SmartTest™ Automated Testing

Key Benefits

- **Speed and Scalability**
  Quickly scale the number of tests and boost coverage to accelerate delivery times, and use multiple set ups to perform regression testing for multiple products concurrently.

- **Repeatability and Consistency**
  True repeatable testing opens up the possibility for collection of accurate and meaningful data, such as failure rates, that is open to statistical analysis.

- **Test Coverage and Complex Scenarios**
  Test the thousands of permutations created by a fragmented mobile ecosystem of devices, generations and operating systems.

- **Investigation and Fault Finding**
  Uncover intermittent issues or determine the complex sequence of events required to reproduce an issue allowing fault finding, bug fixing and verification of any fixes.

- **Robustness and Reliability**
  Create a significantly more robust product, increase reliability, and reduce customer support traffic with accelerated life testing, high permutation testing and randomized human interactions and variations.

- **Thorough Product Testing Can:**
  - Benchmark your product performance
  - Ensure greater test coverage
  - Improve usability
  - Test complex scenarios
  - Verify robustness
  - Collect statistical data

SmartTest Automated Testing makes it possible to rigorously test connected devices efficiently across all markets – from automotive to healthcare to audio, and from consumer electronics to enterprise devices. Combined with manual testing when automation isn’t a good fit, SmartTest allows for more effective use of testing budgets, cuts down on tech support and update releases, and delivers a great product and customer experience for better sales and brand reputation.

**Why SmartTest?**

New products are being delivered faster and more regularly than ever. It is crucial to improve efficiency and accuracy of testing to keep up with competitors. Thorough automated testing can include thousands of repeated test cases to check for overall product stability, interoperability in a crowded ecosystem, niche failures, accelerated life and performance limits.

With SmartTest Automated Testing, the automation framework is already in place and the scripts are already written. It’s just a case of onboarding your product into the SmartTest automation to reap the benefits of faster QA times, greater test coverage and fewer bugs.

SmartTest is used in conjunction with manual testing from our subject matter experts to give the best of both worlds. You will be provided not only with a set of results and issues, but also the cause of those issues. All of this leaves the engineers to concentrate on solving issues rather than finding them.

SmartTest offers hundreds of test blocks – collections of actions that can be combined in multiple ways to create thousands of sequences to test:

- Connection and disconnection
- Bluetooth pairing and unpairing
- Phone calls
- Phonebook
- Audio and more

Your test results are logged in a secure database, where you will find essential data including pass/fail rates, a library of essential reports including a concise summary, and supporting data in the form of protocol trace files, log files, and video captures. When running long-term tests, results can be reviewed/analyzed while the test is running allowing the ability to identify problems and diagnose them in real-time.
Interoperability Testing with World-Class Device Library

In addition to our decades of industry experience and subject matter expertise, Frontline Test Services houses one of the largest test device libraries in the industry, consisting of thousands of phones, Wi-Fi devices, wearables, car kits, speakers, soundbars, headsets, smart watches and various other Bluetooth® low energy devices.

The latest devices are being added all the time and cover global markets (North and South America, Europe, Middle East, Asia and Australia). Because testing and support for new operating systems is critical to interoperability testing, new OS results for major iOS and Android versions are ready for you to publish within three business days of release.

SmartTest™ Automated Testing consists of multiple components working in harmony to provide a complete solution for your testing goals. These components include:

- **Robot Arm** for replication of human interactions such as press, swipe, open and close
- **Phone Control** for integration and control of mobile devices
- **Computer Vision** for recording, object detection and OCR
- **Audio Control** for simulation and recording of voice and audio functionality
- **AI** for machine learning and fault recognition and recovery
- **Data Analytics** for logging, analysis and reporting of results