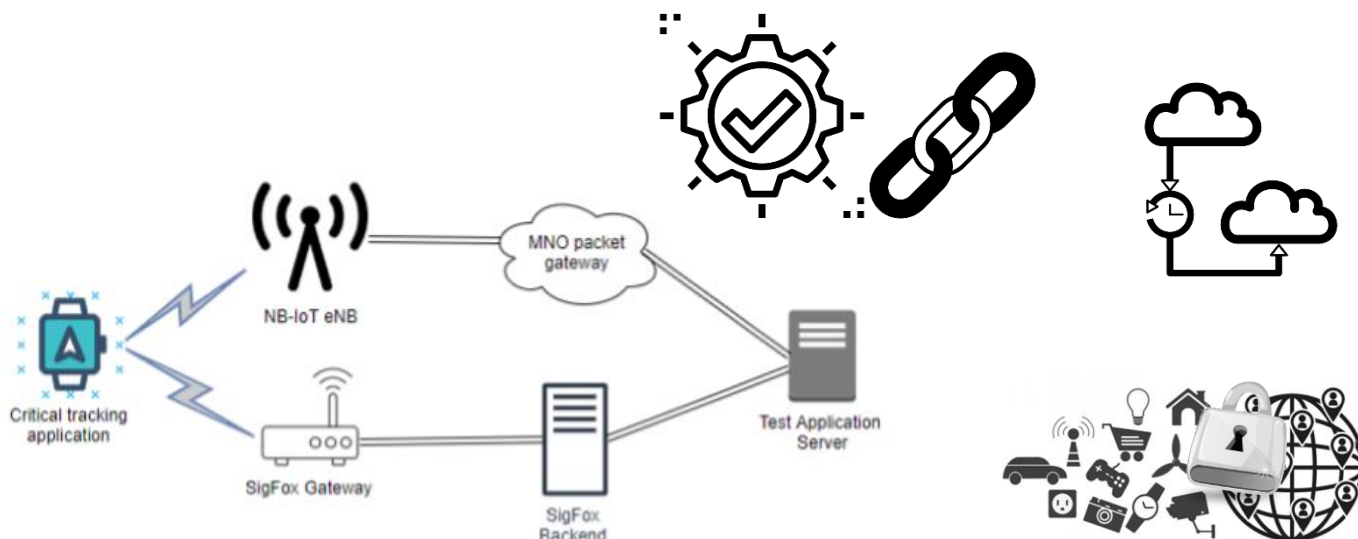


Reliable mission critical communication networks



Value Proposition/USP

Using multi-RAT (Radio Access Technology) fallback techniques provides an end-to-end latency, security and reliability performance, that can be offered at premium price and fulfill the demands for mission critical communication in emerging Industrial Internet of Things (IoT) networks.

Business Opportunity/Objective/Commercial Perspectives

Offering highly reliable traffic transmission is paramount to support the advent of Internet of Things into industrial settings for mission critical applications. Providing multi-RAT devices with low end-to-end latency and high reliability performance can tap into the emerging market of Industrial Internet of Things.

Technology Description/Technology Summary

The aim of this work is making the Internet of Things (IoT) devices used for critical application more reliable. The goal is to make the devices more resilient and fault-tolerant in case of failure in the primary communication technology, the standby technology can provide backup path for the bare minimum functionality to work without interruption. This requires understanding of end-to-end communication infrastructure, communication protocols and network security. We also investigate the use of network slicing to provide reliable services for mission critical applications.

Development Phase/Current State

Currently, we have developed algorithms for multi-RAT transmission and fallback techniques to increase availability and reliability. We are investigating together with operators, how network-assisted reliability techniques can be incorporated. Furthermore, we have devised a paradigm for providing sustainable network security mechanisms for IoT.

The inventors

Sarah Ruepp srru@fotonik.dtu.dk
 Kalpit Ballal kdiba@fotonik.dtu.dk
 Krzysztof Malarski krmal@fotonik.dtu.dk

Contact Information

Danmarks Tekniske Universitet
 DTU Fotonik
 +45 45253627
srru@fotonik.dtu.dk

Seeking

- Funding/Investors
- Partner/Research Collaboration