

Automated electricity meter reading to improve efficiency and reduce monthly revenue leakage

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The Opportunity

The company, one of the largest power distribution company in India was beset with a perennial problem of large-scale faulty meter readings, owing to manual readings being registered by field agents. This led to a significant monthly revenue loss.

The customer had previously tried several larger vendors to deliver a customized mobile application to automate meter reading. A considerable time and effort were also spent in trying to develop the solution in-house.

The Solution Provided

The solution required a thorough understanding of how the current operations were organized and comprehend intrinsic interdependencies between field agents, operating environment and tools deployed currently.

ETS adopted a consultative approach with the client studying the field operations, their systems and develop proposals for a cost-efficient, workable and sustainable solution.

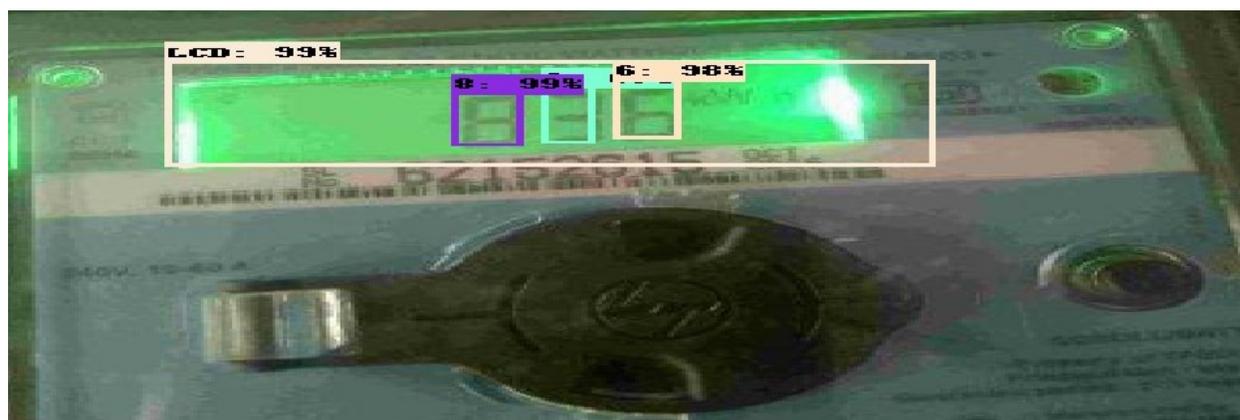
A light weight Android mobile application, with a computer vision algorithm, capable of working on low to medium end smartphones was developed.

From the camera images of the meter, the application extracts meter reading and barcode that is shared with the main server no sooner a data connectivity is established.

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Needless to add, that the operating environment is extremely challenging with many legacy variants of the meter types and the mounting most of the times in a very obscure inconvenient location. While developing the application, this was given considerable impetus to ensure reliable data capture even from the poorest image quality.





Key Outcomes

- Close to 95% accuracy was achieved in the phase 1 delivery.
- Real-time capture of data leads to plugging monthly revenue leakage significantly
- Reduced manual intervention of field agent resulting in incremental number of calls/ meter reading by agents daily

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- Following the success, the program is being further rolled out to cover additional models of meters and covering pan-India