Issues in Magic Lounge software development

Masood Masoodian, Niels Ole Bernsen and Laila Dybkjær

The Maersk Institute

Magic Lounge is a virtual intelligent meeting environment which combines a large number of existing technologies to provide the necessary means for carrying out interactionally rich meetings between remote users. The type of media incorporated into the Magic Lounge range from a simple text-based chat system to more sophisticated audio and video-based computer conferencing systems. Magic Lounge also allows interaction between users with different devices, ranging from advanced multi-media computers to Personal Digital Assistants (PDA) or simple telephones.

All of the technology used in the Magic Lounge already exists. So the magic of the Magic Lounge isn't so much in re-inventing existing technology, but rather, in the integration of such systems to provide an environment which is conceptually easy to understand and use by people who are not necessarily advanced computer users.

This integration of diverse systems is challenging at two different levels. The first challenge is in the creation of an easy-to-use interface, consisting of many tools and elements. The second challenge, which is not always so obvious, is in the actual integration of the various software components which constitute the Magic Lounge. Current systems such as Microsoft NetMeeting, which provide similar services to the Magic Lounge, have addressed the software integration problem by limiting their services to a particular type of system platform. However, this is a challenge that Magic Lounge is aiming to overcome.

The problem of software integration has partly been solved by adopting the Java programming language as the basis for the development of the new tools as well as the integration of existing components of the Magic Lounge. This has also allowed faster design, implementation, and testing of platform independent prototypes. So far, two different prototypes have been developed.

Design of the Magic Lounge software has been based on a client and server architecture. A central server provides the required means of communication between the clients, as well as a number of intelligent services, such as recording, access, search and summarisation of the communication history; creation and organisation of public and private rooms and meetings. Different clients of the Magic Lounge software have different functionalities, as they are gradually being designed for different types of hardware like PCs or PDAs.

This talk will briefly discuss some of the issues that the Magic Lounge development has been dealing with. It will also identify a number of technological obstacles that the Magic Lounge developers will face in the future. The aim of this talk is to discuss some of the underlying software development problems that might be of relevance to other i3 projects.