

06.03.09

## Deliverable DN2.0.3,9: GÉANT2 Network Topology Maps



### Deliverable DN2.0.3,9

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### Abstract

The purpose of this Deliverable is to officially notify the European Commission of the production of updated topology maps for the GÉANT2 network.

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## 0 Executive Summary

This Deliverable formally reports to the European Commission the significant updates that have been made to the two main GÉANT2 network maps since the issue of their previous versions: the GÉANT2 Backbone Topology Map (updated February 2009; previous version issued January 2008) and the GÉANT2 Global Connectivity Map (updated February 2009; previous version issued November 2008).

Both the backbone topology and the global connectivity maps are important tools for disseminating key information about the GÉANT2 network in a simple and easy-to-understand form. Many third parties use these visual representations of the network; the GÉANT2 backbone map in particular is the most downloaded item from the GÉANT2 website.

The revised maps are included in Appendix A and Appendix B. Online versions are accessible from the GÉANT2 press kit at <http://www.geant2.net/server/show/nav.1261>. A variant of the global connectivity map, additionally showing a selection of user projects, is included in Appendix C.

# 1 Overview, Use of Maps and Summary of Changes

## 1.1 Overview

The GÉANT2 backbone topology map depicts the capacity and geographic scope of the GÉANT2 network; the GÉANT2 global connectivity map demonstrates the global reach of GÉANT2 through other European Union-funded network projects, e.g. TEIN (Asia-Pacific), ALICE (Latin America), EUMEDCONNECT (Mediterranean), ORIENT (China link) and the UbuntuNet Alliance (African link). The maps are amongst the most popular materials produced by Network Activity 2 – GN2 Dissemination Activities (NA2), and are updated on a regular basis to reflect the changing nature and scope of the network. These latest updates are important because they will be the final (archived) versions in the GN2 project.

## 1.2 Use of Maps

The maps are used in a variety of formats, including as printed posters, in presentations and in a number of GÉANT2 publications, as well as in National Research and Education Network (NREN) and third-party publications. They are also used for display as graphics panels in exhibition booths. Both maps are available as downloads from the GÉANT2 website; the GÉANT2 topology map is the most frequently downloaded NA2 item.

## 1.3 Summary of Changes

### 1.3.1 GÉANT2 Backbone Topology Map

The latest, February 2009 update of the GÉANT2 backbone topology map did not include any upgrades to connections but did reflect that the planned upgrades from the previous, January 2008 version had all been completed. These included the Balkan region, the Baltic region, the link to Iceland (IS), the link from Germany (DE) to Luxembourg (LU), from LU to France (FR), and the link from Spain (ES) to Portugal (PT).

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In addition, a version of the previous (January 2008) map, displaying all NREN logos, was developed for display on the panels of the GÉANT2 booth at ICT 2008, Lyon, in November 2008.

### 1.3.2 GÉANT2 Global Connectivity Map

The latest, February 2009 update of the GÉANT2 global connectivity map captured the changes that had taken place since the previous, November 2008 version to provide an up-to-date, final (archived) version in the GN2 project. Changes included the following:

- The different regional networks of India, South Africa and the Black Sea Interconnection (BSI) countries of Georgia, Azerbaijan and Armenia were highlighted.
- Pakistan was included as part of TEIN and the three links from Singapore to Germany were represented as one higher capacity link.
- Ukraine, Belarus, Moldova and the SEREEN2 countries were included, as regions receiving GÉANT2 coverage.
- Links between Morocco and Italy, and between the US and Japan, were shown as upgraded.
- A new link from Vienna to New York, and a link across the USA (from west to east), were added.
- New logo versions were added for EUMED2, TEIN3 and ALICE2.

#### 1.3.2.1 GÉANT2 Global Connectivity and User Projects Map

In addition to the updated global connectivity map, an iteration based on the previous, November 2008 version was created for display at the BELIEF booth (the acronym stands for Bringing Europe's eElectronic Infrastructures to Expanding Frontiers) at ICT in November 2008, to demonstrate the global reach and range of GÉANT2 user projects. This "user version" showed a selection of user projects, each from a different discipline and from different world regions. Each project was represented by a photo and a brief sentence descriptor. The selection showed the global reach of the interconnecting networks, and also the use of the networks to collaborate globally in a variety of different research areas.

This version of the map was also included in the GÉANT2 Achievements section of the website and can be downloaded from:

<http://www.geant2.net/server.php?show=nav.2142&PHPSESSID=868a594e75dc83401337bc45fd4575eb>

The projects represented include:

- Large Hadron Collider (LHC) in Europe.
- Millennium Simulations in Europe.
- ASTRA in the Mediterranean.
- Earthquake reconstruction in China.
- Crop research in South East Asia.
- ICT-LEAP in the Middle East.
- T@lmed in South America.

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## 2 Conclusions

The network maps are an important tool for demonstrating the reach of GÉANT2, conveying complex information in a clear and accessible manner, and are often many people's first introduction to GÉANT2. The final versions of both maps have now been completed, and will serve as "archived" reminders of the networking achievements of the GÉANT2 network.

# Appendix A **GEANT2 Backbone Topology Map** (February 2009)

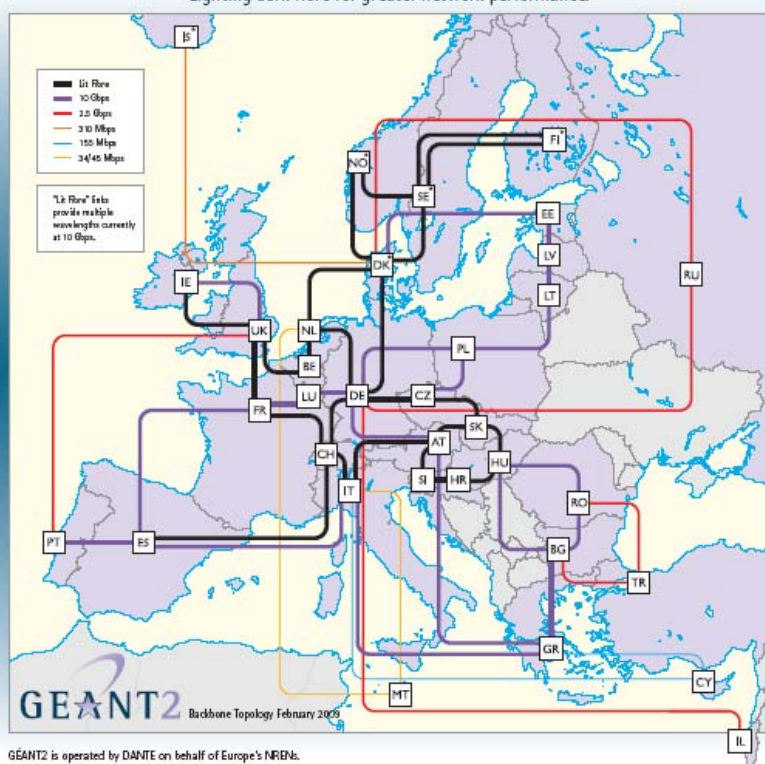


## GEANT2



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\*Connections between these countries are part of NORDUnet (the Nordic regional network)

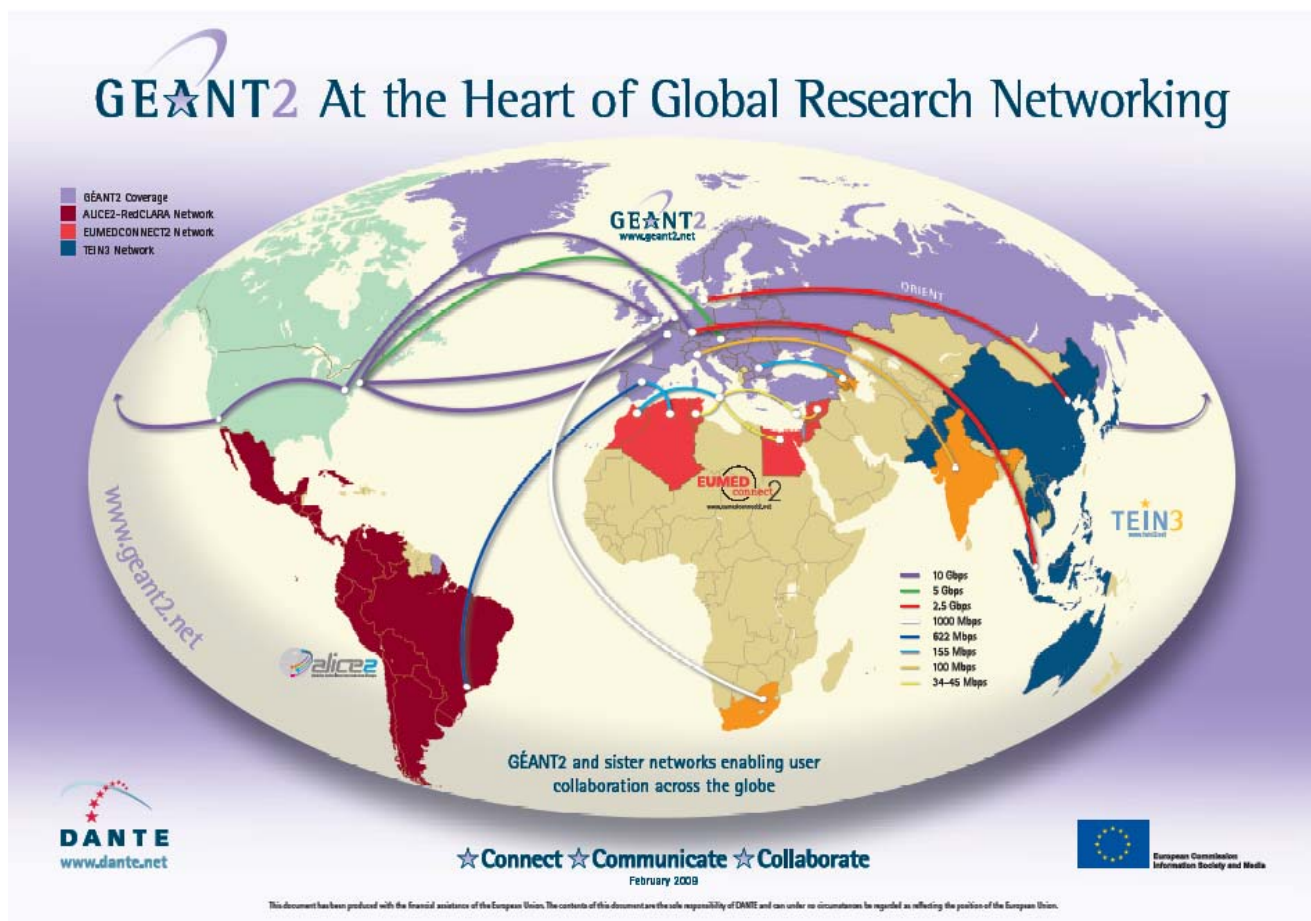
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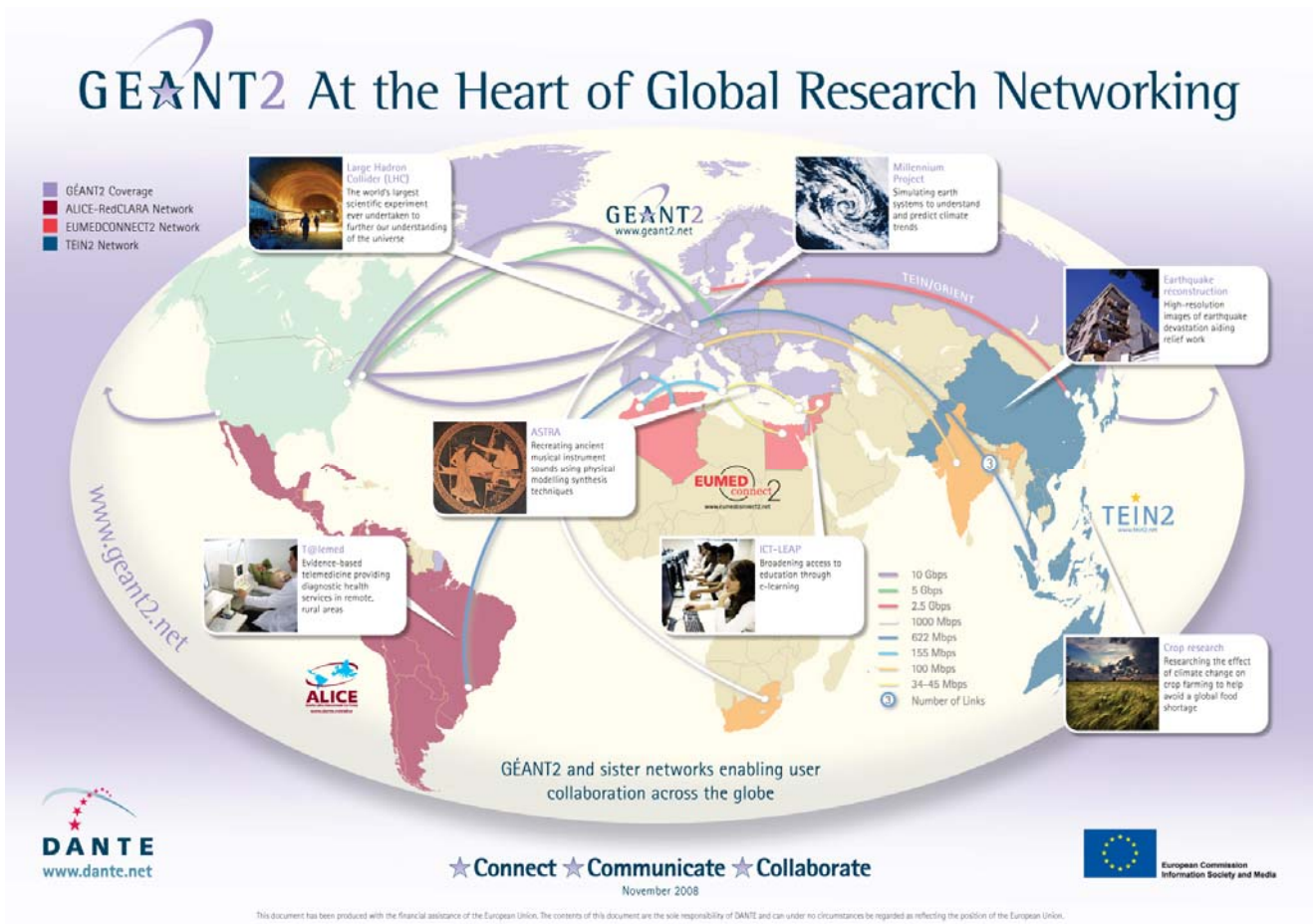
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## Appendix B **GEANT2 Global Connectivity Map** (February 2009)



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# Appendix C **GEANT2 Global Connectivity and User Projects Map (ICT, November 2009)**



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