Deployment of a wireless sensor network to support and optimize logistical processes in a clinical environment

Alexander Pflaum, Fritz Meier, Ulli Muench, Fraunhofer SCS, Center for Intelligent Objects ZIO, Nuremberg, Germany
Christian Fluegel, Volker Gehrmann, Juergen Hupp, Fraunhofer IIS, Embedded Communication, Nuremberg, Germany
Martin Sedlmayr, University of Erlangen-Nuremberg, Germany, Chair for Medical Informatics, Erlangen, Germany

Abstract

The paper describes the development and the deployment of a wireless sensor network to support and optimize logistical services within a hospital. The deployment consists of a whole system that serves as a generic platform, which can be easily adapted to new scenarios. This is shown on two disparate scenarios: handling and management of blood products (patient safety) and management of mobile medical devices (asset management). The focus of the paper are the smart objects, a wireless sensor network which serves as mediator between real world (activities, environment and linked objects), the information systems and the people.