CASE STUDY

American Retailer's POS, OMS and BOS systems made error-free with Aspire's E2E testing with 100% coverage



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Challenges

- Time-efficient end-to-end retail testing strategy for client's POS, OMS, and BOS
- Separate test suite development for regression
- **800+** test scenario creation within a given timeframe
- Validation of feature-rich work items
- Integration with third parties

Solutions

- **375** POS test cases and 550 OMS test cases were developed
- **300** integration and E2E test cases were created
- Dameware was leveraged to validate POS
- Efficiency was improved using IBM Sterling OMS
- Detailed test reports were generated

About the Customer

The customer is a globally recognized American retail chain, well-known for selling home décor, furniture, textiles, accessories, and gifts. They operate in **35 states** and own around **360 stores.** They have established their social presence in the form of an e-commerce website.

The Need

The client has a sophisticated Point of Sale (POS) and an Order Management System (OMS) in their retail stores which required an effective End-to-End testing solution for validation and modernizing. This was to optimize their business processes, enhance customer satisfaction and improve operational excellence.

The challenges

The client required an end-to-end retail testing strategy for their POS, OMS and Back Office Server (BOS) which was time-efficient, inexpensive and effort-intensive. This was due to the following reasons

- Requirement of separate test suites for regression
- Development of **800+** test scenarios within a given timeframe
- Validation of feature-rich work items
- Proper integration with third parties

Results

- **120 POS** defects and 50 OMS defects were identified and reported
- Validation of all test cases was successful within the given timeline
- **100%** test coverage was achieved, encompassing POS, BOS, and OMS systems.
- Quicker regression cycles achieved by regression testing completion within the planned schedule

Aspire's Solution

Our team of testing experts completed a thorough study of the needs and challenges of the client and came up with a carefully tailored testing solution based on our expertise in e-commerce and retail systems which is as follows:

- Developed **375** POS test cases and 550 OMS test cases
- Created **300** integration and End-to-End (E2E) test cases covering order creation, order fulfilment, sales posting and various other omnichannel scenarios
- Performed E2E and integration testing inclusive of OCP, OMS, RMS and POS
- Leveraged Dameware to validate the POS system and the back-office servers. DameWare is cloud-based remote access software that allows users to provide remote support on desktops, laptops, and servers.
- IBM Sterling OMS was used to improve efficiency of the order management system. This provided reliable connectivity, E2E visibility and real-time insights to turn potential disruptions into opportunities for customer engagement, growth and profit. This resolved the usage of a variety of test management tools as it served as an integration of the required tools.
- Generated Comprehensive reports and detailed test reports to provide the client with valuable insights regarding the system's performance

Snapshot of our solution

CDP (Customer Data Platform)	POS upgrade	OMS
The business requirements required for CDP were thoroughly understood by Aspire experts	The POS QRG documents shared by the client were Completely analyzed	The offshore and onshore teams collaborated efficiently in understanding the client requirements concerning test execution, testing defects, and much more.
The API response codes, file counts, and file sizes were validated	Test plans and test cases were prepared and thoroughly reviewed	Integration testing was performed between POS and OMS.
The existing API scenarios that were shared by the client were validated and a few scenarios were added for more efficiency.	Regression test cases were executed with POS features such as; BOPIS, STS, DFS, and more	The integration test between POS And OMS was majorly conducted for Buy Online Pickup in Store (BOPIS) and Ship to Store (STS) orders
Tests were performed using POSTMAN	Defects were identified and reported to the development	Cybersource validation, K-card validation, and PayPal validations were performed to check for success, failures, and order alerts
Defects identified were reported to the development	The progress was informed to the client through daily and weekly status reports	Inventory adjustment between OMS And OCP were tested
The client was informed about progress through daily status reports and weekly status reports	-	The integration test points between POS and OMS were tested for BOPIS and STS ordered

Technology Snapshot

- **Platform:**
  - Open commerce Platform (OCP)
- **Retail Management:**
  - Open Commerce platform
  - Order management system
  - Point of sale
  - RMS
- **POS/OMS Tools**
  - Veras POS
  - IBM Sterling OMS
  - IBM call center for commerce
  - IBM HTTP API tester
- **Bug Management:**
  - Jira



Results and ROI

Aspire's testing solutions helped the clients using three resources during peak periods to provide the following results:

- Identified and reported over **120** defects for POS and more than **50** defects for OMS, contributing to improved system reliability.
- Successful validation of all test cases within the established timelines.
- Achieving an impressive **100%** test coverage, encompassing POS, BOS, and OMS systems.
- Completion of regression testing ahead of the planned schedule, resulting in quicker regression cycles.
- Ongoing management of production exceptions is conducted daily.
- Active involvement in troubleshooting and issue resolution within the OMS.

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