

Keynote

Dynamic Context Management for Mobile Applications

Daniela Nicklas

Carl von Ossietzky Universität Oldenburg, Germany

Abstract: With the upcoming widespread availability of sensors, more and more applications depend on physical phenomena. Up-to-date real world information is embedded into business processes, in production environments, or in mobile applications, so that such context-aware applications can adapt their behavior to the current situation of their user or environment. For this, a high variety of so-called context information has to be managed, often in an push-based way (applications register for context changes). In more and more applications, the amount, the physical source distribution, the resources of the processing devices, and/or the update rate of the incoming sensor data prevents its storage in DBMS and the use of triggers or periodic queries. This talk shows how data stream management techniques can be used to provide an efficient, comprehensive, up-to-date, and even quality-annotated dynamic context model for mobile applications.