Case Study

Real-time Calculation Solution for Financial Market

Cooperation with global investment banks, brokers and other financial companies requires performing more calculations than ever before. End users expect access to the real-time information that indicates how financial instruments act during the trading day.

Objective

Our client already had a solution, providing their customers with information about financial products, however the functionality was limited. Our aim was to enrich the user experience and provide more dynamic features to the end user.

We helped our client to convert delayed calculations into real-time, implement sorting by different attributes and represent them into reactive UI. The software had to be tightly integrated with other components into client's infrastructure.

Value

Our long-term and mutually beneficial partnership helped the client strengthen their technological competency and expand their presence in financial service market by winning new customers. The formulas, used for calculation were our client's major asset and we maintained their easy extension and modification.

Within half year, Smart Rockstars were able to dramatically increase our client's market share after releasing new features.
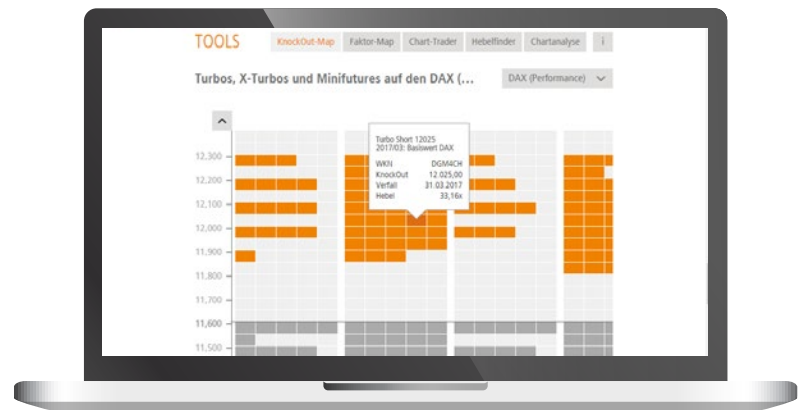
Calculation engine

We used Storm engine for distributed computation, backed by Redis data store. It offered us a vast array of high performance data structures that we could combine to fit our engineering needs.

Product list

The record of financial instrument encompassed dynamic UI part of the solution with price change notifications and possibility to filter and sort the properties.

Formula builder

To ensure formulas flexibility we introduced UI component with editing and managing capabilities for a non-technical user. New formulas are fully integrated into complex mathematical algorithms, keeping the whole system consolidated.

100K
Financial Products

300
Calculation Formulas

4
New Clients

Technologies

Java Clojure Storm Redis PostgreSQL

Angular Gulp Git CI

Project Details

Location: Frankfurt, Germany
Industry: Financial Technology

Duration: 2015 - 2017
Team size: 7 members