

**25th TF-Mobility and Network Middleware Meeting - Wednesday, 9th November 2011**

Bologna, Italy. The meeting was hosted by GARR.

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1. Welcome and Apologies

Klaas Wierenga welcomed everyone to the meeting. Attendance and Apologies were recorded on the event registration page: http://www.terena.org/events/details.php?event_id=2050

2. Approval of Agenda, Minutes of Last Meeting and Update of Action List

The agenda was modified as the day progressed with the final version available online: <http://www.terena.org/activities/tf-mobility/meetings/25/>

The minutes of the last meeting held on the 30th of June 2011 were approved without further corrections and are available at:

<http://www.terena.org/activities/tf-mobility/meetings/24/minutes.pdf>

Summary of Actions

Reference	Who	Action	Status
20110216-01	Klaas	Identify what series of equipment is capable of 802.1X-2010.	<i>Will send to the mailing list shortly.</i>
20110630-01	Roland	Qualify the country map diagram (slide 6) and in particular the bright red for Madagascar and even darker colour for Togo.	<i>Due to a very low number of resolvers in that country a single DNSSEC resolver represents 20% coverage.</i>
20110630-02	Brook	Invite HEAnet and other interested parties to the next TF-MNM meeting on the topic of "Integration with other operators".	<i>Mike Norris was invited and will present.</i>
20110630-03	Kurt	Provide an update on the mailing list on the Sensor and Mesh Networks WI	<i>Brook to contact Kurt directly.</i>

3. Work items updates - All Work items (WI) leaders**3.1 Location awareness - Mark O'Leary, JANET(UK)**

David Richardson provided a verbal update of work in this area covering: the 'eduroam Companion' app and expanding eduroam to public transport services.

The 'eduroam Companion', developed in collaboration with the University of Southampton, will be available in the AppStore shortly. The collaboration between JANET(UK) and the University of Southampton will continue with a new project group working on a port to Android.

Miro asked whether the GN3 Monitoring Database was being used by the applications. Richard clarified that initial data is populated from this database and updates are recorded in a database hosted by JANET(UK).

Brook asked whether the app will be available in AppStores beyond the UK AppStore. Richard stated that the intention is for this application to be as widely available as possible.

Rok requested details on the reporting capabilities and whether public, private and IPv6 assignments were reported. Richard answered that work is underway to make the data openly available and displaying hotspot capability isn't the goal of the app at this time.

José-Manuel asked about localization of the applications into other languages. Richard stated that this hadn't been explored. Brook referenced the October ECAM call (<https://www.terena.org/activities/ecam/calls/201110.html>) which proposed a framework for internationalisation (i18n) and localisation (l10n) of Mobile Apps be considered for GN3+ activities.

David also announced that in partnership with Greyhound Coaches, a trial of 4 coach routes between London, Edinburgh, Portsmouth and Southampton have eduroam onboard. The goal is to demonstrate that eduroam improves passenger uptake with the intention that coach, and other public transport operators, would continue to offer and expand the service.

Mike Norris stated that HEAnet offer a rebate for sites which deploy eduroam to encourage deployment. SURFnet has previously offered rebates to encourage deployment of services.

3.2 Future DNS - Roland van Rijswijk, SURFnet

Roland presented an update on Future DNS ([http://www.terena.org/activities/tf-mobility/meetings/25/20111109 - TF-MNM - Future DNS update.pdf](http://www.terena.org/activities/tf-mobility/meetings/25/20111109-TF-MNM-Future-DNS-update.pdf)) covering DNS/UDP fragmentation detection, DNSSEC for Scalable Trusted Third Party delegation and DNSSEC-signing-as-a-service.

Roland requested other sites with top level domains to slave their DNS to SURFnet so they can monitor this situation or offer monitoring statistics to SURFnet to extend their research. As part of the research into DNSSEC they were able to identify UDP fragmentation present on some firewalls.

Stefan stated that the fragmentation issue also affects eduroam, due to RADIUS/UDP fragmentation typically by the transport of certificates, and it would be useful to incorporate this test into other suites of service monitoring.

Roland has previously covered Convergence (<http://convergence.io/details.html>) and the ability to have an external trust broker for your in browser Certificate Authorities. The problem with this approach is the replacement of a broken system with a completely new system that people don't understand. Roland floated a proposal to combine DNSSEC, Trusted Third Party referencing and a validation framework and leveraging the investment in DNSSEC rather than build on a completely new framework.

Klaas commented that this proposal could be an alternative to the Moonshot Trust Router. Paul and Stefan asked whether this is client or RADSEC <-> RADSEC server communication and how it would be implemented. Roland clarified that this model isn't browser dependent (as is the case for Convergence) and therefore could be used for RADIUS/TLS in addition to HTTPS validation.

Roland reported that DNSSEC growth has been marginal since the start of the year and SURFnet will be launching a DNSSEC signing-as-a-service in addition to the hosted DNS service which also supports DNSSEC.

Stefan stated that RESTENA currently offers DNS for clients unable/unwilling to run their own DNS and is looking to offer DNSSEC and build a web interface to support this. Roland encouraged Stefan to talk to SURFnet on this topic as they already have this service in operation.

3.3 Scalable 2-factor authentication - Joost van Dijk, SURFnet

Roland presented on Joost's work item (<http://www.terena.org/activities/tf-mobility/meetings/25/20111109 - TF-MNM - Two-factor AuthN update.pdf>) which included a review of the Digipass Nano SIM overlay and an update on tiqr. Poor user interface, SIM activation procedure complexity and the fact that this is a transitory product diminishes its usefulness. The full report is available at <http://bit.ly/surfnet-dpnano>. An independent security audit of tiqr has been performed (full report at <http://bit.ly/tiqr-secaudit>) and concluded that tiqr is secure. A pilot with real users is expected in Q1 2012.

3.4 Integration of network middleware with identity federations - Leif Johansson, SUNET

Leif didn't attend and people were referred to Josh's slides (<http://www.terena.org/activities/tf-emc2/meetings/19/19th TF-EMC2 Beyond Web SSO 00.pdf>) presented previously at TF-EMC2.

3.5 Enabling Ubiquitous Mobility - Paul Dekkers, SURFnet

Mike Norris presented HEAnet's work in collaborating with mobile operators (<http://www.terena.org/activities/tf-mobility/meetings/25/TF-MNM-HEAnet.ppt>). In response to questions from the audience Mike stated that off-campus wifi wasn't explored because hotspot providers were pulling out of the market with one player reducing their public hotspot sites down from 1700 to 700. The market has moved from providing paid wifi at service locations as a revenue stream to supporting mobile offload and providing free wifi with advertising. All data transferred is handled by the MNO's network - it isn't returned to HEAnet. The dongle statistic includes both USB stick and MiFi devices. The full report is available at: http://www.heanet.ie/sites/default/files/HEAnet-Mobile-BB-Study-Report_0.pdf

Frans Panken presented on the SURFnet LTE trial which was recently announced (<http://www.terena.org/activities/tf-mobility/meetings/25/TF-MNM-Panken Nov 2011.pdf>). SURFnet has agreed with KPN to perform the first LTE user trial in the Netherlands on a campus site. The LTE technology is positioned as complementary to Wi-Fi: LTE on the campus site (outside the buildings) and Wi-Fi within the buildings. In this LTE pilot, SURFnet explores the potential of LTE on campus site with the aim to construct a good deal for higher education and research. The integration of LTE with eduroam (and at what level it is realised) is one of the topics that will be studied during the user trial. The merit of the integration comes from the education services that need to be supported.

Frans stated that there is a lot of confusion over whether LTE is a replacement for WiFi, even though it is promoted as an add-on service, some campus' have enquired about removing their WiFi infrastructure in the move to LTE. Slide 6 of Frans' presentation is taken from the landscape of a study reported by Paul Dekkers at the 22nd meeting.

John provided a summary of [TF-MSP](#), its role and interest in the area of mobile strategy (<http://www.terena.org/activities/tf-mobility/meetings/25/MSP-at-MNM.pdf>).

3.6 Support for eduroam world-wide - Miroslav Milinović, Srce

Milan Sova presented the pros and cons for using TCS for RADSEC/TLS certificates (<http://www.terena.org/activities/tf-mobility/meetings/25/TCS-or-not.pdf>). The conclusion was to continue with eduPKI as the only accredited CA under the eduroam Trust Profile, at this point in time, for the primary reason that eduPKI is able to issue certificates for every Federation Level RADIUS (FLR) Server which is a broader audience than TCS. Milan noted that this position could be changed at a later date and there is no impediment to accredit TCS other than policy changes but the work required to do this outweighs the benefit at this point.

3.7 Metering and monitoring - Miroslav Milinović, Srce

Miro presented the latest usage figures for eduroam (<http://www.terena.org/activities/tf-mobility/meetings/25/eduroam-bologna2011-eduroam-mm.pdf>) The national statistics from Spain and UK agree with the growth pattern Miro presented. A new visualisation of usage was made by José-Manuel of RedIRIS based on F-Tick data. As more countries move to RADIUS/TLS and Dynamic Peer Discovery there will be less traffic logged via the Top-Level infrastructure which will show a decline in usage.

Mike wanted clarification on "service locations" and what this means. Stefan clarified that a particular domain doesn't relate to only one location, the closest useful definition would be to call it a hotspot.

4. National and Community Updates

- Spain** Change of national policy to force/encourage the deployment of eduroam. Looking for a crowd sourced or inexpensive monitoring device. Working with Partners in Latin America (particularly Peru + Brazil) on technical trials.
- UK** The 3G service has between 10 & 15 subscriber institutions. A reduction in funding is likely which will focus efforts on a charging model for value added services. This topic sparked discussion on innovation vs operation of services and how to engage funding bodies or the community in investing in future services.
- Slovakia** Only 2 remaining higher education institutions without eduroam. Approaches from schools concerning eduroam are often initiated but so far non have been completed. This will be taken up in the widening participation agenda.
- Japan** Organisers of APAN33 (Thailand) and APAN33 (Sri Lanka) will deploy the service for these events. It is hoped to also initiate deployment within the respective countries. Also working with India (the APAN32 hosts) for a country deployment.
- USA** eduroam transitioning to Internet2 and will be managed as part of InCommon. eduroam will be available at SC2012 (Super Computing). Box.net service, Dell & HP cloud offering - not operational at the moment - but soon. Provisioning of accounts is problematic for Box.net but the initial offering of federated access will pave the way for deeper integration in the future.

- Norway** Deployment in airports have hit a snag because SSID broadcast options unavailable. IPv6 problematic because of lack of support on Cisco WiSM, 4400 and ASR 1009. Monitoring probes have been deferred in preference to eduDbg project at this point in time.
- Netherlands** Widening "eduroam spy" accounts for institutional users to test eduroam on their home campus which is visible to SURFnet. This has been tested and it discovered some problems related to proxies and DHCP not being configured on a guest VLAN.
- Italy** The clarification/removal of the "user identification of networks" requirement means that there is now fast growth in wifi deployments.
- Slovenia** There is a library specific roaming wifi service being deployed with eduroam being deployed in parallel to the library service. The government wifi service will also be deploying eduroam where the traffic will be routed to ARNES and it will be unfiltered and high speed. ARNES are piloting a quick deploy eduroam service.
- Finland** Attention has focused on eduroam CAT.

5. Date of Next Meeting

The next two meetings will be virtual meetings to be held in February and May with a physical meeting combined with TF-EMC2 in June/July.

Klaas also informed the group and particularly work item leaders that he has raised the topic of a "Best of Middleware Taskforces" session for TNC2012 and would be calling for input into that programme item.

6. Mobility and Network Middleware Activities

Stefan Winter presented an up date on the progress of the Configuration Automation Tool (<http://www.terena.org/activities/tf-mobility/meetings/25/bologna-cat.pdf>) a time-line on its wider deployment hasn't been finalised. Announcements will be made via the JRA3 project mailing list and the mobility mailing list.

Mark O'Leary was unable to attend the meeting but provided a document to start the discussion on widening participation of eduroam (<https://www.terena.org/mail-archives/mobility/docqJKbfwagOA.doc>) The discussion is summarised in Stefan Winters slides (<http://www.terena.org/activities/tf-mobility/meetings/25/bologna-betterplace.pdf>) with the "NREN Constituency" being a flexible realm that primarily targets research and education and negates the need for a parallel brand for non-R&E users.

Hideaki Goto presented the most recent iteration of their Delegate Authentication System (<http://www.terena.org/activities/tf-mobility/meetings/25/TF-MNM-25th-HGoto.pdf>) which now supports integration with GakuNin (the Japanese Identity Federation) for end-user enrolment in a "cloud" eduroam IdP. This decouples the eduroam SP and IdP roles as it is becoming increasingly popular for outsourced WiFi services in Japanese campus' there is no local RADIUS infrastructure to support an eduroam IdP.

7. Progress on work items**7.1 Standardisation process - Stefan Winter, RESTENA**

Stefan had nothing significant to report at this time.

7.2 Support for the development of the next generation eduroam - Stefan Winter, RESTENA

Stefan summarised the activities within this work item and within the GN3 project JRA3/T1 Roaming task that has already been presented during this meeting and the work currently planned for the final year of the project.

Gunnar Boe from UNINETT introduced eduDbg (http://www.terena.org/activities/tf-mobility/meetings/25/2011-11-09_edudbg_rev_PA1.pdf) which provides the facility for local sites to inspect the RADIUS logs at a national level and determine the root cause of a users roaming issue. Initial use of the tool has shown more than 70% of issues are due to user misconfiguration.

7.3 Liaison with GN3 & other initiatives - Licia Florio, TERENA

Licia had nothing significant to report at this time.

7.4 New mobile technologies - Klaas Wierenga, Cisco Systems

Klaas had nothing to report at this time.

7.5 Sensor and mesh networking - Kurt Bauman, SWITCH

Kurt was unable to attend the meeting.

8. AOB and Close

The meeting closed at 17:30.

9. Summary of Actions

Reference	Who	Action	Status
20110216-01	Klaas	Identify what series of equipment is capable of 802.1X-2010.	