



Building a **Successful** Partnership in the **Logistics** Industry

MAXIMA CONSULTING

The Client

Our client is a third-party logistics (3PL) company headquartered in Massachusetts. Their business was supported by their in-house Warehouse management system (WMS) which is a .NET based system developed in the 2000s.

The proprietary WMS system was being pushed beyond its limits, despite it being well structured and highly configurable.

System details:

- Responsible for fulfillment and returns management to e-commerce retailers
- Operates 7+ warehouses in the United States with more to come
- Is supported by their in-house .Net based Warehouse management system (WMS) developed in the 2000s
- Experienced rapid growth and increased client demands



Problem Statement

1. The business has experienced exponential growth within the last years, and the current systems and architecture were not be capable of supporting the rapid growth without refactoring or redesign.
 - Systems have a very tightly coupled design and architecture
2. Data Replication and Redundancy
 - The DB has a lot of replicated and redundant data, partly because the systems are so tightly coupled, and as such, logic and functions are replicated across different systems and parts of system.
3. No QA growth strategy
 - Regression was not being done when changes were made to systems
4. Current Integration methodology is inefficient
 - There is not actual handshake when requests are sent, keeping clients in the dark about orders until results are generated
5. Poor Support and troubleshooting tools
 - Current systems have inadequate and application logs, quite an uphill task to tie current logs to events



Where **Maxima Consulting** Helps

Maxima Consulting is supporting the Client with our OnShore/OffShore delivery model utilizing **Boston** and **Poland** for both our development and testing efforts.

This entails:

- Involvement in BAU activities such as, support, investigations, etc
- Standardization and introduction of best practices in their QA process through our QA seasoned professionals
- Rebuild, redesign and refactoring of some applications to modernize and make them more scalable through our Engineers and Architect
- End-to-End support across the whole SDLC

Project Technologies

- .NET and C# using ASP.NET MVC or WEB API, high-volume SOAP and REST APIs, XML files
- Azure, AWS S3
- Github, Jira, Zephyr Scale, Zendesk
- Splunk - introduced by Maxima Consulting
- .NET Core Framework



Team Development

- 1 year ago - Software Engineering team consisting of 3 QA Specialists, 1 Architect, 1 Scrum Master and 4 Engineers
- Today there are 2 teams
 - Maxima 8 people - 3 Engineers, 1 Architect, 4 QA Specialists
 - Client 9 people - 1 QA Specialist, 1 Engineering Manager, 1 Architect, 1 Principal engineer, 5 Engineers



Quality Assurance - Today

- Created a test plan together with developers
- There are a lot of corner cases created by the QA team
- Improved communication between QA and development team
- Created a test plan strategy document - which tools to use, how to create test cases, responsibilities etc.
- Added additional regression testing to the process,
- We split the work between the team, so it's transparent who does what
- Standardize the processes in the QA team, for example QA Sign Off
- Introduction of daily QA meetings



Development - Today

- People are using one of our developers work as a benchmark - if we can complete a ticket in 3 days, it shouldn't take others more than that
- Introduced training sessions to bring all employees on the same level
- Introduced best practices inside the company, which the rest tries to follow
- New standards that begin to set the pace of the project
- Better synergy between the whole Engineering team and Quality Assurance
- Created new functionalities - and the engineering team helped the QA team make sure that all services are running smoothly
- Created a tool to improve tests - XML File Generator - in 1 second they can create thousands of orders
- Created Confluence pages to facilitate knowledge transfer
- Introducing new standards and improving the quality of work in all aspects



Design & Architecture - What Changed

- Streamlined SDLC process
- Introduction of design authority
 - Design of new features was in siloses
 - Now there is an all inclusive environment enabling other teams to give input
- Standardization of logs and log in process, we are implementing an enterprise solutions to gain more insight from applications and business processes
- Design and implementation of a Middleware for client outbound events, such that event notifications/result are sent in real-time to clients via API calls
- Implementation of Splunk - To provide insights to application and business performance, thus, aid organisation make decisions off real time data analysis



Design & Architecture - What Changed

- We created a repository to understand all processes and systems so new employees can be onboarded faster
- Introduction of weekly knowledge sharing sessions. Every member of the Engineering and QA teams are tasked with the responsibility to pick a topic (internal app/process related, general engineering or soft skills), prepare a presentation and deliver the presentation at their allotted date/time. The created document and recording of session becomes a building block for IT's knowledge base.
- The IT team digs deep into existing processes, systems etc, - an interactive way to build a knowledge base
- Creating win-win situations - team members work on their soft skills (like presentations) and the business knowledge is democratized
- Built out a global team of high-quality experts





Our profile

- 29+ years of experience delivering solutions for leading global enterprises.
- Global location strategy - USA, Canada, UK, Ireland, Poland, India, Netherlands, Germany, Romania.
- We provide a full range of business, development, and support services globally.
- State-of-the-art Development Centers in the USA, Europe, and India.
- Experienced and dedicated Senior Management Team.
- High Employee Retention.
- Access to 1000's senior resources located in the USA, Europe, and India.
- ISO 9001, 27001, and 14001 certified. CMMI Level 3 Certified.





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Thank You
