



ISCO – Interconnection of heterogeneous services in smart cities



PROJECT OVERVIEW

PROJECT TITLE

ISCO - An Intelligent Framework for Service Discovery and Composition

WHAT IS IT ABOUT?

In the project ISCO, a framework within the context of smart cities is developed. It enables different providers to interconnect heterogeneous IT-enabled devices in an abstract representation on a high-scalable platform and to provide novel services.

RUN-TIME

from 2016/06/01 to 2018/05/31

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BUZZWORDS

Smart Cities, Smart City Objects, Internet Of Things, Autonomous Systems, Wireless Mesh Networks, Semantic Services, Service Orchestration

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Federal Ministry
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The future of urban life: Smart Cities

The interconnection of different sectors like energy, traffic, information- and communication technologies offers a great innovation potential. Many devices and technologies already offer their own service functionalities; nevertheless, due to their incompatible and inflexible solutions, their use by other providers require further developments. Providers who want to establish cross-sectional services are facing the challenge of interconnecting fast-growing technologies with increasing complexity in a heterogeneous landscape that hinders composition of new services.

Solution: ISCO

The goal of the project ISCO is to develop an open and extendable platform that provides all users with access to varying city objects (in the form of physical devices and/or digital services) and flexible use of them. Main challenges of such a development are the scalability of the platform and providing easy discoverability of devices. For instance, if a bus is supposed to drive through the city with phased traffic lights, the traffic control system needs to know which traffic light is to be passed next by the bus, i.e., both the bus and traffic light have to be identified fast and accurately.

ISCO enables stakeholders of different domains to develop and provide novel, efficient and dynamic services, optionally composed of existing services in the smart city. In addition, ISCO offers solutions for self-protection of devices, services and their runtime-environment as well as data and legal security of the users.