

Notes of the BoF: Connecting Schools to NRENs
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Author: Baiba Kaškina

Participants:

1	Lajos	Balint	NIIF/Hungarnet
2	Kurt	Boge	UNI-C
3	Marko	Bonac	ARNES
4	Heather	Boyles	Internet2
5	Valentino	Cavalli	TERENA
6	Christos	Charalambous	CYNET
7	Dimitris	Daskopoulos	AUTH-NOC
8	Maurice	Dohmen	SURFnet
9	Tomi	Dolenc	ARNES
10	Ann	Harding	HEAnet
11	Mark	Jjameson	CLEO
12	Wim	Jansen	EC
13	Vaidotas	Januska	LITNET NOC
14	Sabine	Jaume-Rajaonia	RENATER
15	Baiba	Kaškina	TERENA
16	Ole	Kjærgaard	UNI-C
17	Mike	McKeonn	Cisco
18	Helle	Meldgaard	UNI-C
19	Reinis	Nartišs	Lanet
20	Mike	Norris	HEAnet
21	Georgois	Pallas	AUTH-NOC
22	Gabriella	Paolini	GARR
23	Piotr	Pawatowski	PSNC
24	Andrijana	Prskalo	CARNet
25	Maria	Ristkok	EENET
26	Esther	Robles	RedIRIS
27	Enok	Sein	EENet
28	Magnus	Strømdal	UNINETT
29	Petras	Sulcas	LITNET
30	Robert	Sultana	UoM
31	Robert	Syberlist	UKERNA
32	Goran	Škvarč	CARNet
33	Per	Thorboll	UNI-C
34	Raimundas	Tuminauskas	LITNET NOC
35	Panagiotis	Tzounakis	Aristotle University of Thessaloniki
36	Walter	van Dijk	SURFnet
37	Stefan	Winter	RESTENA
38	Jarek	Woznica	HEAnet
39	Dimitris	Zacharopoulos	GRNET

1. Welcome

Valentino Cavalli welcomed the participants of the “Connecting Schools to the NRENs” BoF. He spoke about the first Schools workshop which was held in Amsterdam on 22 February 2005. The community has expressed a strong interest to continue collaboration therefore this BoF and the second workshop are organised.

The second workshop will be co-organised by UKERNA and TERENA and it will take place on 24-25 October 2005 in London, UK. The main goal of the BoF would be to gather input for the second workshop.

[Presentations from the BoF can be found at <http://www.terena.nl/schools/tnc-2005-bof/>]

2. Agenda bashing

Valentino proposed to have a flexible agenda with planned presentations and time for discussions.

3. Internet2 K20 Initiative: experiences and directions

Heather Boyles from Internet2 gave a presentation about their experiences with connecting schools and the Internet2 K20 initiative. She overviewed the Internet2 activities and explained the Abilene network, community, funding model, etc.

She spoke about the K20 initiative which was established to support the connectivity policies. The goal of this initiative was to support content delivery and to extend new technologies, applications and middleware to the educational sector. Heather told the group about some successful multi-media projects for schools where children could use remote instruments or visit an aquarium.

She proposed to investigate possibilities for collaboration between the European schools community and the Internet2 K20 initiative.

Valentino remarked that this presentation was not about the connectivity, but about content delivery and the provision of value added services that have become important issues for NRENs.

4. Required technology and resources for value added services

Tomi Dolenc from ARNES discussed why schools would need value added services. He thought that they could help to show the difference between commercial ISPs and the NRENs. He outlined some of the added value services for schools, e.g. videoconferencing, multicast, QoS, Eduroam, etc. He gave an overview on the services provided by ARNES. Schools in general needed more support, including human resources, than other institutions connected to the NREN. About 50% of ARNES

resources were devoted to providing services and support for the schools. He was not sure if ARNES model of connection allowed to enable all the services schools might be looking for. This would be one of the points for further investigation.

Possible international collaboration could be an attractive addition for the schools. Tomi mentioned international videoconferencing via the GEANT network as one of the examples.

5. Value Added Network Services for Schools

Robert Symberlist from UKERNA queried the audience and found out that the majority of attendees were from NRENs. Only 3 people said they were not connecting schools or planning to do that.

Robert spoke about the value added services for schools. The NRENs could provide the schools with services that are not available locally or regionally, services that could meet a common need in the sector, and common services that are also needed by other sectors. The possibilities to provide services depend on the level of management that the NREN had over the schools network.

Each type of services was discussed in detail. Robert described e-missions where UKERNA has participated, extra support needed by schools, content services, media streaming, videoconference management, authentication and authorization issues, as well as the need for gateways between different sectors, for example, between schools and hospitals to enable learning and teaching for children's hospital schools. He pointed out that it has been difficult to find partners for collaboration internally and therefore some international collaboration service could be very useful not only for schools, but for other institutions interested in education, e.g. museums, libraries, etc.

UKERNA had 30 thousand schools connected to JANET, majority of them were interested in videoconferencing services. UKERNA had been working with 12 museums to pilot some content providing projects. Robert summarised that UKERNA customers were looking forward to collaborate with others.

Discussion

Wim Jansen spoke about the importance of information dissemination to people without technical background and bridging different communities. Interaction between schools and universities was discussed. Robert Symberlist thought that schools should be introduced carefully to the network designed for the higher education. Heather Boyles emphasized the importance of joint projects for schools and universities.

The Greek experience with connecting schools was shared. In Greece about 10 thousand schools have been connected to the NREN. They were supported by the university of their region. All schools had a slow ISDN connection. Tomi Dolenc added that since Slovenia is a small country, schools have always received the same services as

universities. He was concerned about the human resources needed to maintain the high level and quality of support. ARNES has been thinking of outsourcing the user support.

Wim Jansen thought that the link between educational and research institutions has been missing in many countries in the national level. As a good example he mentioned the Netherlands.

Gabriella Paolini reported about the Italian plan of connecting schools with slower connection than universities and providing more support to less advanced users. GARR was also thinking of outsourcing the user support.

Valentino summarised the discussion and asked the participants to think about the common work needed by the NRENs. One possibility would be to describe the possible models and challenges and to find a business case. Also the collaboration possibilities for schools in European level could be investigated, for example video conferencing services. He encouraged people to identify follow-up activities and to think about the possible form of follow-up, e.g. task force.

6. Discussion on success factors and problem faced

Sabine Jaume – Rajaonia from RENATER spoke about the needs of the schools. As some of the needs she mentioned high quality and secure IP service, help desk, content delivery, added value services, etc. One of the sources of her findings was the SERENATE project deliverable “Report on examples of extension of research networks to education and other user communities” written in 2003.

In order to study the business case, the community should think about the success factors and problems faced regarding connecting schools to the NRENs. Sabine proposed to break down those in four categories – management issues, economics, technical issues, and politics. It was decided to circulate the information from her slides to the mailing list and to gather more input. The participants were asked if they would be willing to contribute to this discussion.

Mike Norris thought that Sabine’s approach could be a good input for the 2nd Schools workshop. He also proposed to get some monitoring data from the NRENs on how much bandwidth and what type of services schools are using. This information would allow the NRENs to see what schools are actually doing. He also mentioned the Irish experience where the money for connecting schools was raised 75% from industry and 25% from the government. The basic services have been decided based on the money available.

Participants discussed why schools were not using all the bandwidth available. Wim Jansen thought that they were lacking the knowledge and demanding applications. The aim for the future could be to initiate more projects where multi-media, video conferencing, etc. demanding applications would be used. It was suggested to differentiate primary and secondary schools, because their needs are very different. Marco Bonac thought that schools need the connectivity and very active and

knowledgeable teachers to start looking for projects. He suggested discussing that in the 2nd workshop. Robert Sultana agreed with him that it was important to demonstrate to the schools the advantages which the NREN could offer comparing with the commercial ISPs.

Gabriella Paolini suggested another topic of discussions, i.e. address plan and naming structure for the schools.

Valentino summarised the discussion and proposed to focus on things and projects that could be done together. He said that TERENA is willing to support the activities, but the driving force should come from the NREN community.

7. Date and time of next meeting (2nd Schools workshop)

The second workshop will be co-organised by UKERNA and TERENA and it will take place in London, UK on 24-25 October 2005.