Why Companies Fail at Internal Developer Platforms

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- **Platform Engineer and Squad Lead**
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- **Ambassador**
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Target

- Introduction to Internal Developer Platforms
- The Role of Platform Engineering in Building and Managing an IDP
- The $$$$ building your own Platform Team and Platform
- 3 common Pitfalls When Choosing the Right Solution and How to Avoid Them
- Why IDP matters and which companies should start with it.
- Platformless as a possible solution with Choreo!

- AI won't save you! But help you!

Terminology

- **Internal Developer Platform (IDP)**
- **DevOps Engineer**

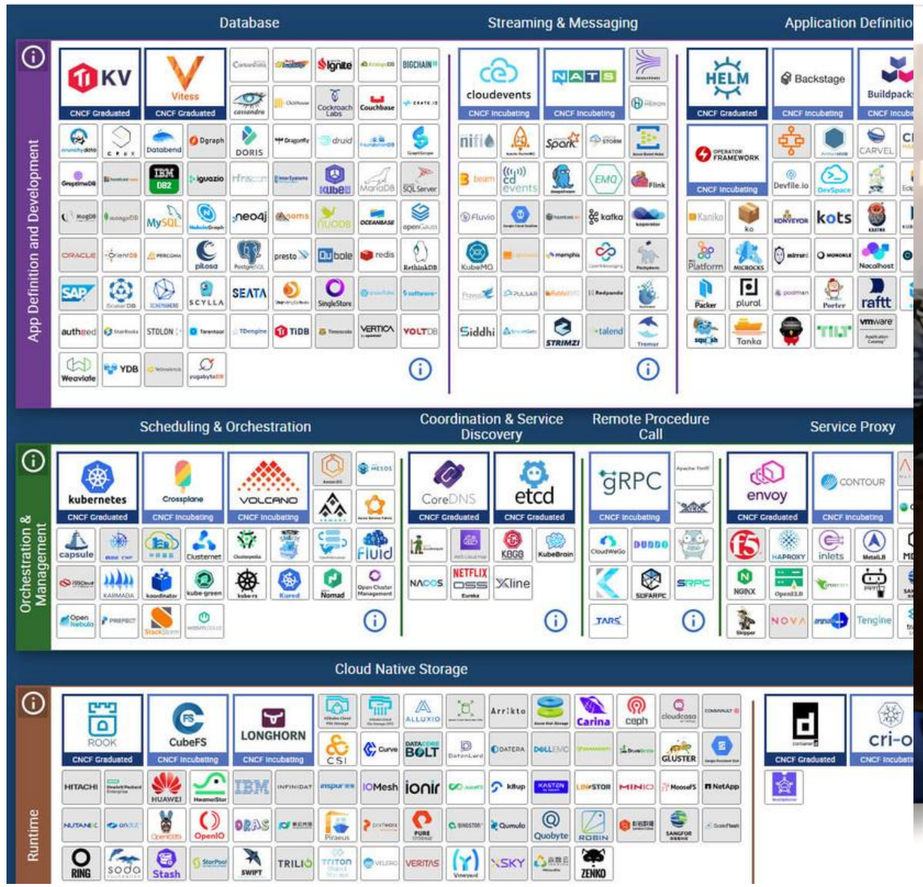
- **Platform Engineer**
- **Developer**

- **Developers**

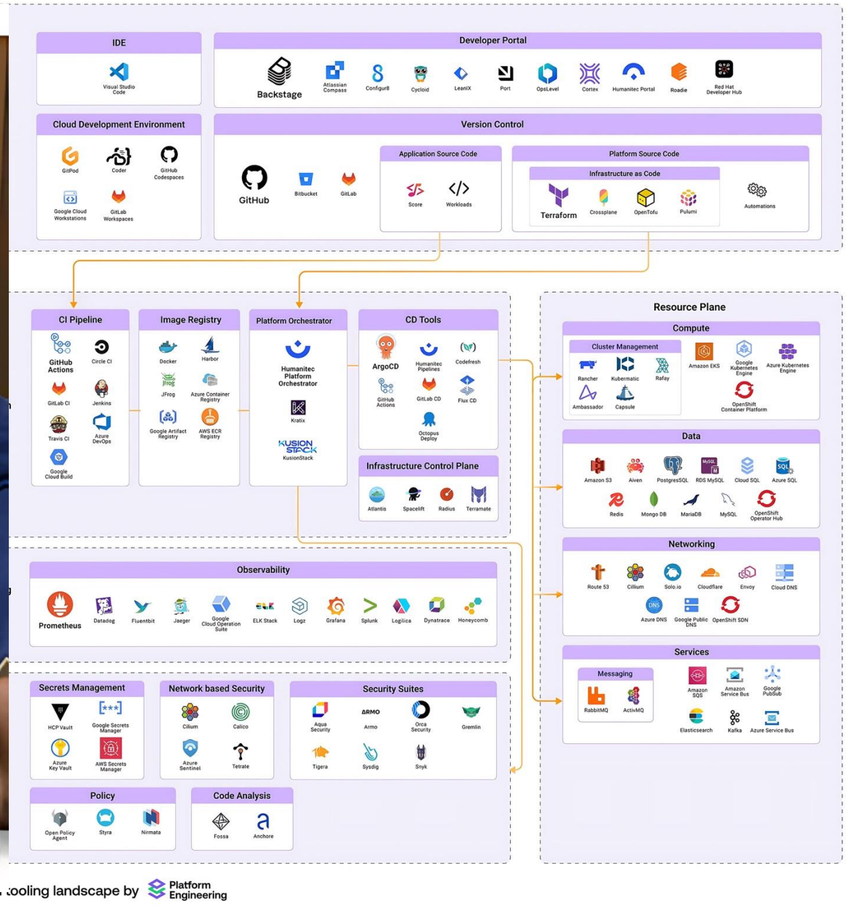
- **Platformless** choreo

Internal Developer Platform

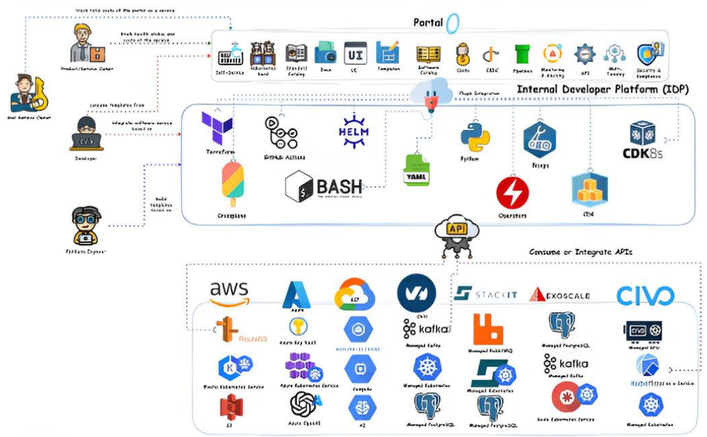
CNCF Landscape



Platform Tooling Landscape



Internal Developer Platforms: A Real Thing or Just a Trend?



Internal Developer Platforms: A Real Thing or Just a Trend?

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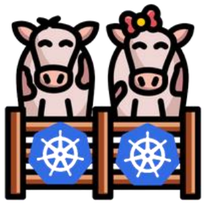
Internal Developer Platform Requirements

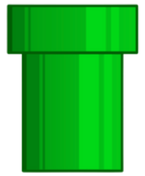
Self-Service



kubernetes herd

Standard Catalog

Docs



Pipelines

Monitoring & Alerting

Software Catalog

OIDC

Multi-Tenancy

Security & Compliance

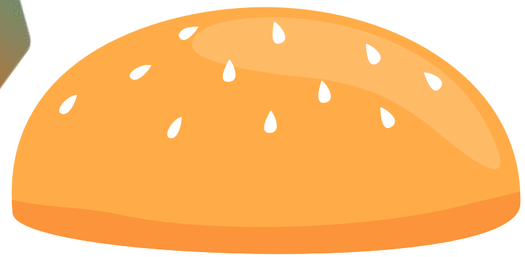
API

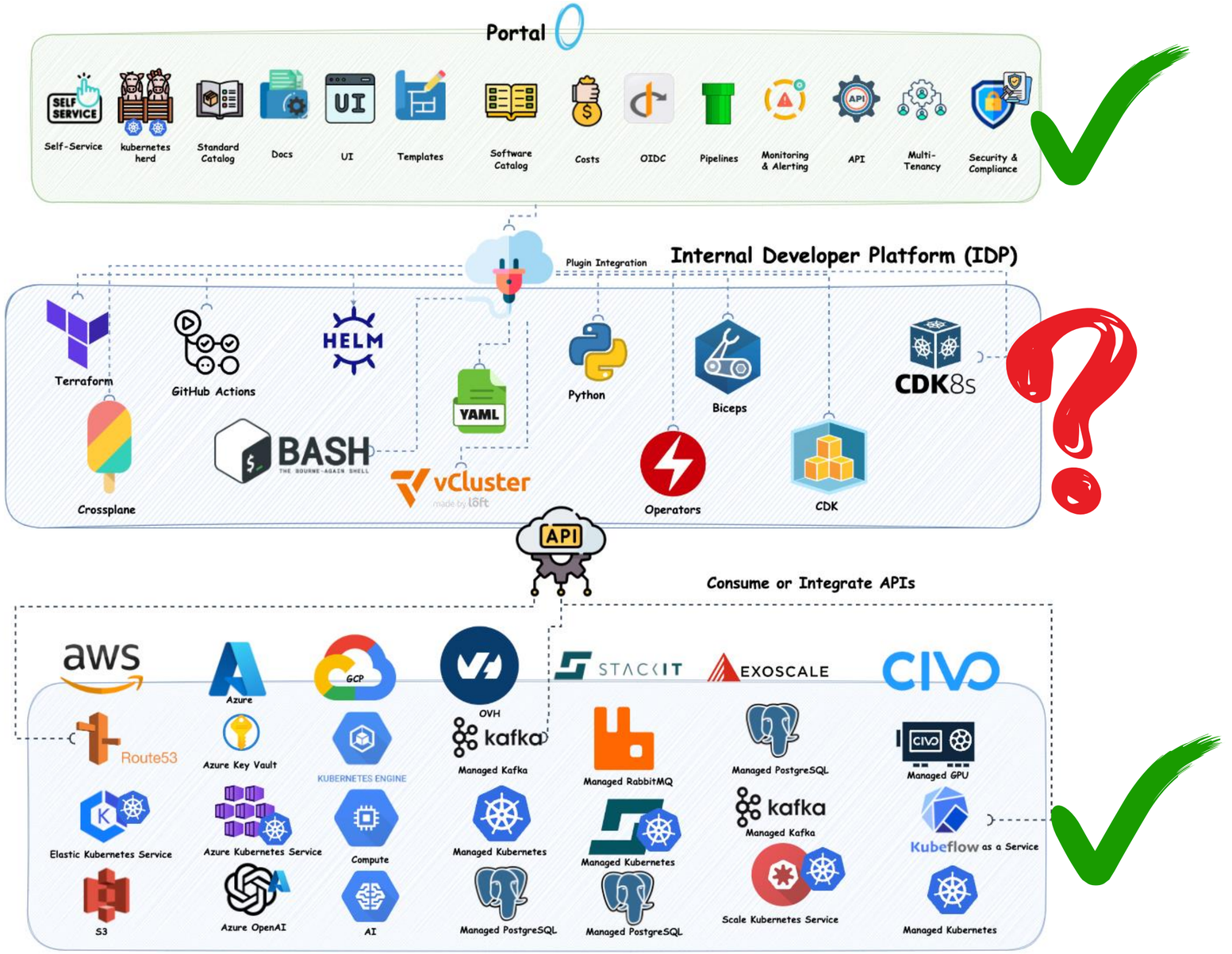
UI

Templates

Costs

Internal Developer Platform: 3 Layer



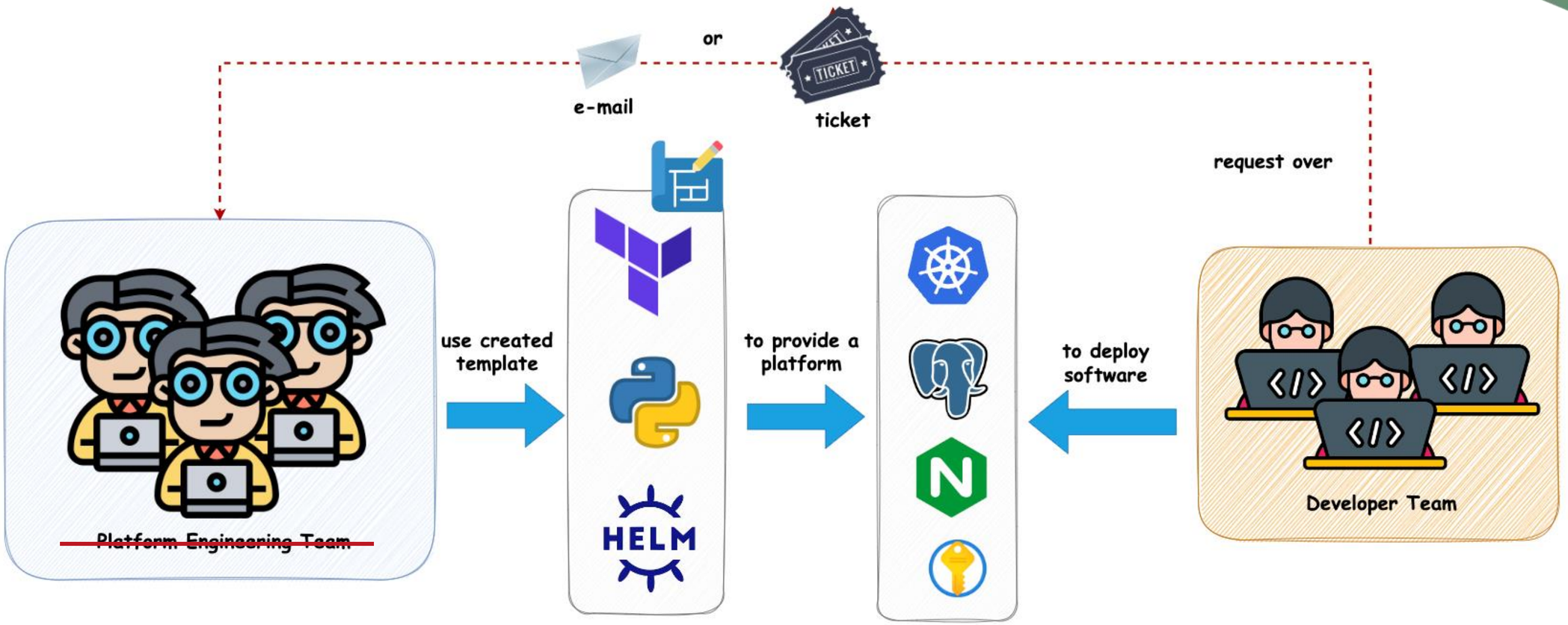


Platform Engineering

Is **ABOUT** **abstracting or compose** individual services, building an overlay, and making them **self-service consumable** by the **end user**.

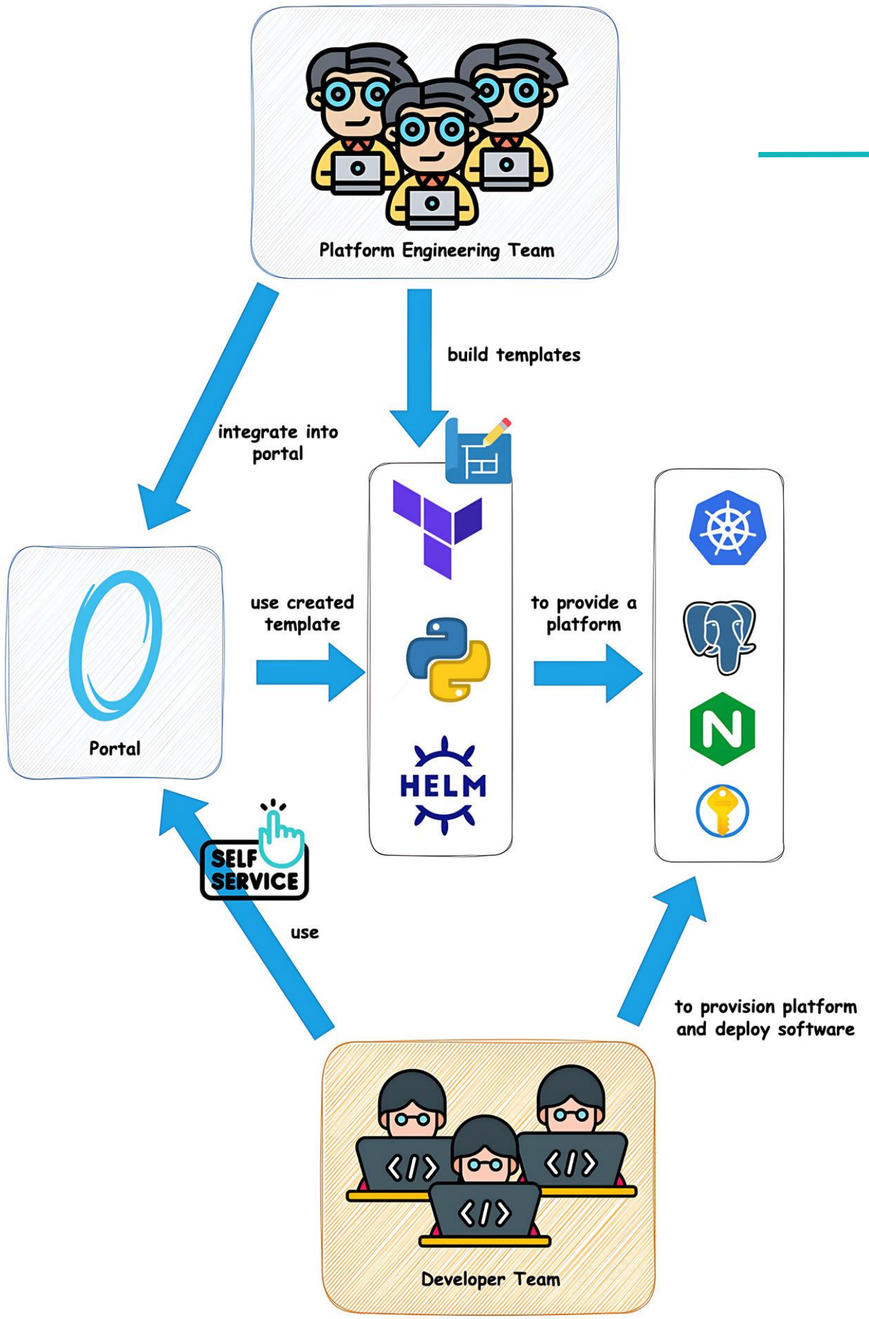
Is **NOT ABOUT** **abstracting or compose** individual services, building an overlay, and using them internally to **provide infrastructure**. If that's your approach, you're **not** a Platform Team—you're a **Managed Infrastructure Team**.

Managed Infrastructure Team



Infra Teams owns the Platform!

Platform Engineering Team



Platform Teams owns the Interface (IDP)!
Developer Teams owns the Platform!

Establish a Platform Team / Build an IDP

- Will cost you ~$1 Million/year
- Why?
  - 5–8 Platform Engineers & SREs → $100k+ avg salary
  - Infra costs — Kubernetes is free, but it doesn't run in the air
  - Tooling & subscription costs add up fast

- Neil Cresswell (CEO of Portainer.io) wrote a blog on this!

Security Audit Hits Hard!

- Involved in 2–3 major audit preps 2024/2025
- CVEs on top of CVEs — some dating back to 2013!
- Don’t patch blindly: understand the issue, disable unused features
- Management will ask: “Why are we spending millions on this platform?”

Breathe!

- IDP and Platform Engineering – Everyone's Talking About It
  - 700+ attendees at PlatformCon Live Day in London
  - 70% had "~ Platform Engineer" in their job title
- But here's the reality:
  - You need a Platform Team with a product mindset
  - First challenge: finding those engineers
  - Be ready to stack $$$$ on top of existing costs
  - You'll need to invest, modernize, and refactor your apps
  - And above all: keep it secure

Just ~~do~~ build it!

3 Common Pitfalls to Avoid When Building an IDP

1. Ignoring the Education Gap
2. Building on an Unstable Core
3. Neglecting Day-2 Responsibilities

1. Ignoring the Education Gap

- Overlooking the **Education Gap**
- **No Full IDP!** Just Self-Service + UI + Docs
- Lack of **Shared Terminology**
- Spoiler: **IDPs Aren’t Just for Developers**
- Finding the **Right Abstraction Layer**

2. Building on an Unstable Core

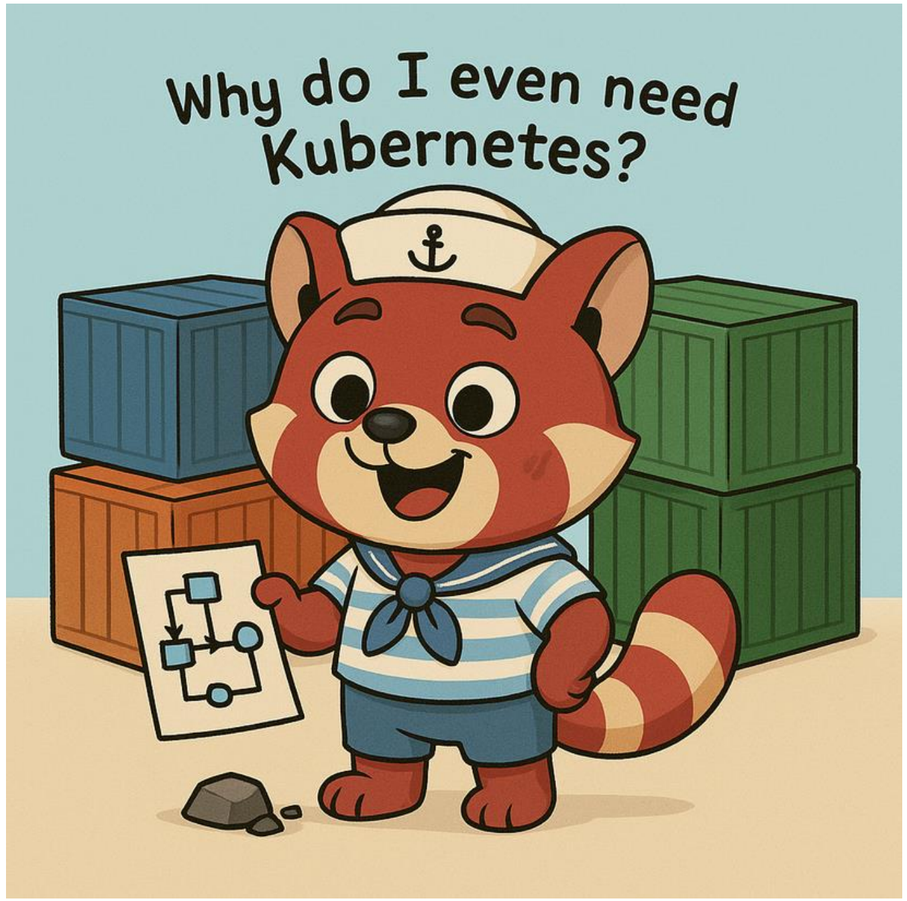
- **Focusing** on Everything Except **Workflows**
- Adding **Unnecessary Abstraction** Layers
- Increasing **System Complexity**
- Low **Automation Maturity**

3. Neglecting Day-2 Responsibilities

- Who's Responsible for **Day-2 Operations**?
- Easy, right? **User** of the template, of course.
- But here's a simple example:
  - **PE** provides a template upgrade.
  - **Devs** apply the update, and things break.
  - **Devs** blame **PE**, **PE** blames **Devs**.
- What's really going on here?

WHY do I need an IDP?

WHY do I even need Kubernetes?



Why IDP matters!

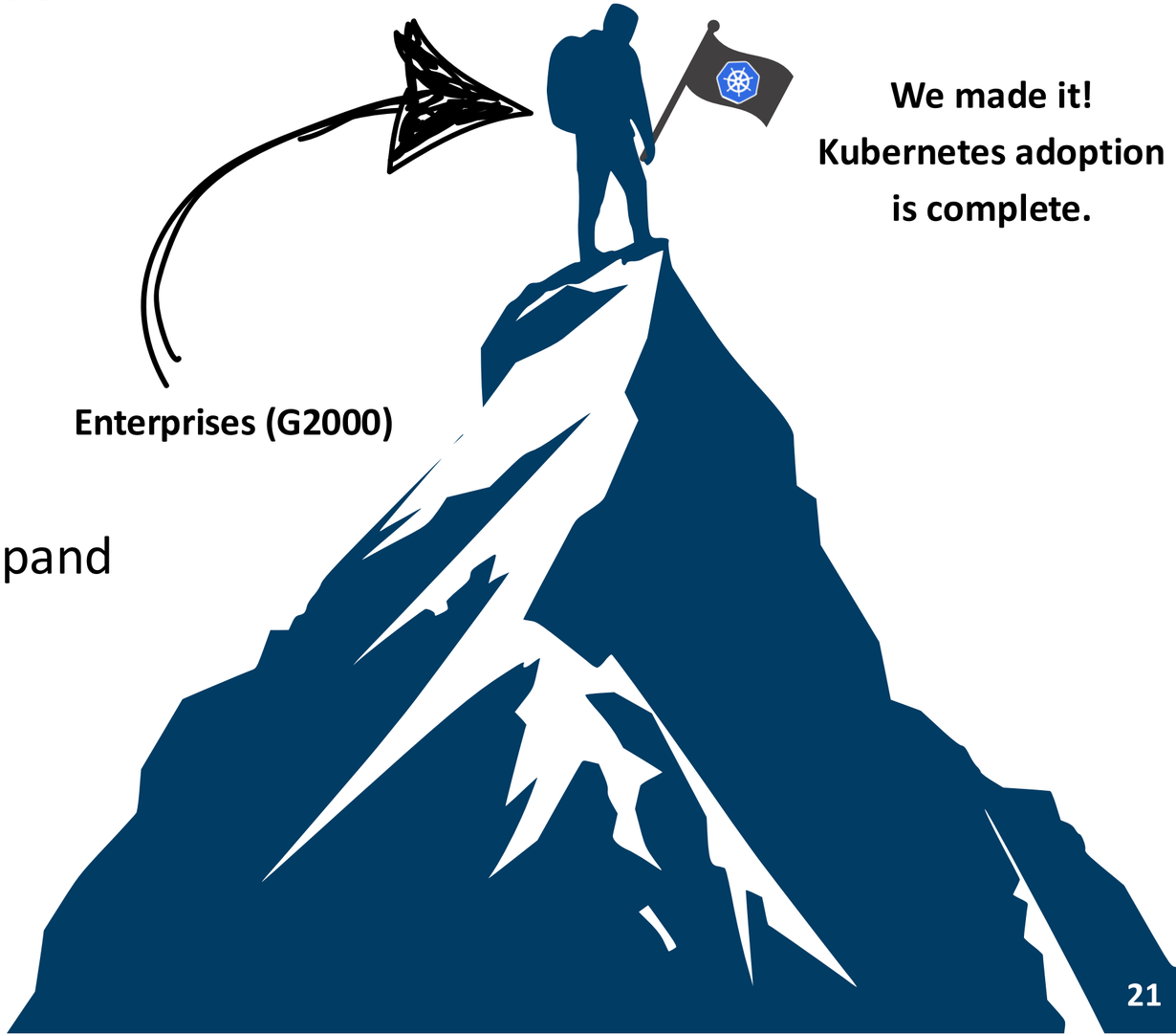
- **Kubernetes** has become the standard for containerization since 2014 (June 6, Joe Beda)

- **By 2027, 90%** of G2000 companies will use container management tools (Gartner)
- In 2023, adoption was below 20% (Gartner)

- **55%** already use platform engineering; **90%** plan to expand it (Google Report)

Gartner

Google Report

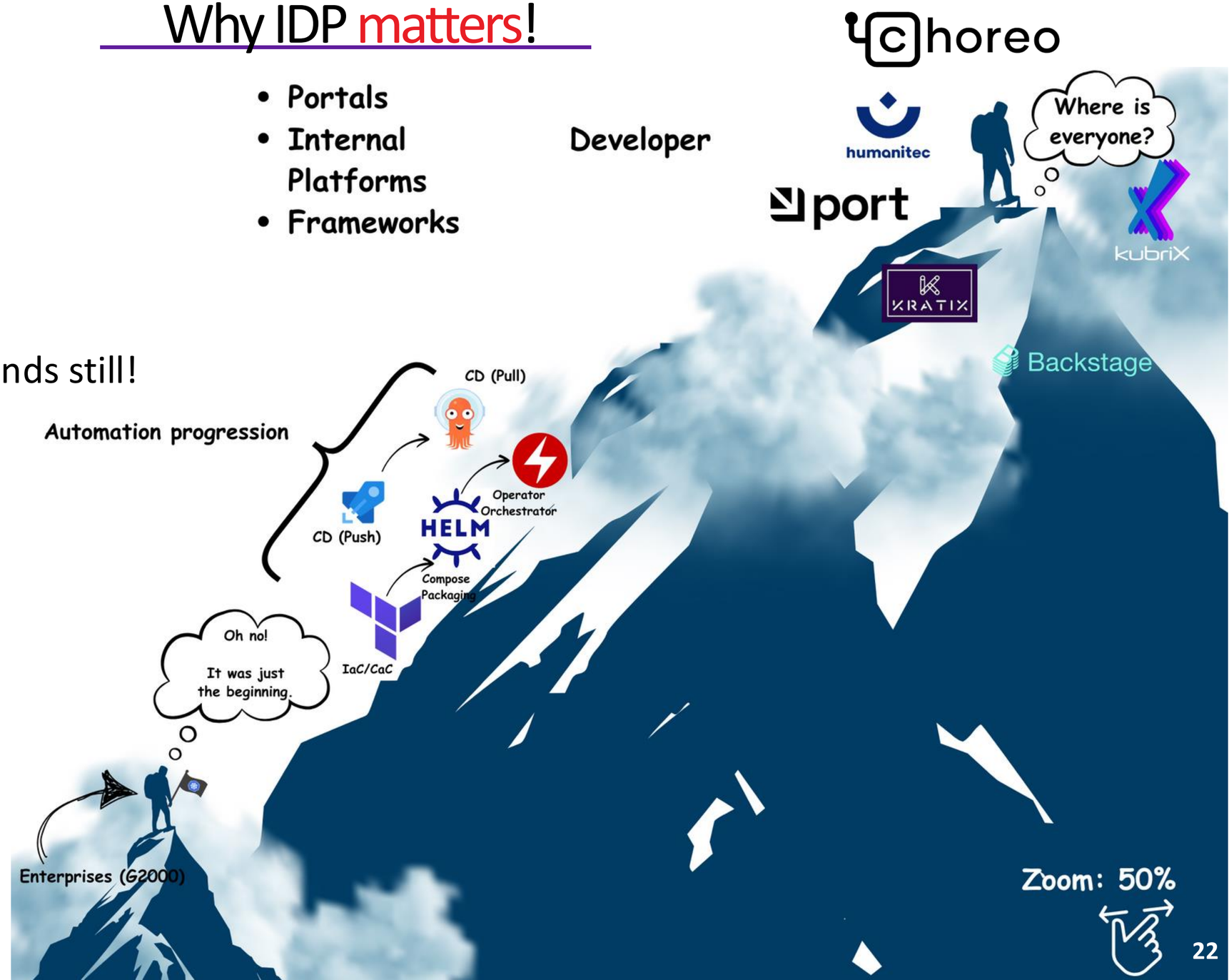


Why IDP matters!

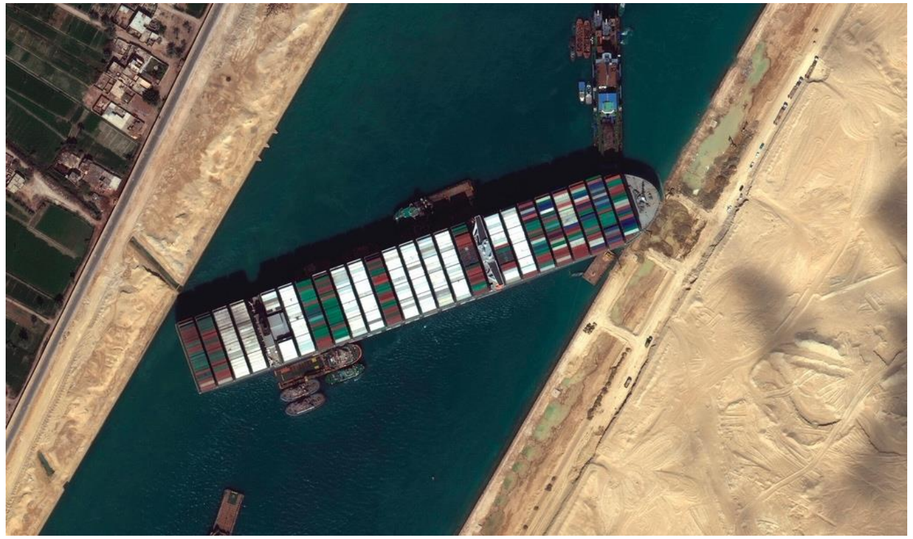
- Portals
- Internal Platforms
- Frameworks

Congrats!

But remember—the world never stands still!



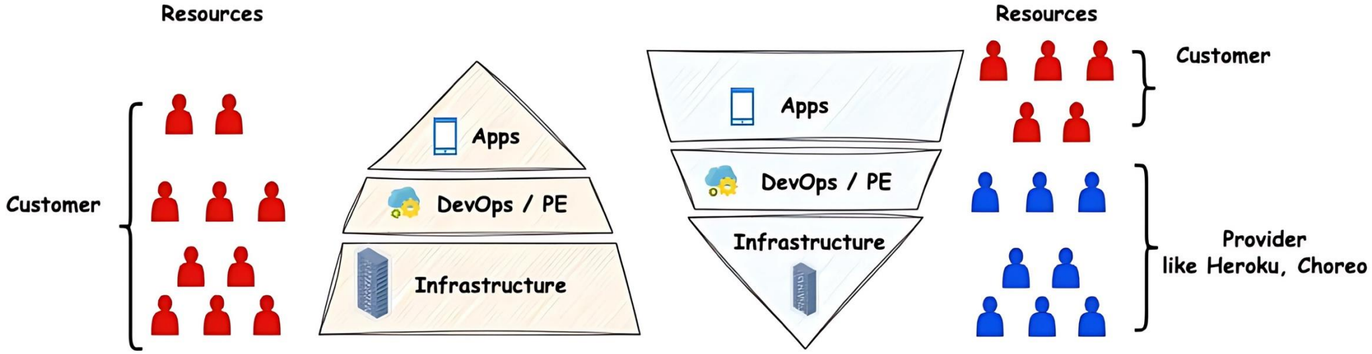
Kubernetes Wrong Abstraction Layer?



Choreo: A possible Solution!

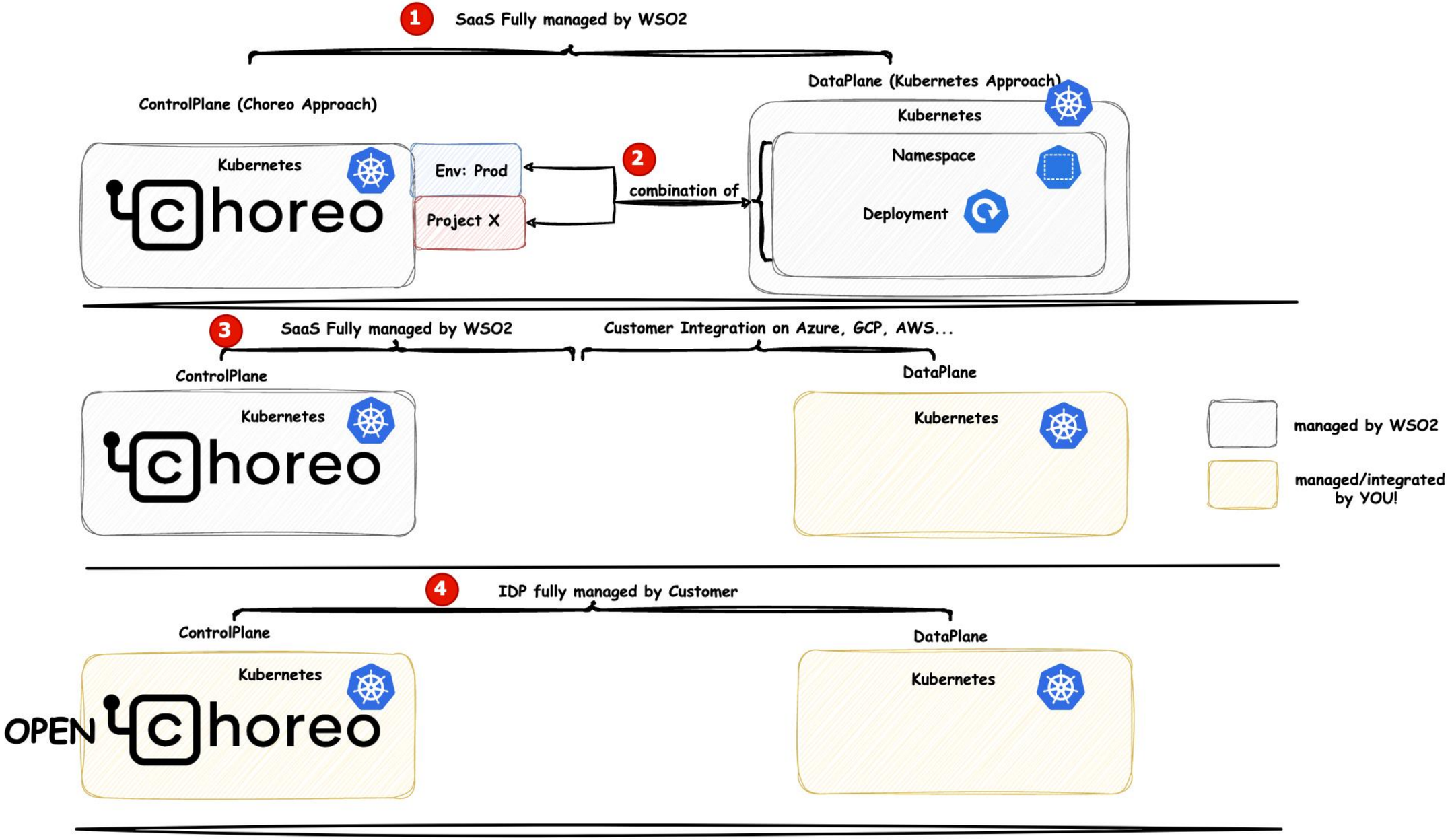
Platformless (SaaS) with Choreo

IDP based with Open Choreo

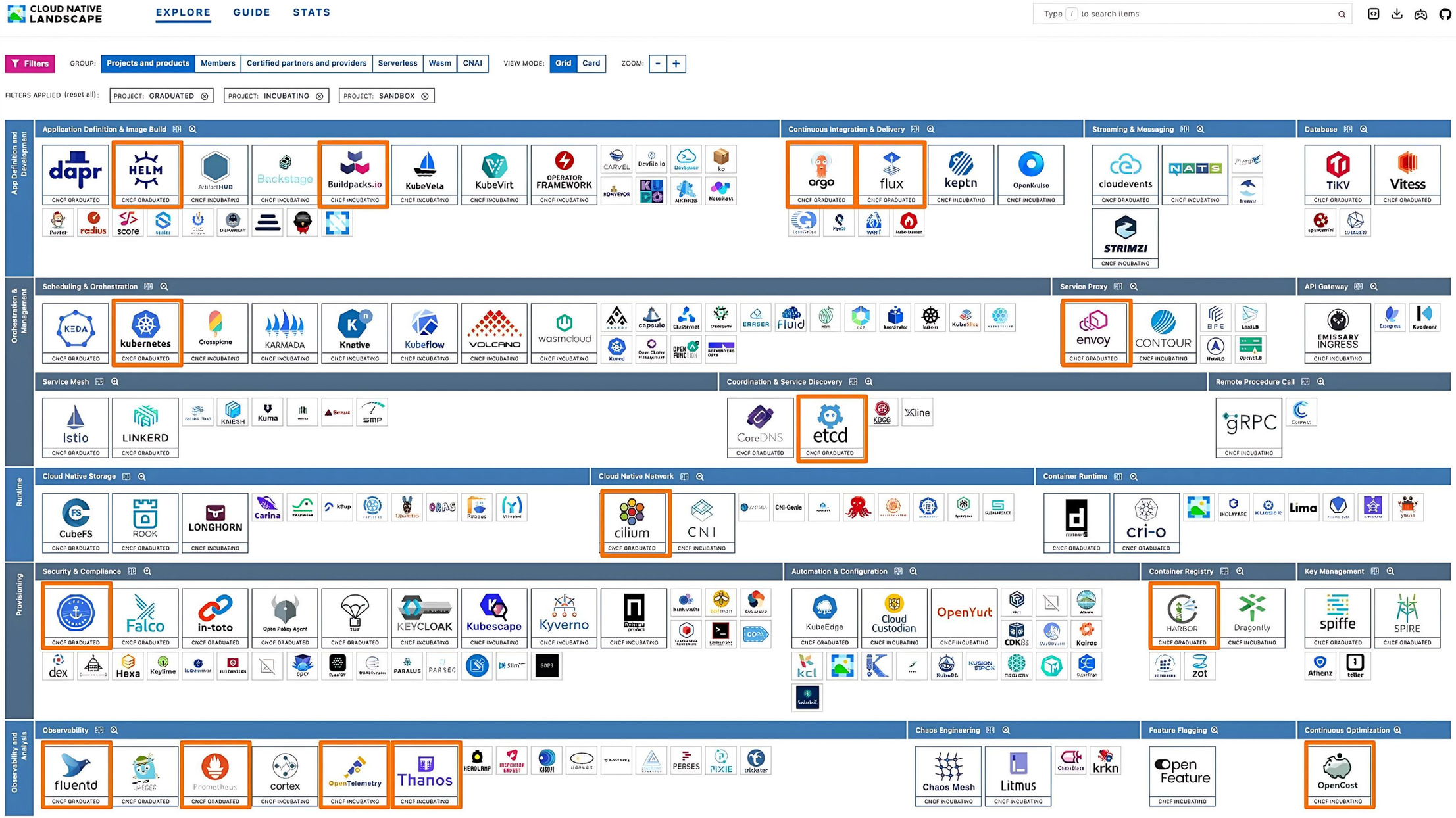


Me, 2024 KubeCon NA

Why?


1
SaaS Fully managed by WSO2
ControlPlane (Choreo Approach)
Kubernetes
choreo
Env: Prod
Project X
2
combination of
DataPlane (Kubernetes Approach)
Kubernetes
Namespace
Deployment
3
SaaS Fully managed by WSO2
Customer Integration on Azure, GCP, AWS...
ControlPlane
Kubernetes
choreo
DataPlane
Kubernetes
managed by WSO2
managed/integrated by YOU!
4
IDP fully managed by Customer
ControlPlane
Kubernetes
OPEN choreo
DataPlane
Kubernetes

How?


CLOUD NATIVE LANDSCAPE
EXPLORE
GUIDE
STATS
Type / to search items
Filters
GROUP: Projects and products | Members | Certified partners and providers | Serverless | Wasm | CNAI
VIEW MODE: Grid | Card
ZOOM: - +
FILTERS APPLIED (reset all): PROJECT: GRADUATED | PROJECT: INCUBATING | PROJECT: SANDBOX
App Definition and Development
Application Definition & Image Build
dapr
HELM
ArtifactHUB
Backstage
Buildpacks.io
KubeVela
KubeVirt
OPERATOR FRAMEWORK
Continuous Integration & Delivery
argo
flux
keptn
OpenKruise
Streaming & Messaging
cloudevents
NATS
STRIMZI
Database
TiKV
Vitess
Orchestration & Management
Scheduling & Orchestration
KEDA
kubernetes
Crossplane
KARMADA
Knative
Kubeflow
VOLCANO
wasmcloud
Service Proxy
envoy
CONTOUR
API Gateway
EMISSARY INGRESS
Service Mesh
Istio
LINKERD
KMESH
Kuma
SMP
Coordination & Service Discovery
CoreDNS
etcd
Xline
Remote Procedure Call
gRPC
Runtime
Cloud Native Storage
CubeFS
ROOK
LONGHORN
Carina
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cilium
CNI
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cri-o
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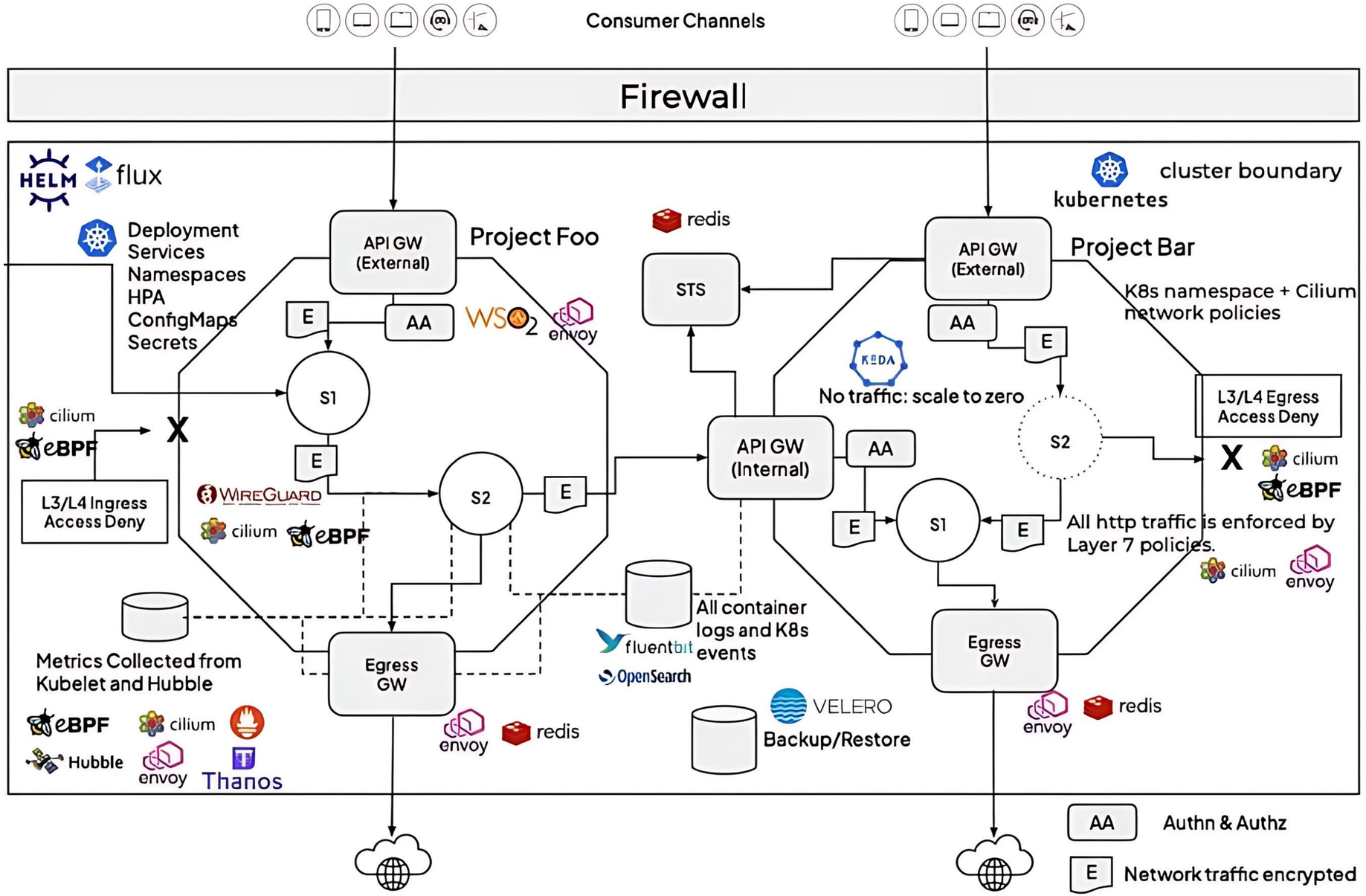
OpenYurt
CDK8s
Kairos
kcl
Container Registry
HARBOR
Dragonfly
zot
Key Management
spiffe
SPIRE
Athenz
teller
Observability and Analysis
Observability
fluentd
JAEGER
Prometheus
cortex
OpenTelemetry
Thanos
HEADLAMP
PERSES
PIXIE
trickster
Chaos Engineering
Chaos Mesh
Litmus
krkn
Feature Flagging
Open Feature
Continuous Optimization
OpenCost
CNCF GRADUATED
CNCF INCUBATING

Secure and Scalable by default!



Want to know more about Choreo?

- **Build an Application on Choreo** - Labs **July 29**
- **Deploy, Run, and Manage an Application on Choreo** - Labs **July 29**
- **What's New in Choreo** - **July 31 (Today)**
- **Simplifying Enterprise Development with Choreo** - **July 31 (Today)**
- **Customer Panel: How Enterprises are Leveraging Choreo for Modernization** - **July 31 (Today)**

Recap

- There is **no** perfect, **one-size-fits-all IDP** – each organization must build what fits their needs best.
- **Platform Engineering** is **not** the same as a **managed infrastructure team** – it’s about building products for developers, **not** just maintaining infrastructure.
- **IDPs** and **Platform Engineering** are gaining importance
- **Don't** build if you're **lacking skills** or **budget** — **consider** platformless solutions like **Choreo** instead.
- **AI won’t save you**. **But it will help you!**

- The **education gap is real** **–** don’t ignore it!! Start learning and upskilling early. If you're **here**, you’ve already started. Education ✅ !

Outlook…Q&A?

- **Book Signing, Giveaway, Talk, and Booth:**
  - ContainerDays, Hamburg, Germany, Sept 9–11 (Giveaway Ticket + Book)
- **Book Signing & Giveaway**
  - KubeCon NA 2025, Atlanta
- and more….

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