



# Low Latency FIX Gateway System as a Competitive Advantage for a Capital Markets Firm

## ABOUT THE CLIENT

The Client is a well-established and reputable financial institution working in the Turkish banking and capital markets industry since the 1920s. It provides brokerage services along with investment, leasing, factoring, insurance, and portfolio management.

The Client is also one of the most innovative and practical Turkish financial institutions for its customers and personnel.

## CHALLENGE

The Turkish capital market is very competitive, so the Client needs a solution in order to stand out. To beat the competition, the Client wants to provide the best trading service possible that offers the lowest latency on the market for order execution. Order execution speed depends on a FIX gateway that connects the trading platform with the exchange.

Another issue the Client faced was finding the right software vendor to develop a low-latency and high-throughput custom solution for connection to the Borsa Istanbul exchange.

Previously the Client used an in-house developed FIX gateway and also tried several similar solutions from local vendors. However, they did not satisfy the Client's technical requirements for speed and scalability, so the Client decided to find a reliable software vendor.

## SOLUTION

Devexperts already had two completed projects in Turkey (trading platforms for Gedik Investment and Global Securities). Consequently, the Client chose Devexperts as a well-established software developer in the region. Devexperts are also specialists in creating high-load gateway trading systems designed to process millions of orders with low latency. Ultimately, the key factor that affected the Client's decision was a benchmark analysis of Devexperts gateway solutions, which demonstrated adherence to the Client's technical requirements.

With a hardware environment in place, Devexperts can roll out FIX bridges in one business day. Thus, Devexperts delivered a proprietary gateway system for a direct connection to the Borsa Istanbul Stock Exchange. It sends FIX messages and processes the exchange's responses. The latency of the solution provided was low enough to completely satisfy the Client's demands. With 1000 orders per second, a single order was processed in the following times:

- Minimum time: 42 microseconds
- Average time: 99 microseconds
- Maximum time: 157 microseconds

The Client provides the gateway solution to their institutional and retail customers and plans on using it for further projects with Devexperts, which include an order management system and mobile financial applications.

## RESULTS

According to the Client's demand, Devexperts developed the proprietary FIX gateway system with high throughput and low latency of up to 42 microseconds. It is directly connected to the Borsa Istanbul Exchange. Thus, the Client's institutional and retail customers benefit from the best trading experience with immediate order execution.

Devexperts FIX gateway system also laid the foundation for the Client's plans for developing an order management system and mobile trading applications.

By providing low latency access to Borsa Istanbul the Client succeeded in onboarding more institutional clients along with individual algo traders.

 Describe your business challenge and we will suggest a solution

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