

Title: Connectivity and Interoperability as necessities to leverage the Internet of Things

Name: Daniel Burkhardt
Ferdinand-Steinbeis-Institut, Willi-Bleicher-Straße 19, 70174 Stuttgart, Germany

The fusion of the physical and digital world is of the main focus for the Internet of Things (IoT). In order to support human beings comprehensively, standards are required on the layers of the edge, platform and enterprise. Thus, a profound picture of the physical world can be created based on which actions can be triggered that provide ideal support for connectivity. Currently, such common standards are lacking and a heterogeneous landscape of standards can be identified. An essential step is the creation of connectivity and interoperability to guarantee an analysis that provides a solution close to the physical world problem.

The paper explores the described problem space by the analysis of a project with multiple companies in the industrial domain. The project has the goal to develop a prototype that uses sensors in machines of different vendors to transfer data to platforms. Data analytics based on the gathered data will provide insights and enable actions on the edge tier.

The design and implementation of the prototype, as well as its evaluation, will foster the identification of challenges in the IoT. Furthermore, a procedure for the creation of such a prototype in a project of a company network will be an additional result. The demonstration and evaluation of the design and prototype will provide insights to its practicability and makes requirements for a standardization of the component communication in an ecosystem transparent.

Biography

Daniel Burkhardt works as a research assistance at the Ferdinand-Steinbeis-Institute with lead of Prof. Heiner Lasi. He participated in Junior Managers Program in Robert Bosch GmbH. On his assignment in India, he overtook independent conception tasks and supported the realization of the IT reorganization. Deepening his knowledge during his master studies in Information Systems, he got to know new IT sectors while studying at the University of Oregon, USA for seven months. In his master thesis, he concluded that the connection of business and IT with the use of various methodologies is essential to act fast in volatile market.

Presenting author details
Full name: Daniel Burkhardt
Contact number: 07111839632
Email: daniel.burkhardt@steinbeis.de
Category: Oral presentation