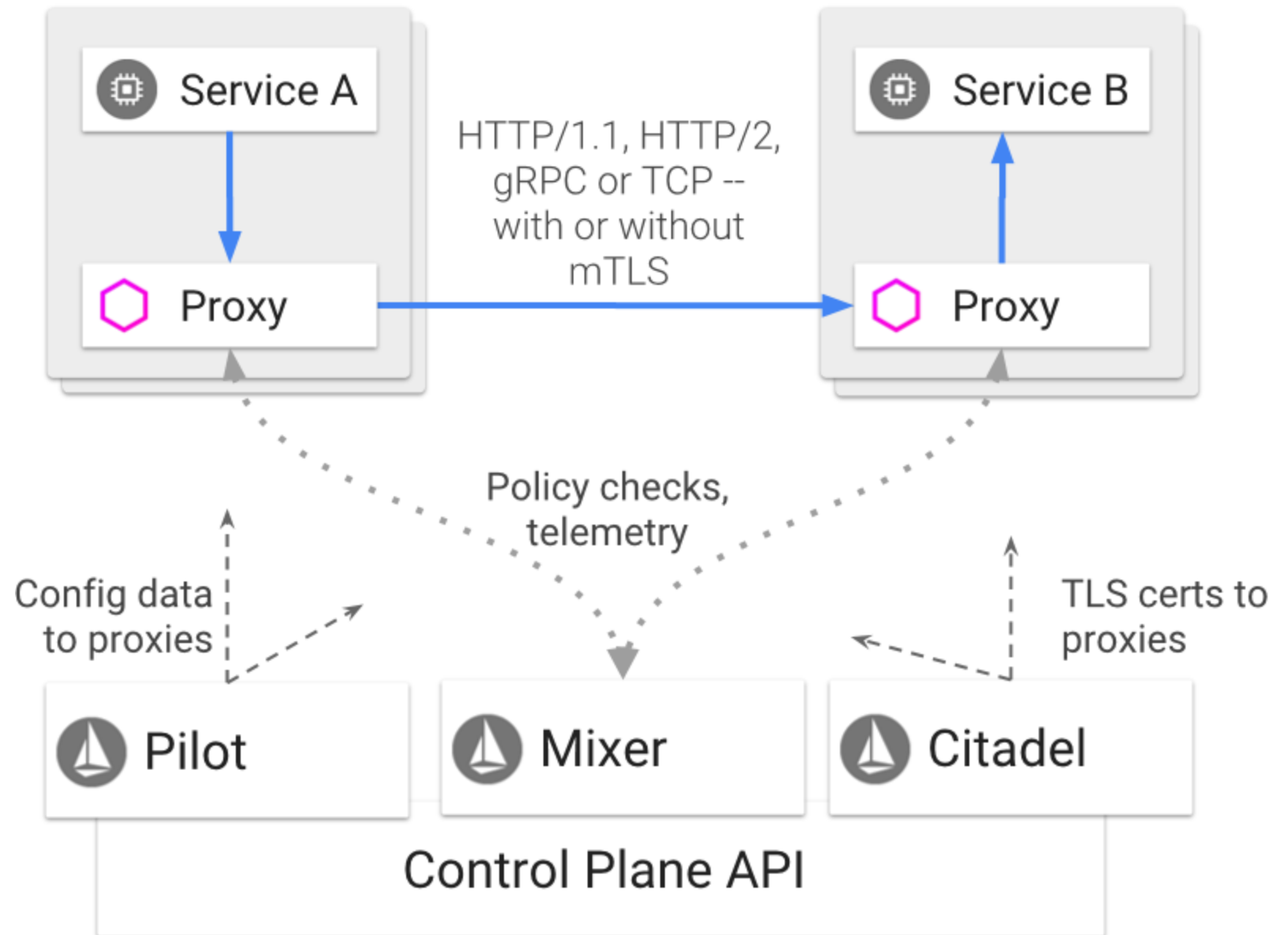
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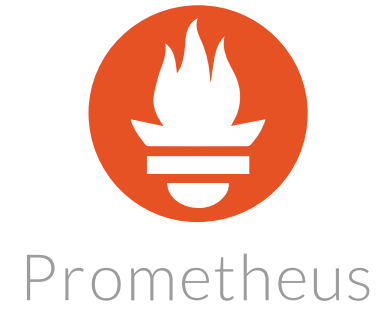
Traffic management

- Routing, retries, failover, circuit breakers, timeouts...

Security

Observability





Google Kubernetes Engine





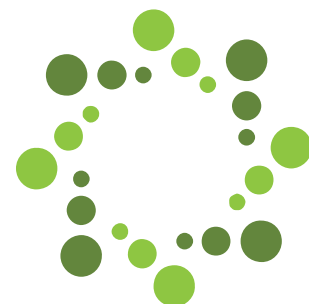
Kyma
kyma-project.io



Knative



Google Cloud



**OPEN SERVICE
BROKER API**

Project Kyma

Our approach to engage with implementation partners and developers out there

- Feedback
- Scenarios
- Contributions and improvement proposals
- Co-innovation
- Connect Legacy app to build extensions

Feeds innovation into SAP Cloud Platform Extension Factory

Prototype new ideas and validate them with the community

Get Involved!

kyma-project.io



GitHub

github.com/kyma-project



Twitter

[@kymaproject](https://twitter.com/kymaproject)



LinkedIn

www.linkedin.com/company/kyma-project/



Slack

slack.kyma-project.io



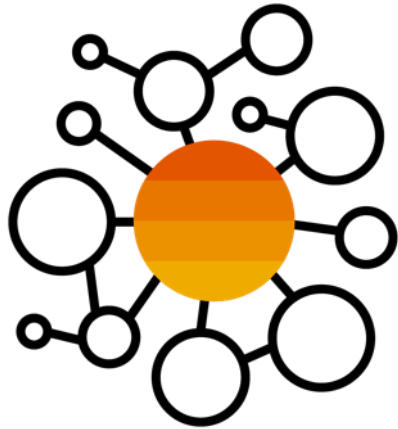
YouTube

youtube.kyma-project.io

LIVE DEMO

Hello Cloud-Native ☺

Today's IT Challenges



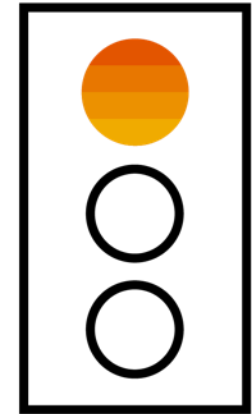
Heterogeneous
Product Portfolio



Monolithic
Deployments



Cloud Native
Development



Need for Speed

How Kyma addresses these challenges

“Kyma gives you the **independence to **efficiently** solve your business problems with **low-risk**.”**

Outside the core's stack
Language of choice
Built on open standards

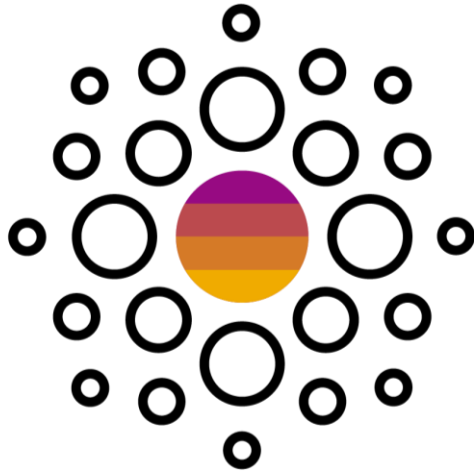
Fosters re-usability
Open to 3rd party services
Scalability

Microservice simplicity
Side-by-side extensibility
Fast time-to-production

ARCHITECTURE

OVERVIEW

Key Capabilities of Kyma



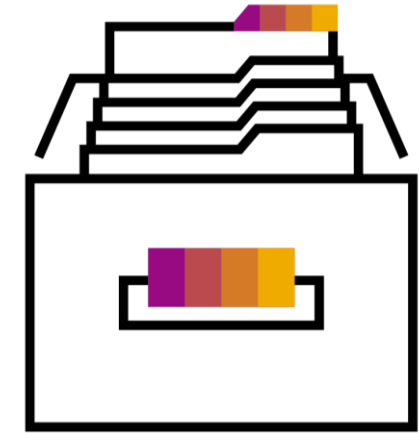
Application Connectivity

Smart approach to have secure connectivity between systems allowing seamless API and event integration of the existing applications. Manage and orchestrate existing applications to build business solution even in heterogenous landscapes



Serverless

Native serverless support for functions and asynchronous processing with a hassle free deployment and the ability to scale up or scale down automatically



Service Management

Catalog of reusable, integrated services for developers, both in-house and 3rd party services. Drives agility and efficiency through the reuse across the enterprise

EXTENSIBILITY **SCENARIO**

Requirements

I want to have a blog for my products (wordpress based)

I want to **publish comments** immediately, but only those:

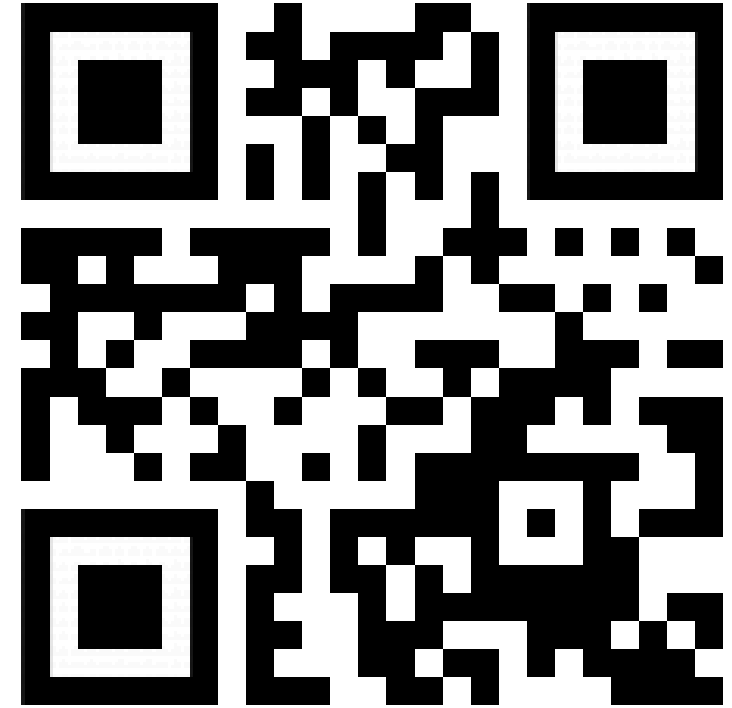
- written by my **customers** (people who bought at least one product)
- written in **Polish** with **positive** message

I want to **scale** my code horizontally

I want to have **monitoring**, alerting and **tracing** with nice **dashboards**

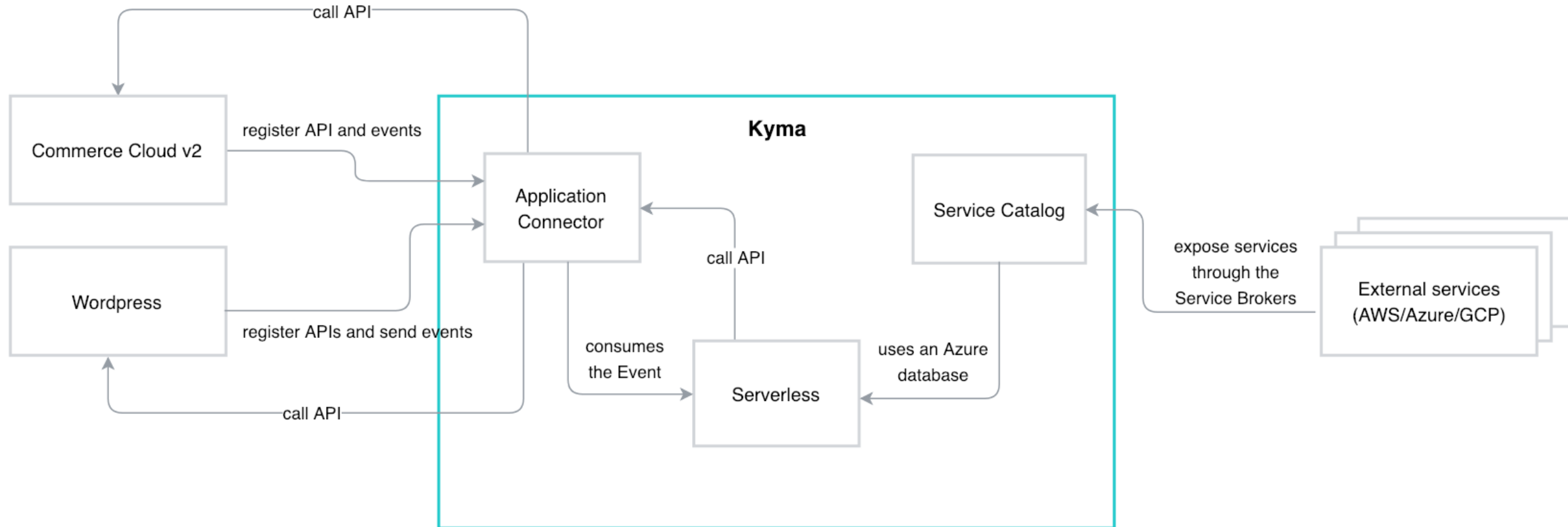
I can't write **PHP** code, and I lost all my **Java** skills

I don't want to modify or **redeploy** CCv2 instance



wordpress.demo.kyma.pro

Extensibility scenario



LIVE DEMO

The Kyma **Mission**

Make simple things simple again!

Kyma aims to equip enterprise software users with agile tools to customize, extend, and integrate any API-enabled application and tailor it to their needs.

In simple words: Kyma allows you to extend, integrate and modernize your monoliths in a cloud-native fashion.

Q&A

Thank you.

