

OCCASION

Periodic Progress Report Number: 1 Period: 11.2005 - 2.2006

IST-026546

Organising Caucasus and Central Asian Internet Offerings to NRENs OCCASION

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Date:

10 March 2006

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1 OVERVIEW

2 TECHNICAL ACHIEVEMENT

WP 1 - OCCASION Project Management

This part of the project has taken an unusual amount of effort during this first quarter of the project. The Description of Work (DoW) had been agreed with the Project Officer (PO), of course, before the November 1 start of the project. However due to circumstances that had nothing to do with this project, the Final Review of the previous SPONGE project took place only on November 15; this final SPONGE review provided significant input for the expectations of the EU with regard to the output of the OCCASION project. During and after that Project Review, its reviewers argued that the key activity of any EC-funded activity related to the Silk NRENs should concentrate on efforts to achieve the sustainability of the Silk NRENs. This was only an incidental objective in SPONGE, but both the SPONGE reviewers and the PO insisted that this activity be given considerably more prominence in OCCASION. In addition they recommended a number of serious modifications – like suggesting that there be no pre-financing, and that Silk NRENs lead more of the work. The DoW had to be substantially revised to reflect the change of emphasis and some of the other recommendations; others required negotiations with the EC, since they would have made the project unworkable.

It is probable that the change in emphasis will be reflected in the future by requesting shifting of funds between activities in the project – and even shifting of funds between partners. This is because the change of emphasis will require more effort in the NRENs; we may request the shifting of some funds between equipment for the Silk NRENs provided by DESY and effort in the Silk countries themselves.

In addition to the above, there had to be a change in the composition of the Consortium. It turned out that Turkmenistan (TM) organisations are not allowed to hold external bank accounts; this made it difficult to meet the normal financial administrative procedures for the TURENA partner. The political situation in Uzbekistan has led the European Commission to suspend new formal contracts with that country; for that reason they also had to be dropped as an OCCASION partner. Thus only six of the nine Silk NRENs remain formal partners. Three are in the Caucasus: ARENA (AM), GRENA (GE) and AZRENA (AZ); there are three in Central Asia: KAZRENA (KZ), AKNET-KRENA (KG) and TARENA (TJ). In addition, some funds will be used to support the OCCASION objectives for three other NRENs: AFRENA (AF), TURENA (TM), UZSCINET (UZ). The first of these does not exist yet, and there are independent NATO funds to deal with most of the provisions for Afghanistan. The only use of EC funds will be to pay for one of their delegates to attend Silk Board meetings.

It took until November/December to accumulate all the documents required by the EC to accept the above six partners as valid entities. As a result, a formal offer of contract was received by the Coordinator only at the end of January. By the end of the first quarter (QR1), the contract had not even been returned to the Commission, let alone the Accession Forms received by the Coordinator. Obviously no pre-financing had been received; indeed that is not now expected until some time in March 2006.

There were several impacts from this delay. First, it was impractical for the Silk NREN partners to finance their attendance at the OCCASION kick-off meeting at the beginning of November; thus their expenses had to be met by one of the Western partners (RUG), and the official funding distribution in the Contract Preparation Form (CPF) written to reflect this change from the original concept. Second, it caused significant delay in some of the partners being able to devote resources to the project. We have received Quarterly Reports from most of the OCCASION partners; a recurrent theme is the delay that the absence of funding has caused in their being able to put in effort. We will be able to gauge more accurately the impact of this delay only during the next OCCASION Project Management meeting (OPM) in March.

In the absence of a formal contract, the OCCASION partners decided to remain with the Silk management structure until the next OCCASION OPM. Thus the OCCASION management has been exercised through the Silk Executive Committee (SEC), which has one representative from each of the Silk/OCCASION regions.

WP 2 - Silk Project Management and Information Services

Here the project has three tasks:

- A2.1 Silk Project Management
- A2.2 Transition Strategy Liaison with Current and Potential Funders
- A2.3 Information and Web Services

A2.1 Silk Project Management

The OCCASION Q1 started with the ending of the SPONGE project with the SB10 meeting and the kick-off of OCCASION. The minutes of the SB10 meeting were written and distributed. They are provided as an Annex to this meeting.

There have been Silk ExCo teleconferences nearly every week. Minutes of the meetings have been kept and distributed.

In January the preparation of the SB11 meeting in Tbilisi (Georgia) commenced. The meeting will be held from March 12 – March 16, in combination with the OCCASION meeting.

Just before the start of the OCCASION project, it became clear that it would be necessary to have a formal NATO tender for the next phase of the Silk communications, which we call Silk-2. In preparation for that tender, we held a bidders' meeting on November 16 – which recommended that the tender be written in such a way that both satellite and terrestrial solutions could be offered. This recommendation was accepted by NATO, and the management team of DESY and UCL started work with NATO NC3A to produce the tender documents. In view of the delays envisaged in the provision of Silk-2, the current contract with Eurasiasat has been extended until the end of June. It is expected to have to be extended for a further quarter.

The Silk NRENs are continuing the upgrade of their networks. Many gave a detailed description of their current network; these will be aggregated and summarised in an OCCASION Deliverable.

AZRENA has a very extensive network with international connections both by fibre and the current Silk satellite. The fibre has a guaranteed throughput of 3 Mbps, but could be increased to 24 Mbps. It connects in 15 universities in Baku and 2 in the regions. In all there are some 40 institutions in three cities – including a substantial number of schools. They claim 35,000 users.

During this quarter, GRENA gave a status report on their system; it now covers nine cities, and 200 institutes via cable wireless, DSL and dial-up. They think that they have 25,000 users. They currently have two providers: Silk gives them 4000/1056 Kbps down/up CIR from Silk, and 4000/1500 Kbps fibre from Turk-Telecom.

TARENA reported on their transitioning to fibre and DSL for their NREN. They currently have 3 institutes connect by wire and 25 by wireless – all in Dushanbe. Four new members of TARENA were been accepted on recent three month. They now have more than 4700 users. Their external bandwidth has a CIR of 1780/368 Kbps down/up.

TURENA mentioned the current status of their network. They currently have 14 institutes connected – all Ashkebad.

UZSCINET is particularly advanced with an international Committed Information Rate (CIR) of 4235/256 Kbps down/up bandwidth from Silk and 256/2048 down/up bandwidth from "UzbekTelekom". They are investigating various options for purchasing additional bandwidth. They have currently connected in more than 250 corporate users on technology ADSL and Radio-Ethernet, and support more than 2000 logins/month for dial-up users with a received traffic of more than 1.5 TB of received data.

A2.2 Transition Strategy Liaison with Current and Potential Funders

To achieve a common understanding between the principal funders on the transition strategy to be adopted, on January 24 there was a meeting between the OCCASION project team (Frese, Janz, Kirstein), the NATO Science Programme director (Dewispelaere) and the EU project officer for OCCASION (Fabianek). The main subject of the meeting was synchronisation of the objectives of OCCASION and the NATO Science Programme – with the view of working towards a longer term sustainable strategy for the Silk NRENs.

There has been an initial discussion between Kirstein (PK) and West (DANTE) about similarities between developments in the Silk countries and the Balkan/Mediterranean ones. PK agreed to invite West to a future

OCCASION meeting. The need to start discussion on this issue has been communicated to the Silk NRENs. A number of the NRENs have been preparing status reports on their networks, and compiling barriers to their long-term sustainability. Thus GRENA mentions the extremely high prices for renting of communication infrastructure in Georgia due to the monopoly situation there. Almost all infrastructure in Tbilisi and in other cities belongs to the United Telecom of Georgia and they increased prices for their services by 200% in July 2005. Fiber optic connection between cities is currently provided only by the Fiber-Optic Telecommunication Network – Foptnet; their prices are a factor of 10 higher than the European ones.

A2.3 Information and Web Services

There has been a start on the design of the addition of the OCCASION web site to the Silk and SPONGE ones. We will take the opportunity to re-design the web site.

WP 3 – Network Management

Here the project has three tasks:

- A3.1 The Silk Network Operations Centre (SNOC)
- A3.2 Bandwidth adjustment for specific user communities and application
- A3.3 Caching configuration

A3.1 The Silk Network Operations Centre (SNOC)

There have been successful tests between the spare stations at DESY and the EXPRESS satellite. These indicate that there would be no technical problem in using that satellite. However, in view of the NATO stance on the use of that satellite, the tests have been discontinued.

NATO NC3A suggested that use of a pair of compressors will significantly improve the throughput of a satellite channel because of the regularity of the bit patterns. One pair of such compressors has been purchased, and early tests indicate a 20% gain in performance. This gain is independent of the communications channel used. For this reason, we have decided to purchase more of these compressors, and start tests with one of the NRENs over the satellite channel. The units cost about 10K€ per pair; this will give a positive return on investment (RoI) in nine months. We have decided to install these units, subject to the early tests being successful, rather than increasingly the bandwidth immediately.

The new VoIP software has been loaded onto the UCL VoIP server. There have been discussions with DESY on addressing, but to on-line tests have been done yet.

A3.2 Bandwidth adjustment for specific user communities and application

A3.3 Caching configuration

There has been no progress with export permission for the caching software from Cisco.

WP 4 – Technical Work and Personal communications

Here the project has five tasks:

- A4.1 Central Services
- A4.2 Voice/IP for user group interaction
- A4.2 Videoconferencing for user group interaction
- A4.3 IPv6 Activity
- A4.4 Caching

A4.1 Central Services

The real-time communications for VoIP and Conferencing require Quality of Service (QoS) on a per-stream basis. The current Cisco routers have been able to provide this on the current 7204 routers, because of the limited bandwidth and limited number of users. In order to meet the demands as we increase the number of flows and introduce videoconferencing, it is necessary to increase dramatically the number of flows for which QoS is implemented. Such an increase is beyond the capacity of the current routers. Cisco has agreed, however, to provide a GSR router for DESY. This router has become available with the ending of the 6NET project. We expect it to be delivered during the next quarter.

A4.2 Voice/IP for user group interaction

The previous system for voice communication between the OCCASION partners was maintained; however it was used only for the Silk Executive Committee (SEC) meetings. The system uses VoIP from Silk nodes over the network to the Voice Server at UCL. By dialling into the server at UCL, and then organising dial out into a commercial audio-conferencing system operated by Cisco, the number of participants can be increased greatly. Because UCL controls the software, we can ensure that the system is used only for carefully controlled usage – avoiding the accusation of running a general telephony system. We then arranged that the server dial out to a constrained set of telephone numbers. These are currently the Cisco and the BT audio-conferencing systems. It is now used on a regular basis both for the SEC phone conferences.

A4.3 Videoconferencing for user group interaction

UZSCINET have carried out Test sessions of video of communication with the Russian Centre of Surgery together with their Ministry of Health will be carried out. Their current equipment is inadequate for good video quality, but this will be remedied under OCCASION.

A4.4 IPv6 Activity

We do not expect to start this work until later in 2005

A4.5 Caching

We are still waiting for the software upgrades from Cisco. In the mean time, there is no activity in this activity.

WP5 - User Groups

Here the project has four tasks:

- A5.1 Identification of User Groups
- A5.2 Organisation of User Group Services
- A5.3 Training of User Groups

A5.1 Identification of User Groups

Several of the Silk NREN have started contacting their end-users have been informed about the OCCASION project. Thus KRENA has been discussing the project with the International University of Kyrgyzstan, the Institute of Water Power and Hydrology, the Institute of Seismology of the Academy of Sciences and the Institute of New Information Technologies at Kyrgyz State University of Construction, Transportation and Architecture. These users committed themselves to draft a schedule for organizing videoconferences and contacting their partners in Europe.

A5.2 Organisation of User Group Services

A5.3 Training of User Groups

UZSCINET reported that more than 70 students study in CISCO academies; in particular a group of 20 students in conjunction with Westminster University. 27 people have finished a course “Microsoft Windows Server 2003”. 8 people completed “LinuxFree BCD” has finished 8 people, and 32 have taken an expanded course “Microsoft Office”. A course "Basic of computer literacy" has been completed by more than 100 people, in particular target groups doctors, teachers of the English language and employees of the program on struggle against AIDS. The first centre in Uzbekistan on testing ECDL (European Computer Drive License) has been opened.

WP6 Liaison and Dissemination

During the quarter, the following dissemination was carried out:

The progress in the Activities is presented regularly to public. The following list the conferences where the project and the current state at that time were showcased.

?	Actions on Dissemination	Place	Country	Date
1.	Seminar - «Distance Education: problems and prospects»	Ashgabat	Turkmenistan	January 24-25, 2006
2.	Conference - «Curricula in ICT»	Mary (financed by its University)	Turkmenistan	January 20, 2006

3 STATUS OF DELIVERABLES AND MILESTONES

The Technical Deliverables

Del. No	Deliverable name	WP no.	Lead partner	Est Pers-ms	Plan Del	Target Del	Actual Del
D1.1	Project Description	1	1	2	2-06		
D5.1	Educational programme	5	3	4	2-06		
D4.1	Provision of facilities of VoIP for the OCCASION community	4	1	6	2-06		
D2.1	The status of the Silk NRENs and their plans for connectivity	2	3	3	3-06		
D5.2	The potential User Groups within the Silk countries	5	3	6	4-06		
D1.2	The impact of the Silk and OCCASION Projects during the first year of the project (M12)	1	1	8	10-06		
D6.1	Plan for using and disseminating knowledge	1	1	4	7-06		
D2.2	Co-funding to Silk during 1 st year and agreed funding model for 2 nd year	2	1	6	8-06		
D3.1	Description of technical facilities provided and requisite of statistics	3	2	59	10-06		
D4.2	Provision of video conferencing facilities for the OCCASION community	4	1	7	8-06		
D5.3	Assessment of User Group and Training activities in Year 1	5	3	8	10-06		
D2.3	A transition strategy for Silk communications	2	1	10	10-06		
D6.2	Dissemination during 1 st year and plans for 2 nd year	6	3	16	10-06		
D4.3	Advanced network services	4	1	4	2-07		
D3.2	Description of the results of the caching configurations, and description of the split between file serving and caching from the Content Engines.	3	2	14	4-07		
D4.4	Extensions in VoIP and multimedia conferencing facilities for OCCASION users	4	1	7	4-07		
D1.3	The impact of the Silk and OCCASION Projects during the second year of the project	1	1	9	10-07		

D3.3	Description of the number of audio and video conferences held and the booking system achieved	3	2	6	10-07		
D5.4	Assessment of User Group and Training activities in Year 2	5	3	5	10-07		
D6.3	Plan for using and disseminating knowledge	1	1	8	10-07		

One Deliverables is due during the quarter, and has been produced.

4 ISSUES

The absence of a formal contract has made it difficult to have the project structure organised, especially the financial structure necessary to pay for the SB10 meeting and claim budget for the SB11 meeting. It has also made it difficult for some partners to start serious work. This has been reported by the following NRENs: GRENA, TARENA,

The delay was not due only to the Commission; it was also due to one partner not providing a signed accession form until January 11, 2006. The fact that many of this set of partners find it difficult to start work prior to the receipt of pre-financing is a consequence of their financial environment.

5 PARTNER DETAILS

None

6 MEETINGS

Project Meetings

Here we list only physical meetings. The bulk of the meetings are telephone meetings.

Date	Location	OCC Participants	Outcome
Oct 29 – Nov 3	Bishkek, KG	All OCC Partners	Silk SB-10 and OCCASION Kick-off
Nov 15	Brussels, BE	Janz, Kirstein	Silk Review and Discussions re OCCASION
Nov 17	Brussels, BE	Frese, Kirstein	Bidders' Meeting re Silk-2
Jan 16	Brussels, BE	Frese, Kirstein	Discussions re Silk-2 tender
Jan 24	Brussels, BE	Frese, Kirstein	Discussions re Silk-2 tender

Conferences/workshops organised

No Conferences or Workshops have been organised in this Quarter.

Date	Location	Participants	Outcome

Conferences attended

Date	Location	Topic	Participants	Outcome

Submission of papers

Topic	Abstract	Journal/Conference	Status

7 EFFORT FOR THE REPORTING PERIOD

Some partners have reported their effort consumption; others have stated their staffing efforts. Thus KRENA has appointed two new staff: Aigerim Toktomatova and Urumkan Imanakunova. They will be responsible for videoconferences and work on OCCASION project on behalf of KRENA.

SUMMARY – Q1

Resource allocation (Partner vs. WP) for the reporting period (man-days) is

WP/ PARTNER	1	2	3	4	5	6	Total	Est	Unchar ged
UCL	10	5					0		
DESY							0		12
RUG							0		15
ARENA							0		
GRENA	15	15					0		
AZRENA							0		
KAZRENA							0		
KRENA							0		
TARENA							0		
Total	0	0	0	0	0	0	0	0	
Est							0		

Previous

WP/ PARTNER	1	2	3	4	5	6	Total	Est	Unchar ged
UCL	0	0	0	0	0	0	0		
DESY	0	0	0	0	0	0	0		
RUG	0	0	0	0	0	0	0		
ARENA	0	0	0	0	0	0	0		
GRENA	0	0	0	0	0	0	0		
AZRENA	0	0	0	0	0	0	0		
KAZRENA	0	0	0	0	0	0	0		
KRENA	0	0	0	0	0	0	0		
TARENA	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	
Est							0		

Cumulative – Q1 - Qn

WP/ PARTNER	1	2	3	4	5	6	Total	Est	Unchar ged
UCL	0	0	0	0	0	0	0		
DESY	0	0	0	0	0	0	0		
RUG	0	0	0	0	0	0	0		
ARENA	0	0	0	0	0	0	0		
GRENA	0	0	0	0	0	0	0		
AZRENA	0	0	0	0	0	0	0		
KAZRENA	0	0	0	0	0	0	0		
KRENA	0	0	0	0	0	0	0		
TARENA	0	0	0	0	0	0	0		
Total	0	0	0	0	0	0	0	0	
Est							0		

8 EXPENDITURE

The financial information contained in this report is estimated and does not represent a legally binding statement of costs.

The figures are quoted in Euros, using the exchange rates on 31 January 2006.

Durable Equipment Expenditures

Date*	Description	Partner	% Allocation to Project	Used for	Amount
Total Cumulative from start of the project					
Total Cumulative from start of the project as originally planned					

Travel and Subsistence Expenditures

Date*	Description	Partners	Used for	Amount
Nov 1-3	SB10 and OCC1, Bishkek, KG	All	Project Meetings	10000
Nov 15	SPONGE Review, Brussels, BE	UCL, RUG	Review	400
Jan 24	Joint Meeting NAT/EC	UCL, DESY, RUG	Joint discussions	300
Previous Expenditure				11700
Total Cumulative from start of the project				11700
Total Cumulative from start of the project as originally planned				11700

Consumables Expenditures

Date*	Description	Depr	% Allocation to Project	Used for	Amount
Total Cumulative from start of the project					
Total Cumulative from start of the project as originally planned					

* Invoice Date

9 OTHER INFORMATION