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Solutions for the Real World

Kawasaki Motor Corporation, USA
Web API Project

Kawasaki Motor Corporation, USA



Hard work and a dream. That's what established American Kawasaki Motorcycle Corp. way back in March of 1966. The first headquarters, an old meat warehouse in Chicago, was a humble beginning for the factory team sent to open the U.S. market.

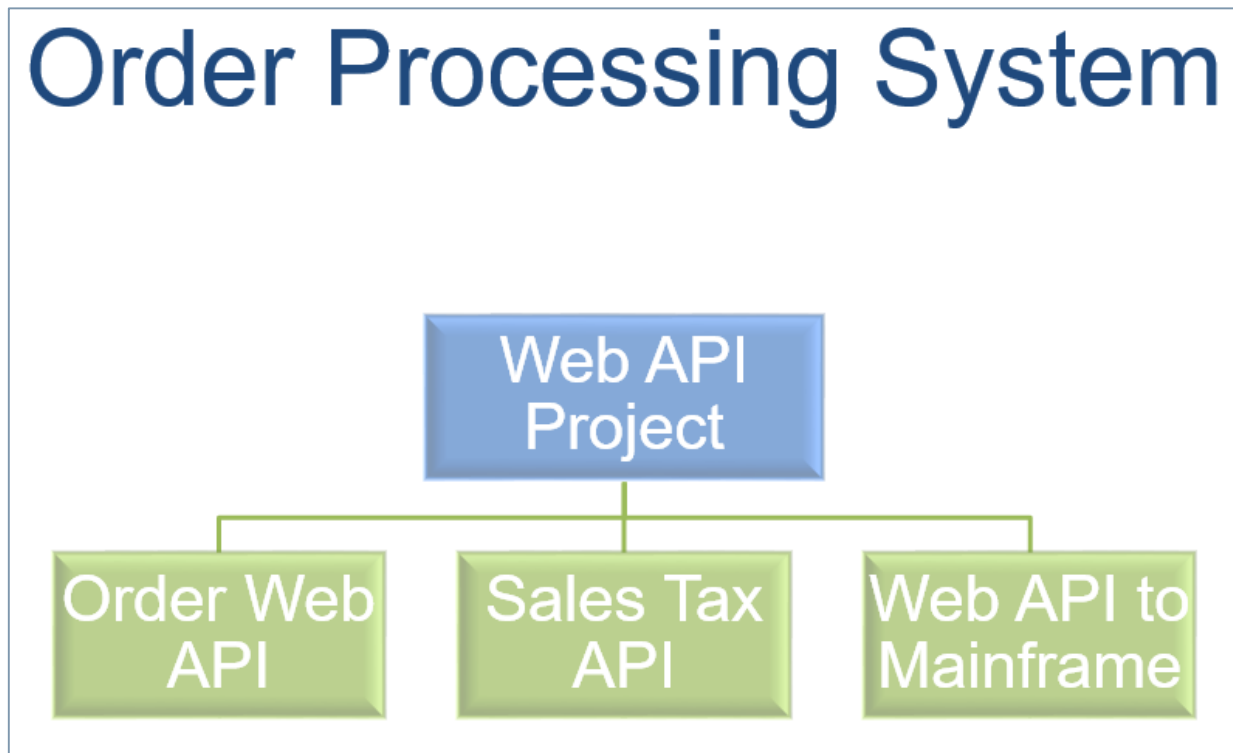
Today, KMC's annual revenue tops 1.6 billion dollars. There are approximately 480 employees and more than 1,500 dealers. Our bestselling Ninja® sportbikes, classic Vulcan™ cruisers, rugged ATV and Mule™ Side x Side vehicles and exclusive JET SKI® watercraft form the foundation of our Good Times Company image.

Besides the headquarters building in Irvine, California, KMC has regional sales offices and/or distribution centers in Piscataway, New Jersey; Atlanta, Georgia; Fort Worth, Texas, and Grand Rapids, Michigan. Kawasaki Motors Manufacturing Corp., U.S.A. of Lincoln, Nebraska operates a small engine manufacturing plant in Maryville, Missouri.

Web API Project

Kawasaki created a new online ordering system for customers to order products and have them shipped directly to their home or to their local dealer. This new ordering system used a third-party ordering system that took care of moving the orders through various states and handled credit card payments. This third-party had a REST API that can be called to retrieve order information. All of this information needed to be retrieved and pushed to their in-house mainframe system. In addition sales tax needed to be calculated for the line items.

PDSA was called in to develop this rather complex system. Our job was to integrate with the third party order processor via Web API calls, integrate with another third party vendors Web API to calculate sales tax, and integrate with KMC's mainframe.



Web API Project

We created several console applications that are called from Windows Task Scheduler at different times during the day. We added extensive log capabilities to this project in order to be able to troubleshoot any problems. We send emails to key personnel of any exceptions that might occur in these processes.

Order Web API

The Order Web API vendor had constantly moving requirements which caused a little bit of fragility in our system. We discovered that using Newtonsoft's JSON serializer helped us reduce this fragility.

Sales Tax API

This vendor had a rock-solid API for us to call. They even supplied us with a C# program that we could use in our application to make the calls for us.

Web API to Mainframe

KMC's mainframe interface is an old COM interface. This COM dll is a little difficult to install, so we decided to simply install it on a server, then wrapped our own Web API calls around it. This allowed us to simply make another API call from our processes to submit and retrieve XML data to/from the mainframe.

Business Value

The new system allows KMC USA to offer their customers and their dealers a streamlined order process that can be done completely on the web. Ordering, shipping details and the ability to process returns are now completely automated via their website.

Technology

Visual Studio

.NET Framework 4.5

Web API

SQL Server

JSON

XML

Contact Information

For more information on this proposal, please contact either Paul D. Sheriff or Michael Krasowski at PDSA.

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