

A Demonstration of Video Conferencing over the SILK Virtual Highway to the World Bank

in cooperation with Tandberg

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Aim

There are two aims of the demonstration:

- To demonstrate the feasibility to conduct videoconferences over the bandwidth made available to NRENs in Caucasus and Central Asia via the satellite links and connected networks provided by the Virtual SILK Highway project (the SILK project).
- To demonstrate that the quality of the videoconferencing equipment, when connected over IP, meets the quality required by the World Bank in a meeting room environment..

Technical Responsibility and Participating Sites

The technical management group responsible for the SILK project will be responsible also for the Tandberg kit. This group is located at DESY (Deutsches Elektronen-Synchrotron) in Hamburg, Germany. The Tandberg system 2500 located at DESY will be connected, through the normal SILK satellite network, with Tandberg equipment in two locations: one will be sited in Tbilisi, Georgia, located within the Georgian GRENA. NREN; the second will be located in the Institute of Management Studies in Bishkek, Kyrgistan. DESY will employ their MCU in Hamburg to connect compatible equipment at DESY and the World Bank Washington location for the tele-conference. The World Bank will be responsible for the Washington site and DESY for their site.

DESY will be the formal receiver of the leased/loaned equipment, and will arrange for shipping and installation of the equipment at the remote sites.

Existing Technology Strengths

DESY have both the equipment and the expertise to measure the transmission quality, losses etc. and to do remote control over the network. DESY is connected to the international Internet via the Deutsche Forschungsnetz and the European gigabit network GEANT. DESY also owns Tandberg 2500 equipment, and is well-acquainted with it in-built multiplexing capability.

The Tandberg terminal equipment that will be located in the SILK countries will be leased/loaned for a period of three months. It is intended that the project will be initiated should as soon as possible thereafter – bearing in mind World Bank administrative procedures.

The SILK project have, through DESY, technical support arrangements with the established NREN operations at the receiving sites, and will be responsible for handling fault or maintenance situations through these arrangements. DESY would depend on local support from the equipment manufacturer, if necessary.

Communications Facilities

The DESY technical management group will ensure that at least 2 Mbps IP bit rate (duplex) can be made available between each Eastern SILK partner and the DESY MCU hub through the SILK Virtual Highway. Similar bit rates will be available between the World Bank site and DESY through the concatenation of the National Research and Education Networks, GEANT and the Internet.

The Demonstrations

The demonstrations will consist of four-way sessions using video, audio and (if compatible) shared workspace. The quality will be assessed by the World Bank in comparison with its customary ISDN usage of its facilities. DESY and the SILK countries will be running all Tandberg, so that there full range of facilities can be exercised. We do not yet know what equipment is available in the World Bank premises.

At a later stage, but still within the period of the loan, we expect to do further tests with UCL added. UCL has a 12-way MCU – but based on Polycom equipment.

Expected Outcome

The project is a feasibility study of the technologies employed, and will be judged by a qualitative evaluation of the demo. When a decision is reached on the use of the technologies, the World Bank will use its normal procurement process for equipment.

The SILK project would be happy to demonstrate further the equipment to interested parties in Tbilisi and Bishkek. Such demonstrations would be franged with the local site teams.