



Black Sea Interconnection (BSI)

**One small step for GÉANT, one giant leap
for the Black Sea region**

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- BSI Overview
- BSI Objectives
- BSI Infrastructure
- Potential Users of BSI and Cooperation Opportunities

The idea:

The existence of interconnections between the South Caucasus countries (Georgia, Azerbaijan and Armenia) and connection to GÉANT2/3 with reasonable capacities will enable introduction of new services to the region and will be an important step towards the integration of the scientific potential in the region with Europe.

BSI Details

Project participants:

TUBITAK	Turkey (NREN)
GRNET	Greece (NREN)
CEENET	Austria
DANTE	United Kingdom
GRENA	Georgia (NREN)
AZRENA	Azerbaijan (NREN)
NAS RA	Armenia (NREN)

Project type: **CSA-SA**

Start date: **01/03/2008**

Duration: **24 months**

Total budget: **1 861 908€**

Funding from the EC: **1 400 000 €**

Total funded pm: **118**



- 1) Building a proper regional research and education network among South Caucasus and connecting it to GÉANT2.

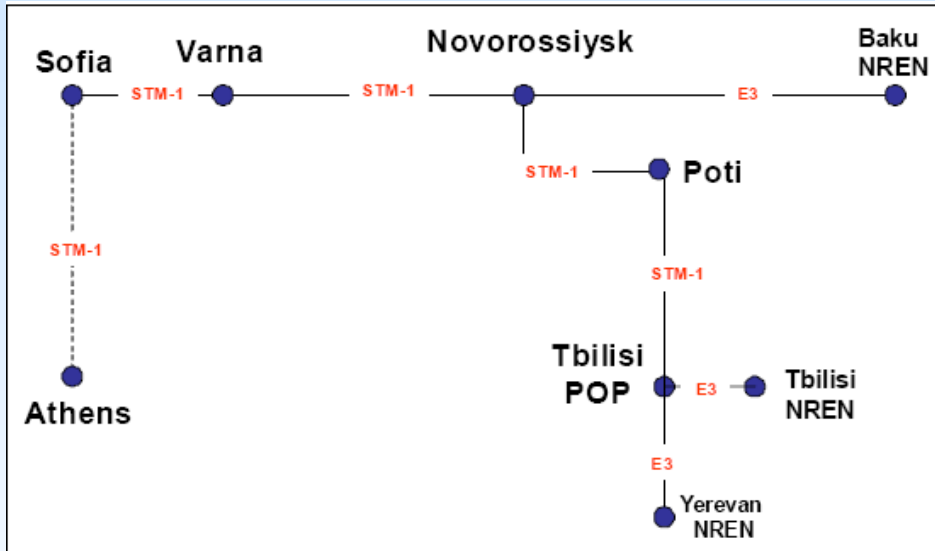
BSI offers a minimum of 34 Mbps connection capacity for each beneficiary to the regional network backbone and a minimum of 100 Mbps capacity between the regional backbone and GÉANT2/3

- 2) Integration of South Caucasus scientific potential to Europe

The project contributes to the integration of South Caucasus scientific potential to Europe by successfully disseminating the infrastructure and promoting the ICT projects in South Caucasus countries.

- 3) Foster collaboration between homogenous scientific communities

A plethora of user communities will be addressed and potentially served by the provision of the network infrastructure



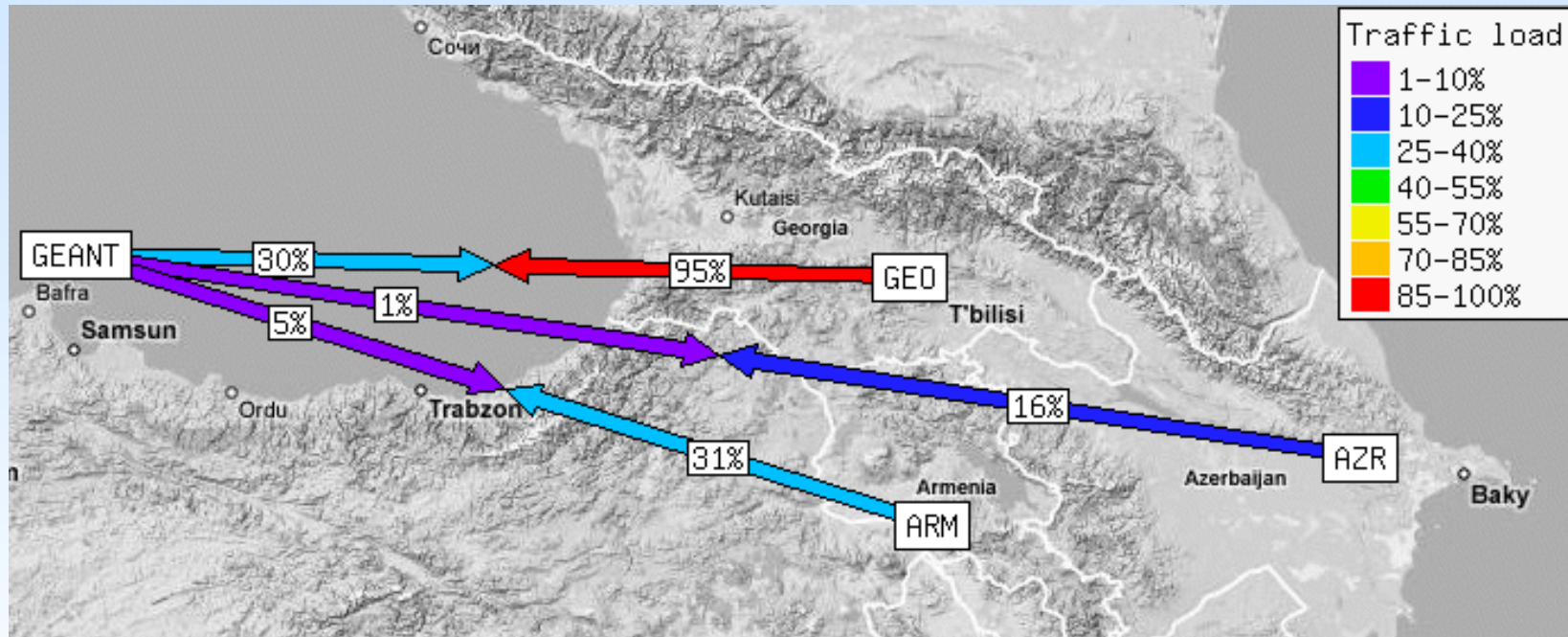
- 34 Mbps connectivity to GEANT2/3 PoP in Sofia for each NREN
- Required hardware was gathered via NATO funds.

■ The resulting infrastructure will be operational for *18 Months*.

The total cost of the connectivity is 1.195.000 €.

- 955.000 € (80%) of the connectivity cost will be covered by EC funding.
- 240.000 € (20%) will be covered by South Caucasus NRENs.

BSI Weathermap



- Tbilisi – Sofia (realized on 16.03.2009)
- Baku – Sofia (realized on 17.04.2009)
- Yerevan – Sofia (realized on 24.05.2009)

Addressing the potential users of infrastructure I (via other projects)



A potential user group of BSI Infrastructure is the projects operating in South Caucasus or in its close neighborhood.

BSI Consortium continuously traces programmes of funding resources (FP7, NATO NIG, UNDP and etc), identifies such projects and gets in contact with them.

- *SEE-GRID-SCI (GRENA & NAS RA)*
 - South Eastern Europe GRID eInfrastructure for regional eScience
 - The GRID site in Yerevan
- *IncoNET EECA*
 - “S&T International Cooperation Network for Eastern European and Central Asian Countries”
- *CERT/CLOSER*
 - Coordination and Management of Computer Emergency Response Teams
- *CAREN*
 - “Central Asian Research and Education Network”

Addressing the potential users of infrastructure II (via GEANT)



After realizing the BSI connectivity, the next step for BSI consortium is to foster the collaboration between the academicians in South Caucasus and in Europe.

The heads of these three NRENs are nominated as observers to the NREN-PC (whose members are the representatives of European NRENs which are connected to GEANT) in May which will help them in building cooperation with European counter parts.

The three beneficiary NRENs in BSI project are in close relationship with the academicians in their countries. Their cooperation with European NRENs will constitute a bridge between the academicians in South Caucasus and Europe.

Addressing the potential users of infrastructure III (via direct communication to academicians)

There are bilateral cooperation between the universities/academicians of the countries in BSI project. Consortium seeks such cooperation and gets in direct contact with them.

Although this method is hard to apply, the first examples of such interaction were already realized.

- A meeting was held by Kars Caucasus University (Turkish University) with the involvement of two rectors from Tbilisi universities and one rector from Baku University. They are now working on the possibility of realization of distance learning activities between these four university over BSI infrastructure.
- Cooperation between the physicists in BAKU and CERN

- All three methods proposed here (via other projects, via GEANT and via direct communication to academicians) depends on the world wide dissemination of BSI infrastructure.
- Consortium members attended more than 20 meetings in international and national level and presented BSI in the context of dissemination
- Today's presentation is also one of those 😊 as:
 - You could be a partner of a project that could benefit from BSI infrastructure
 - You could be a member of GEANT NREN and could disseminate the "Cooperation with South Caucasus academicians" opportunity through your users
 - You could be an academician working on an area with a focus of regional cooperation such as seismology, meteorology, astronomy and etc.
- Encouraging interest of the media in beneficiary countries (news, interviews). We are continuously feeding national press resources to disseminate BSI infrastructure among the South Caucasus NRENS

Thank you...

Not only integrating South Caucasus to Europe but extend the scope of BSI's achievements to *Central Asia and whole Black Sea Region*. This will transform the former "Silk Route" to the future's "e-Silk Route" by realizing a network endowed by high capacity connections.

BSI Web Page : www.blackse-net.eu

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