LTIMindtree

LTIMIDV – Testing and Validation tool for IoT Applications

Challenges

Testing of IoT application involves manual intervention at each stage of the testing, and lack of a generic testing framework to support the diversity of IoT applications and devices.

Any standardization of the IoT testing methodology, through tool or framework will greatly impact the cost of testing and deploying an IoT solution.

- Testing an IoT application is complex as it involves simulating the entire environment in which the application operates
- Costly to test with actual devices (also scenarios which involves geographically deployed devices)
- Difficult to create a scenarios which are edge conditions using real devices

Ideal Solution

A tool which can enable testers to quickly simulate an environment and facilitate creation of various testing scenarios using which IoT application can be tested and validated

The expectation from solution is, also to provide functionalities to verify the live devices which are deployed in the field.

- Quickly able to define and create the virtual devices
- Programmatically set device's geo location
- Define message structure and interlocking between messages
- Create test scenario to validate app logic
- Ability to create load scenario for testing application performance
- Validate Live Devices and playback

Desired Outcomes

Testing tool empowers the team to rapidly test and validate IoT application by virtualizing of device models.

The tool accelerates the process of ensuring quality of the IoT application and thus facilitating faster release to market.

- Reduced overall testing cost by simulation of virtual devices
- Early defect prediction using virtual environment
- Enable faster time to market quality assured IoT Application