

IoT IMPROVING QUALITY OF LIFE FOR PEOPLE WITH DISABILITIES

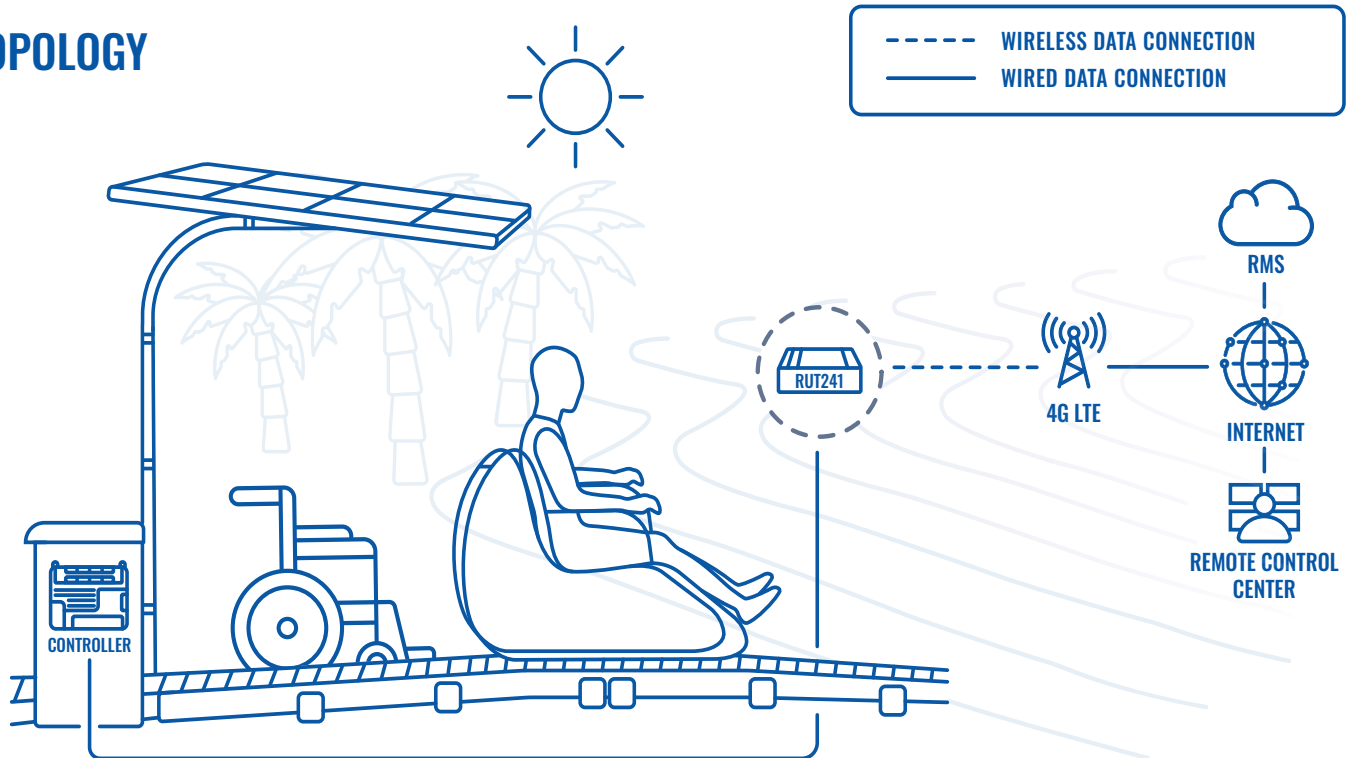
BUSINESS CHALLENGE

Freedom - the most valuable asset in our lives! Freedom of speech, freedom to create, freedom of equality, freedom of movement. We tend to forget it as long as we have it. But when unexpected events change our lives and when it becomes hard to move or even impossible to walk, only then we realize that we took some things for granted. Nowadays, municipalities, businesses are doing their best to adapt public and private spaces as much as possible for people with disabilities. This includes convenient entrances, public transportation, parks, and other areas. But still there a lot of places which are unreachable for disabled people. One of those places is an open beach.

PARTNER - TOBEA

Thinking Out of the Box Engineering Applications (TOBEA) is a Spin-Off company of the University of Patras founded in 2012. Tobeia was established by professor Vassilis Kostopoulos and the initiator Gerasimos Fessian. Their close friend was unable to swim at the beach without asking others for help. And after the research, they found out that there was nothing on the market that would help people with impaired movement to have a nice swim in the ocean without assistance. Therefore Tobeia company started to investigate how they can create a solution for such people, and that's how SEATRAC was born. SEATRAC is a non-permanent device for autonomous access to the sea for people with disabilities that hold Greek, European, and US patents. Tobeia team is composed of fifteen members who share the same vision: to innovate and improve themselves, the company, and society.

TOPOLOGY



SOLUTION

As presented in the topology above, the solution consists of solar panels powering Seatrak controller, which is connected to an industrial cellular router RUT241 by Teltonika Networks using an Ethernet interface. RUT241 uses 3G to monitor solution remotely, and send alerts in case of any connection irregularities. It is a crucial intermediary between controller, platform and the operator to ensure that solution of Tobeia – Seatrak, is always operational and the users are safe. In addition, people can always check the interactive map, where this solution is installed, and if it is working. For Tobeia, it was essential to produce a solution that is autonomous, to provide persons with impaired movement capabilities a sense of freedom and independence. The fact that SEATRAC is monitored remotely using 3G cellular signal allows that because the solution operators don't need to attend it at all times. They can support multiple solutions over larger beach area and respond when needed.

BENEFITS

- Remote operation - Using the solution control platform that communicates with the help of Teltonika RUT241 solution operators monitor and detects any faults on the solution.
- Easy to use – Tobeia provides an interactive map, which allows to find all SEATRAC deployment easily.
- Automated alerts - RUT241 sends notifications if there are any irregularities in the solution.
- Remote service - RUT241 allows for solution engineer to connect to the controller remotely.
- Easy set-up – RUT241 is very easy to set-up, easy to use and even easier to maintain therefore minimizing the time spent at the site.

WHY TELTONIKA?

Tobeia selected the RUT241 by Teltonika Networks because of its reliability, security, and ease of use. Moreover, the size of the router was important as the box of controller needed to be small enough. Our partner also highlighted the excellent and fast technical support to help get their solution running as fast as possible!

