

## The Tenth Silk Board Meeting

**Bishkek, Kyrgyzstan, October 31 – November 1, 2005**

### Order of Meetings

The general schedule had small meetings and the ExCo on Sunday afternoon (October 30), the Silk board Monday – Tuesday (October 31 – November 1) and an OCCASION meeting on Wednesday (November 2).

The Monday meetings were at the Kyrgyz Academy of Sciences. Other meetings were all at the hotel Issy-Kul where we were staying.

### **Sunday**      October 31, 2005 **15.00 – 18.00 Small meetings**

There are no minutes of the pre-meetings as they return in the minutes of the meeting. The subjects discussed and participants were:

**15.00: Silk-2 connectivity - Berezhev, Frese, Janz, Kirstein, Kvatadze, Navotny, Gajewski, Dewispelaere, van Linde**

**16.00: OSI Activity – Medet Tiulegenov, All ExCo members**

**17.00: Eurasiasat – Kirstein, Frese, Janz, Dewispelaere**

**17.30 Silk ExCo - All ExCo members, De Wispelaere, Van Linde**

### Silk Board Meeting

#### **Monday October 31**

#### **Session 0 9.30 – 10.00: Formal Opening of SB10**

The participants of the SB10 meeting were welcomed by the President of the Academy of Science, Prof. Jeyembaev. In his speech the President mentioned the fact that the Kyrgyz AoS has been an active partner in the NATO Science Programme for many years and also now, after the recent changes in government of the country, they are looking forward to a continuation of the cooperation.

#### **Session 1 10.00 – 13.00: Administrative Matters and Current Status**

##### **1. Welcome to Silk Board Members**

Kirstein welcomed the participants of the tenth Silk Board meeting.

##### **2. Acceptance of, or Changes to, the Agenda [Kirstein, [SB10--2](#)]**

No changes were suggested and the agenda was agreed as circulated.

##### **3. Introduction of Participants**

Afghanistan was not present at the meeting, due to visa problems. Dr. Askar Kutanov – a previous member of the Silk Board and Silk ExCo - was welcomed as special guest to the meeting.

##### **4. Minutes of Previous Meeting of SB9 in Almaty [Kirstein, [SB10-4](#)]**

The minutes of SB9 were agreed as circulated.

##### **5. Actions Arising from SB8 [Kirstein, [SB10-5](#)]**

**Action 4.18.2:** NRENs define Cisco E-learning sections that may be put in the CE

Not Done. As the Content Engines are out of order it was no use to start this activity

**Action 5.24.5:** Aliyev present a summary of the Distance Education workshop.

Done

**Action 6.28:** Frese send VoIP statistics on the use of the DESY system to Kirstein

Not Done

**Action 8.6.3:** Berezhev prepare a detailed proposal for an upgrade of the central router.

Not Done

**Action 9.6.1:** Silk NOC staff go to Kabul for repair of the dish equipment.

Done, although in the end it was the UzSciNet staff who solved the problem.

**Action 9.6.2:** Frese implement procedure to solve export ban.

Done – No result yes

**Action 9.6.3:** DESY staff upgrade CEs.

Not Done – depends on 9.6.2

**Action 9.7.1:** Berezhev make a template with the subjects where information with regard to national providers is requested

Done. Berezhev has sent the template to the NREN representatives.

**Action 9.7.2:** The NRENs write report based on questions in template.

Not Done, This will be required early in OCCASION as a Deliverable, so it should be done before SB-11

**Action 9.7.3:** The Silk ExCo (together with MSU) analyse the results of the reports

Not Done – depends on 9.7.2

**Action 9.8:** Berezhev obtain possible reference sites for EXPRES.

Not Done – Overtaken by events

**Action 9.9:** Hans Frese provide testing scheme, transition plan and contractual review for approval of Silk ExCo.

Not Done – Overtaken by events

**Action 9.15:** Janz initiate a DE working group (charter, chairman, etc.)

Not Done, a template was sent to the organisers of the DE workshop in Almaty, but no feedback has been received yet.

**Action 9.17:** Kirstein inform what Cisco might be able to do with respect to support for additional security equipment.

Done – Overtaken by events

**Action 9.18:** Janz publish workshop reports on the web and send formal report to ISOC.

Not Done

**Action 9.19:** All NRENs provide names of contacts to be sent details of IPv6 training material.

Not Done by most

**Action 9.21:** Kirstein distribute VoIP report and initiate VoIP working group.

Partially Done. VoIP report circulated; VoIP WG waiting for OCCASION

**Action 9.23:** Janz produce impact analysis of Silk project

Done, an overview of the first draft will be presented during the SB0 meeting.

**Action 9.27:** All NRENs update the information on the TERENA NREN compendium web site.

Done by most.

## 6. Status Report on Current Installations

- **Reports from the NRENs [Janz, [SB10-6.1](#)]**

The NRENs have sent their reports to Robert Janz. This information is being gathered in a report called "Impact of the Silk project" that will be discussed later during the meeting.

- **Outstanding Problems and planned solutions [Frese]**

A new Paradise BUC has arrived in Hamburg and will be shipped to Almaty as soon as possible. Two new BUCs will be ordered and used to replace the BUCs in Georgia and Armenia. Once these BUCs have replaced the BUC in Ashgabat will also have to be replaced. After this replacement all currently known BUC problems should be solved.

- **Current bandwidth and load statistics [Berezhnev, [SB8-6.2](#)]**

Berezhnev presented an overview of current bandwidth distribution and load of the system. Although it is quite clear that the amount of bandwidth is insufficient for the demand, the system itself has proven to be rather stable.

- **Feedback on current experiences [SB NREN members]**

The NRENs did not give any specific feedback on this issue.

- **Current status of caching and the Content Engine [Kirstein]**

The situation with regard to the Content Engines has not changed since the previous meeting: due to US export restrictions the new software release may not be implemented yet in the Silk countries. As a result the Content Engines are idle in all countries.

**Action 10.6:** Kirstein discuss the hub Cisco problem with Jane Butler and try to find a solution.

## 7. Review of Silk-1 and its lessons for Silk-2

### Session 2 14.00 – 13.00 Preparation for Silk-2

#### 8. Status Report on Current Negotiations on Silk-2 [Kirstein, Frese]

Kirstein reported that the progress in selecting a provider for the next phase of Silk is going very slowly. The Russian provider proposed during the SB9 meeting did not get approval from NATO. The formal standpoint of NATO is that the NATO budget may be spent only in one of the NATO countries, thus excluding a Russian provider. Further NATO regulations require a formal tender procedure. Therefore NC3A, a NATO agency dealing with acquisition procedures, has been asked to prepare a formal NATO tender. A RFP has been sent out to various satellite providers. In November there will be a bidders meeting in Brussels. A choice of provider (with a signed contract) is not expected before March 2006, meaning that the satellite connection will not be operating before July 2006. NATO has offered to pay for the prolonged Silk-1 connectivity via EurasiaSat at the same bandwidth level as now. The budget reserved for the Silk-2 period will stay intact until a new provider is selected.

It is clear that this new delay damages the esteem Silk has in the various countries. Potential external parties that might want to pay for extra bandwidth have to be kept waiting and might go to other providers if the current unclear situation continues.

#### 9. Investigation of technical alternatives for 2005-2007 [Frese [SB10-9](#)]

Frese reported that fibre optic is the only reasonable technical alternative to satellite connectivity. Over the last few years the price of fibre optic connectivity has gone down by approximately 50%, but is still more expensive than satellite connectivity in most Silk countries. A common price is \$ 3000,- per Mbps/month (symmetrical). In the Caucasian countries the price is considerably lower, in the range of \$ 1000,- to \$ 1200,- per Mbps/month. Therefore the Azeri representative (Aliev) asked the chair to reconsider the standpoint that for Silk-2 only one contract covering all countries will be considered. It would be more cost effective if countries that have cheap fibre optic services at their disposal were allowed to use their proportion of the Silk-2 budget for this alternative. Kirstein responded that it is a NATO decision that the budget be spent in one contact for all the Silk countries. It would require a change of the project proposal, with all the related bureaucracy, to change this. The question might arise as a result of the responses to the tender, but Kirstein was unwilling to raise it again with NATO until that time.

#### **10. Policy on Subsidisation of communications during rest of Silk-1 [Frese]**

At this moment Silk is using 18 MHz in total, 13 MHz of which is being provided for free to the NRENs and 5 MHz is being paid for by NRENs at 50% of the price. None of the NRENs are paying the full price for bandwidth. The subsidisation policy will gradually increase the 50% part at the cost of the free part of the bandwidth. Frese suggested that the subsidisation policy for the remainder of Silk-1 should stay unchanged. It would be unfair to impose a decrease of subsidisation with the current high prices of EurasiaSat. The next change of policy should be at the moment that the NRENs switch to a new provider. The appropriate subsidisation policy will be discussed first in the ExCo and then at a Silk Board meeting.

#### **11. Communications Bandwidth Distribution for the remainder of Silk-1**

The distribution of bandwidth will remain unchanged until the end of the current contract with EurasiaSat.

- **Co-funding [Frese]**

Co-funding of the bandwidth is coming from the Video Conferencing grant in the Caucasus countries. There are no other co-funding partners at this moment, although several parties might be interested if the new contract had reasonable bandwidth tariffs.

- **Videoconferencing and VoIP [Frese]**

At the previous Networking Panel meeting a NIG proposal for videoconferencing systems in Central Asia was submitted. This proposal has been approved but is still under consideration by NATO. If this grant is awarded then all the Silk NRENs will have a videoconferencing system at their disposal. It is explicitly part of the OCCASION project that this facility will be put to use for personal communication purposes. In order facilitate this application the remote NOCs should be upgraded, enabling a flexible allocation of dedicated bandwidth for videoconferencing. As long as the Silk-2 provider is not known, this upgrade can not take place; the equipment that is to be used may depend on the provider selected.

- **IPv6 [Kirstein]**

There is no requirement for further work under SPONGE, therefore no bandwidth needs to be allocated for this cause. None of the Silk countries have plans to continue IPv6 pilots at present.

#### **12. The funding prospects**

- **NATO [Dewispelaere, Frese]**

NATO's position has already been discussed: they will pay for the bandwidth for the remainder of Silk-1 and they have reserved budget (k€ 800 ??) for Silk-2.

- **OSI [Tiulegenov]**

OSI is already supporting IT projects in various countries (Am, AZ, Ge, Kg, Tj) and is considering how to provide budget for Uz. Any OSI support for extra Silk connectivity will have to come from the countries themselves through the OSI grants already in place. In some cases OSI Budapest can provide regional support, as is the case of the support of some SB-meetings.

- **University of the Mountains [????]**

The University of the Mountains will need connectivity to their remote campuses starting the mid of 2006. They would like to receive a concrete offer

- **World Bank [Bunchuk]**

The World Bank interest in Silk connectivity has completely vanished. There has been little to no communication with World Bank representatives since the beginning of 2005.

- **Cisco [Kirstein]**

Cisco is willing to support the NRENs with equipment for wireless projects and upgrade of the Cisco equipment of the NRENs. Kirstein will discuss with Cisco the potential of obtaining equipment for the upgrade of the DESY NOC, The current equipment is becoming outdated and is reaching the end of the technical life cycle.

- **The NRENs**

**Kz expects** that its parliament will provide budget for NREN activities, including international connectivity. He hopes that after 2007, government funding will be available and that KAZRENA will be sustainable by 2008. KAZRENA is further investigating the possibility of participating with IT vendors in testing activities in return for equipment or support of connectivity costs.

**Am expects** to receive funding from OSI. This might partly be used for extra bandwidth.

**Uz is striving** for sustainability, including budget for connectivity. They hope to be able to buy extra bandwidth in Silk-2, but this clearly depends on the tariffs.

**Az is trying** to get involved in a M\$1.3 project for school content. If this succeeds then they will be able to buy extra bandwidth, although it is not likely that they will use satellite connectivity (given the price difference).

**Kg receives** no government funds and is totally dependant on fees from universities and institutes and from project budget such as Silk. It will be difficult to extract more budget from the universities, as the economical situation in Kyrgyzstan is worsening.

**Tm hopes** to receive more support from government but there are no concrete plans for such at the moment.

### **13. Current Status of OCCASION Project [Kirstein]**

The EU is still considering formal approval of the OCCASION project. The problem at this moment is that the EU still has to decide on which NRENs are allowed to take part in the project as formal partners and which countries may only participate through one of the partners. This approval has proven to be a very bureaucratic process that is taking longer than expected. Despite the delay in formal approval the project started on November 1 2005. Since the meeting, the financial (CPF) and technical (Description of Work, v21) have been approved; while there is money for Turkmenistan and Uzbekistan, they cannot be full partners. The reason for TM is that they cannot have bank accounts; the reason for Uz is a recent decision vis a vis Uzbekistan because of the events in May.

The OCCASION project is obliged to setup and facilitate user groups as one of the activities. Therefore we have put a separate agenda point dealing with this issue SB10.

### **14. NREN Reactions to Silk-2 Plans**

Japarov thanked Kirstein for all the work he has put into prolonging the Silk project and continuation of SPONGE into OCCASION.

## Tuesday November 1

### **Session 3 14.00 – 18.30: Distance Education, Training and Technical**

#### **15. Progress on Distance Education (DE)**

Japarov gave a summary of the Distance Education workshop that had taken place the week before the SB10-meeting in Almaty. More than 130 people attended the workshop, proving the growing interest there is for DE. A working group has been formed that will make an inventory of the requirements for DE. Janz has produced a draft charter for such a work group.

Schaumburg adds to this that of the Silk countries only Az, Kz and Tm have proven to be willing to invest in DE and ICT. His university (Technical University of Hamburg-Harburg) has been active in the region for many years and he finds it extremely difficult to get sustainable programmes running.

Kvatadze reports that a new initiative has started in the Caucasus region: the e-Caucasus project. As far as he can see, this project will be mainly directed at strengthening the knowledge infrastructure in the governmental organisations. He has no concrete information about the project, but suggests that a representative of the project management be invited to the next Silk Board meeting. (Since SB10, Kirstein has had a long discussion with Egon Fleischer (<http://www.uhlberg-advisory.de/kontakt/>), who directs the project. They will be providing an outline plan to the EC in the middle of December. Kirstein has sent him the SPONGE 3<sup>rd</sup> Annual Report, and they plan to have a joint meeting in Tbilisi during SB-11).

Gajewski reports on a seemingly successful DE project in the field of technical education called the Virtual Physics Laboratory (VPL). The VPL is an open source initiative providing DE material in the domain of physics. There are many sites all over the world and it might be interesting material for Silk content.

After these introductions a lengthy discussion evolved on the subject of sustainable DE activities. One of the main conclusions was that in the most cases the introduction of DE is a technology driven process. A radical change of the educational process itself is necessary if DE is to become sustainable. It is questionable if the Silk Board representatives are the correct people to initiate such changes.

The conclusion of the discussion was that there is certainly need of a concerted approach to DE initiatives in the Silk environment. Japarov has agreed to be a contact point for a working group in this area.

#### **16. Interaction with and role of Cisco Academies**

There are Cisco academies in all Silk countries, except for Tm and Af. In the countries with a Cisco Academy there is not always a clear relationship with the Silk NOC in that country. Gajewski gave an overview of what is required to set up a Cisco Academy and urged the NRENs that do not have their own or a liaison with an Academy to start their own. The NATO panel encourages involvement in Cisco Academies and are positive towards grant proposals in this domain. It seems that there are various issues that prevent NRENs from starting such an institute.

**Action point 10.16:** Gajewski will produce a list of outstanding issues with regard to Cisco Academies

#### **17. Progress on Workshops during Silk-2**

Workshops and training will also be important during the Silk-2 phase. Some funding of such activities will be available from the OCCASION project, additional funding

might be available from ISOC (if a project proposal is sent to them). An inventory of subjects for workshops resulted in the following:

- **In depth DE**
- **IP MPLS networking**
- **Sustainable development of NRENs**
- **NREN cook book**
- **Video conferencing**
- **Traffic monitoring**
- **IPv6 (if financed by EU)**
- **Video conferencing**

**Action 10.17:** Janz will produce a document with an Education Plan (incl. costs).

### **18. Possible technical activities**

Nothing was discussed under this point. It will be discussed in OCCASION meetings

## **Session 4 14.00 – 18.00: Future Plans**

### **19. The SPONGE Review Report and moves to sustainability [Kirstein, SB10-23]**

#### **20. The organization of technical activities and meetings in Silk-2**

- **Local Registries.**

Setting up Silk and National IP Registration Authorities Az, Ge, Kg and Uz have their own local registry, the others are dependent on DESY for their Autonomous System. The chair does not think it is fair that the Silk Board continues to pay for the AS these countries. The Silk Board supports this.

**Action point 10.20.1:** Am, Kz, Tj, Tm (and Af?) should have their own AS before the next Silk Board meeting.

- **Silk CERTs**

CERTs are not available yet in the Silk countries. Van Linde says that the creation of CERTs with the academic domain is very important and will certainly receive support from the Panel. After some discussion of what should be expected from such a CERT it was decided that a NIG should be prepared aiming at the creation of CERTs in all of the Silk countries.

**Action point 10.20.2:** Gajewski produce a NIG proposal for investment and support of CERTs in the Silk countries.

- **Videoconferencing**

The Tanberg H.323 videoconferencing units for the Caucasus are just being shipped. A proposal for the same equipment in Central Asia was prepared at the SB meeting. (since the meeting, that proposal has been received by the Panel, and has apparently been approved). As soon as the VC sets are in place actual use of the infrastructure can commence.

### **21. General Discussion**

All that was needed had been discussed.

### **22. Future Meetings Structure**

It was agreed on that the frequency of Silk Board meetings should stay at three times per year, and the meetings should coincide with the OCCASION meetings. Now a meeting consists of half a day pre-meeting, two days SB meeting and one day SPONGE and related issues. SPONGE will become OCCASION after this meeting. The balance between the SB and OCCASION might change slightly as most of the working group issues will move to OCCASION, but a three and a half day time will still be necessary.

**23. Future Meetings Calendar**

SB11: Tbilisi (Ge), March 12-15, 2006

SB12 Baku (Az), June 26-28, 2006

SB13 Tashkent (Uz), October 2006

**24. Any Other Business**

None

## Action Points

**Action 4.18.2:** NRENs define Cisco E-learning sections that may be put in the CE  
**Not Done.** As the Content Engines are out of order it was no use to start this activity

**Action 6.28:** Frese send VoIP statistics on the use of the DESY system to Kirstein

**Action 8.6.3:** Berezhnev prepare a detailed proposal for an upgrade of the central router.

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**Action 10.20.2:** Gajewski produce a NIG proposal for investments and support of CERTs in the Silk countries.

**Attendees**ExCo

C. De Wispelaere - NATO  
 H. Frese  
 J. Gajewski  
 P. Kirstein  
 R. Janz  
 S. Berezhnev

Guests

A. Aldashev	- Kyrgyz Ministry of Education
A. Jainakov	- Kyrgyz Academy of Science
A. Kirienko	- U of Central Asia
A. Kutanov	- KRENA
E. Zabelinskay	- UZScinet
H. Schaumburg	- Hamburg TU
H. van Linde	- NATO Networking Panel
I. Altunbulduk	- Eurasiasat
M. Tiulegenov	- OSI
N. Aysin	- Eurasiasat
P. Bajaj	- U of Central Asia
V. Navotny	- UNDP, UZ

**NRENS**

G. Babayan	- Armenia
E. Aliev	- Azerbaijan
R. Kvatadze	- Georgia
B. Japarov	- Kazakhstan
K. Karabukaev	- Kyrgyz Republic
K. Sadykov	- Tajikistan
C. Amansakhatov	- Turkmenistan
E. Zabelinskay	- Uzbekistan