Maintaining a competitive edge and digitizing business processes and online offerings

D2 IQ + Bundesagentur für Arbeit

Opportunity

The Federal Employment Agency (Bundesagentur fur Arbeit [BA]), headquartered in Nuremberg, is the largest provider of labor market services in Germany, with a network of more than 600 agencies and branch offices nationwide. The agency's main duties include job and training placement, career and employer counselling, unemployment benefits, and more.

Additionally, the Federal Employment Agency conducts labor market and occupational research, labor market observation and reporting and records labor market statistics. It's also the parent organization to special agencies like the International Placement Service (ZAV), the Institute for Employment Research (IAB), and Family Benefits Office.

Challenge

With its "BA 2020" strategy, the goal of the Federal Employment Agency was to digitize their business processes, expand online offerings, and deploy user-friendly tools. Given the nature of their work, The Federal Employment Agency was also incredibly focused on security and data protection as a key requirement for any digital transformation solution.

Before the BA 2020 initiative, the Federal Employment Agency utilized large monolithic applications which took a large amount of resources. When searching for a new solution, efficiency, assignability, and flexibility were key factors in making their decision.

Solution

The switchover from large monolithic applications to microservices was necessary to effectively manage the now numerous smaller systems and services needed for the BA 2020 initiative. The Federal Employment Agency, together with Fujitsu, chose D2iQ's Mesosphere DC/OS Platform as their primary solution for enabling the simple and fast scalability of modern services. With Mesosphere DC/OS Platform, the Federal Employment Agency introduced a private cloud in order to meet their online requirements through performance, availability, and faster deployment. Mesosphere DC/OS Platform is now the primary container platform the agency leverages to use IT resources efficiently.

The central component of the container platform is the Mesosphere DC/OS Platform, which is based on Mesos. Mesosphere DC/OS Platform is leveraged for orchestrating platform services, like Cassandra and Kafka, scheduling, load balancing, monitoring, availability, and more.

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"We are producing more and more business processes electronically. With the introduction of a containers-as-a-service platform, we are creating a basis for further flexible development of the Federal Employment Agency's e-government activities."

—Ralf Ernst, Senior IT Architect APOK, Federal Employment Agency

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Why Mesosphere DC/OS Platform?

Because the Federal Employment Agency was charged with modernizing the business, while still remaining in compliance with security standards and other regulations, Mesosphere DC/OS Platform was the perfect fit.

The Federal Employment Agency selected Mesosphere DC/OS Platform for the following reasons:

- Fast and flexible developer access to the development environment, so the development team can focus on implementing efficient processes instead of infrastructure deployment
- Significant cost reduction
- Automation of the build and deployment processes (CI/CD)
- Simple and fast scalability of services
- Zero downtime thanks to rolling updates
- Easy testing of new technologies
- Modern and highly scalable data services

Stack Stats

The Federal Employment Agency is using the following products and services:

- **Mesosphere DC/OS Platform Version 1.9.7**
- **Graylog Version 2.2.2**
- **ElasticSearch Version 2.4.0**
- **Docker Version 1.12 and 1.13**
- **RedHat Enterprise Linux 7.3**
- **Nexus Version 3.1.0**
- **Filebeat Version 1.3.1**
- **Mongo DB 3.2.9**
- **Puppet 3.8.7**
- **Ansible 2.2.1**
- **Foreman 1.13.3**
- **Jenkins 2.52**

Results

The Federal Employment Agency, together with Fujistsu, successfully implemented Mesosphere DC/OS Platform for their digital transformation initiatives. In doing so, deployment costs were significantly reduced and the flexibility of use significantly increased. With Mesosphere DC/OS Platform, the Federal Employment Agency can advance their digital initiatives and customer-related processes in alignment with their BA 2020 strategy.

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