Smart-M3 Open Source

Jukka Honkola, Hannu Laine, Ron Brown, Olli Tyrkkö
Nokia Research Center, Helsinki Lab
Itamerenkatu 11-13, 00180 Helsinki, Finland
{Jukka.Honkola; Hannu.Laine; Ron.Brown; Olli.Tyrkko}@nokia.com

Abstract

Smart-M3 is an interoperability platform that provides mechanisms to share information expressed using RDF. The platform consists of a Semantic Information Broker (SIB) that stores the information, and Knowledge Processors (KP) that can insert, remove, query and subscribe to information. The information is stored in Smart-M3 according to standardized or otherwise agreed ontologies. Information sharing helps the participating KPs to gather relevant context information which leads to more efficient operation and innovative multi-device use cases.

The Smart-M3 open source release contains KP APIs for GLib/C, Python, and Qt/C++. The KPs can connect to the SIB by using either TCP/IP or NoTA H_IN protocol. There are also ontology library generators for GLib/C, Python and ANSI-C APIs that allow developers to program using ontology concepts instead of using Smart-M3 basic operations and RDF.

The platform is being actively developed within FRUCT and also in Sofia project funded by European Commission. We will present an overview of current state and a roadmap for future development.

Index Terms: Smart spaces, Smart-M3, Open Source.