Modernizing the Monolith

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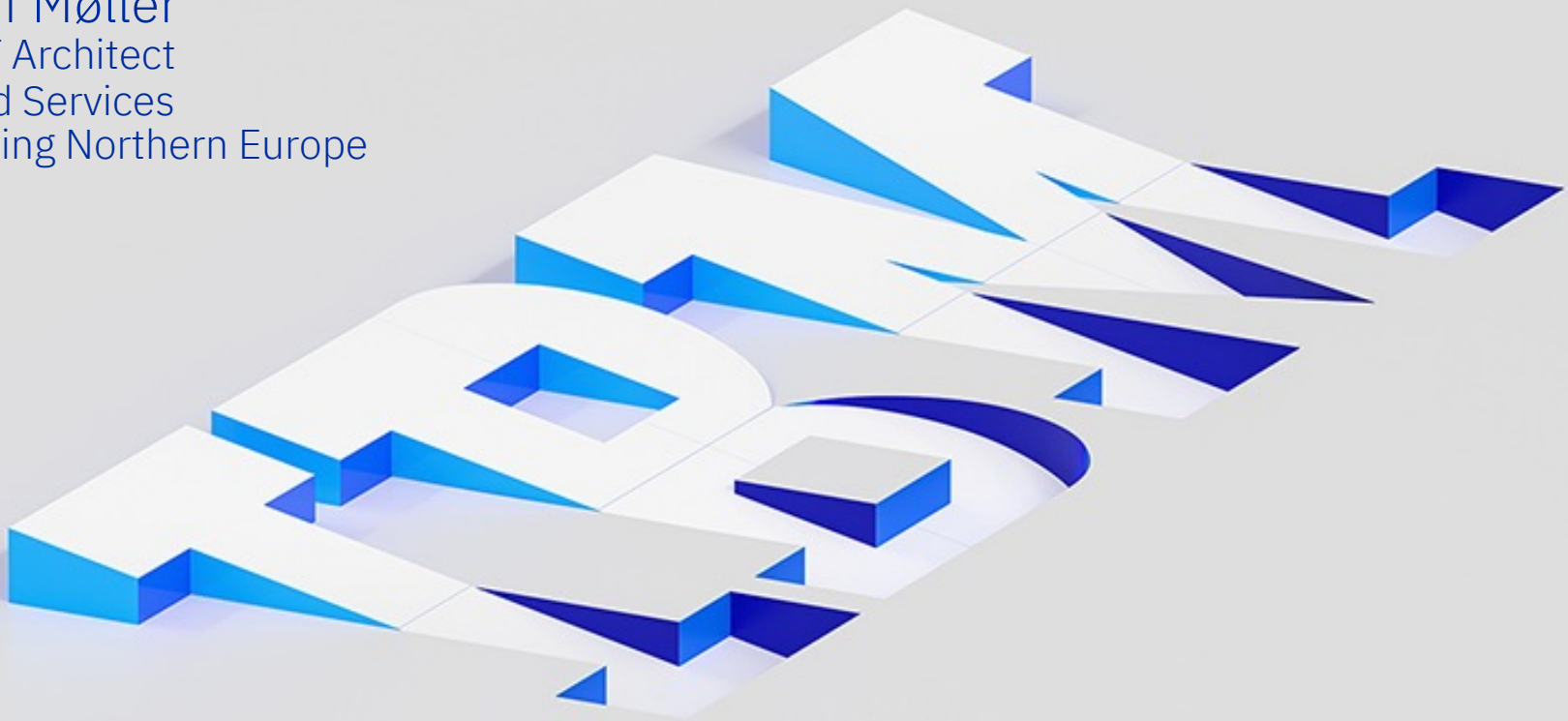

IBM

Jens Edlef Møller
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Jens helps clients modernize existing complex applications using cloud native technologies and platforms.

For the last couple of years, he has worked with several Danish clients on building mission-critical solutions with OpenShift and other Red Hat technologies.

Jens has a background in mathematics and computer science and has more than 30 years of experience in the IT industry

In this session you will learn about a mission-critical Danish integration platform which will be modernized using Red Hat OpenShift.

IBM Consulting for Red Hat

Services to provide E2E Application Transformation for clients seeking to exploit the business value potential of Red Hat
Ability for clients to manage risks, optimize outcomes and improve speed

IBM Consulting

Red Hat

Top 5 **Partner**

Leader in Hybrid Cloud Services & Open-Source Innovation

30+ Hybrid Cloud Journeys

We use proven technical journeys to give our clients a prescriptive path to migrate to OpenShift

We follow **5** principles in our approach to cloud

Hybrid public and private enterprises environment
Multicloud Management working in a heterogenous environment
Open by design, enabling client flexibility and agility
Security and reliability for the entire environment
Managing consistent service level supporting and delivery

2,000+ Red Hat certifications

6900+ Red Hat accreditations

36,000+ trained and certified across the major cloud platforms

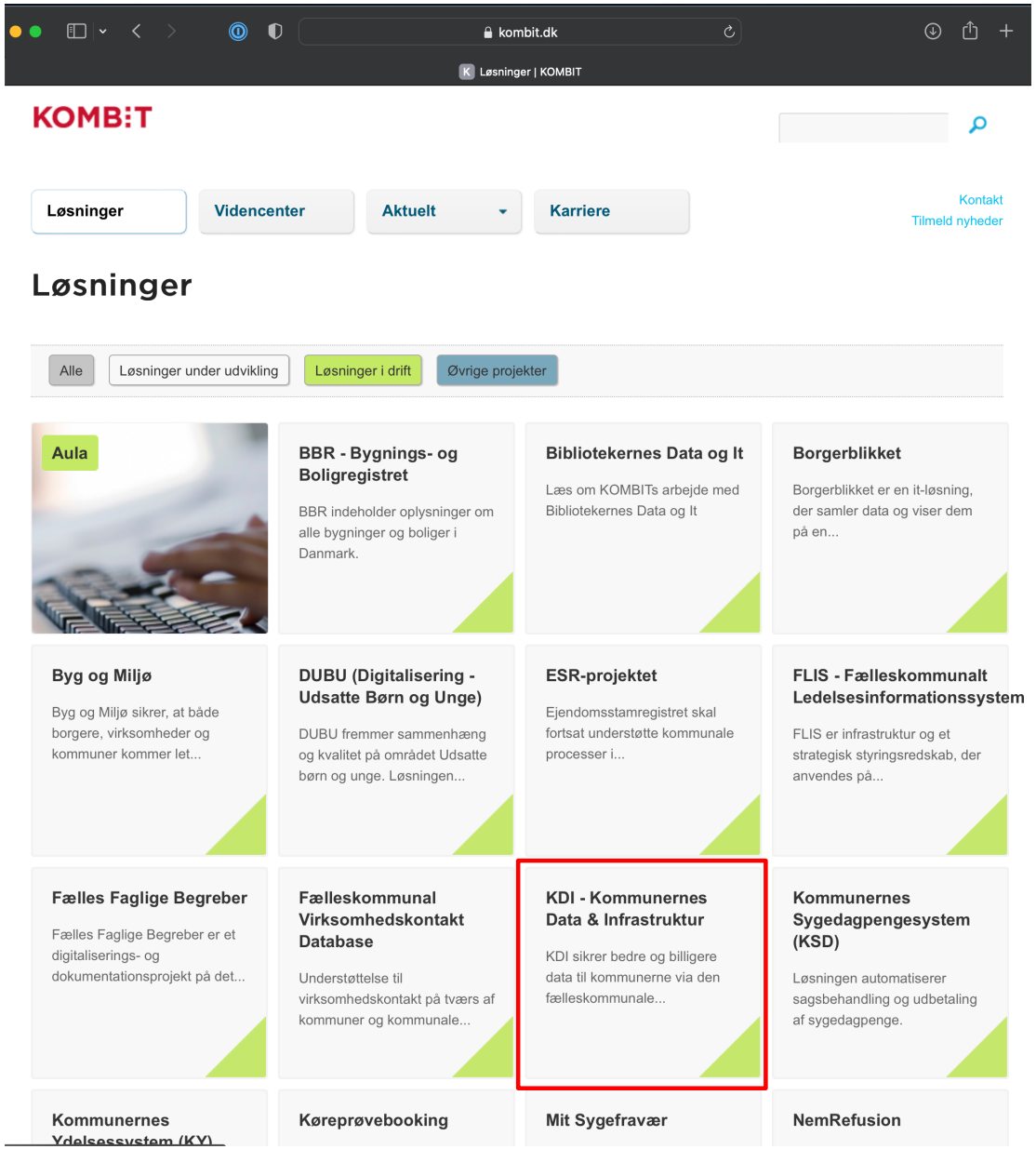
We accelerate the Journey to Cloud for clients

Advise on every step of the journey to cloud
Move and modernize workloads and applications
Build innovative applications and experiences
Manage, govern and optimize Hybrid Multicloud environments

The client

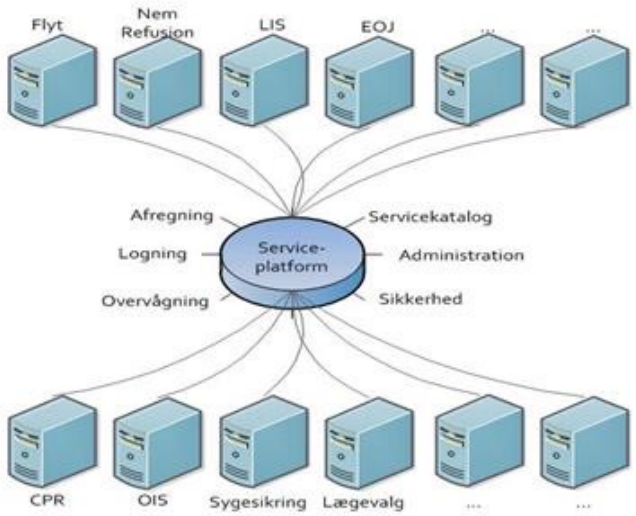
KOMBIT

KOMBIT brings together local authorities in order to create high-quality, low-cost, common IT solutions.



The solution

Kommunens it-løsninger (anvendersystemer):



Kildesystemer:

The Service platform is a core piece of the municipality IT infrastructure in Denmark.

It delivers data and functionality from source systems such as the Danish Tax Authorities, the CPR and CVR registries, NemKonto etc.

Most Danish municipalities and a number of IT vendors are connected to the platform.

The Service platform was launched in 2013.

In 2019/2020 the solution was transitioned to IBM following a public tender.

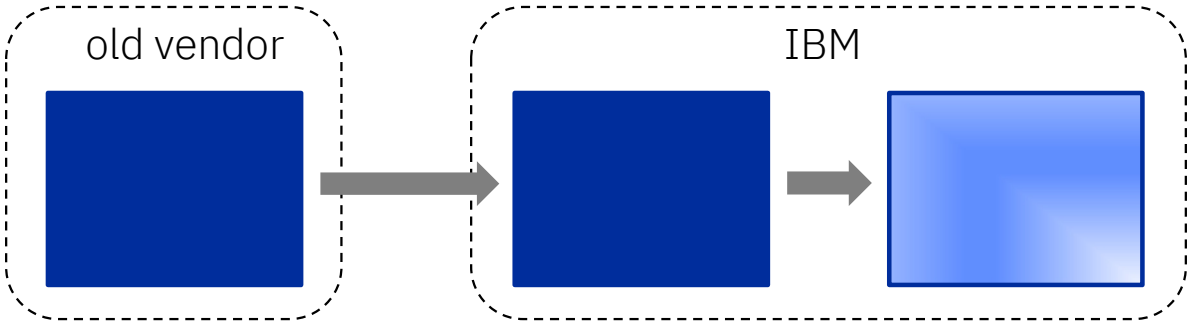
How IBM is helping Kombit

Transition and Transformation engagement

- lift existing solution from on-prem to cloud
- run, maintain and extend existing solution…
- …while gradually modernizing it

Modernization Goals

- Flexibility and speed
- Multi-vendor delivery
- Automation and self-service
- Portability and limitation of vendor dependencies



Continuous Modernization

Strangler pattern

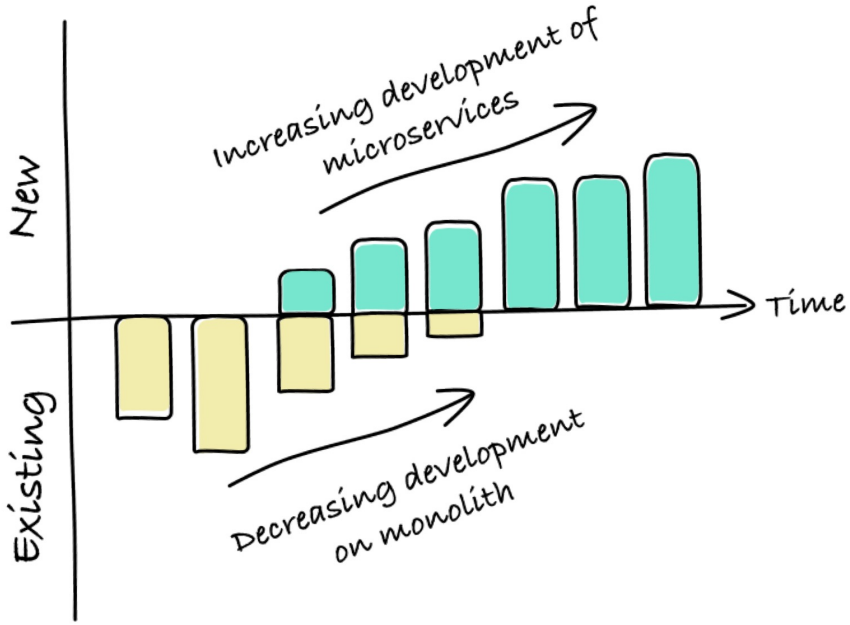
Agile delivery method

Value-driven

Reduces risk of failure

Allows shorter feedback cycles

Ensures modernization is value-driven and can be interlocked with other development initiatives



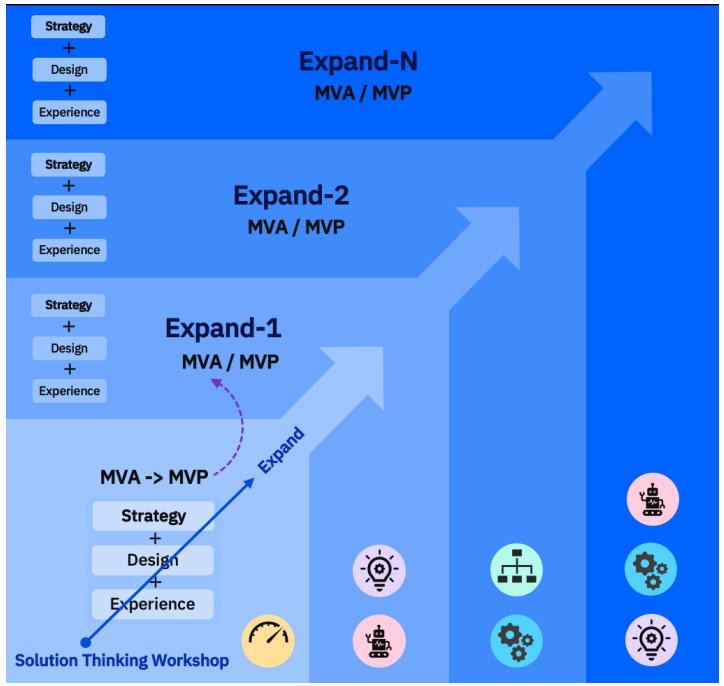
Guiding Principles

No Big Design Up Front

Incremental Value Realization

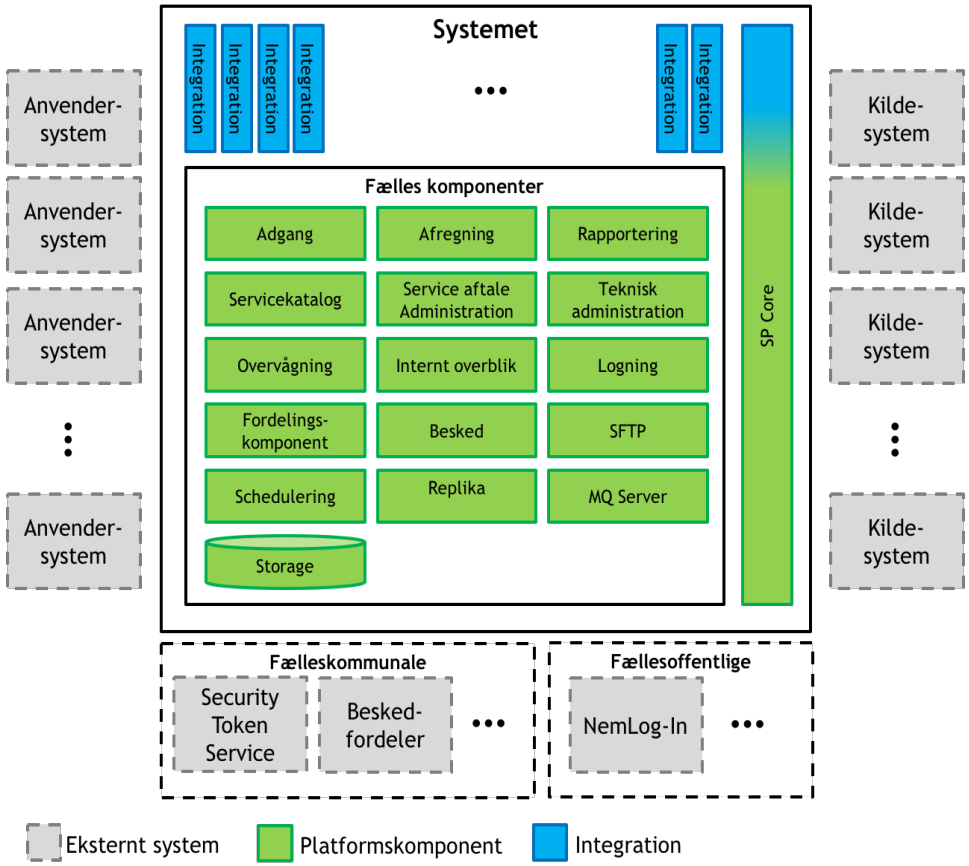
Minimum Viable Architecture (MVA)

Technical & Cultural Coexistence

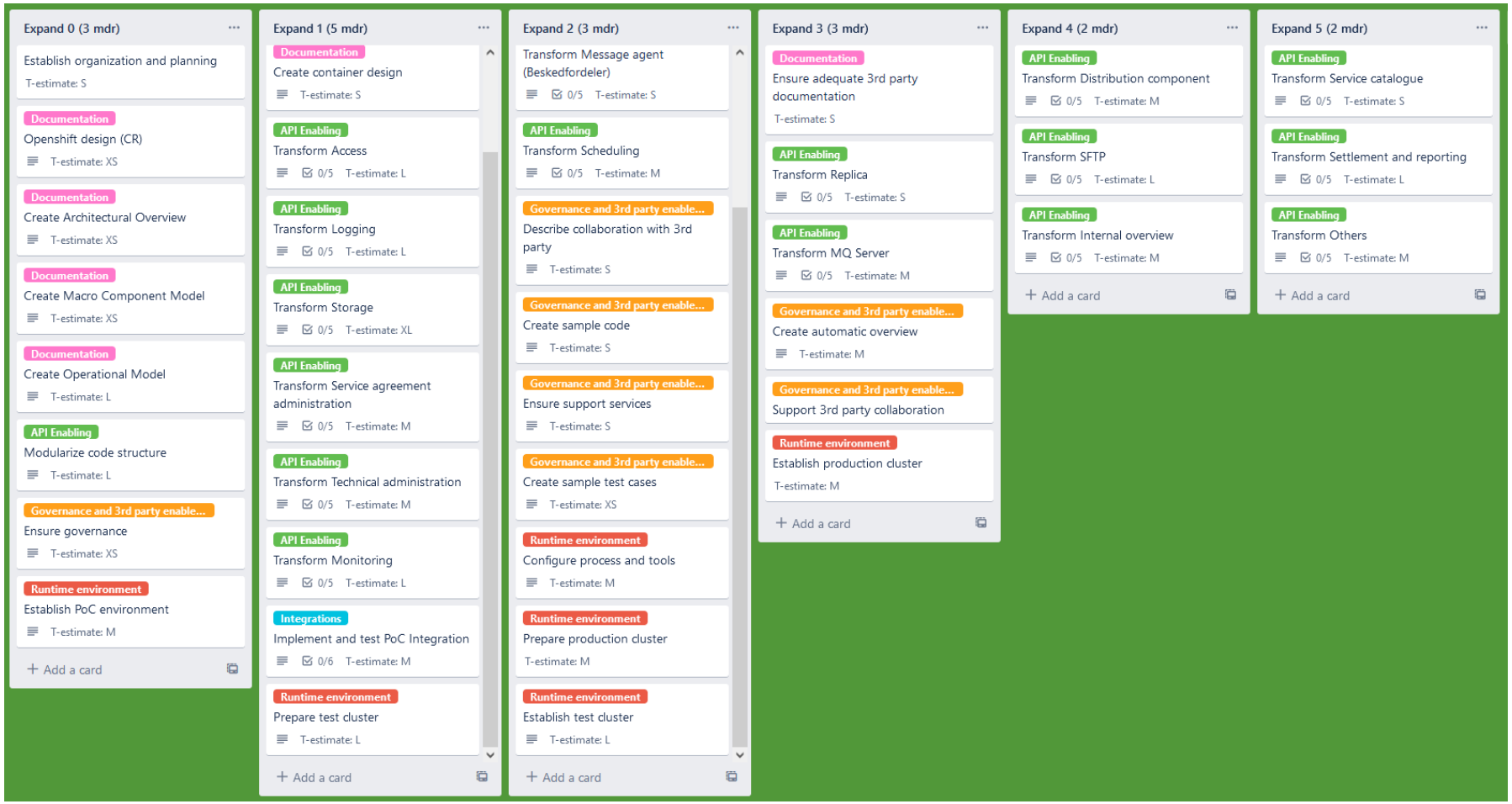


Modernization based on components

- some will be rewritten
- some will be replaced
- some will be added



Overall Modernization plan



Solution Transformation goals

Past

- private cloud (self-managed)
- virtual servers (pets)
- monolith in JBoss EAP
- single lifecycle for whole solution
- custom frameworks and tools
- labor-intensive processes
- service through OPS team
- traditional infrastructure

Future

- OpenShift in Virtual Private Cloud
- containers (cattle)
- microservices in Quarkus
- independent lifecycle per microservice
- ServiceMesh, GitOps, Prometheus, ...
- integrated DevOps pipelines
- self-service
- software-defined/infrastructure as code