

CUSTOMER STORY

HIGH TEAM SPIRIT WITH AGILE SOFTWARE DEVELOPMENT

Computacenter successfully implements Red Hat OpenShift solutions at Deutsche Börse AG

SERVICES

- Cloud & Data Center
- Security
- Design & Build Services

USER EXPERIENCE

- Faster access to new features
- Improved agility and mobility
- Improved access to information
- Improved communication and co-operation
- Improved user productivity
- Accelerated decision-making process

BUSINESS IMPACT

- Standardisation
 - Reduced administration efforts
 - Digitisation support
 - Improved security
 - Increased business flexibility
 - Sustainable solution
 - Improved productivity
 - Ensuring compliance and governance
 - Accelerated innovations
 - Strengthening the competitive advantage
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OBJECTIVE

Deutsche Börse AG had the goal of implementing a central Kubernetes service for modern container-based software development across a multi-cloud environment. This was to be able to develop and operate containerised applications as part of their multi-cloud strategy. The first major task was migrating Deutsche Börse AG's websites to a container-based solution within just nine months.

SOLUTION

In close cooperation with Deutsche Börse AG, Computacenter developed and commissioned a completely new multi-tenant and multi-cloud-based service. Both the high regulatory requirements and security standards imposed by the industry were taken into consideration for the solution. The IT service provider built a DevOps-oriented IT operations model for a 24/7-supported service level. The solution was implemented using an automation process based on the GitOps principle.

OUTCOME

Together with Deutsche Börse AG, Computacenter established a joint agile scrum team working on DevOps principles. The Red Hat OpenShift Container Platform consisted of components such as Kubernetes-native pipelines and GitOps products. The platform had been initially implemented on Azure but development has allowed the solution to be delivered on other cloud offerings due to the multi-cloud strategy. Computacenter's tasks included the complete service package - from development to productive deployment.



Except for the kick-off, the collaboration was completely remote. Computacenter's structured approach and experience from other projects really paid off. Computacenter took care of the entire onboarding, which gave us the necessary freedom to expand the internal team. This good cooperation has continued throughout the project.

Liviu Sorin Teodorescu,
Head of Container Orchestration
Services, Deutsche Börse AG



OBJECTIVE

Container-based development for a shorter time-to-market phase

Deutsche Börse AG had the goal of introducing a uniform central Kubernetes service across different cloud infrastructures. In this way, container-based development can be used in the future, making it independent of the underlying cloud infrastructure. For this purpose, a central platform had to be provided that enables the creation and operation of container applications. This is because these initiatives were previously distributed in different areas at Deutsche Börse AG's multi-cloud estate.

In the first step, Computacenter, together with colleagues from Deutsche Börse AG, supported the website team in setting up and commissioning a new platform for the websites as the first tenant. The websites were to be migrated to a new Kubernetes service by the end of the year. The challenge here was the very tight schedule: when the project started at the beginning of March 2020, it was already clear that a test development environment had to be provided by June 2020; pre-production and production were to be available by the end of the year.

For a regulated company like Deutsche Börse AG, the transfer of applications to a productive or new environment is a unique challenge because of the large number of processes and risks being fulfilled. This brought with it a high degree of complexity. In addition, the global COVID-19 pandemic meant that all team collaboration, across both Computacenter and Deutsche Börse AG, took place remotely. Only at the kick-off did Computacenter and Deutsche Börse AG staff meet in person, as this took place before the initial lockdown.

SOLUTION

Agile working is realised

The IT service provider initially established an agile scrum team in close cooperation with Deutsche Börse AG. In order to anchor the new way of working within the framework of agile development at Deutsche Börse AG, Computacenter created the foundation for DevOps culture at the start of the project with online workshops and training sessions for the joint Deutsche Börse AG team. This is because the new logic of DevOps requires an end-to-end view whereby developers also act operationally and take over operational task responsibly. To ensure this mindset and action, the IT service provider has also created a DevOps oriented operations manual.

In addition, Computacenter took on the position of 'scrum master', who continuously removes hurdles and obstacles and ensures that the scrum values are lived. Since new processes always have to be tested and handed over as production-ready, three classes were defined for the peer reviews. The greater the impact of a new process or functionality, the stricter the review requirements. In order to take the high IT operational and security requirements into account right from the start, the IT service provider also created a security concept. This specifies rights and roles as well as the processes for dealing with auditing.

The actual construction and operation of the Red Hat OpenShift Container Platform was automated on the basis of Kubernetes-native pipelines and GitOps products. The complex environment offers interfaces to on-premises systems and cloud providers such as Amazon Web Services, Microsoft Azure, and Google.



We now offer a multi-tenant and multi-cloud-based service. This shortens the time-to-market phase quite considerably. Our internal customers benefit from synergy effects and can not only use specific infrastructure, but also Amazon Web Services, Microsoft Azure and Google in addition to on-premises.

Liviu Sorin Teodorescu,
Head of Container Orchestration
Services, Deutsche Börse AG



OUTCOME

Experience and synergy ensure a shorter time-to-market phase

Thanks to the agile working method, the websites on the container-based applications went live in just nine months. This was based on Computacenter's many years of experience in the financial sector and their extensive project experience with customers from the regulated environments, notwithstanding their expertise in Kubernetes. During the entire product development of the Kubernetes service, the agile team spirit was always in the foreground.

The new platform is now ready to run Deutsche Börse AG's key applications - from development to production. Thanks to the close cooperation between Computacenter and Deutsche Börse AG in the project team, it was ensured that all strict regulatory requirements were met.

At the same time, Deutsche Börse AG can use synergy effects for future container-based orchestration landscapes and thus significantly shorten the time-to-market phase. This is because the central platform is now available across the Group for the operation of important applications. In this way, other teams within Deutsche Börse AG are supported in building and operating their container-based applications based on Red Hat OpenShift and Kubernetes.

ABOUT DEUTSCHE BÖRSE

As an international exchange organisation and innovative market infrastructure provider, Deutsche Börse AG facilitates transparent, reliable, and stable markets. With its products, services, and technologies, it creates security and efficiency for a sustainable economy. Its business areas cover the entire value chain in exchange trading. This includes the admission, trading, clearing, and custody of financial instruments, the provision of market data and the management of collateral and liquidity. As a technology company, the Group also develops modern IT solutions and offers IT services worldwide. The company has its headquarters in the financial centre Frankfurt/Rhine-Main and is present across 38 locations worldwide with over 7,000 employees.

MORE INFORMATION

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