



## **TF-MSP Task Forces Meeting**

**Tuesday 15<sup>th</sup> September 2009**

**DGI -BYEN Conference Centre**

**Copenhagen, Denmark**

**Minutes by John DYER**

**TERENA**

### **1. Introductions**

The task-force chair, Alberto Pérez Gómez of RedIRIS opened the meeting with a round of introductions. Alberto introduced the first speaker, James Sankar of AARnet, Australia who joined the meeting by video link.

### **2. Applications & Services briefing, James Sankar, AARnet**

James began by explaining that the community AARnet serves is very mixed and there are few one-size-fits-all solutions. Australia is very different from Europe in scale (it is as large geographically as the US) and population distribution. James explained that 85-90% of the Australian population is concentrated in just a few cities and that there are huge distances between these cities. The remainder of the population are in small towns and rural areas which also have to be served even though in some cases they would not be regarded as economically viable in the traditional business sense.

Like most European NREs, AARnet is a not-for-profit organisation. AARnet's income is generated by a combination of subscription and usage based charges. AARnet's management has met several challenges in the past five or six years including an increase in staff from eight people to the current 42, acquisition of fibre and the creation of a NOC team. Operationally there is much more domestic peering; there is a move from "free" video services to pay systems. In the case of the growth of VOIP there is some pressure from commercial operators who benefit from economies of scale.

AARnet started their eduroam<sup>®</sup> service in 2005 however there were some setbacks in the level of uptake when commercial 3G services were launched. AARnet are following the development of Shibboleth authentication and will align with the Shibboleth/Radius solution. The customers of the AARnet eduroam<sup>®</sup> service are in the IT centres in the institutions. The challenge for AARnet is to demonstrate the value to these centres of offering eduroam<sup>®</sup> to institutional departments.

In taking questions from the floor, James explained that their fibre acquisition is actually a set of 15 year IRUs consisting of two fibre pairs. He also went on to explain that there is currently some turbulence in the market with the Australian government deciding on several important issues such as putting fibre to the home; creation of a "fibre-bank" and future ownership of the national carrier: Telstra. AARnet has a special role to play servicing the demanding user base of researchers and education with their atypical requirements such as the connection of large instruments and supercomputers in remote locations. AARnet is well placed to satisfy these and similar user groups such as schools and health sector users. Whilst the outcome of the discussion is currently unknown, AARnet is preparing to address future challenges by assessing

its own service value propositions. There was significant interest from the delegates in reaching a good understanding of the issues associate with ascertain service and application value. John DYER agreed to provide a dedicated space on the TF-MSP password protected wiki in which further discussions could be undertaken.

**ACTION:** John DYER

[http://www.terena.org/activities/tf-msp/meetings/20090915/aarnet\\_tf-msp.pdf](http://www.terena.org/activities/tf-msp/meetings/20090915/aarnet_tf-msp.pdf)

### **3. Quality Management Systems at JANET(UK), Steve Hogger, JANET(UK)**

The implementation of Quality Management Systems (QMS) at JANET(UK) dates back some ten years. Addressing the question of whether it is worth investing the time and effort in obtaining QMS certification, Steve said that the answer is emphatically YES provided the organisation has some clear purpose to do so. Steve cautioned that it can take quite a long time to fully realise the benefits of a QMS (in JANET's case around 8 years!) and it is therefore not something to be undertaken lightly. His advice was "If in doubt, don't do it!"

As an organisation grows in size and complexity it becomes more difficult for people across the company to understand what others do and the overall organisational goals. An essential task in the development of a QMS is to get staff to write down what they do in their jobs right now. This in itself can bring about a shared understanding of what goes on in the organisation. In common with many management tasks, maintaining a QMS certification is not a one-off task but requires regular review and updating. It is essential that staff feel ownership and full involvement in the QMS process as part of their job and not see it as an unnecessary bureaucratic overhead. This may need a change in mind-set for some staff, particularly those involved in highly practical and technical activities.

John Dyer recalled that the QMS at JANET(UK) was first put in place during the run-up in the change from the organisation being a small unit called the Joint Network Team within the SERC Rutherford Laboratory to the stand alone legal entity UKERNA which subsequently known as the JNT Association trading as JANET(UK).

<http://www.terena.org/activities/tf-msp/meetings/20090915/janet-uk-gms.ppt>

### **4. Operation of the SFINX, Sabine Jaume, RENATER**

In 1995, RENATER created a Global Internet eXchange (GIX) to improve the Internet connectivity in France by optimizing exchanges between operators/ISPs. The exchange, known as SFINX is located in Paris and still run by RENATER. Income from running the SFINX is reinvested in the service and not used for general REANTER running costs. Sabine reported that the SFINX is well supervised and run to meet the needs of its customers which are openly discussed in customer feedback meetings. Sabine went on to explain that RENATER is currently in the early stage of opening an optical exchange near Marseilles. The advantage of Marseilles is that it is geographically close to the landing point of many under-sea cables.

Presentation material on SFINX is available from the TF-MSP wiki.

### **5. Operation of NederLight, Walter van Dijk, SURFnet**

In 1995, SURFnet set up an Internet Exchange for the Netherlands. This was spun off as an

independent entity that allows commercial ISPs to connect. The exchange known as AMSIX currently has 319 customers including some international.

The creation of NederLight, linking the world with light is following a similar model. Initially put in place to serve the point-to-point needs of large scale network users such as high energy physicists and astro-scientist, Nederlight is now an integral part of the Global Lambda Integrated Facility (GLIF). The Netherlands is well situated geographically to host such a facility as many transatlantic under-sea cables land on the Dutch shores. NederLight, in operation since 2002, is located at the SARA site, but managed and operated by SURFnet. It provides long-distance Gigabit Ethernet tunnels carved out of international lambda circuits to and from destinations as diverse as Chicago, Geneva, Amsterdam, New York, London, Stockholm and Prague with many more expected to come as the lambda grid expands.

SURFnet has offered dynamic lightpath services its national network since 2008 however these are currently single domain. SURFnet is working within GLIF & with others to make this service work internationally.

<http://www.terena.org/activities/TF-MSP/Meetings/20090915/nederlight.ppt>

## **6. Operation and future development of BNIX, Koen Schelkens, BELNET**

Historically BELNET has been providing a neutral internet exchange point since 1995. As a consequence BELNET has excellent peerings with most of the major Internet providers in Belgium. BELNET supports approximately 650,000 users of the NREN network in Belgium, around two-thirds being students.

Running the BNIX does bring some benefits for BELNET and its community and indeed 'coordination of Belgian Internet' brings with it some political recognition of BELNET's independence and special expertise. This role however brings with it the need for additional manpower for something that is peripheral to BELNET's core business. BELNET's management is working on these issues and intend to address them in the next few years.

Presentation material on BNIX available from the TF-MSP wiki.

## **7. RedIRIS NOVA, Alberto Pérez Gómez, RedIRIS**

RedIRIS NOVA will be the new infrastructure of the Spanish National Research and Education Network. Since 1988, the mission of RedIRIS has been to provide advanced connectivity services to the Spanish research and academic community. In order to achieve this goal, RedIRIS has implemented different generations of a national high-speed backbone. RedIRIS NOVA will be the new RedIRIS national infrastructure: a dark-fibre network with optical equipment, which will increase very significantly RedIRIS transmission capacity, as well as its ability to deploy new services in a flexible way. The budgeted cost of the RedIRIS NOVA project is 130M€ including with 55 M€ from European Regional Development Funds (ERDF). The investment should provide advanced connectivity for at least 10 years.

RedIRIS-NOVA will consist of a physical optical mesh with automatic restoration and several logical networks for projects and regional academic networks with potentially several physical PoPs for Spain's 17 regions.

[www.terena.org/activities/TF-MSP/Meetings/20090915/rediris-nova-2009-09-01.ppt](http://www.terena.org/activities/TF-MSP/Meetings/20090915/rediris-nova-2009-09-01.ppt)

## **8. Connecting hospitals to the NREN - Danish case study, Martin Bech, UNI•C**

Martin Bech began his presentation by describing the Danish research and education fibre infrastructure that has been operations since mid-2009. UNI•C are now in a position to be able to offer virtually unlimited bandwidth to its customers. UNI•C can use combinations of lightpaths, MPLS and VLANs as appropriate to support the services the users need. He discussed the examples of segregated networks and the consolidation of servers across distributed sites as some of the services they currently offer. With such diversity of possibilities why should the health-sector be regarded as any different from any of the other user groups already supported on the network? Whilst security and privacy are mandatory for networks being used for personal/health data, the ability to provide robust network segmentation is already available as a matter of course and provides the necessary facilities.

The challenge however is that for user groups such as high-energy physicists and astronomers, large instruments are located in just a few places, so configuring access through middle-boxes such as firewalls is relatively straightforward. In the case of the many thousands of hospitals, each of which may require several one-to-many secure connections, configuring access can be a logistical nightmare. Even identifying who in a hospital is responsible for configuration can be a difficult task. Having some person remove the permissions once the connection is no longer needed is an even greater problem to solve. As a consequence UNI•C have developed a Connection Agreement System. In summary, this system which has been in place in Denmark since 2003, establishes documentation regarding who ordered what connection and how long it is scheduled to exist. This makes the management of such dedicated paths much simpler. Since 2003, the number of connections registered in the system has risen from just a few to nearly 3500 in July 2009. Details of the system can be found in the presentation slides linked below.

In closing, Martin suggested that all NRENs should consider having a strategy for supporting the health-sector. It is not so different from other a-typical user groups already being supported.

[www.terena.org/activities/tf-msp/meetings/20090915/hospitals.ppt](http://www.terena.org/activities/tf-msp/meetings/20090915/hospitals.ppt)

## **9. TERENA Compendium of NRENs, John Dyer, TERENA**

John Dyer explained that the 2009 compendium questionnaire represents a substantial change over previous years with less need for absolute numbers to be entered by the NRENs. Many questions now only require tick-box answers.

He reported that the 2009 data gathering exercise is nearly complete. It is currently too early to give any indication of trends or unexpected findings but these will be published in December in the printed and online version of the Compendium.

Since GÉANT is the largest R&E network in the world reaching other continents as a result of projects such as ALICE, TEIN and EUMEDCONNECT, more effort has been put into obtaining basic data about NRENs in those regions.

## 10. Coordinating Inter-NREN Service Provision in Europe, Harri Kuusisto, FUNET

The Coordinating Inter-NREN Service Provision in Europe (CIRENSE) project proposal was submitted to the EC in response to an FP7 call. Unfortunately the proposal was not successful in being funded, however the work proposed is still of significant interest to many European NRENS.

It was suggested that we should revisit the project themes and ideas in TF-MSP examining the current situation regarding the provision of inter-NREN services. Interested parties should be encouraged to collaborate and identify:

- NRENS willing to provide services to other NRENS
- NRENS willing to procure services provided by other NRENS
- Joint NREN procurement from commercial service providers across the national borders

The work might include the following elements:

- Investigation of the legal aspects and implications of such activities
- Business models and policy environment
- Study of procurement and contractual issues
- Development of specific case studies
- Dissemination of results to all European NRENS

Alberto agreed that it is important to see what can be done in the context of TERENA with the objective of improving service provision within the NREN community. He pointed out that without dedicated funding this will be difficult. Walter van Dijk was also supportive of the work, suggesting as a first step we should get someone to produce a matrix of topics/services to be addressed. Such an activity would be relatively small and might cost a few thousand euros if someone had the time to devote to the task.

It was suggested that TERENA should approach the NRENS to see if there is sufficient interest in funding such an activity. The issue is that someone has to develop such a proposal to put before the NRENS.

Magnus Strømdal said that as part of the GN3 there were frameworks for tendering for equipment and services that are relevant in the context of this work.

It was agreed that John Dyer should talk to Harri Kuusisto about making a condensed version of the CIRENSE proposal for distribution to the NRENS.

Action: John DYER

[www.terena.org/activities/tf-msp/meetings/20090915/cirensen.pdf](http://www.terena.org/activities/tf-msp/meetings/20090915/cirensen.pdf)

## **10. Internet2 Services and coordination with European NREN Services, Rob Vietzke, Internet2**

Rob Vietzke, Executive Director, Network Services, Internet2 made a presentation by video link from the US. As background, Rob mentioned the collaboration known as DICE between ESnet, CANARIE, GEANT, Internet2 and USLHCnet. Informal discussions have been taking place in DICE for several years. Some of the topics being discussed are now moving firmly into Rob's area of responsibility.

Rob focused on two services by way of case studies emphasizing that the objective is to achieve interoperability along the entire end-to-end path across US and European Networks.

He mentioned some of the Internet2 service portfolio including:

- Nationwide backbone network infrastructure services
- perfSONAR-based measurement and monitoring services
- InCommon Federation
- USHER (U.S. Higher Education Root Certificate Authority)
- Internet2 Commons (video-conference)

In the context of backbone network infrastructure services, Internet2 have been working on the transition of their Dynamic Circuit Network (DCN) pilot into a production services named ION (Interoperable On-Demand Network). ION will be able to deliver reservation of 50Mbps-10Gbps dynamic circuits on any connected network that is enabled with the underlying technology. The roll-out of ION is to be announced publicly at the Internet2 fall meeting in October 2009.

The second case study mentioned was that of making a network of perfSONAR diagnostic data available in a consistent fashion across multiple domains. The Internet2 operational goals include making backbone/LAN/MAN data available in the short term. In addition they envisage providing data for regional networks, campuses and international links. In the medium term this will include running tests with international peers.

A driver for moving up the stack with services and offering end-to-end services globally is the increasing need for US universities to be able to provide seamless access to their remote sites around the world. Whilst these developments seem within reach within the US and EU region beyond this Rob expects many challenges.

[www.terena.org/activities/tf-msp/meetings/20090915/internet2.pdf](http://www.terena.org/activities/tf-msp/meetings/20090915/internet2.pdf)

### **11. Status Report on Workshop on Improving Quality of Email Service, John DYER**

Following ideas discussed in TF-MSP meetings over the past 12 months it was agreed to consult with the TERENA community to see if there was sufficient interest in arranging a one day workshop on the topic of Improving the Quality of Email Services. Staff of many NRENs expressed an interest in such a workshop. The workshop will include presentations for community members of spam reduction approaches, technologies and practices. The workshop will conclude with a discussion on the way forward. The workshop will take place on Wednesday 9 December 2009 at the TERENA offices in Amsterdam. Participation by video link will also be possible.

<http://www.terena.org/activities/tf-msp/meetings/20091209-equal/index.html>

### **12. TF-MSP wiki, John DYER, TERENA**

There was a short presentation on the use and contents of the TF-MSP wiki. The space is password protected for privacy so that sensitive information may be shared between TF-MSP members. TF-MSP members who do not yet have access credentials may obtain them from John DYER at TERENA.

Access to the login can be found at: <https://confluence.terena.org/login.action>

### **13. Re-Chartering of TF-MSP, John DYER, TERENA**

The task-force TF-MSP received a two year charter from the TERENA Executive Committee (TEC) in February 2008. This is due to expire on 28 February 2010. If the task-force is to continue after this date it will need to be re-chartered by the TEC. Alberto asked the delegates if they thought there was useful work to be done by the group and whether we should seek re-chartering from the TEC. There was full agreement that there was plenty left to be done and a new re-charter should be sought. Alberto said that in his opinion the task-force could continue as a place where important information about emerging topics could be exchanged. He asked John Dyer to circulate the current Terms of Reference and to start work on re-drafting.

Action: John DYER

During discussions Alberto mentioned the Information Technology Infrastructure Library (ITIL) training that is being organized in the context of the GN3 project. ITIL is a comprehensive documentation of best practice for IT service management. Alberto asked TERENA explore whether it was useful for task-force members to follow this ITIL training.

ACTION: John DYER

Subsequently, Steve Hogger of JANET(UK) offered to provide an introduction and overview of the benefits of using ITIL based on his training and experiences.

#### 14. Date and Time of Next Meeting

It was agreed that the next full TF-MSP meeting should take place in January or February.

#### 15. Open Actions

Reference	Who	Action	Status
20090915-01	JD	Wiki space to discuss AARnet Issues	NEW
20090915-02	JD	Talk to Harri re summary CIRENSE proposal for NREN study	NEW
20090915-03	JD	Work on TF-MSP re-charter	NEW
20090915-04	JD	Explore relevance of ITIL training for task-force members	NEW

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#### List of Participants

Martin	Bech	UNI-C
Domen	Božeglav	Arnes
John	Dyer	TERENA
Roland	Eugster	SWITCH
Steve	Hogger	JANET(UK)
Sabine	Jaume-Rajaonia	RENATER
Hélène	Joncas	CANARIE
Gitte Julin	Kudsk	UNI-C/Forskningsnettet
Harri	Kuusisto	CSC/Funet
Brian Bach	Mortensen	NORDUnet
Alberto	Perez Gomez	Red.es/RedIRIS
Roel	Rexwinkel	SURFnet
James	Sankar	AARNET (by video link)
Koen	Schelkens	BELNET
Magnus	Strømdal	UNINETT
Walter	Van Dijk	SURFnet
Rob	Vietzke	Internet2 (by video link)

#### Apologies

Lajos	Balint	NIIF/Hungarnet
Brian	Boyle	HEAnet
Gerti	Foest	DFN
Ann	Harding	SWITCH
Yannis	Mitsos	GRNET
Maurice	van den Akker	SURFnet
Shirley	Wood	JANET(UK)