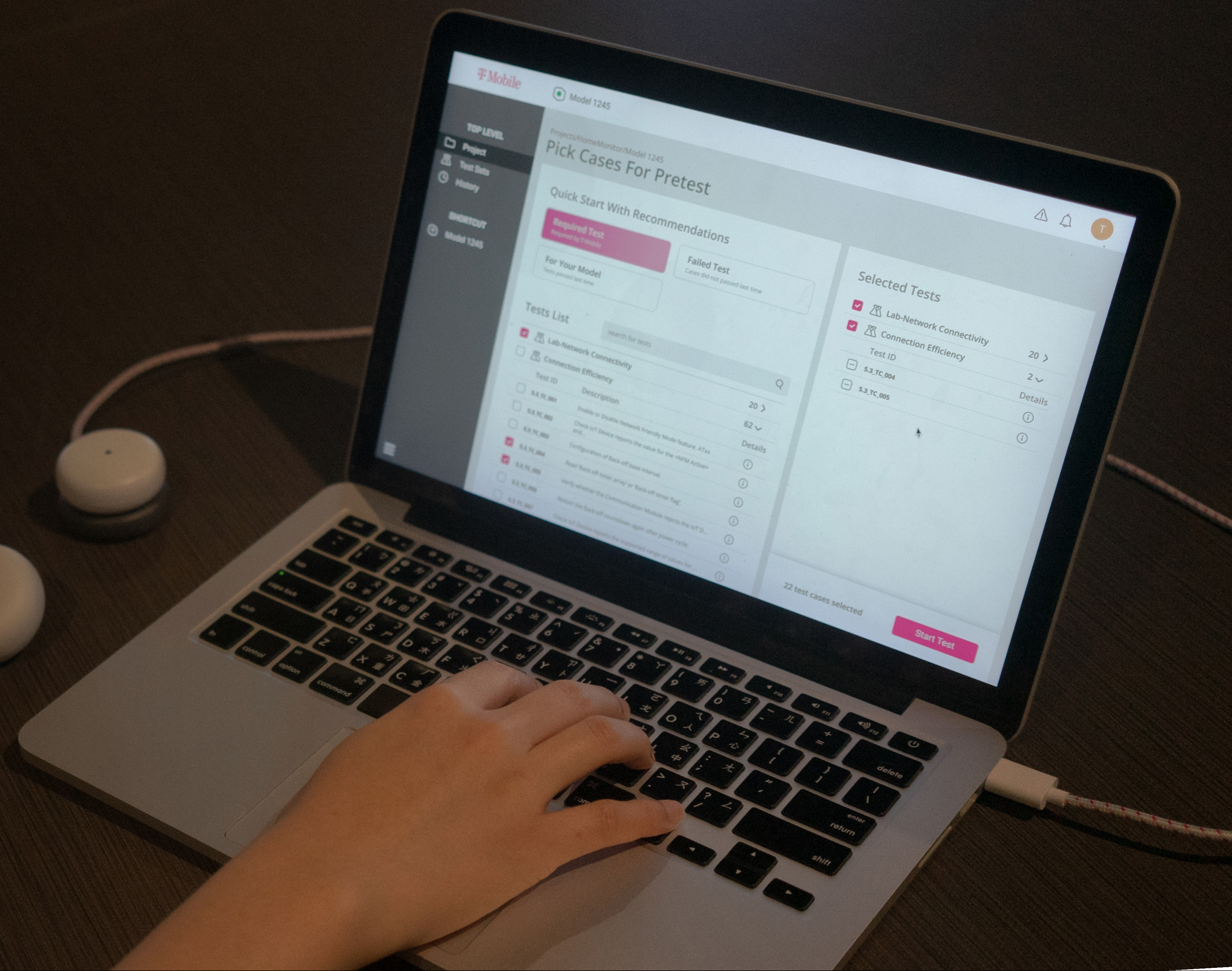


T-Mobile IoT

Self-service IoT certification toolkit to save developers' time and to speed up the production process



Problem

IoT (Internet of Things) are at a blooming stage, with a growing amount of IoT devices, the demand for testing and certifying these devices skyrocketed as well.

Current certification process takes 6-9 months for a device to be fully certified, including 4 months of pre-test. This is affecting business results for T-Mobile and its partners. The process needs to be more efficient, transparent and standardized in order to help decrease product to market time.

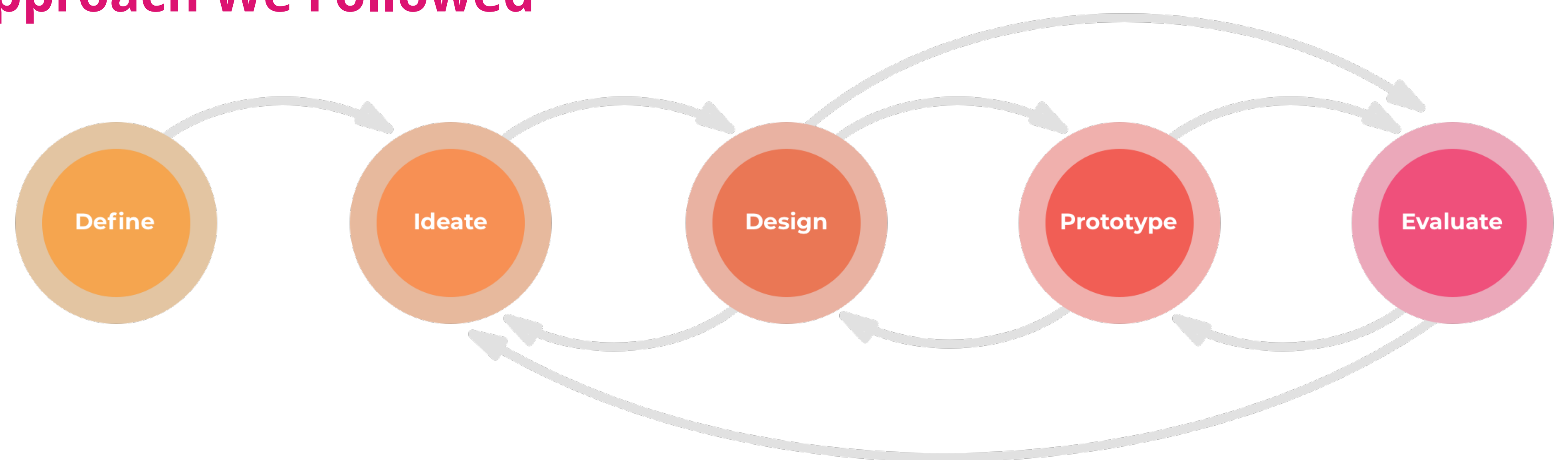
Solution

We created a self-service certification toolkit to help developers pre-test their IoT devices before sending them into labs. This solution would save both parties time on device transferring also ensure certain quality assurance.

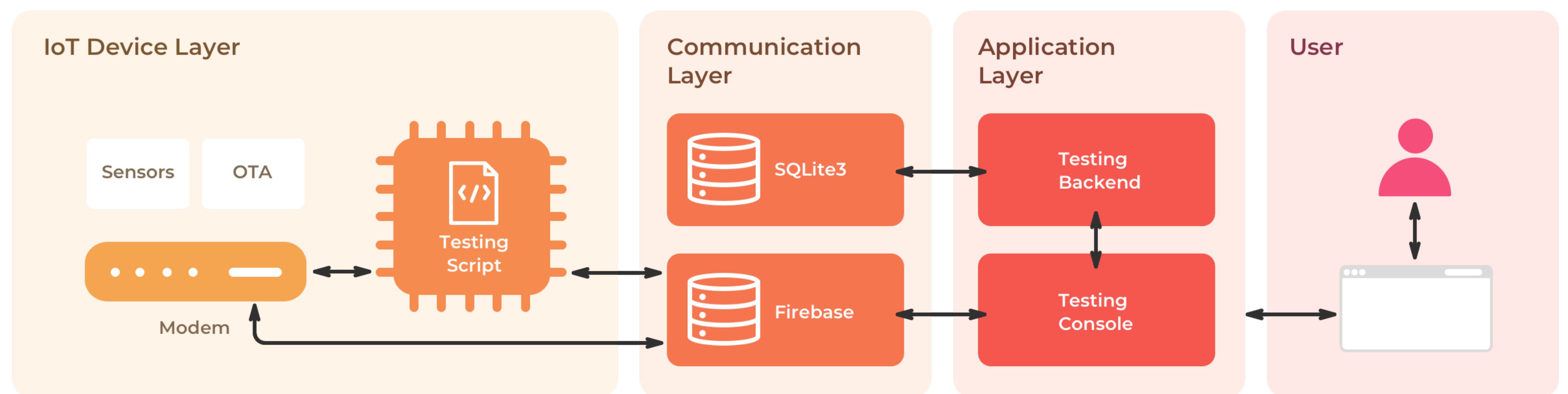
Our solution allows developers to create and execute test cases based on AT commands this will then verify whether the devices pass certain requirements to operate on T-Mobile's network.

The team built a web application to test IoT devices. We did this by configuring, managing, and executing test cases based on AT commands that are send to IoT devices.

Approach We Followed



Architecture



Benefits We Bring

Time Reduction

- Estimated 25% time reduction
- Increases speed and quality by 40% in delivering solutions

Use of Modems

- Reduce test categories to only Efficiency, Basic connectivity and Functionality.

Avoid Network Problems

- Cell congestion
- Signalling storms -> wide area disruption
- Degradation of IoT service performance

