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MSc Assignment

University of Twente, EWI, DACS/ASNA

“Context Discovery Adapter for Context Exchange in Pervasive Environment”

Context-aware computing is a paradigm to develop adaptive applications by considering the context information of the user, application and their environment. In the pervasive environment, the context information is located in all kinds of communication networks e.g. ad-hoc network, mobile network and fixed network. Similarly, the applications which make use of this context information are also hosted in diverse networks. For the applications to be truly context-aware, it is desirable that they should have access to the context information spread in the pervasive environment. As a part of Freeband AWARENESS project, the work on discovering and obtaining the context information has been addressed for ad-hoc network using Bloom Filters and for mobile/fixed networks using Jini, respectively. This master's assignment will address the challenge of discovering and obtaining the context information between the ad-hoc network and mobile/fixed networks. It consists of the architecture development, design and prototyping of the 'Context Discovery Adapter (CDA)' on the mobile device which will facilitate seamless discovery and exchange of the context information between the ad-hoc network and mobile/fixed network. The scenario-based validation of the CDA will be conducted for the AWARENESS project.

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