

**2<sup>nd</sup> Mobility Meeting  
28 October 2002  
Amsterdam**

**Participants**

Dobbelsteijn, Erik	SURFnet bv
DYER, John	TERENA
Florio, Licia	TERENA
Keski-Kasari, Sami	Tampere University of Technology
Kienholz, Ueli	SWITCH
Rauschenbach, Juergen	DFN-Verein
Sankar, James	UKERNA
Staring, Roland	SURFnet
Strømdal, Magnus	UNINETT
Tavangarian, Djamshid	University of Rostock
Wierenga, Klaas	SURFnet

**Apologized:**

Bormann Carsten	University of Bremen TZI
Leira Jardar	UNINETT
Pollem, Niels	University of Bremen TZI

**Introduction**

Licia Florio welcomed the participants, who, despite the storm, were able to reach TERENA. Unfortunately Carsten Bormann and Niels Pollem were not able to fly to Amsterdam, so the Carsten's scheduled presentation was cancelled.

Carsten posted his presentation, providing an outline of the IST WLAN workshop held in Brussels on 27<sup>th</sup> October, to the mobility list. Licia and the rest of the participants went through the slides, but it was not very productive. James Sankar, who attended the IST WLAN workshop as well, provided a summary. James referred that workshop was really interesting, as it presented what is going on in the wireless world and the results achieved so far. His summary is available [here](#).

Licia said the only action from the previous meeting was about the preparation of a task force charter. The charter has been prepared, collecting all the inputs posted to the mobility list. It was agreed to have the presentation section as first part of the meeting, while the charter discussion was fixed after lunch.

## Presentation Session

### 'WLAN authentication and authorisation methods'

by *Erik Dobbelsteijn, SURFnet*

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This presentation was very interesting and provided a good overview of possibilities to access fixed and wireless networks. The following authorization and authentication mechanism were described:

- Open network
- Open network + MAC authentication
- Open network + VPN gateway
- Open network + Web based gateway
- WEP
- IEEE 802.1x

Q: In case the authentication server is RADIUS-based architecture, do you need RADIUS on the access point as well?

Erik: No, you just need a tunnel from the place where the user is getting connected to the authentication server. Radius is the one that performs better.

### 'WLAN activities in Rostock',

by *Tavangarian Djamshid, University of Rostock*

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Djamshid was not involved in the mobility activity before, so he introduced himself and the WLAN activity at Rostock University. Their goal is to use WLAN and in case it is not available, to use GSM; this means that the computers of the users have to be equipped in order to deal with both the solutions.

He said the universities in Germany are using VPN at the moment and some tests about WG 2000 and WG-1000 have been successful. More information about the WLAN activity at Rostock University is available at <http://wlan.informatik.uni-rostock.de/en/>

Q: How many universities there are in Germany?

Djamshid: More than 500

Q: How does the roaming between the universities in Germany work?

Djamshid: The plan is to have a co-operation among the biggest universities. Most of the universities use DFN backbone plus VPN (over DFN). At the moment DFN provides access to everybody through SSH.

### 'Updates from SWITCH'

by, *Ueli Kienholz*

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Ueli provided an overview about the current WLAN situation inside the Switch campuses. After a meeting held in June, it came out that most of the universities in Switzerland are using VPN. All the responsibility is demanded to the home campus where the students belong. The interoperability is guaranteed. VPN is used to dial up to abroad, as well.

Ueli said that VPN is the only secure and available way at the moment to have a safe WLAN connection, even if it is difficult to manage on large scale. In Switzerland VPN works well, as the

access control list has still acceptable dimensions, but at European level (having thousands of users) is not possible to manage such a list, at least not manually. Ueli said that probably would be worth investigating whether there are some automatic protocols to do it.

A: The users would need an Internet connection and an IP address. In the case of an infrastructure using layer2 mechanism, the user can in principle not get access without the proper authentication on that layer. Therefore SURFnet would have to open up its infrastructure for non-802.1X based guest access.

The rest of the participants made a brief summary about the WLAN technologies used or that they would like to use in their organizations. This summary is reported below:

### **SURFnet**

Klaas Wierenga said that SURFnet uses a layer 2 approach based on 802.1x and EAP. A mobile user can get guest access to a wireless LAN by providing his credentials; these are verified by the authentication server at his home institution. The EAP encapsulated credentials are transported over the SURFnet backbone to the user's home institution by using SURFnet's RADIUS infrastructure.

### **FINLAND**

Sami Keski-Kasari attended the mobility meeting for the first time, representing the Tampere University of Technology. Sami said that in Tampere they are planning to have the same infrastructure as in Holland.

### **UNINETT**

UNINETT has not landed on a specific approach to secure wireless access. They are closely looking at web-portals, VPN solutions and IEEE 802.11i based solutions, both in theory and practice. In the interim of a recommended solution, many of our members deploy VPN. A mobile user can get access to the secured wireless LANs by providing the username and password unique for the institution, and is authenticated by a RADIUS server. This mechanism will undergo changes as our FEIDE (Common Electronic Identity) project comes to a conclusion, giving the student a certificate for his/her identity.

### **Afternoon Section**

This section was reserved for the mobility task force discussion. Licia said there have been a lot of contributions during the preparation of the Terms of Reference (ToR). The latest version posted to the mobility list in September, was commented and reviewed as well and, a part from small details, it can be considered ready.

She reminded that none proposed himself as chairman of the taskforce and without a chairman it is pointless to go on. Licia asked for a volunteer to be the chairman. An e-mail was posted to Carsten Bormann to check his availability in this respect. Carsten accepted and James Sankar asked whether it was possible to have two chairs. John Dyer said that is possible and he invited James to check with his managers.

At this point Licia went through the list of deliverables to assign a responsible and a deadline. It was agreed to have a 1,5 year task force, starting from 1<sup>st</sup> of January 2003, which will meet three times per year.

Licia said that she will update the charter, to include the comments got during the meeting and to fix the deliverables list. The charter will be submitted to the TTC by the end of November (the next TTC meeting will be on 16<sup>th</sup> of December), to ask for the final approval. The amended list of deliverables is attached below. The complete ToF can be found [here](#).

## **LIST OF DELIVERABLES**

### **Acronyms list:**

ED = Erik Dobbeltstijn (SURFnet)

LF = Licia Florio (TERENA)

JL = Jardar Leira

JR = Juergen Rauschenbach (DFN)

JS = James Sankar (UKERNA)

SK = Sami Keski-Kasari (TUT = Tampere University of Technology)

KW = Klaas Wierenga (SURFnet)

RS = Roland Staring (SURFnet)

UK = Ueli Kienholz (SWITCH)

Code	Deliverable title/description	Deadline	Leader
A	Establishing the Task Force Information site on the TERENA server, containing links to information on mobility related issues, reports and presentations	15-1-03	LF
B	Creation of glossary of terms for: mobility/roaming/authentication and authorization technologies Contributions from <a href="#">all</a>	15-1-03	RS
C	Requirements definitions for InterNREN roaming: - security levels, - regulatory issues  Contributions from <a href="#">all</a>	1-3-03	JR
D	Inventory of 802.1x based solution for InterNREN roaming: - access technologies (performance), - cross-institutional authentication/authorisation, - scalability/security - interoperability between architectures and technologies  Contributions from <a href="#">SURFnet + TUT + UK</a>	1-4-03	ED
E	Inventory of VPN based solution for InterNREN roaming: - access technologies (performance), - cross-institutional authentication/authorisation, - scalability/ security - interoperability between architectures and technologies  Contributions from <a href="#">SWITCH, DFN</a>	1-4-03	UK
F	Inventory of Web-based solution for InterNREN roaming: - access technologies (performances) - cross-institutional authN/authZ - scalability and security - interoperability between architectures and technologies	1-4-03	SK
G	Preliminary selection for InterNREN roaming, comparison with authentication solutions in other task forces and/or projects, if possible.  Contributions from <a href="#">all</a>	15-6-03	JS
H	Design of the test-bed and creation of the test-plan based on the roaming concepts selected out of Del G	1-10-03	KW
I	Based on the lessons learnt from the test-bed, a recommended technical design document for InterNREN roaming Contributions from <a href="#">Uninett, SWITCH, DFN, SURFnet</a>	1-12-03	KW
J	Create product-testing matrix about WLAN devices (802.11b /a products, user friendliness, configurability, throughput, security and interoperability)	1-3-04	JL
K	Product testing in other NREN Contribution from <a href="#">all</a>	1-5-04	JL
L	Test new technology for mobility (MobileIP (v4 and v6) studies (Southampton/Lancaster)). This deliverable will be updated all the tf time-life, but the final summary will be ready at end of the task force	1-5-04	all

## **Conclusion and actions list**

It was agreed that the mobility group should have a look at other task-forces and projects where TERENA is involved in. On the authentication side the, TF-AACE could provide good inputs (Licia said that she will post to the mobility list all the interesting material coming from TF-AACE), while on the Ipv6 side, the best sources are TF-NGN and 6NET. Juergen Rauschenbach and Tim Chown (who didn't attend the meeting due to another meeting previously scheduled) will keep the mobility group abreast about these two activities.

Next mobility meeting will be on 10<sup>th</sup> February 2003.

ACTION1: James to check with his management whether he could be the co-chair, together with Carsten.

ACTION2: Licia to amend the charter and post it to the TTC by the end of November.

ACTION 3: Licia to inform to the mobility group about relevant activities in TF-AACE

ACTION 4: Juergen to refer about 6NET activity related to the mobility area

ACTION 5: Tim to refer about TF-NGN mobile IP activities