





Investments in the modernization and development of our trading and clearing platform allowed us to achieve a substantial increase of its performance (up to 50%) and the highest possible system reliability. The newly created IT architecture allows us to offer innovative business applications and services that open up new opportunities for customers.

Sergei Poliakoff

Chief Information Officer

In 2017, the Exchange continued to bolster its core technology and infrastructure.

MOEX completed the second phase of the upgrade of its trading and clearing systems, with a modular and scalable design. The performance of MOEX's IT platforms – ASTS (Equity and Bond Markets, FX Market) and SPECTRA (Derivatives Market) – has improved by 1.5-to-2 times since 2016, and is in line with global standards, able to handle up to 100,000 messages per second. The systems' modular design and streamlined components have enhanced reliability and contributed to a record 99.99% uptime.

A modular and cost-effective platform was created to store and distribute big data based on Hadoop solutions, and has been applied in business projects.

The Exchange also deployed the Exchange Information Fabric (EIF) integration platform, which supports interaction of applications across the Group and helps implement complex projects such as the Unified Collateral Pool. The EIF Data Grid incorporates Apache Ignite, an open-source platform which, similar to Hadoop technology used in Big Data plant that is free of vendor and licensing fees.

In 2017, the Exchange also tested open source databases as potential substitutes for commercial products. The Exchange plans to roll out these alternatives in 2018-2019.

As part of the development of MOEX's web platform, Single Sign On technology was created and launched to enable clients to use a single ID and a common authentication process to access all web services.

In Q1 2017, the Exchange completed migration of client equipment to the cutting-edge Tier III DataSpace1 data center. The new DC operates at MOEX's colocation area and provides the highest level of reliability, accessibility and security to clients seeking HFT opportunities on the Exchange. Next-generation solid state drives (SSDs) were also successfully tested and are scheduled for roll-out in 2018.