

**Silk News Letter**  
**Issue 10**  
**May 2004**

### **1. Introduction**

The Silk News Letter is an electronic news bulletin with an update on current issues regarding the Virtual Silk Highway project. The news bulletin first becomes available in English and within a few days a Russian translation is distributed. Older versions of the Silk News Letter can be obtained from the Silk web site: [www.silkproject.org](http://www.silkproject.org)

### **2. Status of Silk sites**

All of the Silk countries have operational satellite links. Not all of the hardware problems have been solved yet, but the faulty equipment does not interfere with the operational needs of this moments. It is expected that all the malfunctioning equipment will be replaced before the summer period. The current bandwidth provision is as follows:

Total West to East: 17.74 Mbps (countries have equal Committed Information Rates)

East to West channels:

Armenia: 512 kbps

Azerbaijan: 320 kbps

Georgia: 1056 kbps

Kazakhstan: 384 kbps

Kyrgyz Republic: 640 kbps

Tajikistan: 256 kbps

Turkmenistan: 128 kbps

Uzbekistan: 800 kbps

### **3. Afghanistan**

In April Walter Kaffenberger (NATO) visited Kabul for the first time in preparation of the installation of a Silk satellite dish. Contacts with the local academic community have been established and the shipment of the necessary equipment for the Silk hub has been initiated. If all goes well the ninth Silk hub will be operational by the end of June.

### **4. Silk Board news**

On May 14 and 15 the Silk Board met in Ashgabat (Turkmenistan) for their sixth meeting. This was the second meeting of 2004 (the first one was in Antalya in February). The Turkmen NREN hosted the meeting (and the meeting of the NATO Networking Panel that took place two days later) and demonstrated the hospitality and professional organising abilities of Turkmenistan. The meeting was supported with a grant from OSI. As the current funding of the Silk project terminates over 14 months, continuation of the project was one of the most important issues of the Silk Board meeting. At the moment the satellite connectivity is for the whole dependent on NATO funding and there is no reason to expect this funding level to continue after the end of the project. Even if this were the case the current connectivity is by no means enough to provide the bandwidth that is necessary. So the Silk Board faces not only the challenge of finding budget for continuation of the current bandwidth level, but also of finding budget for extra bandwidth. Several strategies were discussed ranging from generating local (i.e. national) funding, lowering the cost of satellite bandwidth, moving to other technology (i.e. terrestrial lines), attracting additional donors and educational programmes that might pay for their bandwidth. These ideas will be worked out in more detail during the coming months and be on the agenda of the next Silk Board meeting in the fall. The first Silk NREN to buy extra Silk bandwidth with budget from a new donor is UzSciNet (Uzbekistan):

IREX will make use of the Silk infrastructure for their projects and pay for extra bandwidth starting June 1 2004. The Silk Board hopes that other such contracts will follow.

### **5. Training programme**

ISOC has provided the Silk Board with a generous grant that enables the Silk Board to set up an intensive educational programme for the Silk NREN staffs. The coming months there will be workshops in Yerevan(Security), Hamburg (IPv6), Budapest (Wireless) Baku (Distance Education), Dushanbe (Network management and monitoring) and Almaty (ccTLD and LIR). These workshops are made possible by the ISOC grant and support from other donors such as NATO. Detailed information of the intended workshops may be found on the Silk web site ([www.silkproject.org](http://www.silkproject.org)).

Besides the workshops the ISOC grant provides budget for training of inexperienced NREN staff members at other Silk NREN sites. A first training of Turkmen NREN staff members at the Uzbek NREN is currently in preparation.

### **6. Terrestrial connectivity**

As mentioned earlier terrestrial connectivity is one of the alternatives the Silk Board is looking into. The Silk project is currently making use of satellite connectivity but it is not foreseen that this technology will last forever. First it expected that the bandwidth needs of the Silk countries will exceed the technical possibilities of satellite technology. Second, as the global fibre optic infrastructure expands, affordable terrestrial connectivity will come within reach of the Silk countries, at first in the Caucasus region. Therefore the Silk Board has started to investigate the possibilities of terrestrial connectivity. A report will be on the table at the next Silk Board meeting.

### **7. Silk and Video conferencing**

The Silk infrastructure is being more and more used for video-conferencing. Not only have several tests successfully been conducted, but video-conferencing is actually being used for communication in joint projects. Video-conferencing over Silk was demonstrated at the Hannover Messe (the largest ICT exhibition in Europe). At the official inauguration of the Silk project in Turkmenistan a video-conference was organised between Ashgabat and Brussels. Further the Kyrgyz NREN has reported that video-conferencing is used in a joint project with a German university. The Silk Board is considering to reserve Silk bandwidth for video-conferencing.

### **8. Silk and IPv6**

During the technical workshop that was held in Tashkent in October 2003 Silk technicians expressed the wish to start getting experience with IPv6. As a result several IPv6 activities have been initiated. First a workshop will be held on this subject (see above). Further the Silk infrastructure will be used for IPv6 pilot studies. One pilot concerns directing IPv6 traffic over a satellite connection. The pilot will be done in a joint project with ESA (European Space Agency and IABG. In a second pilot the Silk infrastructure will be used as extension of the EU funded 6Net project (piloting IPv6 applications in academic networks). More details of these projects will be presented on the Silk web site.

### **9. NSRC grant**

The NSRC (Network Startup Resource Centre) has supported the Silk NRENs with significant grant of books and wireless equipment.

**10. Venues and dates** next Silk Board meetings have been decided on:  
September 2004, Dushanbe, Tajikistan

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