

SUCCESS STORY FOR SOFTWARE LICENSOR

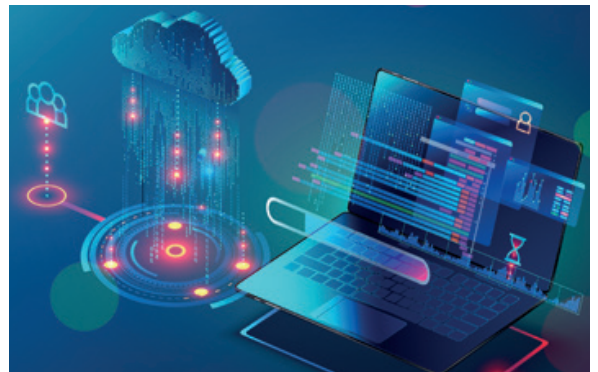
tecRacer Quickly Creates AWS Landing Zone in the Cloud

The client is an innovative technology leader in the global software licensing market. In an increasingly interconnected world, the company offers its customers the highest level of protection, licensing, and security for digital assets and intellectual property. Software manufacturers and manufacturers of smart devices worldwide use its solutions for distributing applications for PCs, mobile devices, embedded systems, controllers, and microcontrollers. To meet global requirements, the decision was made to venture into the Amazon Web Services (AWS) Cloud. However, there was a significant knowledge gap regarding AWS. Adding to this was time pressure: The accounts with the necessary infrastructure should be in place by the beginning of 2024.

The Core:

Multi-Account Environment and Greenfield Landing Zone

To enable the greenfield customer to work in AWS as quickly as possible without internal specialists or knowledge, tecRacer built the AWS organization with a well-thought-out multi-account structure. Global requirements and long-term goals were considered with a region- and workload-specific structure. tecRacer established a sustainable Landing Zone with Control Tower that can keep pace with the client's growth aspirations. To ensure consistent Infrastructure as Code using Terraform, the Account Factory for Terraform (AFT) was employed alongside Control Tower. With each account creation using AFT, certain best practices, such as budget setup and related alarming, are automated.



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In addition to the Landing Zone, an access concept was developed based on AWS Identity Center, where permissions were set according to a collaboratively developed role concept. To meet compliance requirements, all Control Tower controls were evaluated, and specific controls were activated. These controls are based on AWS Config Rules and Service Control Policies. The evaluation of the Config Rules and long-term security services, such as GuardDuty, is performed in the AWS Security Hub, centralized in a dedicated audit account. Alarming on Security Hub findings was implemented, and a potential approach for tracking findings was discussed with the client.

AWS and Terraform knowledge was imparted to the client through several training sessions and workshops to ensure that the client could manage the Landing Zone and further develop the AWS environment independently.



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Scalable Database for up to One Million End Users

A key requirement was a highly available database for the client's application that can scale from one thousand to up to one million end users. RTO and RPO requirements were considered, and tecRacer designed and implemented a database based on these specifications. Amazon Aurora PostgreSQL and the in-memory database service Amazon MemoryDB were used, along with Amazon Elastic Compute Cloud (EC2), the Application Load Balancer, and Auto Scaling for other parts of the application.

Custom Network Concept for the Client

The network concept was tailored to the client's security requirements. This meant that each customer received their own network environment, following a dedicated VPC approach. Separation into public, private, and protected subnets, as well as distribution across multiple availability zones to achieve high availability and fault tolerance, were additional features of the concept. The concept was encapsulated in Terraform modules and implemented for the existing accounts.

The design and implementation of the landing zone and the wider environment was completed within the given time frame, even though the time pressure eased as the project progressed.

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Client's Point of Contact:

"We received a secure AWS cloud solution from tecRacer that can keep pace with our planned growth. Additionally, tecRacer transferred extensive knowledge to our team for handling the new system."

Project Objectives

- Greenfield client: The IT system was set up from scratch.
- Creation of an AWS Landing Zone
 - Entry point into AWS for a multi-account environment capable of supporting the client's growth plans
- Consideration of AWS best practices and security requirements
- Design of a database and environment for the client's application
 - Scalability of the current solution to up to one million end users
 - High availability

Project Duration

June to December 2023

tecRacer Project Performance

- Concept and creation of a Landing Zone
- Role-based access concept with MFA and root user protection
- Consideration of compliance requirements through the use of selected Control Tower controls
- Knowledge transfer and client enablement for using the Landing Zone
- Future-proof database concept
- Training sessions

Tools

- Landing Zone
 - Control Tower and Account Factory for Terraform
 - Terraform as Infrastructure as Code (IaC)
 - AWS Security Hub & Config
 - Identity Center
 - VPC and other network services
- Database Concept
 - Amazon Aurora PostgreSQL
 - In-memory database service Amazon MemoryDB
 - Amazon Elastic Compute Cloud (EC2)
 - Application Load Balancer
 - Auto Scaling

About tecRacer

tecRacer, based in Hanover with ten other locations in Duisburg, Hamburg, Frankfurt, Munich, Mannheim, Berlin, Vienna, Geneva, Zurich and Lisbon, offers AWS (Amazon Web Services) consulting, training, managed services, and project management from a single source - seamlessly integrated across the entire cloud lifecycle - from strategy to implementation and operation.

The strategy remains the clear focus on Amazon Web Services. tecRacer is an AWS Premier Tier Services, AWS Advanced Tier Training, AWS Managed Services and AWS Reselling Partner.

Today, the owner-managed company has more than 150 permanent employees, has trained more than 12,000 participants in AWS and has already successfully implemented hundreds of AWS consulting projects.

For more information, visit www.tecracer.com or contact us at sales@tecracer.com.

