

RedIRIS-NOVA

RedIRIS Next-Generation Network

An Optical Infrastructure Tender Phase

8th International e-VLBI Workshop

EVN-NREN meeting

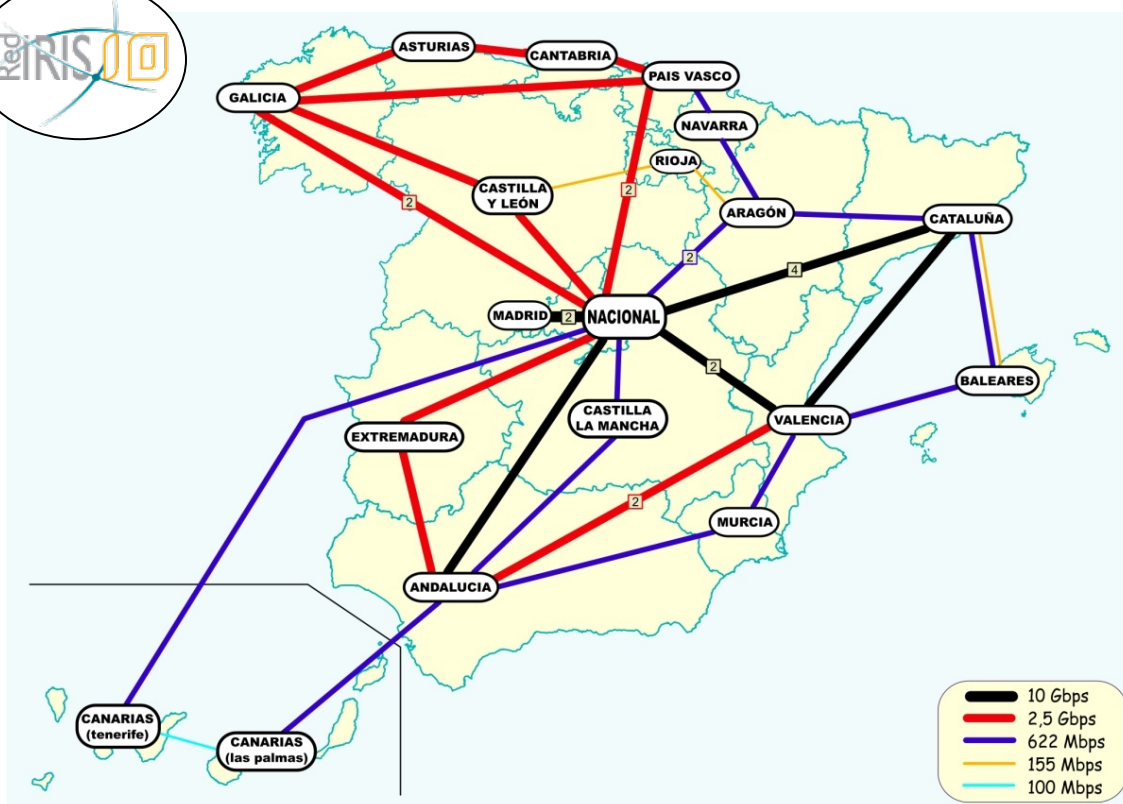
OAN - Madrid, Spain.

June 25, 2009

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RedIRIS Network Area Head

RedIRIS, since 1988, manages a research network infrastructure and provides connectivity, security and other services to Spanish researchers, thus improving collaboration among themselves and with their global peers.

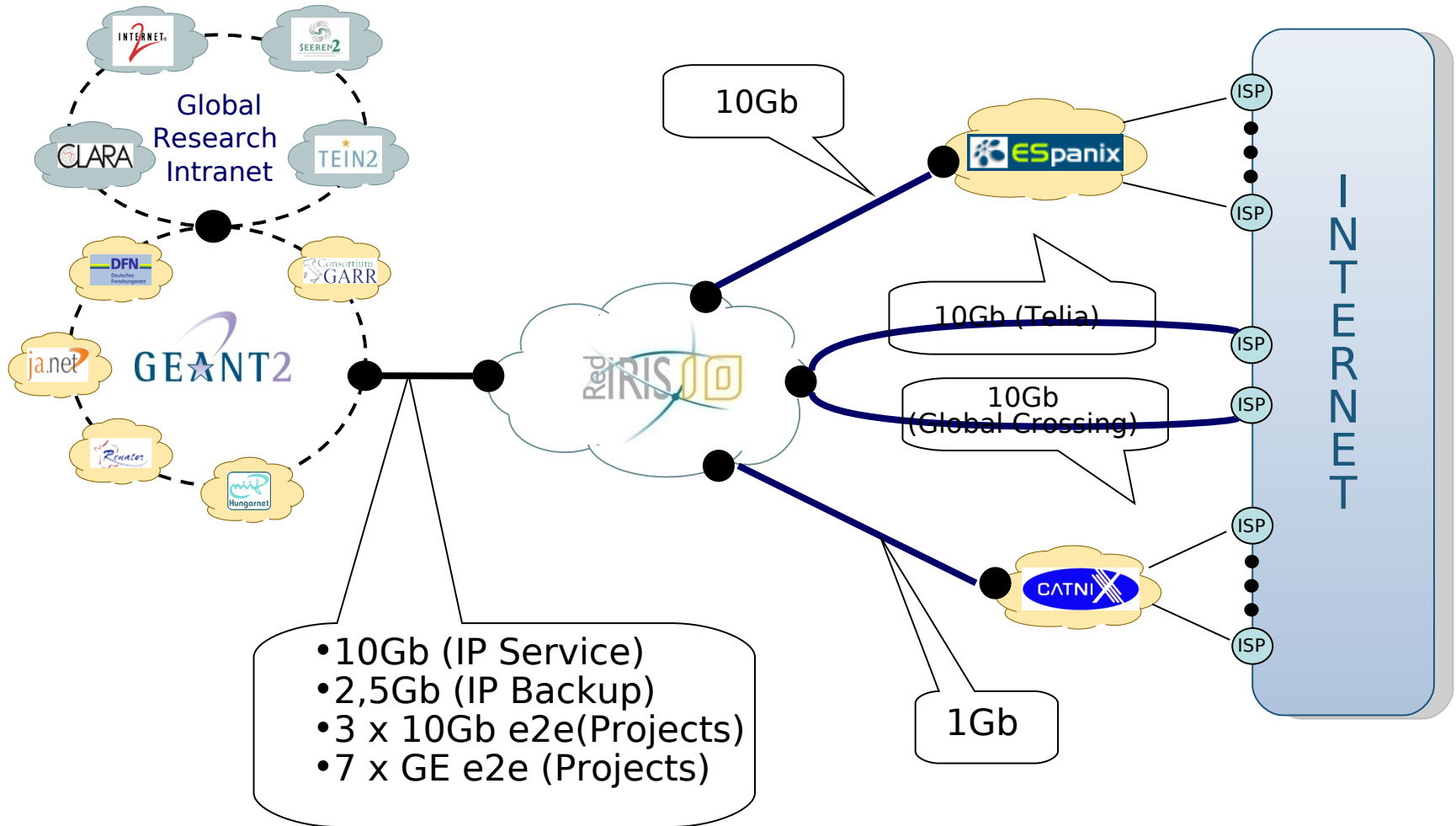


150.000+ researchers
350+ institutions

RedIRIS-10 infrastructure:

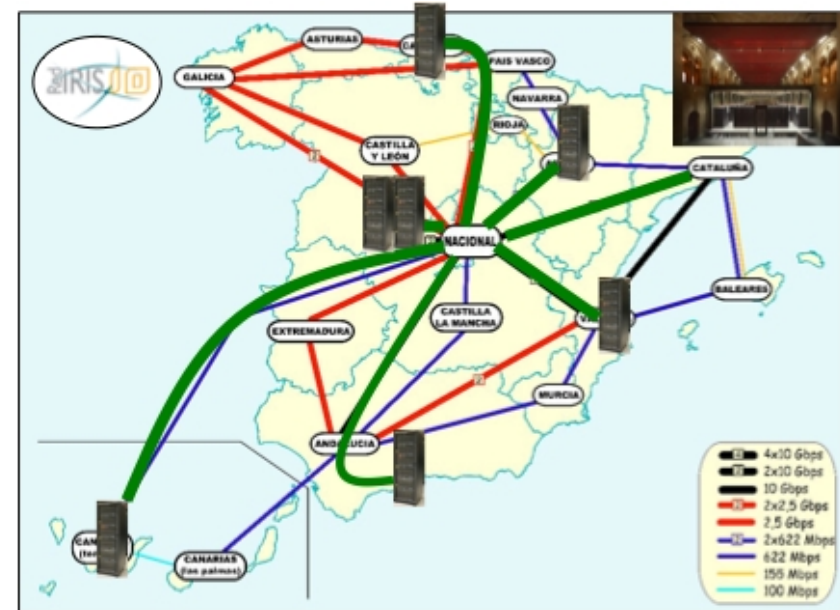
- Leased capacity (2011)
- 18 PoPs
- 10GE core links
- IP network
 - IP services
 - limited L2 services

RedIRIS10: External Connections



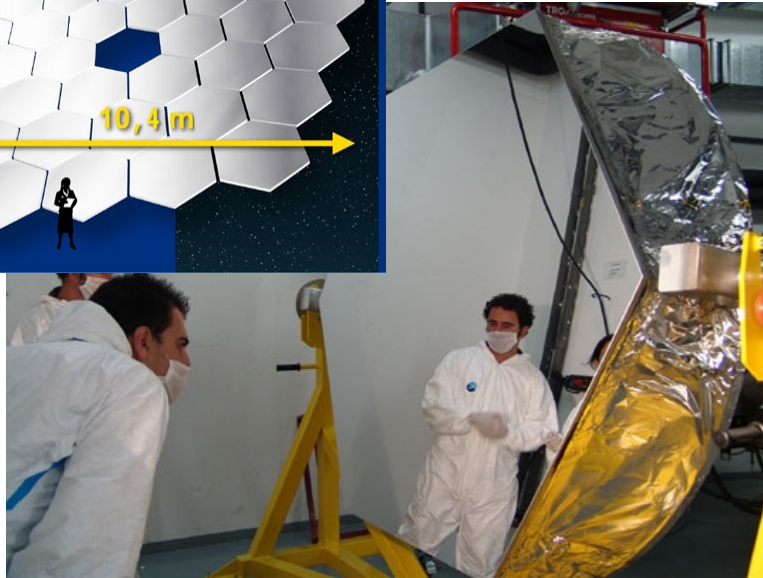
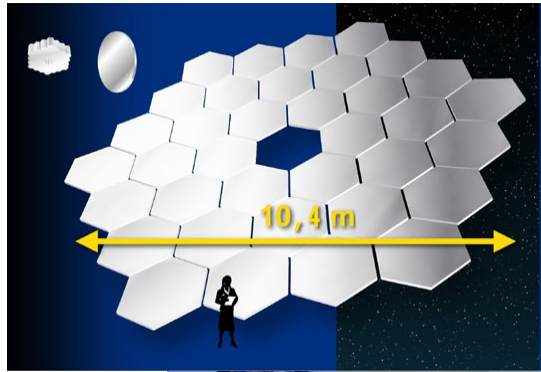
Some lightpaths users ...

- **BSC-RES** project: Supercomputing national initiative at 10Gbps
- **DEISA** project: EU supercomputing network at 10Gbps.
- **LHC** infrastructure support (



- **RENEM** (National Emergency Network): high availability and specialized support at GE.
- **e-VLBI** network support at GE.

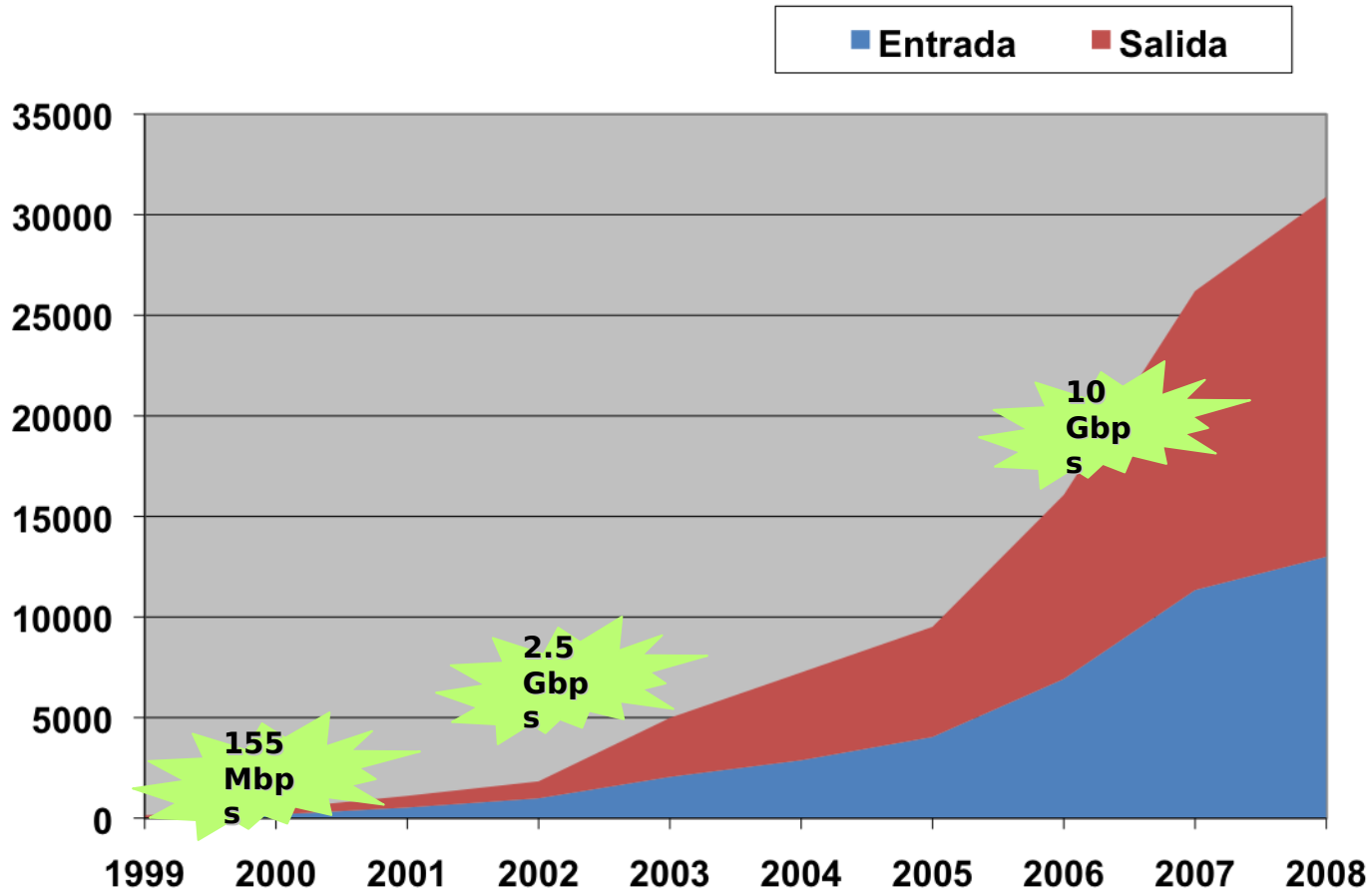
... and telescopes in Canary Islands



- 10.4m telescope with a segmented primary mirror.
- One of the biggest telescope in the world.
- <http://www.gtc.iac.es/>



Traffic Evolution- Terabytes/year



GOBIERNO DE ESPAÑA

MINISTERIO DE CIENCIA E INNOVACIÓN

MINISTERIO DE INDUSTRIA, TURISMO Y COMERCIO

SECRETARÍA DE ESTADO DE TELECOMUNICACIONES Y PARA LA SOCIEDAD DE LA INFORMACIÓN

- Spanish government project to deploy a national optical infrastructure:
 - 138 MM€ (EU structural funds + Science and Innovation Ministry funds)
 - National coverage (Canary Islands included)
 - RFI process in Oct/Nov 2008
 - Competitive Dialogue Tender Process (started Dec.2008)
 - 23 companies: 10 fiber providers, 13 equipment suppliers

**Optical
Fiber in
Peninsula
+
Housing
facilities for
amplifiers**

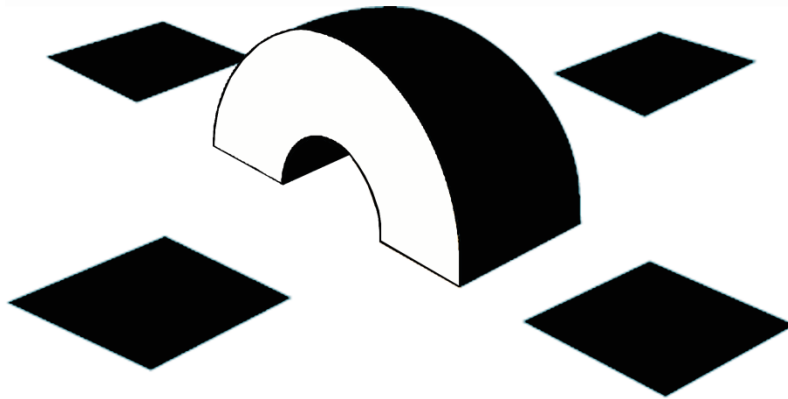
**Optical Fiber
in/with
Canary
Islands

Housing
facilities for
amplifiers**

**Optical
Equipment
to light the
Fiber**

- Optical Fiber + Housing facilities ≥ 10 years IRU
- $42 \leq \# \text{ Peninsula PoPs} \leq 160$ aprox.
 - Points to add/drop wavelengths (OA sites not included)
 - aprox. 11.000 km at least. (canary islands connection not included)
 - CBF with Portugal:
 - North through Galicia
 - South-West through Extremadura
- Maintenance conditions included as a *guarantee*
- Optical Equipment tender:
 - Based on a **hypothetical** scenario

Thanks



Red IRIS