RULEMATCH: Trading platform benefits from cloud and on-premise solution

As one of the first interbank trading platforms exclusively geared towards institutional customers, RULEMATCH fills an important gap in the market for digital assets and cryptocurrencies. The company addresses the specific needs of banks and investment firms in the crypto world with its platform. The fully institutional trading platform meets stringent requirements in terms of security and availability. As an early technology and development partner, Ergon has built a secure platform for RULEMATCH that efficiently combines the strengths of the cloud and its own data centres.

The Swiss company RULEMATCH has developed a trading platform for cryptocurrencies and digital assets which is exclusively tailored to the needs of financial institutions. RULEMATCH has thereby filled a gap in the crypto market. The platform's high security and availability are key to its success. Development and operational processes are also managed efficiently via the platform. Ergon built the platform for RULEMATCH using Amazon Web Services (AWS) and its own data centres. The infrastructure for post-trading and support services is also based on AWS. To ensure high network performance, the Nasdaq matching engine is also operated in RULEMATCH's data centres.

"Strategic use of cloud solutions offers many advantages, especially in the financial sector."

Silvan Beckmann
Software Engineer, Ergon

Stringent security and compliance requirements

Thanks to the cloud, it was possible to meet stringent security and compliance requirements even with a lean team structure. To ensure the confidentiality and integrity of the financial trading platform in the cloud, administrator access is tightly controlled. This includes consistent implementation of multi-factor authentication. Furthermore, audit trails ensure complete traceability of all activities by logging all changes made by users. Ergon implemented this by combining AWS services with advanced privileged access management software that allows specific permissions to be defined individually. Access is granted on a 'zero trust' and 'least privilege' basis: Regardless of where the user is located, they must always log in and are only granted the permissions they need to perform their tasks. Furthermore, to minimise the attack surface, all access attempts over the internet are filtered through the Airlock Web Application Firewall.

More efficiency thanks to robust cloud services

Strategic use of AWS enabled Ergon to build RULEMATCH's IT landscape with a lean team. The robust services for containers, databases, message queues, object storage and various network services also helped to make this possible. All of these services operate redundantly across multiple AWS Availability Zones (data centres). Utilising the write-protection functionality of AWS S3, Ergon also developed a highly efficient and cost-effective long-term archive that ensures compliance with the statutory retention period of ten years.

Powerful hybrid solution

To meet stringent requirements in terms of security, availability and speed, Ergon combined cloud solutions with on-premise applications. In the AWS cloud solution, applications are operated redundantly across several Availability Zones. To also be prepared for unexpected situations, Ergon installed certain applications in multiple AWS regions. AWS transit gateways connect the different regions to own on-premise data centres, so that internal data traffic is not routed via the internet. In the data centres where the Nasdaq matching engine is run, special network hardware has been installed to reduce network latency. For market participants who also operate their infrastructure on AWS, connectivity is also provided through AWS PrivateLink, which guarantees that the data traffic reaches RULEMATCH via the fastest route