



# Logistics Company Redesigns IT Systems

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CLIENT : XPO Logistics

INDUSTRY : Transportation and Logistics

## Background

XPO Logistics is a third-party provider of end-to-end goods management services around the globe. Its workforce of more than 88,000 operates in 34 countries, making it one of the 10 largest transportation and logistics service providers in the world.

## Challenge

XPO has a global team of more than 1,500 IT professionals focused on ways to serve its customers better and continuously invests in technology improvements. Its existing IT system, however, was built around three mainframe-based subsystems that had high maintenance costs and poor extensibility. The organization wanted to redesign its IT system in a way that would replace all three existing mainframe subsystems with a Java/Oracle-based distributed computing platform, and it turned to ProKarma for help.

The company's system processes millions of records daily. With more than 50,000 clients, many of which have time- and service-critical shipments, the organization could not risk slow responses, system down time, technical glitches or data loss during the transition to the new platform. All three subsystems would need thorough testing to ensure that they could handle the workload, remain highly available and process records correctly from end-to-end.

ProKarma was brought in to help design and execute the performance test strategy. The team needed to ensure that the back-end code of applications met or exceeded the performance capabilities of the existing production environment. Each subsystem would be built on six servers.

## Solution

Real-time scenarios were created for performance testing to ensure that the new system could handle the project load. ProKarma's experts used data from more than 17 million records in the existing system logs to mimic real-time scenarios and patterns. For circumstances in which specific requests arrived in a specific sequence and at a specific time, the team built a framework to control the parallel execution and delay between requests.

The team conducted performance testing with the open source tool JMeter, which ProKarma then expanded on and adapted to meet the company's needs. The customized automation



framework that was developed picks the records from the application logs, creates requests, adds the delay before executing the next request, collects the responses, strips the time required to read/write from logs and then generates the report.