

1st TF-ECS meeting

Amsterdam, October 2, 2006

Minutes of the meeting

Issue 1

Catalin Meirosu

1. Welcome and role call

Erik and Fabio welcomed the participants to the first TF-ECS meeting. The list of participants is included in Appendix 1.

2. Changes to the ToR

With respect to Work Item A, Catalin announced that he created a webpage dedicated to TF-ECS on the TERENA website. The tf-ecs mailing list was not ready yet.

Action 2-1. Catalin to arrange for the creation of the tf-ecs mailing list asap.

The existence of multiple mailing lists addressing the area of voice and video collaboration technology in the European NRENs was discussed. It was agreed to close the sip-bof-tnc list.

Action 2-2. Catalin to close the sip-bof-tnc mailing list.

Regarding the mailing list associated to the nrenum.net initiative, the consensus was to move all generic discussions to the tf-ecs mailing list while technical discussions should remain on the nrenum.net mailing list.

Work item B addresses the update of the IP Telephony Cookbook. Dimitris thought that depending on the work force actually available, the task force should decide whether to update the current content and add new sections, or just add new sections. The presentation form (book or website) is also important, because formatting is time consuming. Fabio regarded the IP Telephony Cookbook as more of a website rather than a book. Dimitris proposed to turn it into a wiki, which would help make it livelier. He considered the current form to be difficult to maintain. Fabio liked the formatting as a book. Dimitris thought that a wiki in the format of a book, following a Table of Contents would be more appropriate. It was agreed to set the deadline for the re-organisation of the Cookbook to May 2007 at TNC. Another deadline was defined at the end of the TF-ECS mandate. The discussion on how to update or add new content to the Cookbook was postponed for the afternoon of the meeting.

Action 2-3. Fabio to add the two deadlines for WI-B in the ToR document.

With respect to Work Item C, Fabio proposed to consider two deadlines: a State of the Art survey to be delivered for May 2007. Results from an updated survey would be delivered at the end of the TF-ECS mandate. Results from the original survey could be included in a presentation at TNC'07. Rui pointed out that it would be very helpful if he could have the information resulting from the survey as soon as possible. It was agreed to keep the two deadlines as proposed by Fabio.

Action 2.4. Fabio to add the two deadlines for WI-C in the ToR document.

Erik thought Work Item D could be finalised pretty fast. He proposed March 2007 as the deadline. Jan suggested to discuss these issues in parallel with the content of Work Item E. Erik agreed.

Action 2-5. Fabio to add the deadline for WI-D in the ToR document.

Jan considered that Work item E could deliver a basic overview in May 2007. He would lean towards using existing solutions, rather than inventing new ones. He also pointed out that this work depended on the outcome of Work Item D. Jan hoped that at TNC'07 we will have a list of issues to be covered by the task force, and reach an agreement on what to do further.

Olav asked whether the service specifications could be written in a form that would allow to be shown to people in the industry. In this way, maybe we would create a European push to vendors to develop open SIP products. Jan agreed to these comments.

Erik pointed out that specifications could be written in a form that would be useful for institutes when they buy equipment. He was aware of groups within the IETF there were working in a related area. TF-ECS could cooperate with these groups, and if we identify an area that we will solve in addition to current IETF work, we could write an RFC. It was agreed to establish a deadline for a deliverable from Work Item E in October 2007. Work Item F will have a deliverable at the end of the TF-ECS mandate.

Action 2-6. Fabio to add the deadline for WI-E and WI-F in the ToR document.

Olav asked whether TF-ECS should have some formal relation to the SIP.EDU initiative. Erik answered that some of the TF-ECS members will go to the Internet 2 meetings and they could formalise a relation between the activities if need be. SIP.EDU addresses issues within an institution, and TF-ECS looks at interconnecting institutions. Rui pointed out that, in Portugal, FCCN had a mandate to develop an architecture that was compatible with SIP.EDU. Fabio considered it important to have relations with both SIP.EDU and private vendors.

Erik presented SURFgroepen (www.surfgroepen.nl), the new collaboration platform being deployed at SURFnet. This is dedicated to online but non-real time collaboration. The “online” status from SURFgroepen can be seen in MSN Messenger. The SURFgroepen interface includes a Breeze environment. Several teams have been already defined – notably one for TF-ECS and another one for TERENA (as a SURFnet-connected institution).

Olav suggested including SIP collaboration tools by adding SIP URIs in the fields from the contact list. Marco remarked that he would prefer using collaboration tools that do not involve using an MCU, and he considered Breeze a good example of such tools. Fabio pointed out a problem with Breeze, in the fact that it is not SIP-enabled. But he considered Breeze a good tool for sharing documents and desktop.

It was agreed that in the first phases of the task force we would need to use both web-based (Breeze) and MCU-based tools for meetings.

3. Issues with SPIT prevention and peering with commercial providers – preliminary discussion related to Work Item E

Marco GARR is participating in the discussions finalized at the activation of VoIP peering, that currently are carried on at the two main Italian Internet Exchanges of Rome and Milan. At this time, however, discussions were still in the very early stages.

Erik thought we could help institutions by formulating the requirements to the carriers. And the carriers could help NRENs as well. An organization called Ecma was standardising the way of implementing SIP between a public area and an institution.

Jan said CESNET had two infrastructures: the old H323 with a gateway to an operator, and a SIP infrastructure – probably to become the main protocol since next year. About 40 gateways interconnect institutional PBXs. Now it’s more of a one-way, because they have configured ad-hoc peering with about 5 providers of VoIP but had no formal agreements – so the service was only for users directly connected to the SIP proxy. CESNET used a Cisco gatekeeper that did not support ENUM. CESNET plans to introduce a private zone that allows for interconnections between these VoIP providers. There seem to be a problem of trust on the operator side with respect to ENUM. Most of universities have PBX connected to gateways that register with the CESNET gatekeeper. There are plans to remove the gatekeeper, make the SIP proxy the main part of the infrastructure and push the universities to deploy their own SIP servers. Operators have closed networks – while the CESNET side is currently open. This would be also one step towards using the inter-NREN authentication infrastructure so that universities authorise their users to CESNET and they send the call to the operator – but Jan was not sure whether this would work, depending on the operator policy.

Rui reported that FCCN was already talking to the operators. In Portugal, the operators are going to bill each institution directly - FCCN would not buy or sell VoIP traffic to institutions. First phase of the project will use gateways so institutes will use RTP proxies.

Fabio described the SWITCH activities in trying to peer with operators via SIP. The operators did not see a business case for such deployment, because of not enough critical mass. SWITCH is considering offering a service to each student, which would provide a business case to the operators.

4. Work Item D – Requirements definitions for inter-NREN RTC peering

Erik suggested separating the peering topics in two categories: VoIP and enhanced services. For the VoIP there are specific issues that need to be handled with operators and legal departments. For the enhanced communication services we would have more freedom, as there are no regulatory frameworks in place.

Erik also proposed to divide the roles for VoIP in NRENs in four categories:

1. service provider = direct connection between carrier and an institution
2. provide IP and the carrier and institution exchange traffic over IP
3. as an NREN you have active control of calls – need switching box
4. building SIP.EDU centrally – the NREN is providing a service to end users

Fabio remarked that SWITCH had no plans to become a telecom operator for offering VoIP services because of the overhead associated to complying with regulations. Hence they were looking at ways to provide the services without becoming an operator. Erik thought such approach would also fit within the 2nd category, but we could introduce a 5th category that is a non-technical role.

Rui presented a list describing how voice services could be categorised by implementation:

1. VoIP inside NRN
 - Private numbering plan
 - Public numbering plan
2. PSTN gateways
 - Central service by NRN
 - Distributed by institutions
 1. Local
 2. 'roaming'
3. Interconnect to NRN's (peering, FW, SBC, proxy)
4. Internet SIP domains

Marco thought GARR falls within category 2 in Erik's classification. However, the role must be mainly an advisory role, while also providing orientation and coordination when needed (rare cases: GDS, nrenum.net). He thought GARR will never become a real VoIP provider because the overhead associated to legal constraints.

Fabio ran a quick poll, asking which of the NRENs in the meeting thought their network would want to become a VoIP operator. No NREN present wants to become a telephone operator, but Jan reported that CESNET's position would be somewhere in between.

Fabio asked everybody to position themselves in the 5 categories of Erik's classification. SWITCH would be in row 5. Marco said GARR will try to use public numbering as much as possible. As far as the contacts with PSTN were concerned, the infrastructure was completely decentralized. Rui asked if the traffic between institutions was large enough to justify the project. Marco answered that given that the cost is almost zero, the traffic was large enough. GARR pushed institutions to setup gateways by showing the advantages of this approach.

Olav considered UNINETT as category 6. They were providing a SIP server on a PC running Linux, plus configuration advice and guidance on ENUM. They would help with the negotiation with the PTT, but then NREN customers will buy directly from the PTT.

Rui reported that FCCN pursued this direction two years ago and got to nothing, but the situation in Portugal was different from Norway. About 5 institutions followed, two of them still had services after one year. FCCN's current approach was to convince the government it is useful for institutions and the government will look at the business case of reducing the telecom costs. FCCN was installing gateways at universities in order to make PBXs IP-enabled. Marco asked how can an external institution enter a university and install equipment. Rui said the government had to be involved in this. Jan said CESNET did the same in the beginning. Then the other universities saw the advantages and bought gateways of their own.

Olav spoke about the situation in Sweden. The result of a call for tender in telephony was that the best prices were obtained for ISDN with an extremely low price. Both Rui and Jan agreed that operators were likely to drop prices for academic customers to near zero once the NREN offered VoIP services. In such situation "enhanced communication services" would play an important role as a differentiation factor.

Fabio said SWITCH was discussing with a telecom operator just because of the gateway to PSTN. He thought all the enhanced services should be independent of the operator. Rui and Erik thought that all these services would eventually become of interest to the operator.

Rui thought that adoption of SIP could be fostered if each NREN would publicise a package containing step by step instructions on how to enable SIP in the institutions. Jan viewed SIP servers in universities becoming as ubiquitous as mail servers today.

Olav announced he was investigating on how to use the eduroam credentials for login onto SIP. He explained that he meant using one database to feed both eduroam and SIP authentication, even though the mechanisms for authentication were different. Jan

thought another point where eduroam could be useful is when the networks will be closed (e.g. firewalled heavily) to prevent SPIT.

Erik thought that eduroam would be useful only if one would want to provide solutions to end users – to logon to a central service. But in a roaming scenario for a foreign service, using a foreign proxy, this would be very difficult. Jan pointed out that this would depend on policy of the institutions. Luis said that in eduroam there was a policy to be signed by every NREN listing the services to be open to a visiting user. Erik thought these were general network roaming problems, and this is not something TF-ECS should or could solve.

5. Discussion on nrenum.net

Fabio would want to find an application that would help promoting ENUM. One idea from the audience was to use MCUs as such an application. Some MCUs don't have a PSTN connection (as the FCCN one, for example). Marco said they have this problem in Italy too – Italian GDS has two branches – a public branch starting with 0, and another one starting with 3 that was just for MCU and videoconferencing end systems. Until now, they did not connect to PSTN. However, now numbers starting with 3 were introduced as mobile phone numbers in Italy. They considered using ISN (ITAD Subscriber Numbers) to solve this. One other solution would be to replace 3 with 4 (reserved for private numbering). Bernie said that once the E164 ARPA is adopted in Italy, use of private numbers would no longer be a solution. Bernie advised people not to include non-E164 numbers in nrenum.net as this would lead to problems in the future.

With respect to the Erik's Requirements slide, Bernie asked what the meaning of routing was, and how was it different from identity. He mentioned the Open Settlement Protocol (OSP) initiative and recommended the task force should consider it. Rui and Erik agreed on this.

Olav defined identity to include authentication and encryption. For Jan, identity had two aspects: user to user and device to device.

Consensus: the task force will not be blocking H323, but this will get lower priority. Erik announced that the VIDE working group was reconsidering GDS. It would be good if the task force could actually give feedback and be involved in this initiative.

6. Update of the IP Telephony Cookbook

This is a follow-up of the earlier discussion included in section 2.

Fabio started the discussion by expressing his view that the IP Telephony Cookbook was too wide. He also felt that the current edition was more about generic information than about recipes.

Dimitris was part of the original team that wrote the IP telephony cookbook. He agreed that it could have been made more specific on implementation details. He was open to suggestions on reorganising the material, and perhaps removing sections that were out of date.

Section 1 – Introduction

The consensus was that this section needed to be re-written. Dimitris could take responsibility for re-writing it.

Chapter 2 – Technological Background

Marco thought it should be more focused on what was needed to get things working.

Fabio would not like a new telephony-only Cookbook. He felt we should add more on the practical aspect while also covering the activities of the taskforce. Catalin and Erik also considered that results of the work in the task force should be included.

Dimitris suggested we could rework the title, keep the information that we think it would be worth and add what we need as result of the activity of the task force.

Marco, Rui and Erik thought that there should be a new Cookbook.

Rui liked the title “IP Telephony Cookbook”. In a new book we could only include tools that are in production right now. Olav said UNINETT used “person to person communication” to describe this VoIP plus other collaboration technologies.

Dimitris suggested going offline over the ToC. This discussion could be continued on the mailing list.

Action 6-1. Dimitris to initiate a debate on the tf-ecs mailing list about the new ToC for the updated Cookbook

The format of the Cookbook was brought into discussion. Dimitris announced he found a tool to convert Docbook into wiki (named docbookwiki). He will post the details to the list. He will also check whether this tool was able to convert back from wiki to html or pdf formats.

Action 6-2. Dimitris to post the details of the Docbook to wiki converter to the tf-ecs mailing list.

Erik suggested that even if the new format chosen for the Cookbook will be a wiki, we should make sure that the printable how-to documents could be accessed in a printable form.

Action 6-3. Catalin to check with the TERENA sysadmin if a docbookwiki for the Cookbook could be hosted on TERENA’s premises.

Action 6-4. Erik to check whether access to a Docbookwiki could be tight up with the SURFgroepen accounts.

7. Overview on national activities.

A discussion on national activities already took place during the role call. Erik, Fabio and Rui proposed a classification of activities. A brief survey was conducted on the participants of the meeting.

Action 7-1. Erik to send to the mailing list the slides containing the classification of activities and results of the survey on the meeting participants.

Erik announced that a tool within SURFgroepen allowed conducting surveys. The task force will agree first on the list of questions (Fabio to send a draft around) and in the meantime follow up on how to conduct the survey.

Action 7-2. Fabio to circulate for discussion on the mailing list the draft set of questions for the survey

Action 7-3. Catalin to ask Andras whether Hungarnet's survey engine could be used for conducting the TF-ECS survey.

8. Next meetings

It was agreed to hold a weekly meeting, in a chat room on Breeze, every Wednesdays at 3pm. Participation will be on voluntary basis.

The next task force meeting: Dec 13th, 2006, by videoconference, starting at 2pm.

Appendix 1 – Attendees of the meeting

First Name	Last Name	Organisation
Bernie	Hoeneisen	SWITCH
Cătălin	Meiroşu	TERENA
Erik	Dobbelsteijn	SURFnet
Fabio	Vena	SWITCH
Geir Olav	Jensen	UNINETT
Jan	Ruzicka	CESNET
Joao	Pereira	FCCN
Luis	Guido	FCCN
Marco	Sommani	CNR-IIT
Marian	Durkovic	SANET
Olav	Kvittem	UNINETT
Antonio	Pinizzotto	CNR-IIT
Rui	Ribeiro	FCCN

Appendix 2 – Summary of action items

Action 2-1. Catalin to arrange for the creation of the tf-ecs mailing list asap.

Action 2-2. Catalin to close the sip-bof-tnc mailing list.

Action 2-3. Fabio to add the two deadlines for WI-B in the ToR document.

Action 2.4. Fabio to add the two deadlines for WI-C in the ToR document.

Action 2-5. Fabio to add the deadline for WI-D in the ToR document.

Action 2-6. Fabio to add the deadline for WI-E and WI-F in the ToR document.

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