Magic Lounge

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Report from the 7th Magic Lounge Workshop

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Contents

1.   Introduction

The Magic Lounge project was presented to the i3 community and for reviewing at the i3 Annual Conference in Siena on October 20-22, 1999. At the project review meeting it was suggested that the consortium should arrange a workshop in order to develop a strategy that allows to obtain maximum value from the work done so far in the remaining project months. The consortium followed this advice and organised a workshop at the partner site NIS in Odense on Nov. 3-5, 1999. Although the workshop was held before the consortium received a written review report from the Commission on Nov. 8, 1999, the workshop covered exactly those issues which were suggested for discussion by the reviewers. In the following, we first report on the structure of the workshop and the topics discussed (Section 2). In Section 3, we present an action plan for the remainder of the project. The plan is based on the outcome of the 7th Magic Lounge workshop (cf. Section 2) and the review report from the Siena audit.

2.   The 7th Magic Lounge workshop

2.1.   Structure of the workshop

The workshop was divided into three parts:
- a pre-workshop meeting for the developers (at the afternoon of Nov. 3)
- a meeting among the consortium partners (Nov. 4)
- a joint meeting between the consortium partners and representatives from the Danish Isles user group (Nov. 5)

2.2.   The pre-workshop developers meeting

Right after the Siena presentation the partner site DFKI produced a CD-ROM for distributing the Magic Lounge software (Release 2.6) to the user groups. The Magic Lounge software distribution includes a "ready-to-run" ML-Client for the PC which can be executed from the CD-ROM. The developers meeting served to install the new server software at the partner site NIS and to perform testing using different hardware and software configurations.

2.3.   The consortium meeting

The consortium meeting on Nov. 4th was structured as follows:

Session 1: Recall of comments by reviewers and visitors at the exhibition stand;

Session 2: Discussion of the list of collected items to plan the next steps;

Session 3: Preparation of the joint workshop with the user group.

Session 1

Session 1 was necessary since a written review report was not yet available at the workshop, and most of the consortium members had made notes during the review session and occasionally at the stand when presenting the system to interested visitors. Fortunately, the list of collected items was very close to the items listed in the review report that was received after the workshop. All partners felt that the work on the memory, the enabling of heterogeneous

access, the involvement of users, and our exploitation activities were well received by the reviewers. Thus, most of the time was spent on identifying weak points in the current work. The following points were considered important by the consortium partners:

- user groups and tasks should be clearly defined;

- compelling user needs and added value for user needs should be worked out more clearly;

- evaluation needs should be more extensive and based on a clearly stated evaluation methodology;

- range of user group needs to be extended (to associations, to other i3net project partners);

- several real-world scenarios should be selected;

- usability tests should be matched against user groups;

- reflective analysis needs to be conveyed;

- relationships between user studies and sociological studies, and between those studies and system development needs to be made clearer;

- enabling heterogeneous access raises a number of basic issues to be dealt with, such as how to ensure consistency in interaction across a spectrum of devices, or issues relating to media translation services. The consortium must point out what has been achieved, what may be required from the user's point of view, what is technically feasible and what cannot be achieved within Magic Lounge.

Session 2

In Session 2 the consortium partners discussed how to progress. It was agreed that the coming three months should be devoted to extensive testing of the system. The test phase will include:

a)   the Danish islanders (the primary user group)

b)   the Magic Lounge developers' corner (i.e., using the system for discussing technical details)

c)   the Magic Lounge consortium partners

d)   team members of the Youth Service in the municipality Villejuif (close to Paris)

e)   secretaries at NIS

f)   other users identified by the Danish islander group, such as their family members or friends

g)   members of other research projects at NIS

For all of the above-mentioned user groups evaluation should be based on real-world scenarios of system usage. Furthermore, the evaluation should aim at the system as a whole rather than on a component-by-component basis. The evaluation strategy comprises the following steps:

- start with a list of users' tasks and scenarios;

- define specific questions related to ML functions;

- show users how tasks can be achieved using the current demonstrator;

- have users work with the system;

- collect data during the evaluation phase;

- analyse data and discuss results in the consortium;

- correct or modify the demonstrator accordingly;

- proceed iteratively.

However, the discussion revealed that there is no single of for conveying the evaluations across the different user groups. Rather, the evaluation methodology shall focus on different aspects taking into account the different profiles of each user group as well as the different task characteristics.

Session 3

In Session 3 the consortium set up the agenda for the joint meeting with representatives from the Danish Isles user community.

2.4. The joint consortium and user meeting

One of the major goals of this meeting was to discuss with the user group possible everyday scenarios in which they could use the Magic Lounge software as their default communication tool. The meeting was structured as follows:

Session 4: welcome and introduction by the co-ordinator;

Session 5: review of previous design evaluations done with the user group and collection of further suggestions by the users;

Session 6: identification of criteria for scenario selection;

Session 7: action plan for running the evaluation and gathering feedback from the users;

Session 8: introduction to the new software release.

Since the three users who attended the workshop had also visited the exhibition in Siena and participated in the review session of the project, there was no need for a detailed introduction concerning the current state of the project and the purpose of the meeting.

Session 5

Session 5 began with a review of the earlier participatory design work done with the user group. In particular, the deliverable Del4a-Y1 "Participatory Specification and Design" of the first year includes a list of potential user scenarios, such as, church contact forum meetings, labour union meetings, marine home defence (marinehjemmeværnet) members' meetings, meetings for ecological propaganda creation and dissemination; political meetings, hobby club meetings, and meetings to communicate with public administrations – just to mention some of them. For more details we refer to page 13 of Del4a-Y1.

The discussion revealed that these previously collected scenarios are still good candidates in the opinion of the users. Nevertheless, the users came up with further scenarios in which they would like to use the Magic Lounge:

- Magic Lounge as a tool for socialising in a tele-working scenario. One of the users said that there are several attempts to bring tele-working to the smaller islands in order to stop migration into cities (which are only located on the larger islands). With the increase in tele-working places he sees a compelling need for tools that support socialising activities such as smalltalk or chat with colleagues during the working day. Therefore, he could imagine running the Magic Lounge concurrently with professional applications at the tele-working place;

- remote access to physical meetings, such as the marine museum club, or the "nurses crackerbarrel". Especially for the inhabitants of remote islands it is often difficult to participate in hobby after work. While colleagues and friends meet in the pub, they have to rush to the ferryboat and spend considerable time on the boat. Using a mobile Magic

Lounge client would allow them to participate at least partially in such social activities. (In the context of this scenario one user identified himself as a smoker who would be glad to keep a mobile connection to an ongoing meeting while being sent out of the room for smoking a cigarette.)

- The most obvious "real world" task that the users felt confronted with in the coming weeks was related to the new Magic Lounge software itself. They said that they will certainly have a need to exchange their experiences and impressions about the new system - and why not use the Magic Lounge for setting up such a discussion forum.

Session 6

Session 6 aimed at identifying appropriate criteria for scenario selection. This discussion was intentionally done after scenario collection in order to avoid "constructed" scenarios. With regard to the specific functions of the Magic Lounge software, a "good" scenario requires:

- all users to participate and collaborate because of complementary knowledge and experience;
- both synchronous and asynchronous aspects in the collaboration task (since not all parties are available at the same time);
- to exploit a meeting memory;
- to rely on mixed audio/text chat contributions;
- the inclusion of stationary and mobile devices (e.g. because some participants are on the move).

Of course, a real world scenario may not satisfy all and only these criteria. However, the criteria allow priority to be given to those scenarios in which Magic Lounge's functions can be exploited. Also, the criteria can be used for a comparative analysis in which Magic Lounge may be compared with other systems when used in the same scenario.

Since the users indicated a strong preference for starting with a discussion forum about the new software, it was agreed to start with this scenario. The criteria presented above shall be used to formulate specific questions concerning how the system was used.

Session 7

During this session the selection of appropriate evaluation methods and techniques was discussed. One of the main factors influencing the choice of evaluation methodology for testing the Magic Lounge is the fact that Magic Lounge will be used by people in their private home environment. This means that the selected evaluation techniques cannot always rely on direct observation of the users in their remote island homes. It is also likely that people may want to use the Magic Lounge for discussing private issues, which would require taking privacy matters into account when dealing with the contents of a Magic Lounge meeting.

For these reasons, evaluation is more likely to be conducted remotely. Further work needs to be done to define the details of the selected evaluation methodologies, such as which kind of data will be collected and how it will be used. These details will be worked out by the partner site NIS in collaboration with the sociologists in the project.

Session 8>

The last session of the meeting provided the users with a brief introduction to the new release of the Magic Lounge software. The CD-ROMs were given to the users and they were asked to launch the software on PCs on site. The users very much appreciated i3 exercise since they learned how easy the installation was and became familiar with the software before going home.

3.   Planning for the next three months

In this section we describe the consortium's action plan for the next three months. A workplan for the remaining project period will be worked out at the next Magic Lounge workshop that has been scheduled for February 28, 2000. The workplan below is based on the outcome of the 7th Magic Lounge workshop (cf. Section 2) and the review report from the Siena audit.

3.1.   Action 1: Set-up of Magic Lounge servers for primary user group and in-consortium use

Description: It was agreed to launch the following ML-Servers (Release 2.6) right after the 7th workshop:

a) the "user's server" at NIS, Odense

b) the "consortium server" at LIMSI, Paris

c) the "developer server" at DFKI, Saarbrücken

The user's server hosts meetings among the members of the Smaller Danish Isles. The Danish Isles User Group accesses the internet (and the Magic Lounge server) through dial-up connections supplied by Danish commercial ISPs. Unfortunately, these ISPs currently provide neither multicast nor MBone connectivity. Several alternatives have been pursued in the attempt to provide multicast audio for this user group. Two major Internet Service Providers and UNI-C, the managing node of Denmark's academic MBone, have been contacted. Although both providers assured us that they would be providing IP multicast capabilities in the near future, neither was able to give us a precise date or commit themselves to running pilot tests with our users. UNI-C was unable and unwilling to provide multicast connectivity over a dial-up connection. In addition to contacting third-party providers, we have tried to supply the Danish Isles User Group with multicast audio by setting up a dial-in service at the NIS Laboratory. This approach has not succeeded so far due to technical limitations of the remote access service. Tunnelling and reflector techniques for uni-multicast connectivity over serial lines have also been tested. However, the available software proved incapable of delivering acceptable audio quality – the delays were simply too long to allow any real communication to take place.

We will continue to pursue the attempt of setting up a dial-in service at the NIS Laboratory, which seems to be the most likely to succeed within the time frame of the project. Meanwhile, *in situ* testing among the Danish Isles User Group will be restricted to the textual components. We suggest that the task of diversifying the user base include user groups, such as university students and employees, placed in environments with reasonably fast and multicast-enabled network connections.

The "consortium server" at LIMSI hosts meetings among the Magic Lounge consortium members. Two different kinds of meetings are part of the project business: developers meetings, and general project meetings. So far, one developer meeting has been arranged including participants from all partner sites. A first general project meeting has been scheduled for the first week of December and will then be repeated every second week.

To date, Action 1 has been achieved. All servers are running as planned.

3.2. Action 2: System testing and data collection

Description: It was decided that there are three main goals in testing the Magic Lounge system:

1. finding basic system bugs;
2. identifying conceptual problems with system functionality;
3. evaluating the usability and consistency of the interface.

The first objective can be easily achieved by asking the users to report the bugs they encounter to the development team so that they can be fixed. The developers themselves will also find bugs during in-house use of the system.

The other two objectives need a more careful consideration. Identifying conceptual problems with the functionality of the system and evaluating the usability and consistency of its interface require both subjective and objective measures.

At this stage, it seems that we are likely to collect users' subjective views through a number of specific questionnaires, as well as short interviews, focusing on the various components of the Magic Lounge in terms of their functionality, interaction, and conceptual cohesion. This type of evaluation will, of course, address the Magic Lounge software as a whole rather than the individual components.

In terms of objective data, we will collect server-based system usage log files, analysis of which will help determine if, how, and why different parts of the Magic Lounge system were used. Another source of objective data will be the contents of the Magic Lounge memory. The memory, which will contain different kinds of audio, textual, login, and logout data, could be analysed to show how people work and communicate in an environment which allows participation using heterogeneous interaction devices.

3.3. Action 3: Involvement of further user groups

Description: Currently, potential additional user groups are being contacted by the consortium members. Selected groups will be invited to use the Magic Lounge software in early January 2000.

Besides the Danish islanders and other groups involved through NIS, a number of different user groups are also being contacted by the French sociological team. Even if the Danish Isles group has been very much involved in the design, and therefore has become a sort of co-actor, it is interesting to make some analysis in parallel on the acceptability of the ML system by other groups of ordinary people for their normal non-professional activity.

Before doing this complementary evaluation, we had to wait for a demonstrator in a good configuration with regard to our aim. With the second demonstrator, we are able to launch this action. Fortunately, we met some groups involved in related activities during an inquiry on the functions needed for a common memory. A complete list of these groups is given in the deliverable D3b-Y2. They represent a very important aspect of social activity. We may call them "Community Groups". The relationship with them is however currently limited.

In addition, in March 1999, we also started an active and more formalised relationship with another group, in the municipality Villejuif just south of Paris (http://www.orbes.com/villejuif). In that case, an active team leads a Youth Service, with in particular a system of travelling scholarship for a collective project aimed towards some less developed countries, mainly in

Africa. We assume that such a group of young people could be using a ML system in a very adequate way.

Our target is to consolidate this hypothesis of acceptability and to gather ideas of enhancing the ML system, using feedback from these groups:

- With the Villejuif Youth Service, we intend to make a test of the ML system at LIMSI with a group of actors of this municipality, using a full scenario adapted to their purpose. In particular, it would be possible to test their interest in the common memory with a simulation of delayed arrival of one of the members.

- With some other "community groups", we will be able to do some "demos", in situ, at the beginning (or the end) of one of their actual meetings, during April or May 2000.

3.4.   Action 4: Analysis of the collected data

The French sociological team is preparing a full text on the community groups. The social functions of such groups are very important in our modern societies. They are not engaged in a "market-oriented" activity but some characteristics are easily visible:

- the normal size of the group is around ten persons (in a non-equipped configuration);

- the persons have often known each other for a long time;

- they are often engaged in a voluntary way;

- a hierarchy exists, but more loosely than in working life;

- the leadership is often turning over in the same meeting;

- the pressure of time is less important;

- cost-problems exist and are often quite important, but not profit ones;

- search for cohesion within the group is very high, coming from strong common values.

These groups often perform their activity with a very serious organisation scheme. There is almost always an agenda for each meeting, and very often minutes. They often use a large amount of information.

The relevance of three ideas brought out by the ML research team have been discussed during the inquiry: first, offer the possibility to an associative activity to be performed at distance, secondly, maintain connection between synchronous and a-synchronous activity periods through an adapted memory, thirdly, accept heterogeneity of devices.

The reasons are obvious: flexibility for available time, each member being able to be in connection at his own rhythm, to be "present" at a distance in a synchronous meeting. Often, due to a frequent large scale of incomes for the members of a same group, the level of equipment in ICT is likely to be very different.

The tests on the interest, on the acceptability or, at the opposite, on the potential inadequacy of some functions seem to be very useful and should provide interesting lessons.

3.5.   Action 5: System development work

Description: During the test phase, the main role of the developer team is to assist in trouble shooting and to fix potential bugs and shortcomings of the released software in order to obtain a robust version at the beginning of next year. Apart from this work, there are a number of technical issues that need to be elaborated further:

- *Testing with real WAP-phones:* concerning heterogeneous device access, the partner sites DFKI and Siemens will start testing the system with new devices (real WAP phone, PDA with WAP-Browser), since these products were put on the market only at the end of November.

- *Integration of the audio recorder into the overall system.* In the current version of the system, only the header information of the audio messages are recorded by the system. The partner site NIS will provide an API for the MBone-based audio recording so that a full integration of this functionality will be achieved.

- *Improvements of some of the viewer functions.* It is assumed that the functional scope of some of the memory viewers need to be extended. In particular, it has already been recognised that the temporal meeting viewer should allow to mark a certain time interval for playing back a section of a conversation. Further needs for extensions/modifications may be revealed in the current test phase.

- *Next system release.* The consortium plans to have an improved version of the system available at the end of January 2000. Besides elimination of basic bugs, the next version will comprise enhanced clients with respect to a device-specific selection of useful functionality subsets and device-specific user interfaces.

3.6. Action 6: Dissemination and exploitation work

Description: The consortium partners will continue ongoing dissemination and exploitation activities. Among other things, the following activities are planned:

- active participation in several i3 Spring Days'00 workshops;

- further publication of project results;

- identification and evaluation of further opportunities for the commercial exploitation of project results.