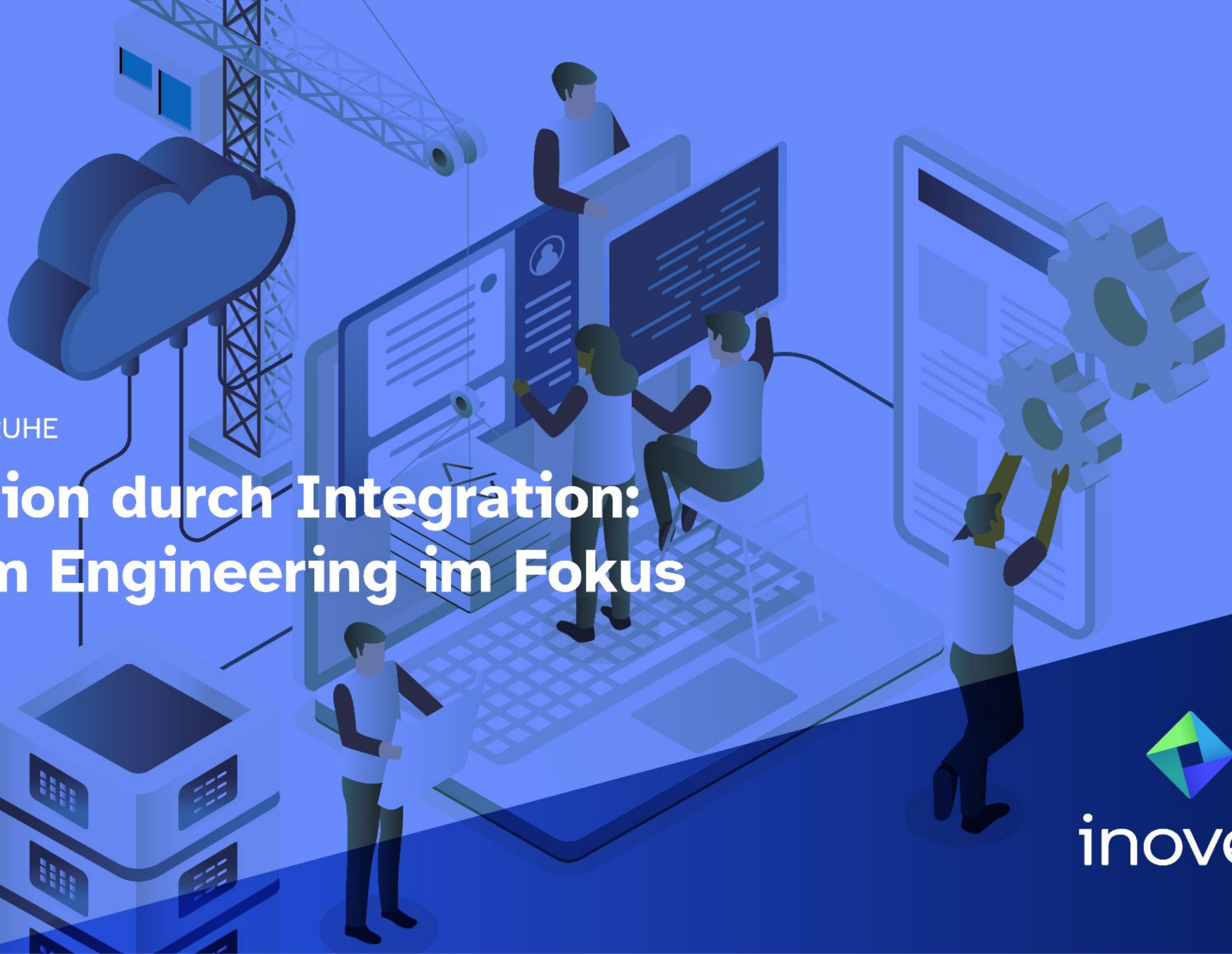

MEETUP KARLSRUHE

Innovation durch Integration: Platform Engineering im Fokus

inovex

Standorte

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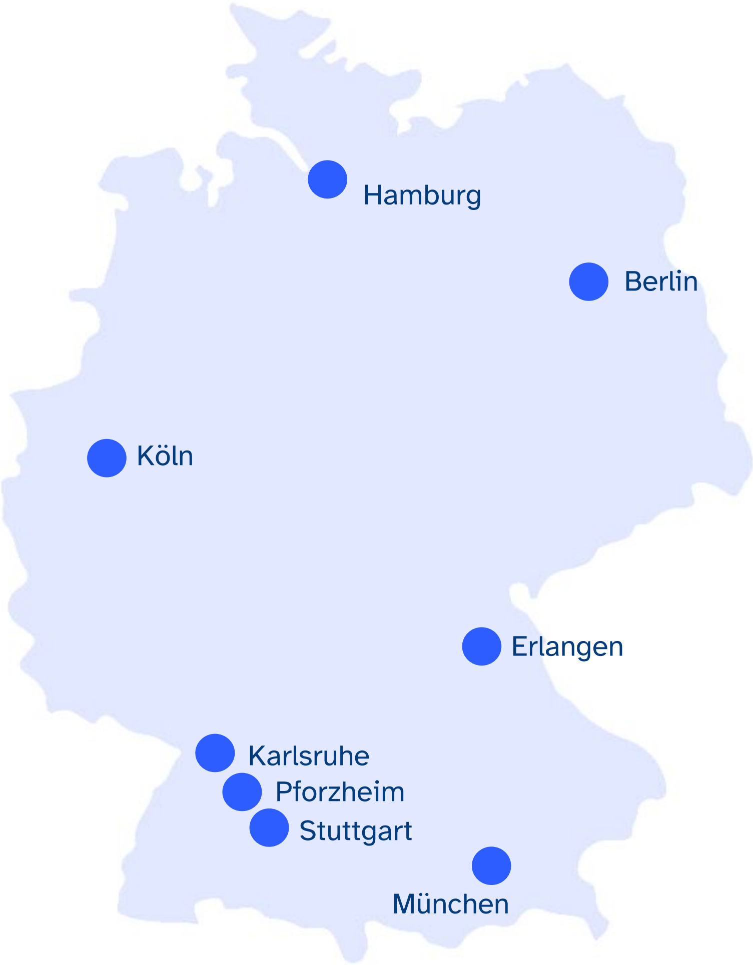

Hamburg
Berlin
Köln
Erlangen
Karlsruhe
Pforzheim
Stuttgart
München

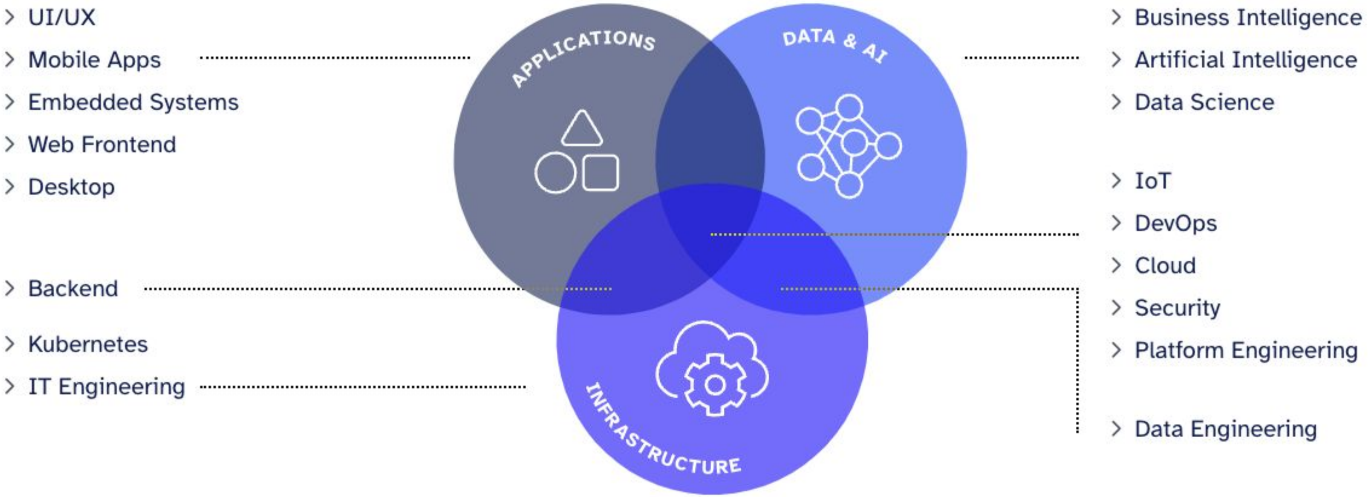
DIE MARZIPANFABRIK
HH

B

ER

M

Unsere Leistungen



- UI/UX
- Mobile Apps
- Embedded Systems
- Web Frontend
- Desktop

- Backend

- Kubernetes
- IT Engineering

- Business Intelligence
- Artificial Intelligence
- Data Science

- IoT
- DevOps
- Cloud
- Security
- Platform Engineering

- Data Engineering

Strategisch

- Transformationsberatung
- Daten- und KI-Strategie
- Cloud-Strategie
- Product Discovery
- Proof of Concept
- Change Management

Methodisch

- Agile
- User Centric
- Quality focused
- Security focused
- Trainings
- Workshops

Aktuelle Schwerpunkte

- Künstliche Intelligenz
- Generative AI
- Android Automotive
- E-Health & Medical Software
- Smart Energy
- Platform Engineering

Technologiepartner

- AWS
- billwerk
- Cloudera
- CNCF
- Confluent u.v.m.

Branchen & Brands – von Start-up bis Global Player

- Automobilbauer und Zulieferer
- Industrie
- Energie und Utilities
- Handel
- Lebensmittel
- ITK / Software / Medien / Verlage
- Verkehr, Logistik und Tourismus
- Finance
- Gesundheit und E-Health
- Versicherungen
- Auditierung, Consulting, Zertifizierung
- Wissenschaft, Forschung und Bildung

ARCUS Kliniken Pforzheim

KROHNE

dm

mobile.de
Der Fahrzeugmarkt im Internet

RATIONAL

SÜDZUCKER

beyerdynamic

BOSCH

FONIC
Das ist die Wahrheit.

OGE

REWE GROUP

waipu.tv

RTL

DB

HORNBACH

ProSiebenSat.1 Media SE

spotsize

united internet

Innovation durch Integration: Platform Engineering im Fokus

18:30 Uhr Platform Engineering: Die DevOps Evolution? (Pascal Petsch, Philipp Schmitt)

19:15 Uhr Pause mit Essen & Gesprächen

19:45 Uhr Building large-scale Internal Developer Platforms: Core Principles (Arnold Bechtoldt)

20:30 Uhr Abschluss und Zeit für weitere Gespräche

Platform Engineering

The DevOps Evolution?

Team inovex
Karlsruhe · Köln · München · Hamburg
Berlin · Stuttgart · Pforzheim · Erlangen

inovex

Who we are

Pascal Petsch

Cloud Platform Architect & Innovation Lead

Philipp Schmitt

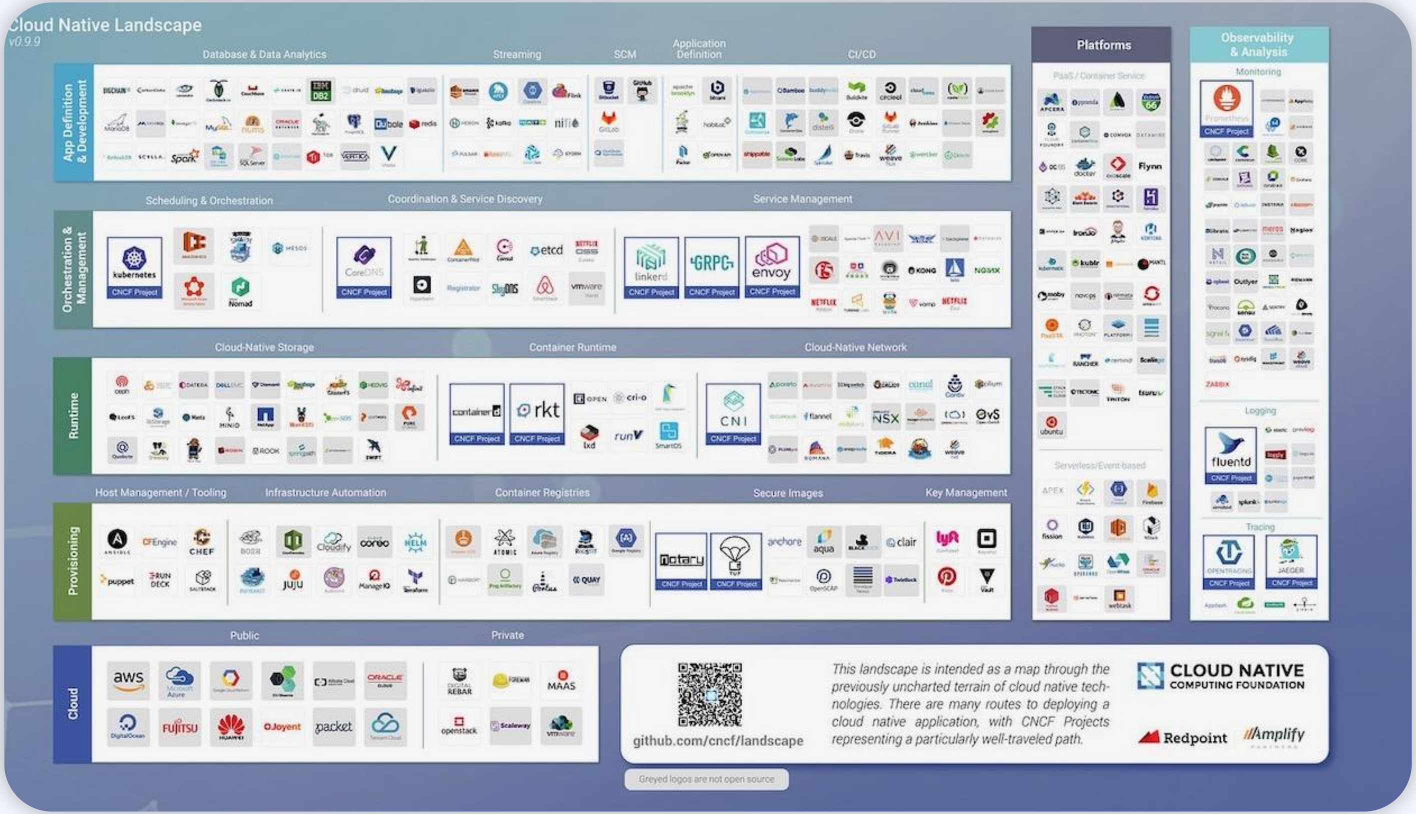
Cloud Platform Engineer & Kubernetes Trainer

Agenda

- Motivation
- Internal Developer Platforms
- IDP Buildings Blocks
- DevOps and Platform Engineering
- Outlook

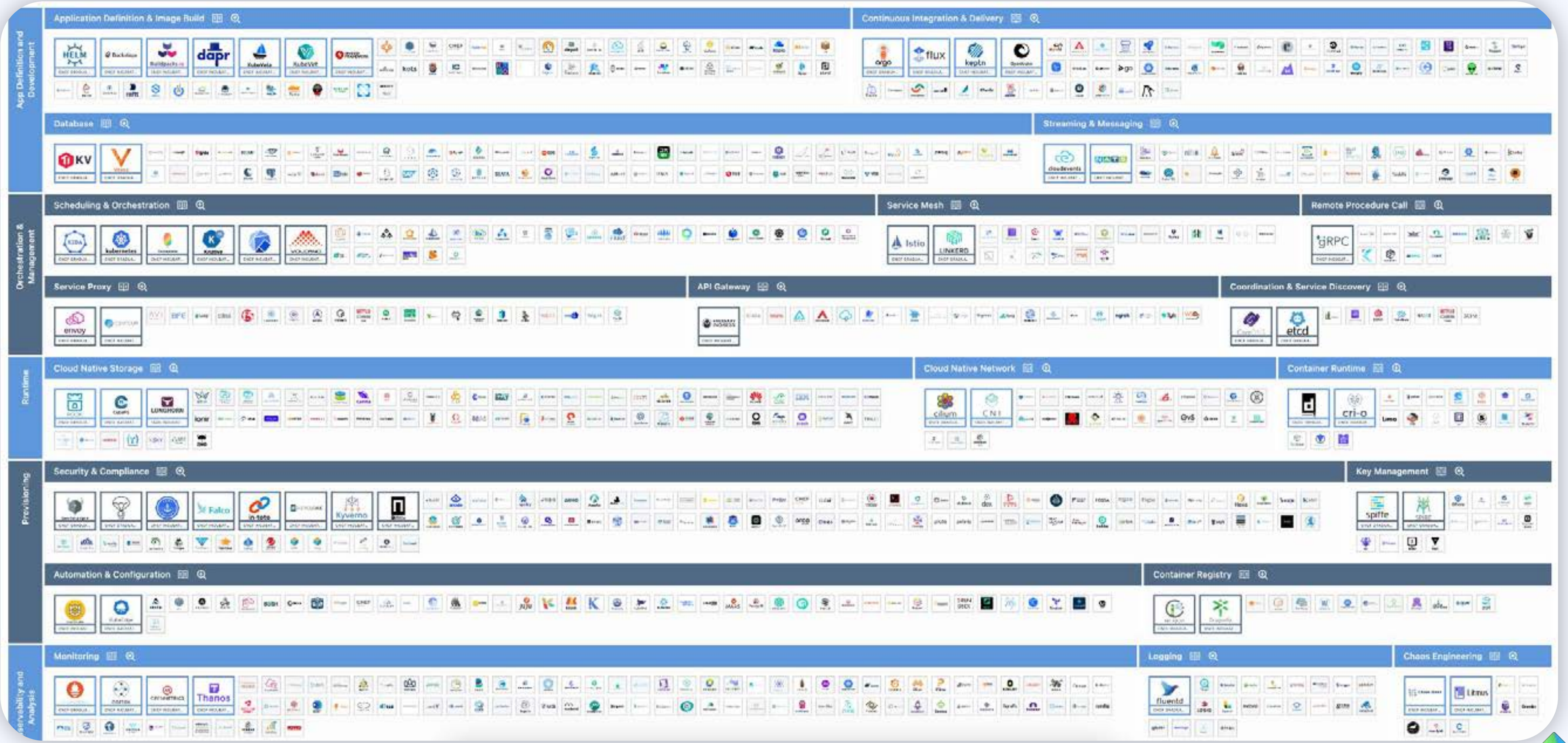
inovex

Motivation



This landscape is intended as a map through the previously uncharted terrain of cloud native technologies. There are many routes to deploying a cloud native application, with CNCF Projects representing a particularly well-traveled path.

CNCF Landscape 2018



CNCF Landscape 2023

Challenges of many DevOps Teams

Overwhelming Cognitive Load

Teams need to design and operate their own workflows across multiple domains

Increased Complexity

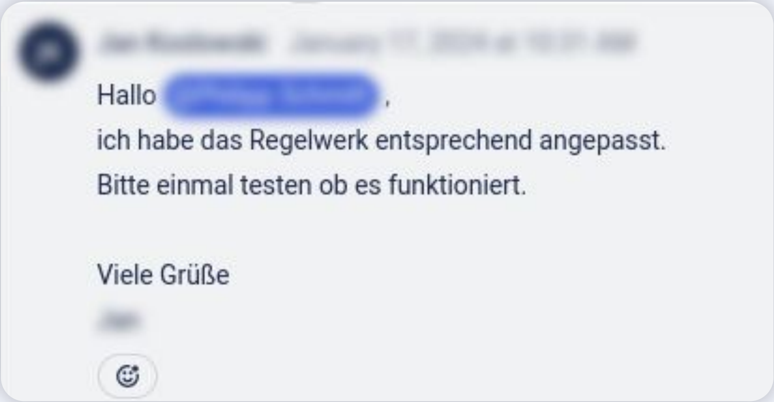
New requirements for AI, IoT and global scalability raise new challenges

Security & Governance

Ensuring that policies and requirements are met is challenging in a heterogeneous infrastructure

Everything was better before...

...really?



[redacted] [redacted]

Hallo [redacted] ,

ich habe das Regelwerk entsprechend angepasst.

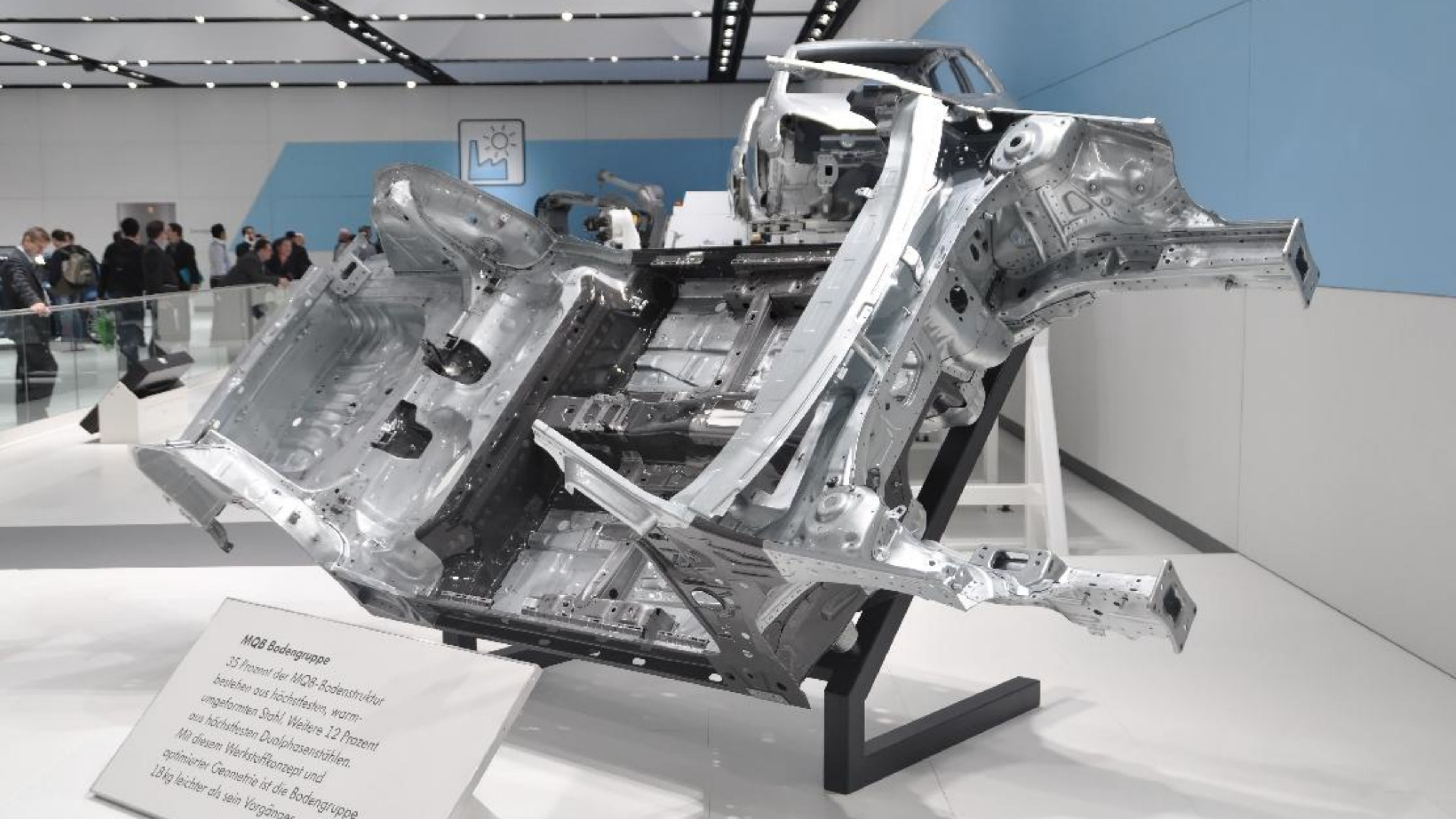
Bitte einmal testen ob es funktioniert.

Viele Grüße

[redacted]

Platforms come in all shapes and sizes

WEST ORION
PANAMA



MQB Bodengruppe
35 Prozent der MQB-Bodenstruktur
bestehen aus höchstfesten, warm-
umgeformten Stahl. Weitere 12 Prozent
aus höchstfesten Dualphasenstählen.
Mit diesem Werkstoffkonzept und
optimierter Geometrie ist die Bodengruppe
18 kg leichter als sein Vorgänge

a platform is a **product** that **serves** or **enables** other products and services a platform that **enables developers** is called **“Internal Developer Platform”**

Internal Developer Platform (IDP)

Internal
Targeted specifically to the needs of your internal users only

Compliance
Built in mechanisms to ensure your organizations rules and standards by default

Self-Service Catalog
Aligned toolchains for the Software-Development-Lifecycle and beyond - accessed via self-service

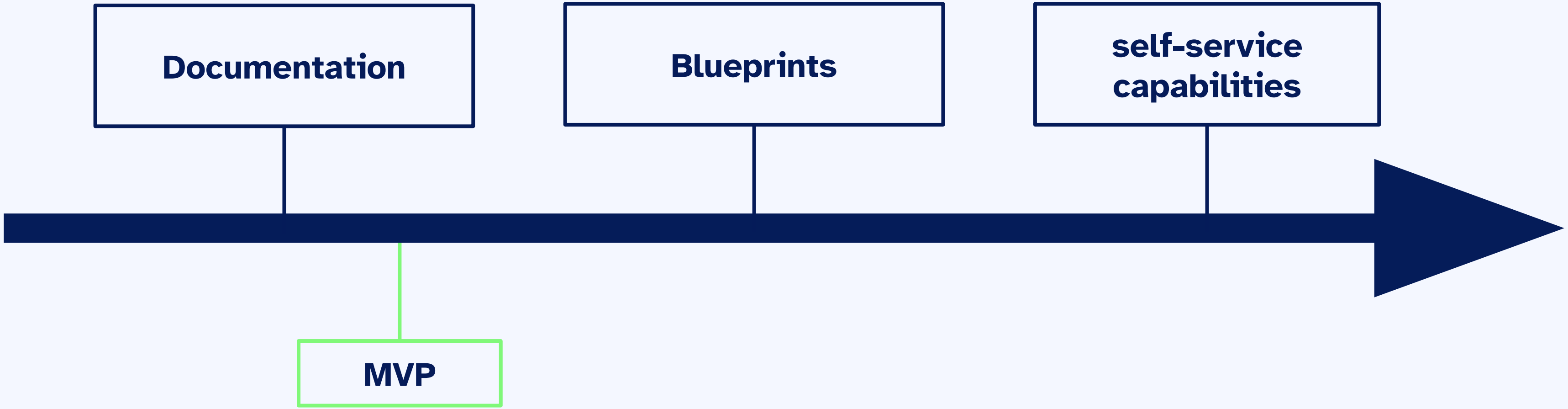
Developer Experience
Centralize access points for documentation, support and tools

Paved Roads
Leverage best practices by providing standardized solutions

Consulting & Training
Enable your engineering teams with comprehensive consulting & training

Building Blocks of an Internal Developer Platform

Platform Evolution

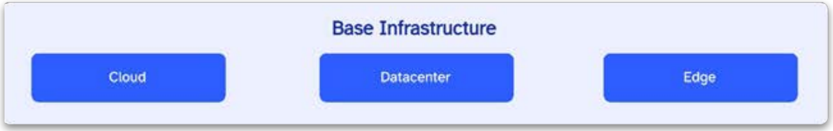


Documentation

Blueprints

self-service capabilities

MVP

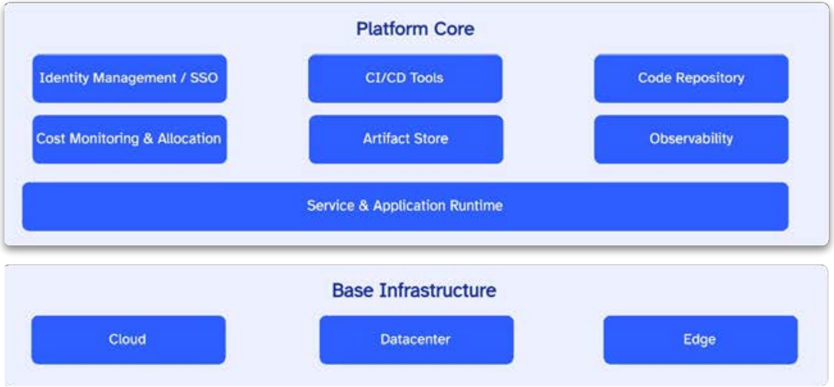


Base Infrastructure

Cloud

Datacenter

Edge



Platform Core

Identity Management / SSO

CI/CD Tools

Code Repository

Cost Monitoring & Allocation

Artifact Store

Observability

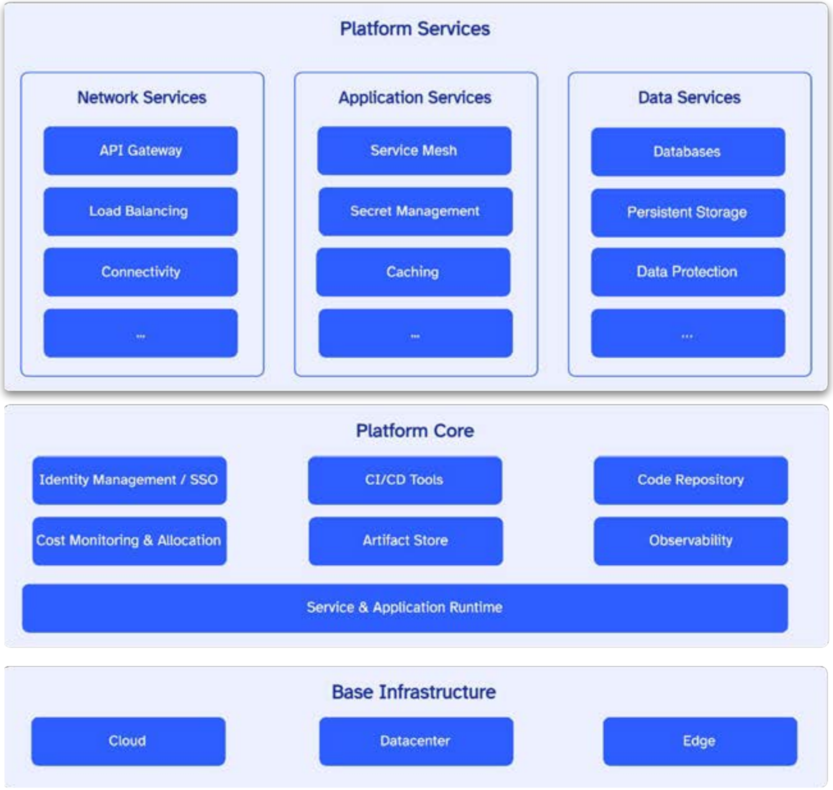
Service & Application Runtime

Base Infrastructure

Cloud

Datacenter

Edge



Platform Services

Network Services

- API Gateway
- Load Balancing
- Connectivity
- ...

Application Services

- Service Mesh
- Secret Management
- Caching
- ...

Data Services

- Databases
- Persistent Storage
- Data Protection
- ...

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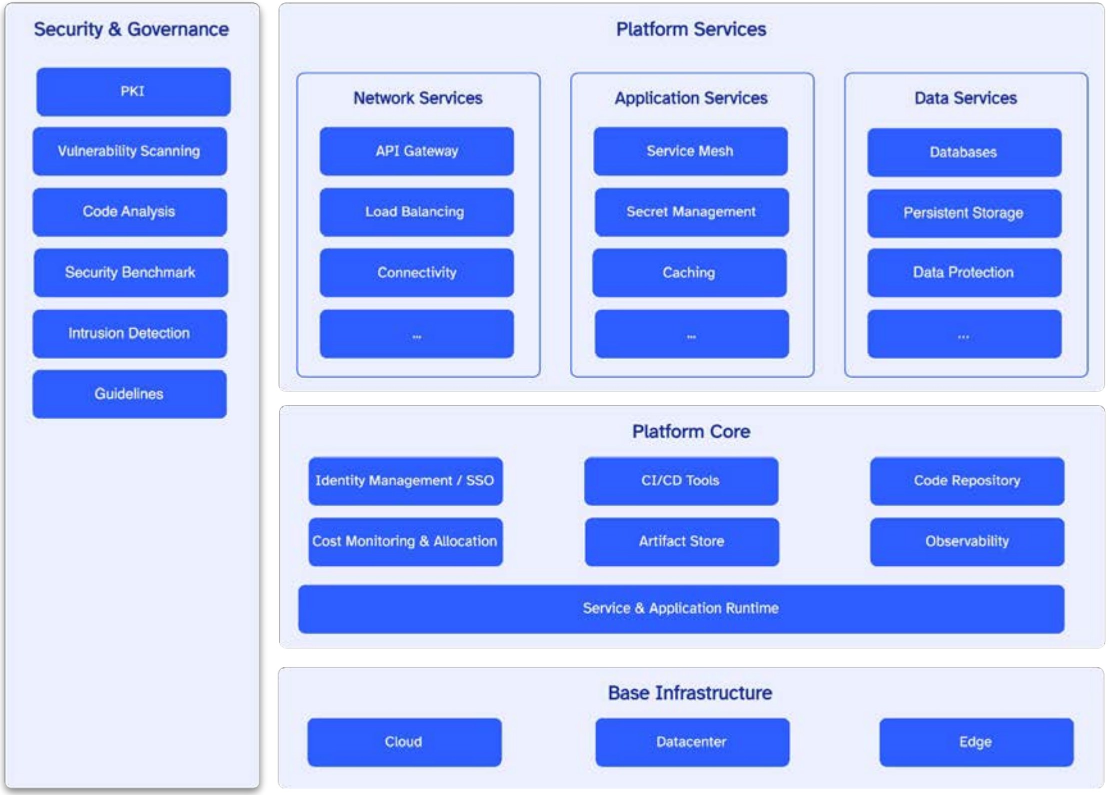

Security & Governance

- PKI
- Vulnerability Scanning
- Code Analysis
- Security Benchmark
- Intrusion Detection
- Guidelines

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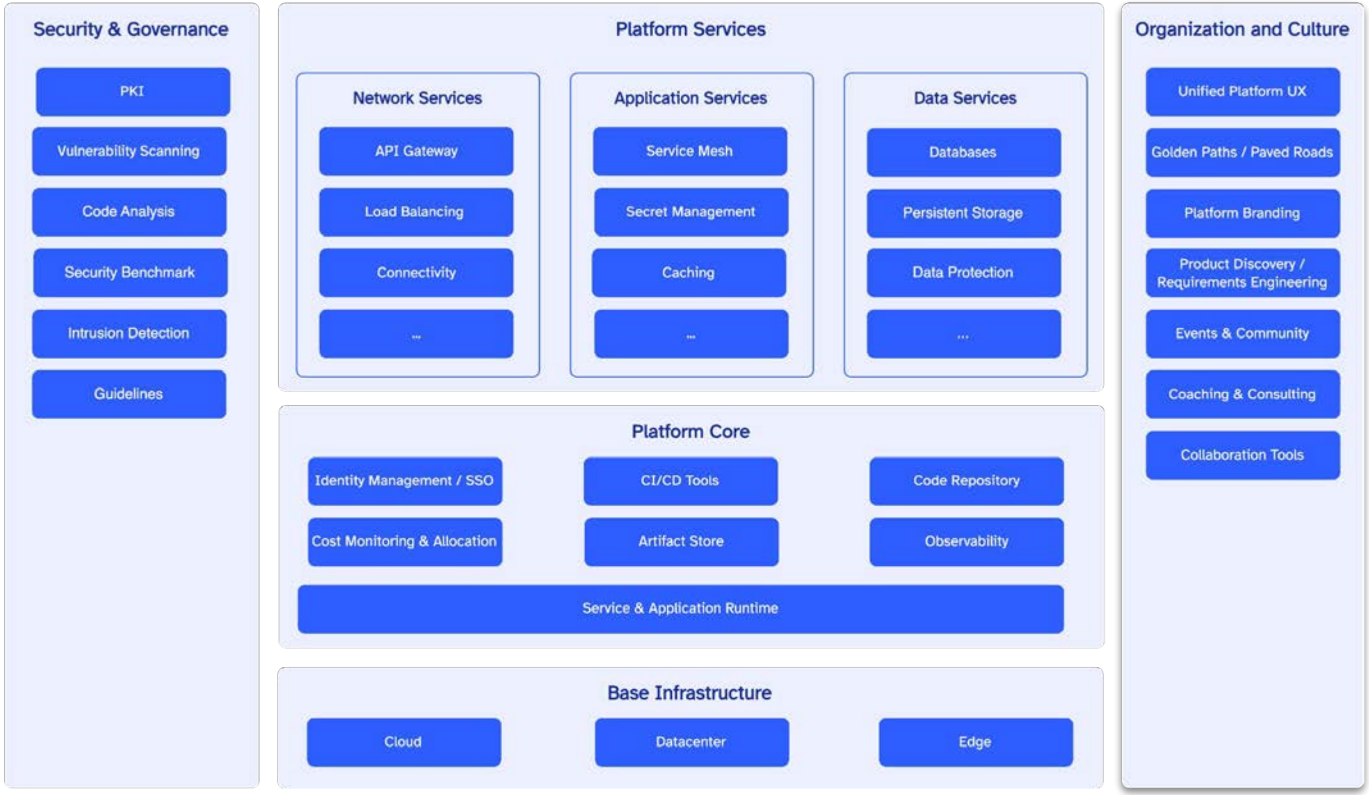

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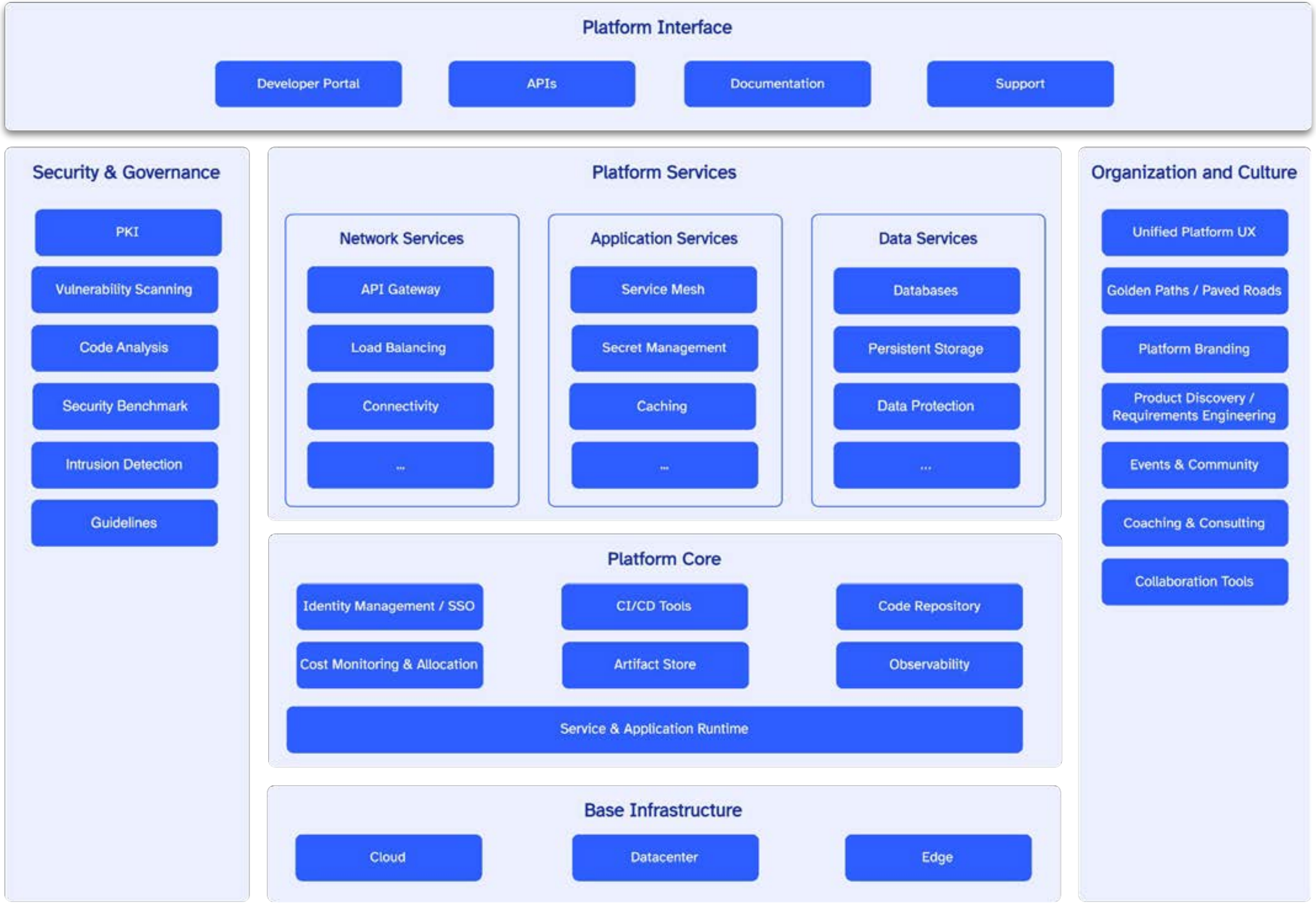
Organization and Culture

- Unified Platform UX
- Golden Paths / Paved Roads
- Platform Branding
- Product Discovery / Requirements Engineering
- Events & Community
- Coaching & Consulting
- Collaboration Tools



Platform Interface

- Developer Portal
- APIs
- Documentation
- Support

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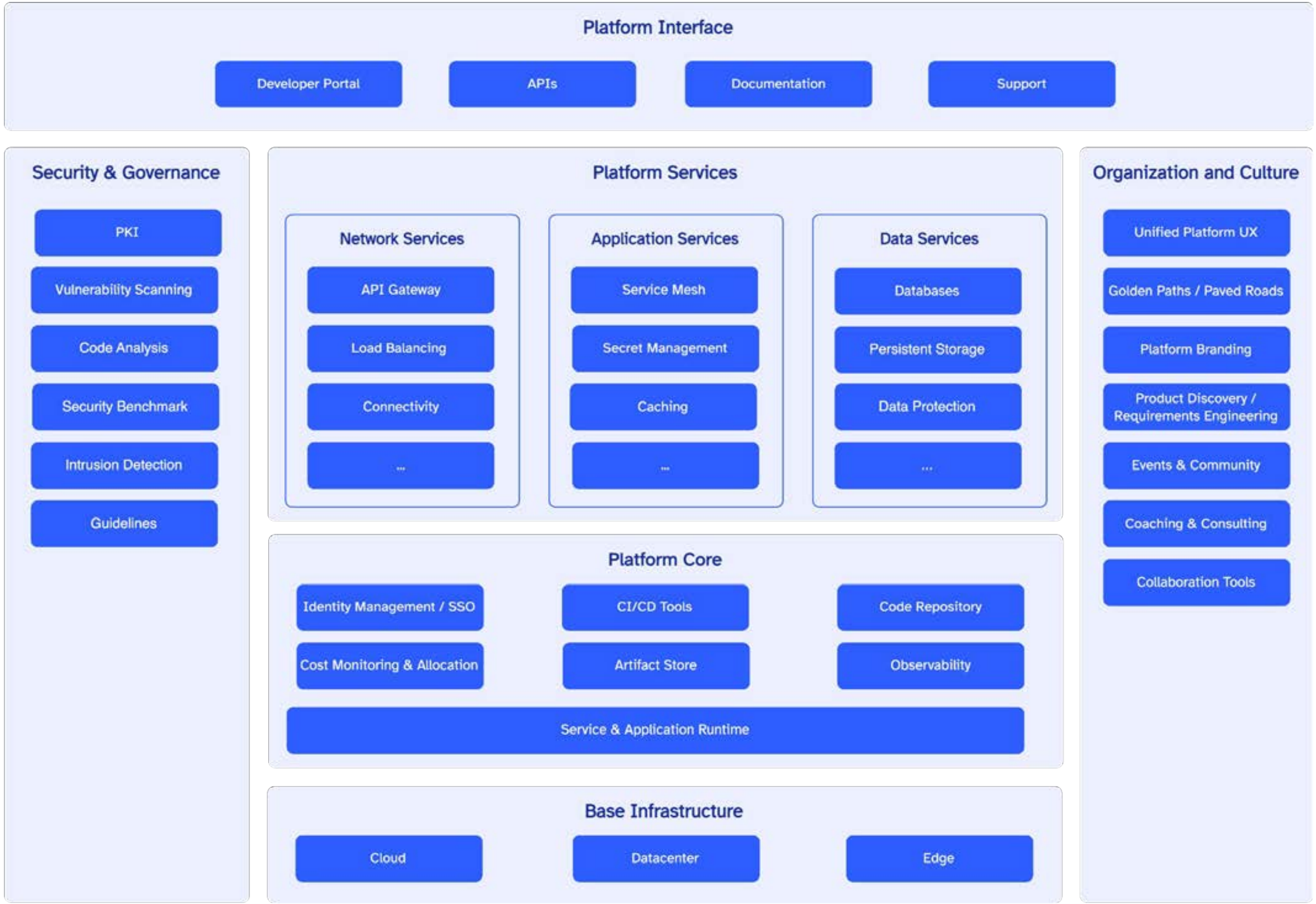

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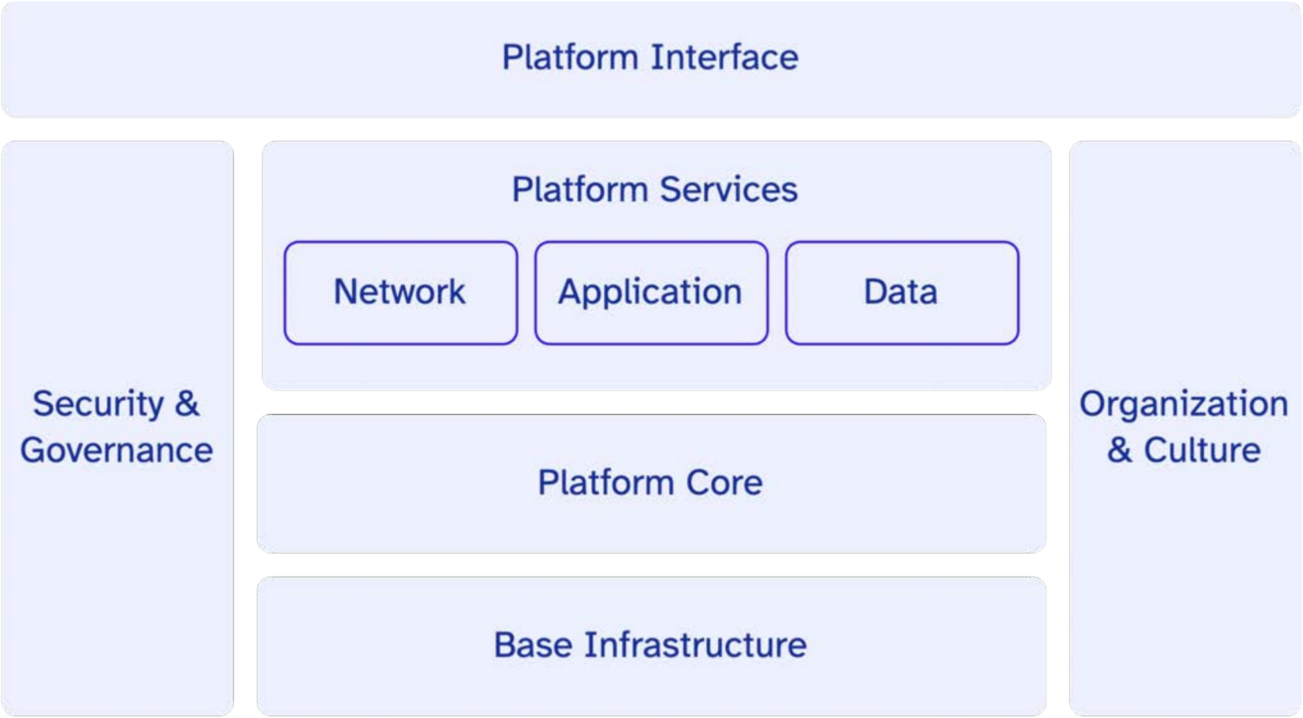
Overwhelmed yet?

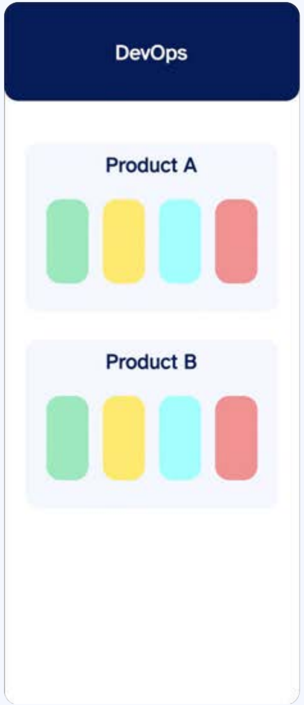
Platform Components



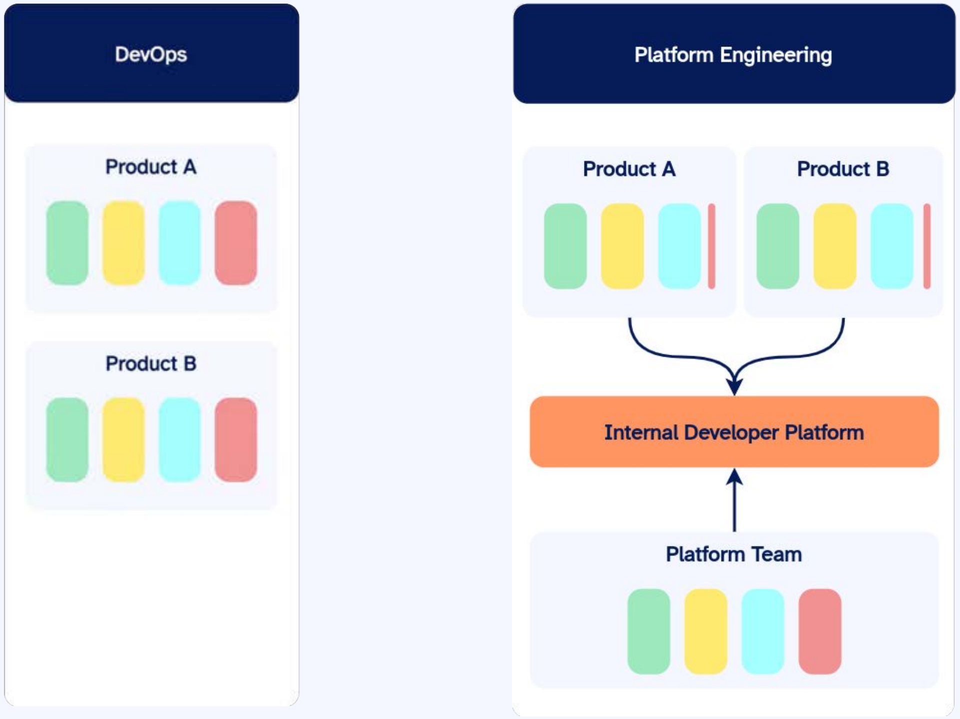
DevOps feat Platform Engineering

Common tasks in cross-functional teams

- 🟩 Product Management
- 🟨 Software Development
- 🟦 Testing
- 🟥 Operations



🟩 Product Management 🟨 Software Development 🟦 Testing 🟥 Operations



🟩 Product Management 🟨 Software Development 🟦 Testing 🟥 Operations

Outlook

Successfully build your IDP

Focus on common use cases
Aim for the 80% solution - there is no solution that will fit all your developers needs

Treat your platform as a product
Provide the best possible Developer Experience and measure your success

Ensure strong collaboration
Design and maintain your platform collaboratively - continuously

Build a community
Ensure your users are connected and provide various exchange formats for them collaborate independently

Discussion

Sources (Pictures)

Slide 16: viewing platform
https://de.m.wikipedia.org/wiki/Datei:Naturns_von_der_Aussichtsplattform_Unterstell.jpg

Slide 17: oil platform
https://de.m.wikipedia.org/wiki/Datei:Bohrplattform_bei_Walvis_Bay_%282017%29.jpg

Slide 18: MQB
https://en.wikipedia.org/wiki/Volkswagen_Group_MQB_platform#/media/File:Hannover-Messe_2012_by-RaBoe_233.jpg