



# **RedCLARA2:** **the Gigabit Network of Latin America**

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**ALICE and ALICE2  
Building e-Infrastructures in LA**

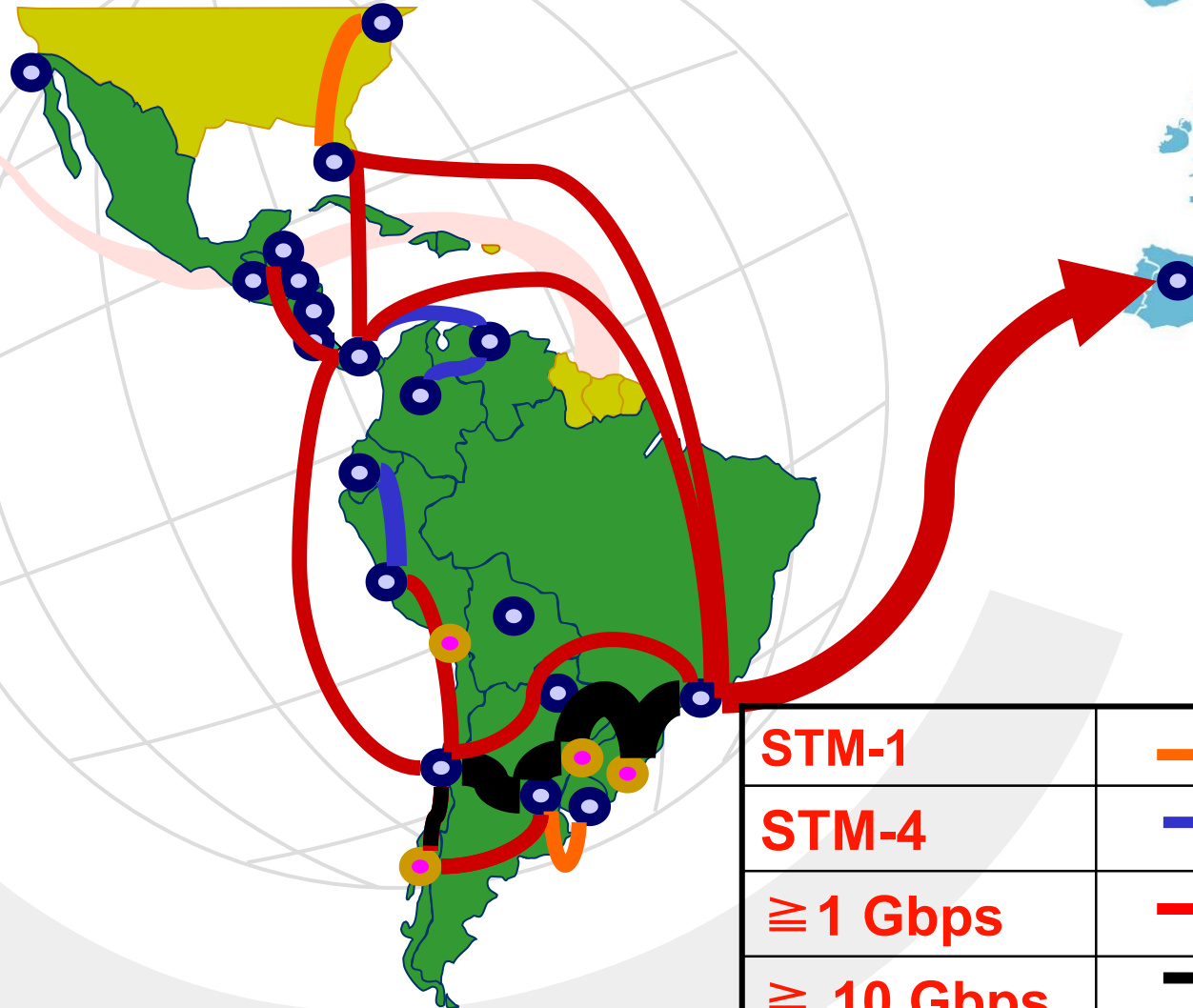
## The Projects

- € 10 Millions budget to be provided by the EC, thru EuropeAid
- Co funding of € 2.5 Millions provided by the LA NRENs (National Research and Education Networks)
- June 2003 until March 2008
- **Goals**
  - To develop a Latin American Research and Education network and connect it to Europe
  - To create an institution to manage the network and provide continuity
  - To train technicians
- **Project Leader: DANTE**
- € 12 Millions budget to be provided by the EC, thru EuropeAid
- Co funding of € 6 Millions provided by the LA NRENs
- Additional € 2.5 Million Euros contributed by Brazil
- December 2008 until January 2013
- **Goals**
  - To create an upgraded long lasting infrastructure,
  - To build a sustainability model,
  - To foster the creation of MDG Oriented applications
  - To works towards Inclusion
  - To Build technical and managerial Capacity
- **Project Leader: CLARA**

# LA Academic Networks 2002



- 6 NRENs connected to the US
- Little or no collaboration between LA countries
- Network Speeds 45 Mbps to Miami



## Building the Infrastructure

- **ALICE Tenders:**
  - Open Tenders + Negotiated Procedures
  - From 2004 the total lease cost for the backbone decreased by a factor of 10 and its speed increased 34 times
- **Sinergy with other projects: Astronomers, Cosmic Ray Observatories.**
- **Cooperation with local or regional initiatives: MERCOSUR**

## Sinergies with Internal Networks

- Strategy of building Terrestrial networks with ability to carry internal traffic
  - Terrestrial Networks linking countries often go through main cities in countries
- Dark Fibre wherever that is possible
  - Low cost to upgrade
  - Flexibility to use the adequate technology at any time
  - Flexibility to create different physically separated networks for special purposes

## The Network in Numbers

- 6,000 Kms of Dark Fiber
- DWDM Equipment to light up to 20 lambdas of 10 Gbps
- 3,000 Kms of Wavelengths (2.5-10 Gbps)
- Intercontinental links with added capacity of 5.5 Gbps
- Direct connections to Europe and the US
- 13 countries connected



## Regional Impact

- NRENs have been created in 7 Latin American Countries
- RedCLARA is considered a key player in the development of Regional Broadband
- Cross border fiber deployment in Central America is the first terrestrial fiber linking Panama to Mexico

A large, light gray wireframe globe is centered on the page. A thick, wavy red line starts from the top left of the globe and curves across it, ending at the bottom center. The text "Deploying Key Infrastructure" is overlaid on the globe.

# **Deploying Key Infrastructure**



## The ELCIRA Project Europe Latin America Collaborative e-Infrastructure for Research Activities



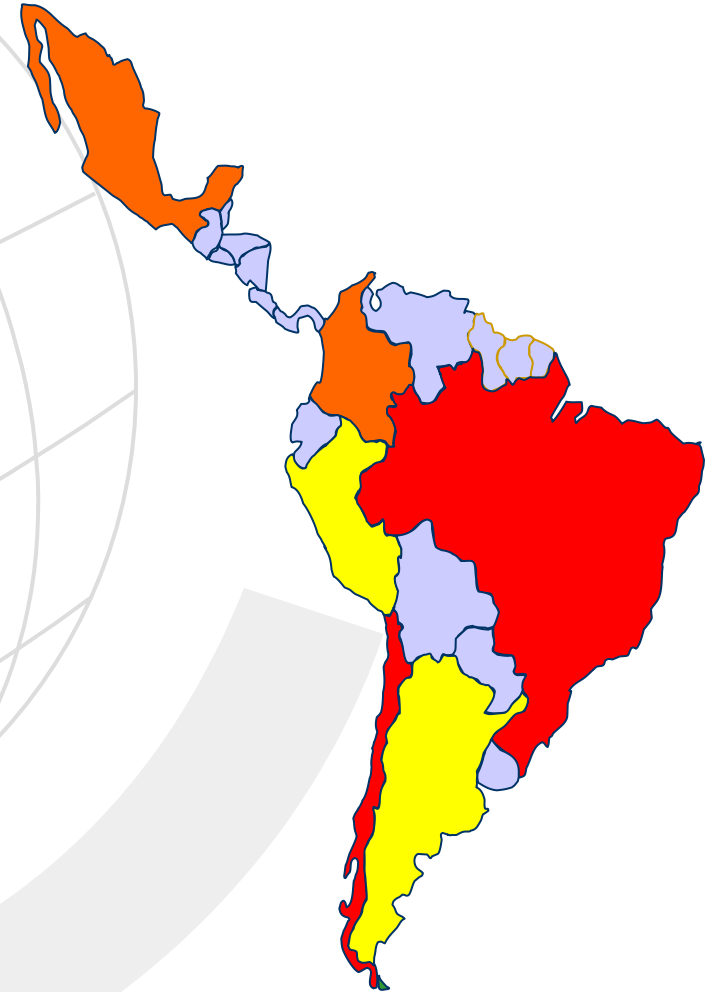
- **Objective:** To coordinate a series of collaboration tools and services that are being developed in Europe and Latin America in order to provide an interoperability framework that facilitates the work of European-Latin American research teams and to foster collaboration in joint research projects.
- **Partners:** DANTE (UK), GARR (IT), RedCLARA (UY), RedIRIS (ES), RENATA (CO), RNP (BR), TERENA (NL)
- **Funding:** EC

- **3 production deployments**
  - Brazil, Peru, Chile
- **9 pilot deployments**
  - Argentina, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, Nicaragua, Uruguay, Venezuela



# AAI: eduGAIN in Latin America

- 2 production Federations
  - Brazil, Chile
- 2 Federations in deployment
  - Colombia, Mexico
- 2 Federations in development
  - Argentina, Perú



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**<http://www.redclara.net>**