ON A MISSION TO ENABLE ACCESS TO SAFE COOKING FUEL

SUMMARY

As per an article published by National Geographic, around three billion people are still using open fire for cooking and heating purposes. The consequences are alarming in many ways - from health concerns and frequent fires to mind-blowing pollution. Smokey fires fueled by whatever is accessible at a time cause as much as 400 cigarettes' worth of smoke per hour (per household). One of the main reasons why people often choose to cook on an open fire as opposed to safer cooking stoves is because they do not have easy access to fuel or it is too expensive.
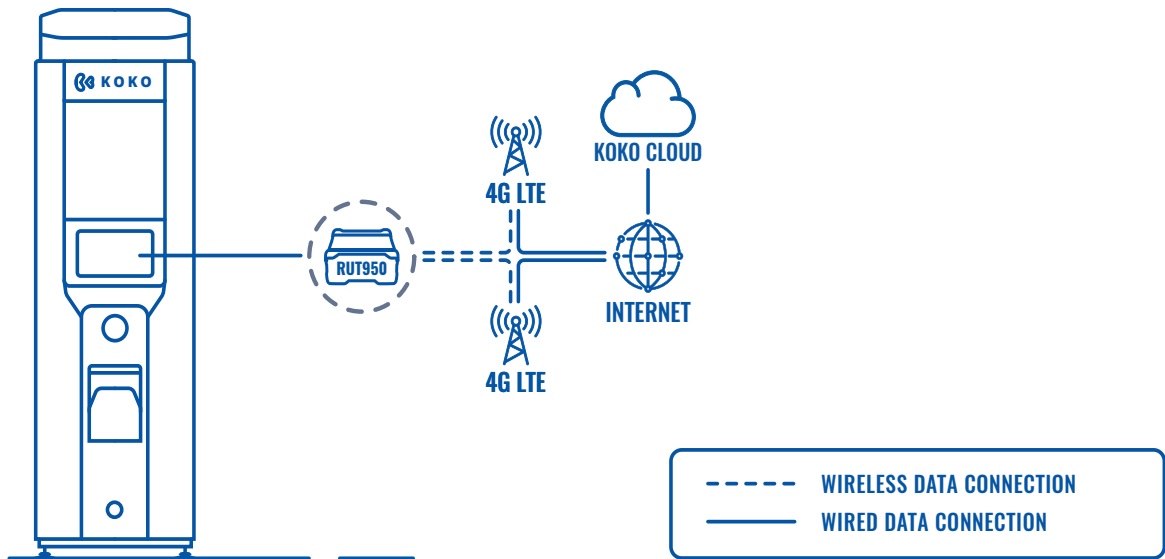
CHALLENGE

Our partner, KOKO Networks created a solution enabling safer cooking with the KOKO Cooker using KOKO Fuel that is clean, affordable, and easily accessible. The fuel is made of denatured bio-ethanol that can be purchased in small quantities in specialized KOKO Points. Due to wide distribution, it is impossible to manage the KOKO Points locally and a central management solution is needed. To achieve smooth operation via remote management, a steady and reliable internet connection is a must. However, stable connectivity is not easy to achieve in a lot of places of Africa.

PARTNER - KOKO

KOKO Networks is an international climate technology company. In its core business, KOKO has revolutionized the supply chain to deliver clean bioethanol cooking fuel safely and more cheaply than charcoal, giving African customers a compelling reason to switch from dirty cooking fuels. KOKO's innovative, scalable, and world-leading solution supports Governments' policy goals on public health, forest protection, climate change, and industrialization, as well as the achievement of 12 of the UN Sustainable Development Goals.

TOPOLOGY

KOKO

RUT950

4G LTE

4G LTE

KOKO CLOUD

INTERNET

- - - - - WIRELESS DATA CONNECTION
——— WIRED DATA CONNECTION

SOLUTION

Due to unstable networks in Africa, wired connectivity was crossed out and the Teltonika Networks RUT950 cellular 4G router with dual SIM and auto-failover was chosen as the best option for the solution. Whenever there is an issue with the primary network, the router switches to a secondary option and keeps the KOKO Point online.

The RUT950 provides connectivity for the KOKO Point user interface, allowing to complete the transactions and accept payments. At the same time, it sends data to the KOKO Cloud and allows to remotely monitor the processes, fuel levels, and system status. Whenever needed, engineers can remotely access the router and KOKO point for configurations, updates, and troubleshooting. In case there is an issue with electricity, the router can be rebooted simply by sending an SMS.

Alerts can be set up whenever the fuel level in a tank falls below a certain amount or if there are any issues in the system. This way the possibility of downtime is completely minimized and can be resolved immediately and efficiently.

BENEFITS

- Connection redundancy is ensured by dual SIM allowing the use of two different operators and auto-failover switching to a backup option whenever any network interruption occurs.
- Security is ensured by a pre-installed Firewall, multiple VPNs, access control, and attack prevention – all crucial elements required for professional application and accepting payments.
- Scalability – this solution is easy and quick to deploy in multiple locations.
- Remote management via Remote Management System and Mobile Utilities.
- Top-level support by experienced Teltonika Networks engineers from implementation phase to completion.

WHY TELTONIKA NETWORKS?

A comment from KOKO Networks: "When developing our KOKO Points, we trialed a few devices to provide the connectivity function and found the features and reliability of Teltonika Networks products to be the best available. Their customer service and engineering support were also very good which assured us that they would be able to support us as our operation grew."