

Migration of the DevOps Toolchain from on-premise systems to AWS



»As an AWS Consulting Partner, fme AG played a major role in helping us migrate our DevOps toolchain from our internal systems to the AWS Cloud while optimizing security and availability and significantly reducing operating costs.«
(Boris-Michael Steinke, CTO JITpay GmbH)

Challenge







JITpay™ GmbH, based in Braunschweig, Germany, is a FinTech and logistics start-up that provides the opportunity to digitize billing processes in logistics and thus manages the billing of all logistics costs for dispatchers, forwarders and transport companies. JITpay™ relies on state-of-the-art technologies and cooperates with both strong traditional partners and innovative technology providers.

Requirements for today's software applications and systems are subject to rapid changes and it is necessary to implement these changes at any time and in an automated manner, if possible, right through to the production system. JITpay™ also has to meet very high requirements in terms of security and high availability, while at the same time being very cost-conscious. A future-proof solution had to be found for this. JITpay™ opted for products that meet modern DevOps industry standards, for Amazon Web Services (AWS) as the cloud provider and fme as the consulting and implementation partner.

Solution

JITpay™ implements DevOps principles for modern service offerings in logistics in order to be able to react quickly to current market situations and make adjustments and enhancements to the services. This is based on Hashicorp's Terraform to standardize and automate IT infrastructures, Hashicorp's Vault for secure credential management, ConcourseCI as a CICD tool to optimize software rollouts, and KeyCloak for secure access management with multi-factor authentication (MFA). All applications are operated containerized in

Benefit

-  Complete automation of the infrastructure and development processes
-  Scaling and high availability of the tools used via AWS autoscaling
-  System stability through automated restart in the event of disaster recovery
-  Installation of automatic updates and patches
-  Increased security and access via MFA
-  Cost savings through reduction of operating costs

the AWS Cloud in a scalable, redundant and fail-safe manner, and can be quickly restored in the event of a disaster. In addition to the increased security, operating costs were significantly reduced by automating the update and patch processes as well as the restart mechanisms. Apart from the complete automation of the infrastructure, fme also developed the corresponding pipelines for software development together with the the JITpay™ development team.

Technology

- AWS Elastic Container Service / Elastic Container Repository (ECS / ECR)
- AWS Relational Database Service (RDS mit PostgreSQL)
- AWS DynamoDB
- AWS EC2 for Windows Server
- AWS API Gateway
- AWS Systems Manager (ParameterStore / PatchManager)
- AWS Key Management Service (KMS)
- Hashicorp Terraform
- Hashicorp Vault
- Concourse-CI
- RedHat JBoss / KeyCloak

Please find more information at www.fme.de/en