

Context-Aware Personalization for Smart Mobile Cloud Services

Reference: W. Hummer, S. Schulte, "Context-Aware Personalization for Smart Mobile Cloud Services", in 2nd Workshop on Intelligent Service Clouds, co-located with ICSSOC'15, Goa, India, 2015, pp. NN-NN.

Abstract:

The advent of the Internet of Things and the increasing sensorization of smart devices that surround us in our everyday lives are spurring the demand for context-aware applications to offer personalized services. With the rapid advances in sensor technology, distributed software architectures and backend infrastructures need to be able to systematically deal with increasing amounts of real-time context data. In this paper, we present an approach for intelligent service clouds to cater for the new challenges associated with complex context-aware applications. Based on an illustrative scenario from the connected car domain, we introduce a detailed system model and approach for context-based personalization of mobile services. Our solution focuses on a three-phase approach with context change analysis, context state management, and context-triggered adaptation actions. We discuss details of our prototype implementation and put the contributions into perspective with the related work. After discussing our preliminary results, we draw a roadmap for future work towards context-aware vehicle information systems.