

Internet of Things (IoT) lab implementation to enable smart home and business solution provider to achieve effective test coverage

About the client

The client is a leading provider of cloud-based services for the smart home and business monitoring to millions of subscribers through a network of service providers.

Technology problem

The client was facing the following technology issues:

- The client required End-to-End (E2E) Functional testing in a complex Internet of Things (IoT) and cloud system landscape.
- Test automation was absent.
- The client required simultaneous testing of mobile apps for multiple platforms such as iOS, Android, and Windows phones.

Technology solution

Cybage provided a technology solution, comprising:

- A comprehensive IoT lab for near real-world testing.
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- Development of reusable assets for Functional and Regression testing of various smart devices and panels.
- Provision of a robust test automation framework using Selenium for testing to help reduce the time to market.
- Provision of custom-made utilities or plug-ins to monitor the application, report issues, and track changes on Confluence.

Execution strategy

The execution strategy of Cybage was as follows:

- The Cybage Testing was responsible for adopting best practices, designing test strategies, creating automation suites, and performing test execution.
- We perform Manual testing across the entire value chain to accommodate changing requirements in a dynamic smart devices environment.
- We capitalized on a keyword-driven framework for automation to validate the stability of various functionalities on the web.

Value realized

Using this platform, the client offered a comprehensive solution for consumers and businesses to secure and remotely monitor homes and offices with a range of devices. The client ensured:

- Continuous quality enhancement through review and defect prevention.
- Continuous productivity enhancement through test automation using multiple tools.
- Lower total cost of ownership through Cybage's mature and well-set processes for test execution.

Tools and technologies

Cybage used the following tools and technologies:

Test automation CasperJS, PhantomJS, C#.NET and Core Java, Selenium WebDriver

ALM Integrated Atlassian tools—Confluence, JIRA

Cybage services utilized

Development, Testing, and Test Automation

[Technology](#)