

Bluetooth Device Firmware and Mobile App Testing

1000+ test cases

Zero post delivery defects

**Audio playback support for all
Bluetooth devices (smartphones,
tablets etc.)**

**Qualifying multiple firmware/app
releases in parallel**

Case Study

Executive Summary

With headquarters in both Switzerland and the US, the client is a well-known brand in computer peripheral products including computer mice, speakers, consoles, wireless PC accessories and gaming devices. The client was set to launch a new portable Bluetooth speaker aimed at young consumers with interesting tech specs, e.g. IPX7 rated waterproof, longer battery life and simultaneous connectivity with two source devices. However, just before the product was to be launched, several common code defects were detected.

The client did not have a well-organized QA practice to keep track of unpredictable defects arising at the last moment and had limited capability to qualify parallel defects. Further adding to the problem were a lack of documentation and duplication of test cases.

eInfochips team helped improvise the client's QA practice with a restructured testing approach starting with the development of more than 1000 test cases. eInfochips helped qualify multiple firmware, apps (iOS/Android) & desktop utility releases in parallel so all products/apps could get simultaneous updates. eInfochips extended test coverage resulting in zero post delivery defects. This helped the client with on-time launch of its portable Bluetooth speaker system which became a runaway success in the young consumer segment.

Client Profile

The client, headquartered in both Switzerland and the US, is a global leader in computer peripheral products including PCs, gaming consoles, portable music player and speakers.

Business Challenge

Due to the absence of a well-organized QA practice, the client was facing delays in launch of its innovative range of portable Bluetooth speakers. The main challenges were due to common code defects at a later stage, case duplication and inability to handle multiple firmware/apps/desktop utilities in parallel.

Solution

eInfochips took over the client's end-to-end QA practice to improvise its testing outcome in several ways:

- Complete product testing covering firmware, desktop software and mobile apps (Android and iOS)
- Functional, regression, stress and user acceptance testing
- Automated stress testing - continuous restart, Bluetooth pairing/unpairing, pause/play stress testing
- App (iOS/Android) testing - speaker settings, enabling/disabling speaker features, pairing multiple speakers together or enabling multiple simultaneous connected devices to stream together
- **Tools and Technologies:** Google Sheets, TestTrack Pro, CSR BlueSuite, Python, SVN

- **OS:** iOS, Android, Windows, Mac OS X



Client Benefits

The new test approach by eInfochips led to zero post delivery defects. Achieving 31% test automation resulted in 23% shorter QA cycle. More importantly, the product was released on time and has been very successful in both online and retail segments.

“eInfochips QA optimized our test approach and the extended test coverage helped us reduce the time-to-market for our portable Bluetooth speaker.”

About eInfochips

eInfochips is a global technology firm specializing in Product Engineering and Software R&D services. The company is recognized for technology leadership by Gartner, Frost & Sullivan, NASSCOM and Zinnov. eInfochips has contributed to 500+ products for top global companies, with more than 10 million deployments across the world.

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