



Case Study

STOXX

Client Profile:

STOXX Limited is a globally integrated index provider, covering world markets across all asset classes – developing, maintaining, distributing and marketing a comprehensive global family of strictly rules-based and transparent indices. STOXX is a wholly owned subsidiary of the Deutsche Börse Group. STOXX calculates more than 7,000 indices and also acts as the marketing agent for the indices of Deutsche Börse and SIX, among them the DAX and SMI indices. STOXX indices are licensed to financial institutions and other users for use with exchange-traded funds (ETFs), mutual funds, futures, options, structured products, and other purposes.

Tecnology Used:

Liferay, Oracle database, AWS

Business Situation:

Currently STOXX is using servers, storage and other infrastructure components, from SIX for BAT, and production environments. Since STOXX was shifting out of SIX, they had to make their own arrangement for all their technical and infrastructure solutions.

After considering Compassites' expertise in providing scalable cloud-based solutions and in developing customized cloud technologies using Amazon Web Services (AWS), Microsoft Azure, Rackspace and other prominent cloud platforms, STOXX approached us for creating a secure and robust cloud-based platform.

Solution Approach:

STOXX's current system components will be migrated and implemented on AWS with equal or similar capacity cloud-based resources. The development, Staging, pre-production and production environments will be provisioned within the AWS Europe region (Ireland). The current capacity plan on AWS will ensure catering to existing application needs, and additional scaling measures can be taken up in future based on requirements. Listed below are the general and design constraints that were addressed while providing our solution.

General Constraints:

- ❑ Scalable Infrastructure: The Cloud infrastructure should support the ability to increase capacity and throughput by scaling out and using distribution techniques. Scaling the infrastructure may require any additional software development or changes.
- ❑ Number of Users: The system should be capable of supporting the current traffic with maximum capacity as defined in the NFR document for the initial phase. Subsequent phases of the system will support additional capacity and may require scaling, but this may call for additional software development.
- ❑ Data Storage: Data will be stored on Instance store, EBS volumes,



S3 buckets, SoftNAS storage, CDN and Glacier.

Design Constraints:

- ❑ Modular design and decoupling techniques should be applied wherever possible to improve performance and availability.
- ❑ All source code and DB scripts will be managed by the development team and stored in versioning repositories such as Bitbucket.

Goals and Guidelines followed while solutioning:

- ❑ To design subsystems as well as software/hardware components within the subsystems to be as independent of each other as possible.
- ❑ Reusability of components is another goal of the system design. The layered architecture would provide for reusability of components.
- ❑ Architecture must be enforced to be effective. The goal of the system design would be to design a system (and environment) which itself enforces the developers to follow and implement a defined architecture.

Benefits & Results:

- ❑ Multi-location hosting and availability of data and instances
- ❑ State-of-the-art and highly available data centers
- ❑ Cloud security is very similar to security in on-premises data centers - only without the costs and complexities of protecting facilities and hardware
- ❑ Robust controls for security and data protection in the cloud
- ❑ As systems are built on top of AWS cloud infrastructure, compliance responsibilities will be shared

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