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Application Migration & Modernization for Axa Switzerland

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Speakers

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Gotthard Project

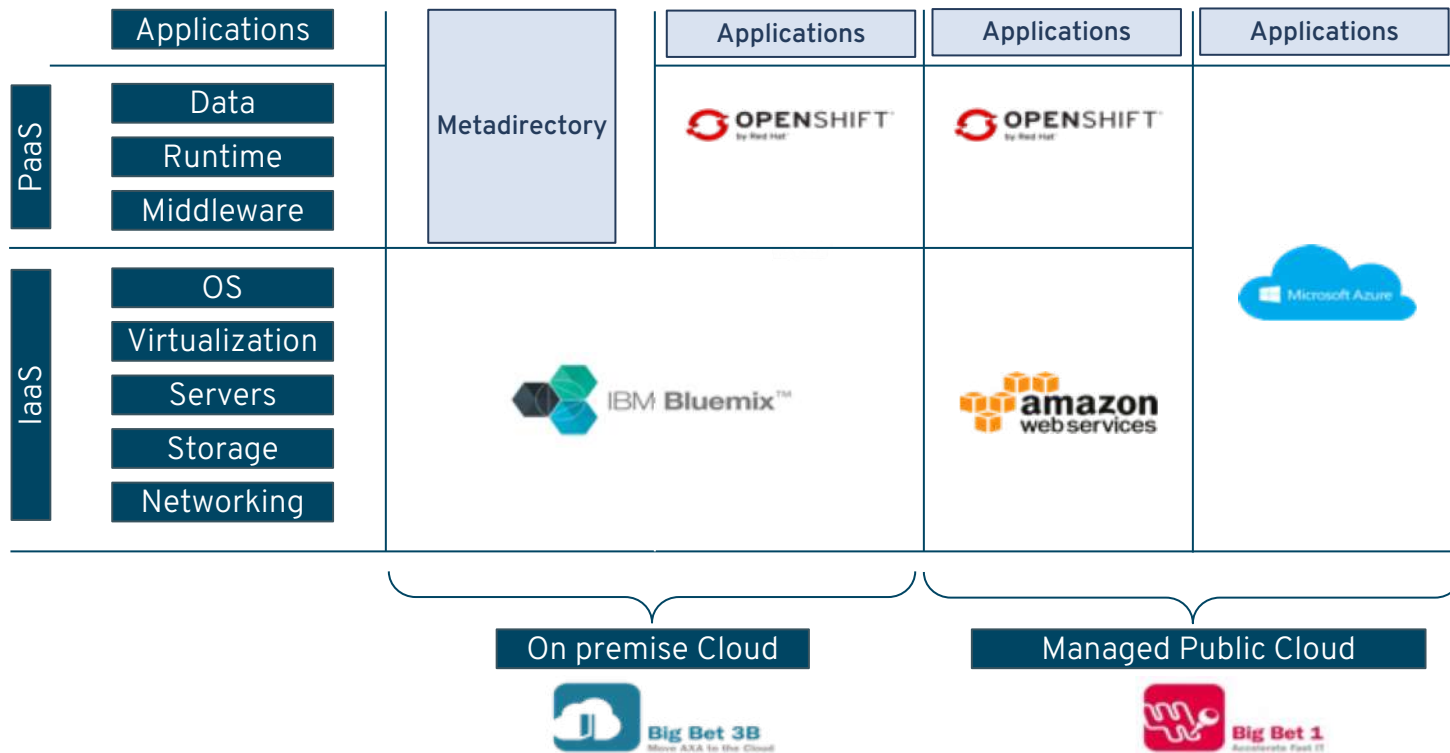Gotthard Project
is a Migration Project

Mission

Migration of 185 applications from a CORE-IT into multiple cloud platforms.

23 applications decommissioned

Until 2020

Axa Platforms

The AXA Group Hybrid Cloud strategy

Demo 1
Multitenancy Management Portal

1. What is the portal?

2. Subscription Hierarchy

3. Demo

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What is the Multitenancy Management Portal?

Self Service Portal and API for cloud services in AXA

- Solves project, user and capacity management out of the box

- Built by the global team responsible for the OpenShift platform etc.

- Focused on OpenShift and related services provided by one department

- Drivers provision the different services

- Everything is available through a REST API

- Extensible information store through labels

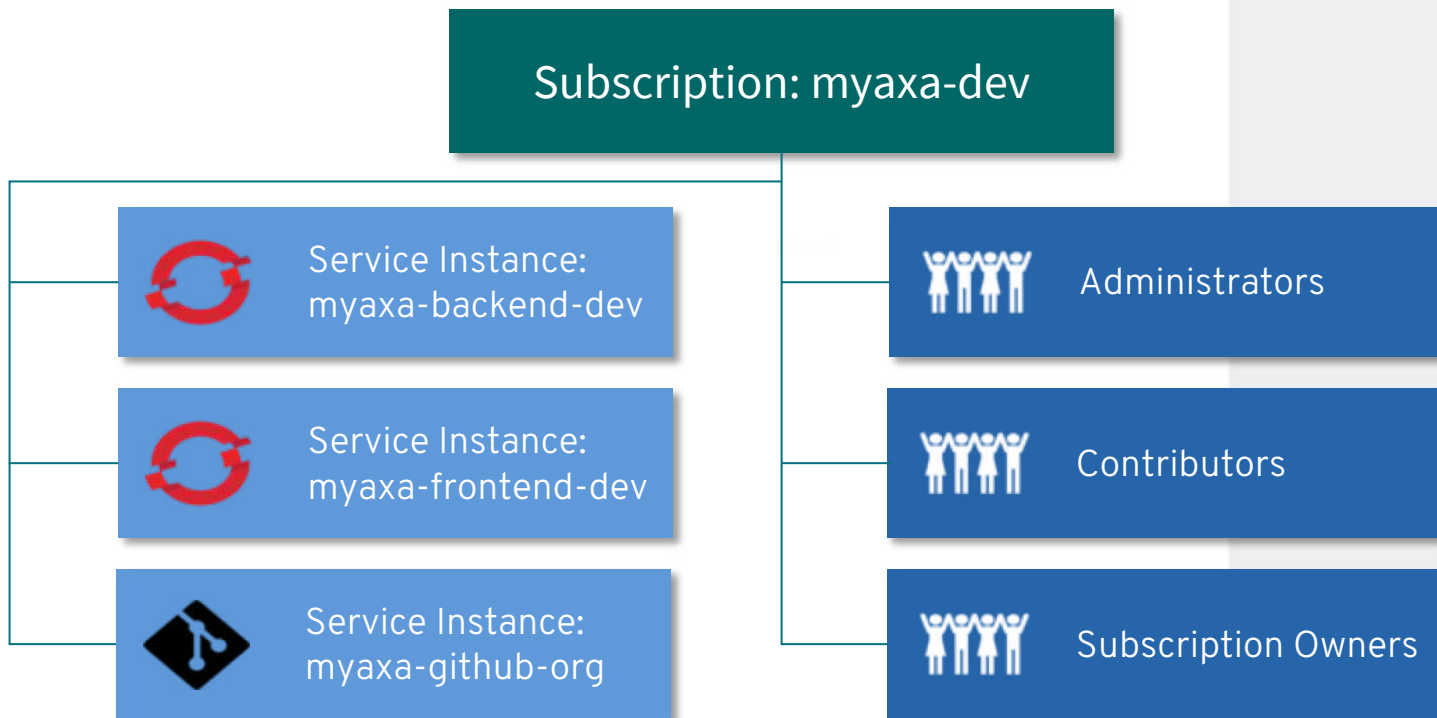- Subscriptions are the primary entities

A subscription is ...

- ... a completely independent logical entity

- ... decoupled from other AXA constructs (CMDB)

- ... the necessary for a service instance to exist

    Service instances may be OpenShift Projects, GitHub Orgs, Artifactory repository sets, ...

- ... where role grants and user groups are managed

Service Instances and Groups

Self Service Provisioning of New Service Instances and Groups

Subscription: myaxa-dev

Service Instance:
myaxa-backend-dev

Service Instance:
myaxa-frontend-dev

Service Instance:
myaxa-github-org

Administrators

Contributors

Subscription Owners

Subscription Hierarchy

Segregating by Stage
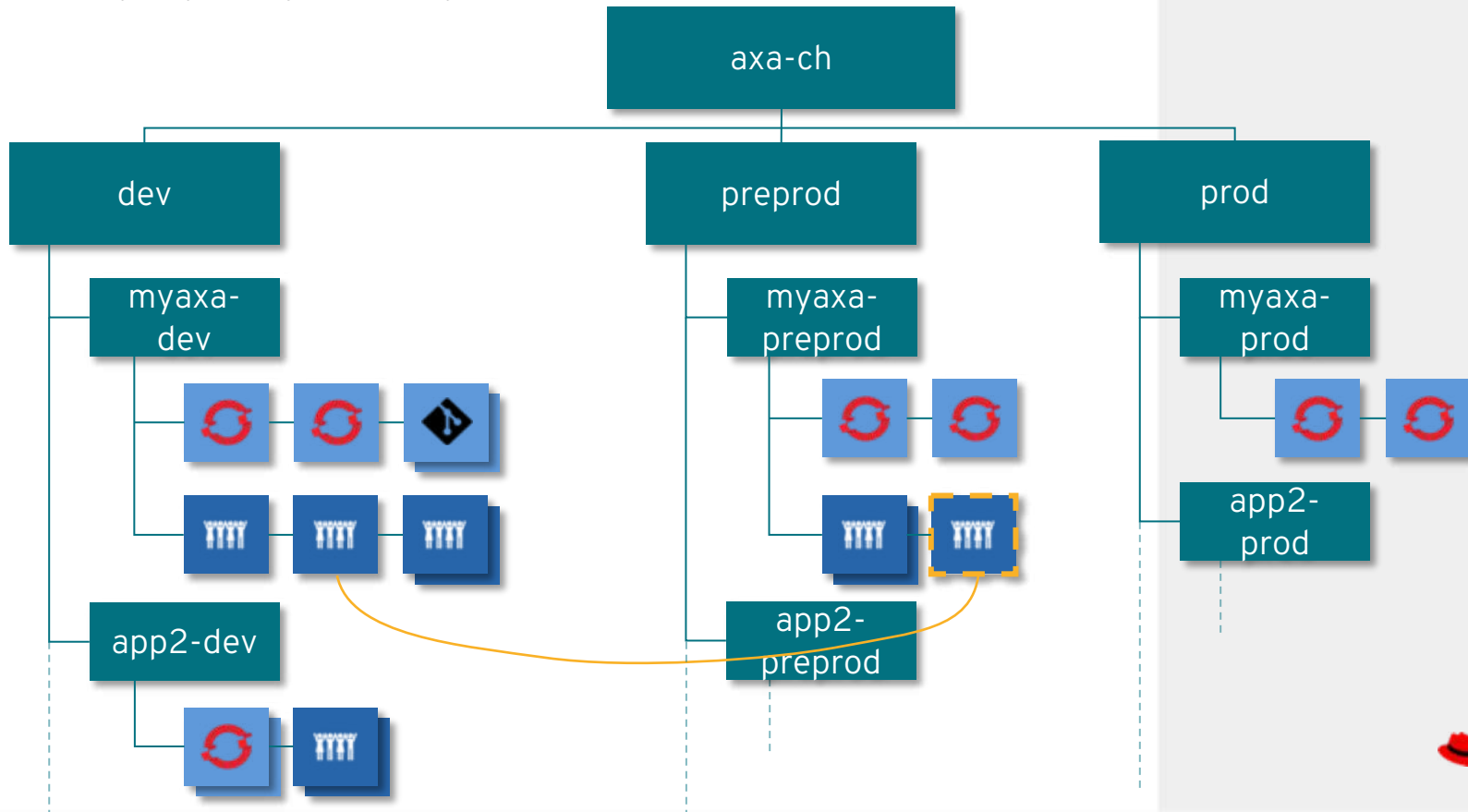
Summary of the Multitenancy Management Portal / API

Essentials

- Simple hierarchical data model using subscriptions

- User groups can be referenced across different subscriptions

- REST API available for automation

- Use labels to track resources (subscriptions, projects, etc.)

Use Cases at AXA

- Network Zoning: Apply egress and ingress network rules to OpenShift projects depending on the "stage" subscription

- Creation of dev, preprod and prod subscriptions per application by script

- Attach application IDs to subscriptions using labels

    Report consumption and cost by application instead of by OpenShift project

    Use existing processes re. application ownership and lifecycle

- Verify the integrity of the subscription hierarchy using scripts

- Some teams automatically provision projects based on their CI/CD pipelines

Application migration & modernization for AXA Switzerland

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Seamless data supply chains orchestration

Nils Buer, Global Head of Solution Marketing

Use Case

A world-leading insurance company provides its agents and customers with various insurance applications on their web portal. To ensure that new applications are quickly rolled-out and run stable they are deployed on OpenShift

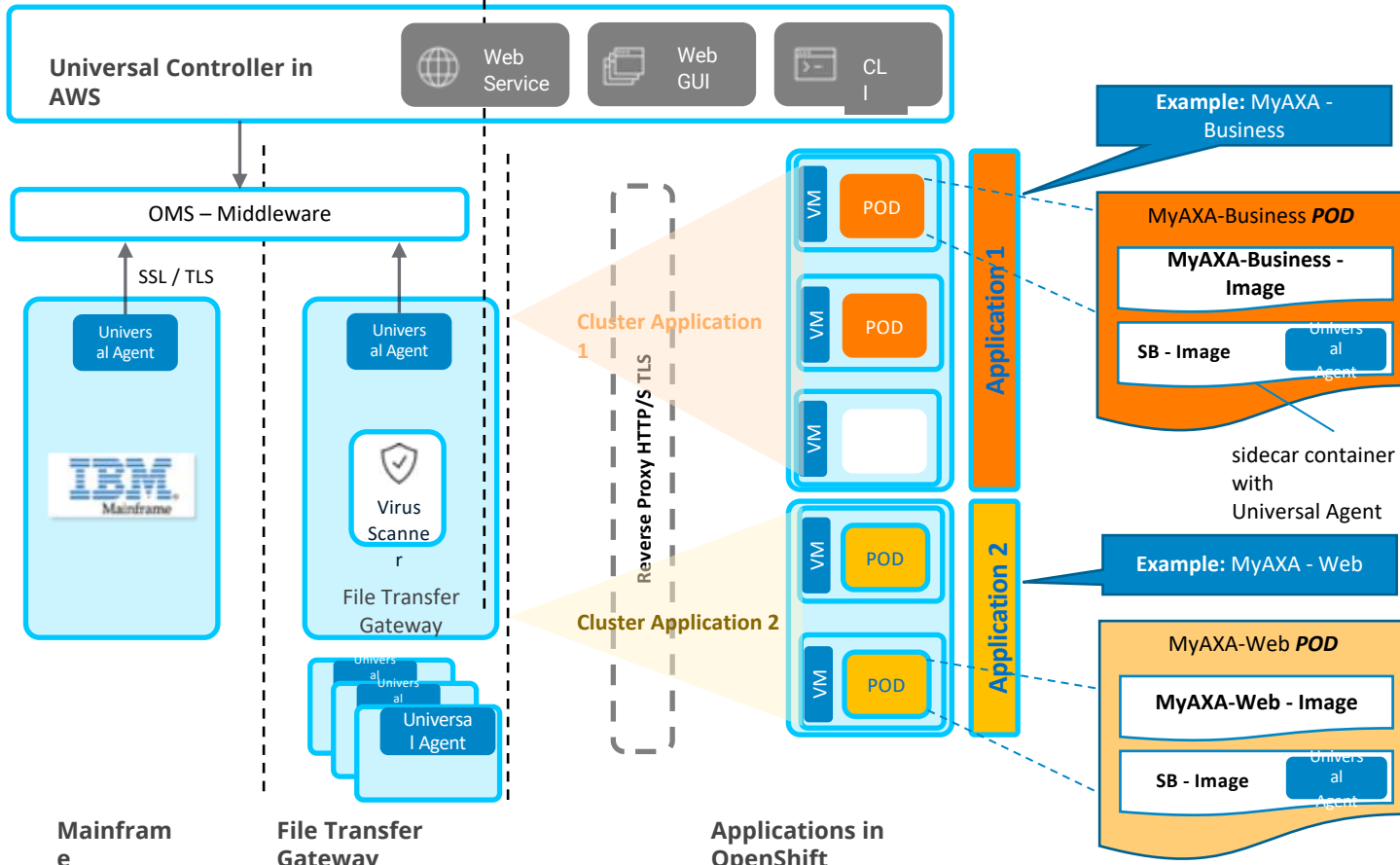# My hometown – all about container

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Requirements – OpenShift File transfer

- Transfer a file from the MF to all OpenShift PODs related to an Application (and vice versa)

- Transfer a file from any Cloud Storage to all OpenShift PODs related to an App. (and vice versa)

- Trigger a File Transfer from a Web-Application

- Solution must be Cloud based, secure and high available

Architecture – File Transfer MF to OpenShift

Universal Controller in AWS

- Web Service
- Web GUI
- CLI

OMS – Middleware

SSL / TLS

Universal Agent

Universal Agent

Virus Scanner

File Transfer Gateway

Universal Agent

Universal Agent

Universal Agent

Reverse Proxy HTTP/S TLS

Cluster Application 1

Cluster Application 2

VM POD
VM POD
VM

VM POD
VM POD

Application 1

Application 2

Example: MyAXA - Business

MyAXA-Business **POD**

MyAXA-Business - Image

SB - Image — Universal Agent

sidecar container with Universal Agent

Example: MyAXA - Web

MyAXA-Web **POD**

MyAXA-Web - Image

SB - Image — Universal Agent

Mainframe

File Transfer Gateway

Applications in OpenShift

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Live Demo

MF to OpenShift File Transfer

Transfer a file from the MF to an application on OpenShift

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Summary

- Transfer a file from the MF to all OpenShift PODs related to an Application (and vice versa)
- Transfer a file from any Cloud storage to all OpenShift PODs related to an app (and vice versa)
- Trigger a File Transfer from a Web-Application – Microservice Architecture
- Secure and High-Available Cloud based solution (TLS 1.2, SAML, HA/GEO-Redundant)

Connect your Mainframe Data to applications running on OpenShift and vice versa

Thank You