



**Joint TERENA Task Forces Meeting between TF-MSP and TF-CPR
Monday 31st May 2010
Vilnius, Lithuania**

Minutes by John DYER
TERENA

1. Introductions

The joint meeting of the TERENA task forces TF-MSP and TF-PR was introduced by Walter van Dijk, chairman of TF-MSP. He explained that the purpose of the joint meeting was to explore areas where the two taskforces could benefit from collaborative activities and sharing of information. The focus of this meeting was: Commoditization of services in the academic sector. Meeting attendees then took turns to introduce themselves and explain their interests.

The meeting agenda and links to the presentations can be found at:

<http://www.terena.org/activities/tf-msp/meetings/20100531/>

2. Introduction to Clouds & Commoditization, John Dyer (TERENA)

John Dyer of TERENA provided an introduction to the concepts of clouds and commoditization. It assumed no prior knowledge on either of the topics. He explained how the TNC coverage webpage was using elements from FLICKR, YouTube, Yahoo, RSS and blogging feeds. These cloud services were combined to provide a single integrated service for users and can be found at: <http://tnc2010.terena.org/coverage>

The provision of these types of commodity or free services will likely have a significant impact on the NRENs as parts of their communities turn to these applications to support their day-to-day needs. The issue for TF-MSP and TF-CPR is to understand the community user needs, the capabilities of the technologies on offer and discover new ways of working that benefit all concerned. This will include the business, marketing and PR aspects and NREN activities.

<http://www.terena.org/activities/tf-msp/meetings/20100531/intro-commoditization-en-clouds.ppt>

3. The "THREE STATEMENTS", John Dyer, TERENA

During 2008 a considerable amount of research was done into developing "The Case for NRENs". The document was published in January 2009 and can be found on the TERENA website at: <http://www.terena.org/publications/files/20090127-case-for-nrens.pdf>.

The document contains a number of assertions that were justified at the time of writing, however the world of networking service development moves fast. Commercial companies now offer a variety of cloud services (email; storage; compute power; collaboration tools....) which had been historically provided from within the research and education community, some by the NRENs themselves. The question posed during this presentation was: Are these assertions still true, and if not, what are the consequences for the NRENs and the communities they serve.

Statement 1: NRENs are still able to provide services that are generally better or more economic than those from commercial services providers.

Statement 2: NRENs generally operate as a network for a closed group of users who have advanced requirements to support their research and education users.

Statement 3: NRENs do not compete with commercial ISPs, but offer a different level of

service in parallel with them.

The meeting attendees were then split into three groups to consider the statements; draw some conclusions and be ready to be present these to the meeting later during the day.

To stimulate thinking on these topics, four speakers with experience in the use of cloud/commodity services were each invited to make a short presentation:

4a. Grids, Clouds and the Community and NGS, David Fergusson, NESCS (UK)

David began by explaining how National eScience Centre (NESCS) based at the University of Edinburgh in Scotland provides support and develops IT solutions for advanced research. He also explained the role of the National Grid Service (NGS) which is a JISC supported national service for the UK. NGS are focussing their efforts on "Platform as a Service". Detailed information on the technology can be found in the slide set at:

<http://www.terena.org/activities/tf-msp/meetings/20100531/ngs-clouds.ppt>

David then provided his own private views on the three statements.

- **Statement 1:** Although cloud services may at first sight seem economically attractive with cheap or free storage, retrieving data can be an expensive operation. Commercial cloud providers can deliver huge scalability which the community will find hard to match. NRENS should not try to compete. Since most activities in the community must be fully funded (including the support costs), it should be possible to include commercial cloud costs in the project planning.
- **Statement 2:** Since the NRENS are part of the community, they really should understand the community requirements better than the commercial sector. Whilst the commercial sector can provide simple generic commodity services, it is unlikely they will ever be in a position to provide support for the more complex requirements of the advanced community users.
- **Statement 3:** Following from statement 2, NRENS and the community service providers should concentrate on providing "blue-water" services which the commercial sector don't seem to have much interest in providing solutions. Possible areas suggested included: Trust networks and security for public clouds; Service discovery; Data services; Accounting; monitoring....

4b. Recent debate in the RedIRIS Community on the Commoditization of Services Alberto Pérez Gómez, RED.ES

Alberto started his presentation using IRIS-MAIL as a case study of community collaboration on services. Work had begun in 2007 in several Spanish universities. By 2009 many were considering outsourcing mail to companies such as Google. This led to a more widespread debate on outsourcing of email. During early 2010 several consultation activities had taken place, culminating in a survey on "Outsourcing of ICT services at Universities" in May 2010. Details of these activities are provided in the slide set at:

<http://www.terena.org/activities/tf-msp/meetings/20100531/rediris-commod.ppt>

RedIRIS is interested in understanding:

- In which situation, can RedIRIS help those customers migrating to commercial cloud services and how can RedIRIS help
- How should RedIRIS help those customers that do not want to migrate
- The connectivity requirements for the adoption of commercial or internal cloud services by universities

In conclusion Alberto mentioned that the debate about commoditization of some ICT services in universities is becoming quite intense in Spain. The discussions are mainly starting from the bottom coming from community ICT manager, however decisions are often "top-down". He

expects that that debate might be influenced by the global economic crisis. RedIRIS is continuing to be involved in the debates and seeks ways to support the community with its expertise and skills.

4c. Cloud computing in Dutch higher education and research Collaborating in the adoption of online applications and services, Andres Steijaert, SURFnet.

The Netherlands has invested heavily in IT and network infrastructure. As a consequence 80% of households in the Netherlands have broad-band access putting the country near the top of the global league. Andres went on to explain the role of SURFnet as an incubator for innovation of new services which are eventually rolled out to more generally by the commercial sector. He provided the example of DigiD, the Dutch government digital identity system which is based on the A-SELECT project of SURFnet. SURFnet is funded through the Dutch Ministry of Education, Culture and Science and user charges. It has 180 member organizations and around 1 million users. It operates one of the fastest and most advanced networks in the world where universities are connected at 10 Gbit/s by 8000 km dark fiber. The underlying reason for SURFnet is to provide high-quality service to higher education and research combining many systems and dataset, so of which are huge. Andres asked if commoditized service offered by the commercial sector could provide the levels of: Privacy; Data storage capabilities and integrity; Legal and Intellectual Property protection required by our community users. He suggested we need to develop a common awareness and understanding of this on a European scale. It is likely that as a result of commoditization of services; economic pressures and end user demand, organizations within the community will find the need to make a transition from being highly technically driven to that of managing policies and governance issues.

Andres suggested that in order to achieve acceptable and consistent levels of service and for our community to access Cloud computing & online applications, the community should develop standard guidelines and best practice documents. Similarly the community needs interoperability standards and open APIs if we are not to be locked into proprietary solutions. Andres closed his presentation by saying that he thought TERENA would be the right forum in which to develop the common community guidelines and standards.

<http://www.terena.org/activities/tf-msp/meetings/20100531/surfnet-on-line-collab.pdf>

4d. The Nordic CTO Forum - towards a common market for services, Martin Bech, UNI•C

The scope of the Nordic CTO meetings is at the strategic level to exchange experience and best practices, to inform about key challenges and initiatives, and to coordinate and align strategic efforts across the Nordic countries. It operates an open website which can be found at: <https://portal.nordu.net/display/NORDUwiki/CTO+Meetings>. He went on to mention "The Kalmar Union" a special and traditional relationship between the Nordic countries.

Martin mentioned the map of services provided by each of the Nordic NRENs. These can be seen on the wiki at: <https://portal.nordu.net/display/NORDUwiki/NREN+Services+map>. He mentioned that the CTO forum is investigating the possibility of jointly developing, operating or sharing facilities such as equipment housing; server operation; iPass; H.323 MCU and gatekeeper; Edumedia; Filesender/LOBBER; Anti-SPAM service. NORDUnet can act as a service provider to the Nordic NRENs, but also an agent for inter-Nordic NREN service provision.

The suggestion is that this model should be considered for adoption across the whole of the European NREN community.

<http://www.terena.org/activities/tf-msp/meetings/20100531/nordic-cto-forum.ppt>

5. Conclusions from the Groups.

Each of the groups nominated a spokesperson to report back to the whole meeting the conclusions of their deliberations on the statements. The reporters were:

- Group 1 Martin Bech, UNI•C
- Group 2 Ann Harding, SWITCH
- Group 3 John Chevers, DANTE

Group 1

Martin started by asking us to question why the NRENs exist. If the commercial sector can offer better products or more economic services, then there is no need for NRENs. In a few years most if not all of the current advanced NREN services should be available on the commercial market. However, we live in a dynamic rapidly developing world and the requirements of advanced end-users will also move-on, ahead of what the market can provide. The NRENs will therefore continue to have a role of innovating to satisfy this demand and develop new services which will eventually be taken up and offered by the commercial sector.

In addition, there is still the view that NRENs have the skills and ambitions to “do things right”, tailoring services to the end-user community requirements. The community recognise this characteristic and has seen the NRENs provide a high level of service over many years. As a consequence the end-users generally trust their NREN a great deal.

Group 2

The group supported the statement that the NREN user community is a well defined closed user group (CUG). This is a positive aspect of the NREN community. It is important to remember that it is not an homogenous CUG however. It costs of the three types of users defined by Cees de Laat:

- Type A Huge number of low bandwidth un-demanding individuals
- Type B Intermediate number of users with moderate requirements
- Type C Few highly demanding users with very advanced requirements

Just as NRENs are ahead of the market offerings to support the Type C demanding users, they should also stay ahead of the market to provide services such as seamless, secure mobile access to users wherever they happen to be.

The NRENs could certainly have a role in ensuring that the business aspects; regulatory position and technical aspects of commercial cloud computing services meet the demands and expectations of education and research community.

Group 3

Competing with commercial ISPs would be difficult for NRENs. If NRENs were to attempt to compete what would make individual end-user choose the NREN over a commercial ISP.

The end-user might choose an NREN if:

- The user needs advanced services such as an end-to-end light path or dynamic light paths not obtainable from the commercial
- The NRENs offer better levels of service and support (than the ISPs) tailored to the specifically to the end-user
- In most cases the Quality of Network Service (QoS) is actually better than obtainable from the commercial sector and the QoS has an impact on the delivery of service.
- As a matter of government policy the end-user has no choice by to select the NREN as their service provider

The first three of these reasons provides a case for the continued existence to provide high-end services to Type B and Type C users. There is a less strong case for NRENs to offer commodity like services such as email etc, to Type A users unless they include levels of service or features not available from the commercial sector.

It may be that NRENS could operate on behalf of their users some central advisory and negotiating service for user groups considering using commercial clouds for e-mail or storage. This might include getting an acceptable authorisation and authentication system adopted. Negotiating on the legal, privacy and intellectual property aspects of the service.

6. Conclusions and Summary, Walter van Dijk

Walter led a discussion first by summarizing the feedback from the break-out groups and then by inviting further contributions from the floor. His set of slides can be found at: <http://www.terena.org/activities/tf-msp/meetings/20100531/msp-cpr-conclusions.pptx>

The following points were made:

- NRENS have a unique position in areas like trust, privacy, innovation, stability etc. These special characteristic and the benefits should be communicated to: the customers; ICT-management & end-users.
- NRENS should focus on services where they can "make a difference" and not try and compete head-on with ISP commodity services.
- Although the term Closed User Group (CUG) may have a particular and important meaning in the context of the regulatory position, it is seen as somewhat negative in the context of the NRENS ability. It was suggested that something that conveys the message: "providing special services to special groups of users" was accurate and more positive.
- NRENS should focus on "blue water" innovative services rather compete in the "red water" space of highly competitive commodity services. Topics where NRENS could operate effectively ahead of the market might include:
 - Trust networks
 - Security in public clouds
- Knowledge transfer and dissemination of best-practice is a valuable service which NRENS and TERENA does well.
- Compared with the commercial sector, NRENS offer a world beating package of services and support.
- NRENS should continue to make their case of the long-term and societal benefits of a strong, innovative research and education network.
- End-user use of the NREN network may not be through explicit choice (because it is the best available) but in many cases through default (it is the network that is most easily accessible). NRENS should endeavour to make themselves the provider of explicit choice.
- NRENS must be active in seeking new opportunities at all levels, to enable them to continue as viable entities able to serve the advanced users' requirements that are unlikely to be met by the general ISP market.
- The situation of each NREN is unique depending on many factors including: government policy and funding; user-base; geography; local market conditions and opportunities.

7. Effectiveness of joint TF-CPR/TF-MSP meetings, John Dyer, TERENA

John noted that this had been an extremely effective joint meeting with a large number of TF-MSP and TF-CPR members actively discussing important aspect of the NRENS future. It was interesting to note the global interest in the topic demonstrated by the participation of a large number of colleagues from Latin America. The topic of commoditization of services may impact the future shape of NRENS and the range of services they are able to offer. It will take the combined skills of business management, strategic planning, public relations and communications to define a successful future for NRENS. On that basis alone, John thought joint meetings between TF-MSP and TF-CPR were an effective forum and worth holding. This view was not universally held, but the majority of participants agreed. Future joint meeting will be explored, with the probability that they will take place once each year around the TNC.

List of Participants & Apologies

<u>ATTENDEES</u>			
Lada	Altmannova	CESNET	Czech Republic
Lajos	Balint	Hungarnet/NIIF	Hungary
Martin	Bech	UNI-C/Forskningsnettet	Denmark
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john	chevers	DANTE	
Luiz	Coelho	Escola Superior de Redes RNP	Brazil
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