

Valtech Mobility Strengthens Security and Increases Speed of Deployment, Establishing a True Cloud Strategy with AllCloud's Support

About Valtech Mobility

Valtech Mobility (since Sept. 2018 Joint Venture of Volkswagen Group and Valtech) develops digital mobility services for well-known automobile brands, especially for Audi and Volkswagen. Their focus is on the connected car, developing back-end solutions for millions of vehicle in-car services, to the development of cloud-based infrastructure for the next generation of electric and autonomous vehicles.

Their main line of business encompasses big data, electromobility, autonomous driving, and networked platforms. The company headquarters are in Munich with further locations in Dusseldorf, Frankfurt, Dresden, and Braunschweig with approximately 300 employees overall.

Summary

Valtech Mobility was looking to build AWS infrastructure from the ground up, as part of its digital transformation strategy in the connected car industry. With AllCloud's partnership, the company has now put into place continuous deployment to automate its release cycles, enabling the business to quickly push out new features and updates, as well as introduce high performing AWS environments that are monitored and managed according to the company's unique compliance and governance needs. The ongoing cloud expertise from AllCloud has been invaluable in enabling its cloud transformation, and in planning ahead for the future.

The Challenge for Valtech Mobility

Valtech Mobility had been previously using internal IT systems and needed to build its new AWS environments from scratch as part of their digital transformation strategy. They had a number of key goals in mind but needed support with this totally transformational way of working to ensure efficiency and success. In particular:

Compliance and Governance:

framework, ensuring each new project on AWS would meet its corporate governance guidelines. This was especially important when considering security, including specific compliance guidelines such as TISAX, an EU automotive industry-standard ISA that issues strict governance around data protection and third-party access.

In-depth Cloud Strategy:

The business understood that it needed a clear cloud roadmap to ensure the best chance of success moving forward. This would be more than employing or choosing a team of experts that they could consult for advice. If implemented intelligently, its cloud strategy could become the driver of true cloud transformation across the business, helping to break down any barriers and to identify blind spots or challenges ahead of time.

Ongoing Cloud Expertise:

The company wanted to hand over a lot of the heavy lifting for the cloud to a partner with deep knowledge and expertise in AWS. Items such as DevOps-on-demand and behind the scenes cost management and optimization were essential to streamline expenditures and improve efficiency. The business wanted to focus on its core products and features, and needed to free up the time it spent on cloud management.

Solution

'We first engaged with AllCloud in 2017, with the initial project following soon after in 2018. It has been so successful that Valtech Mobility now has five separate projects on AWS in the areas of connected cars, navigation systems, and infotainment units, and we are also leveraging AllCloud's Managed Services.'

Daniel Ehls, Principal Consultant, Valtech Mobility GmbH (Joint Venture of Audi Group)

AllCloud has provided Valtech Mobility with AWS support and strategies in numerous areas.

Continuous Deployment with DevOps Pipelines

The goal for the project was to enable Valtech Mobility to build everything once for the first project, and then to reuse this development for upcoming projects. With DevOps pipelines utilizing Jenkins, the build, test and deploy phases of a release cycle are fully automated, allowing the company to quickly push out new features and updates.

AllCloud Enterprise Landing Zone Package

This enterprise-grade cloud operations technology includes a series of methodologies used by organizations to securely adopt, implement and operate their AWS environments at scale. Valtech Mobility continues to use the cloud operations technology, developed by AllCloud experts, to set up, monitor and govern their AWS environments automatically. Taking advantage of AWS best of breed tools, this cloud framework manages any complexities or knowledge gaps.

Dedicated EKS Clusters

The multiple EKS clusters Valtech Mobility is running in their centrally governed accounts integrate natively to other AWS services part of the ecosystem - IAM, ECR, CloudWatch, ElasticSearch, and others. They also leverage many other Kubernetes specific tools like [Kube2iam](#), to provide Identity Access Management (IAM) roles to application containers running inside the cluster based on annotations, and [Cluster Autoscaler](#) and [Horizontal Pod Autoscaler](#) to allow the worker nodes and pods to scale in and out based on specific metrics provided by the [Metrics Server](#).

The Results

Knowledge Transfer:

AllCloud has become a true partner in Valtech Mobility's cloud endeavors, supporting the company in building out a strategy for cloud adoption that has had far-reaching effects and helped the business learn essential cloud knowledge and skills.

Speed:

Valtech Mobility has revolutionized the speed of deployment for new features and updates, and is taking advantage of cloud benefits such as continuous deployment and DevOps pipelines for the first time. In the fast-paced connected car industry, this is a true differentiator.

Risk-sharing:

AllCloud's Managed Services on technology stacks and cost-optimized operations allows for risk-sharing and continuous performance, improvements and innovation.

Governance:

By utilizing AWS, Valtech Mobility can have peace of mind that their security framework meets the strict governance that is necessary for the industry at large, and specifically TISAX guidelines. AWS has completed a TISAX high assessment, successfully audited by a third-party assessor. By leveraging the Landing Zone's Governance pillar the company now benefits from a flexible set of AWS account governance rules which have been implemented using Infrastructure as Code (IaC), centrally versioned and maintained using the DevOps pipeline.