



Robust Product and Ecommerce Application Programming Interface for Leading Home Improvement Chain

Client

The home improvement industry is profoundly affected by the ecommerce wave that has swept across the wider retail landscape. Players are therefore actively engaged in leveraging multiple channels to drive customer engagement and revenue.

Here is how LTIMindtree helped a large North American home improvement and retail chain gain an advantage and cement its technology leadership through an Application Programming Interface (API) for ecommerce and associated functionality.

Challenges

The customer was looking for a technology partner with deep retail and ecommerce domain knowledge to architect, design, implement, deploy, automate, test, certify and support services.

The customer engaged LTIMindtree to:


- Develop a cost-effective API to enable ecommerce functionalities through multiple channels including PC, mobile, tablet and kiosk
- Ensure that this API leverages the existing technology stack to the greatest possible degree
- Showcase a product catalog of nearly 300,000 stock keeping units (SKUs) through a common product schematic for internal and external use
- Allow access control of the services by various clients
- Manage the services for usage, analytics and report generation
- Institute a robust version control mechanism to enable parallel services with different features for different clients
- Enable easy integration with social media for authentication and displaying advertisements
- Support easy consumption by third parties for monetization

LTIMindtree Solution

LTIMindtree collaborated with the customer to implement and manage the desired services, leveraging end-to-end software development

Business Benefits

- Delivered one-stop shop API-based functionality for ecommerce and a product catalog
- Reduced time to market new applications
- Enabled the customer to showcase services to external partners, which could generate additional revenue
- Enabled customer to be the first in its industry to develop services, reinforcing its perceived technology leadership
- Improved testing efficiency through 90% automation test coverage and effort reduction of 140 hours per test case



methodologies, and regression testing. The team used the agile and sprint methodologies, rapidly rolling out new features every two weeks.

First, in the service implementation phase, we built API services, categorized into two streams:

- Unsecured services that consisted of product search, navigation and details
- Secured services that required user credentials and consisted of user account information, add to cart, and checkout features

Then in the service management phase we controlled usage by different clients and metered this using Apigee, a solution for analytics and management of cloud services and APIs. The solution allowed us to provide:

- Enterprise-wide capabilities for client registration, access, control and monitoring
- A developer portal that contained documentation on service consumption

Finally, recognizing that API testing is a very good candidate for automation, we developed a customer web services automation framework using open-source tools and applications.