

BERCOM

Blueprint for Pan-European Resilient Critical Infrastructures based on LTE Communications (BERCOM)

The objective within the BERCOM project is to develop suitable methods to increase the resilience of critical infrastructures by appropriate adaptation of the emerging mobile technologies. In particular, the potential of robust LTE communications in electrical power supply systems is analyzed. This Franco-German project is funded on the German side by the Federal Ministry of Education and Research (BMBF) within the framework of "Civil Security - Protection of Critical Infrastructure" as part of the program "Research for Civil Security 2012 - 2017" by the German Government.

Within the project, the IFHT focusses mainly on two research areas. One is the detailed analysis of the robustness of future transmission systems. Therefore, the robustness of the electrical energy system as a critical infrastructure is evaluated taking into account future power system structures and corresponding control systems. In this context, an investigation of frequency stability regarding various fault scenarios is conducted as well as the assessment and enhancement of present day energy system defense and restoration plans. Moreover, in the Center for Grid Integration and Storage Technologies a demonstrator is set up in order to implement the robust communication infrastructure designed within the project. The integration of state-of-the-art LTE technologies into the control systems of an exemplary energy distribution grid enables the demonstration of real life applicability of the developed communication solutions within a realistic electrical power system context.

Project information



GEFÖRDERT VOM



Bundesministerium für Bildung und Forschung

Partners

- Airbus Defence and Space
- Air-Lynx
- CEA
- EDF
- Fraunhofer Institut FOKUS
- NAVECOM
- P3 Energy
- P3 Communications
- PSI
- Ruhr-Universität Bochum
- RWTH/IFHT
- TU Dortmund

Facts

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