



E-infrastructure shared between Europe and Latin America

EELA Applications, Status

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*Identification and Support of Grid Enhanced
Applications*

CIEMAT

EGEE User Forum

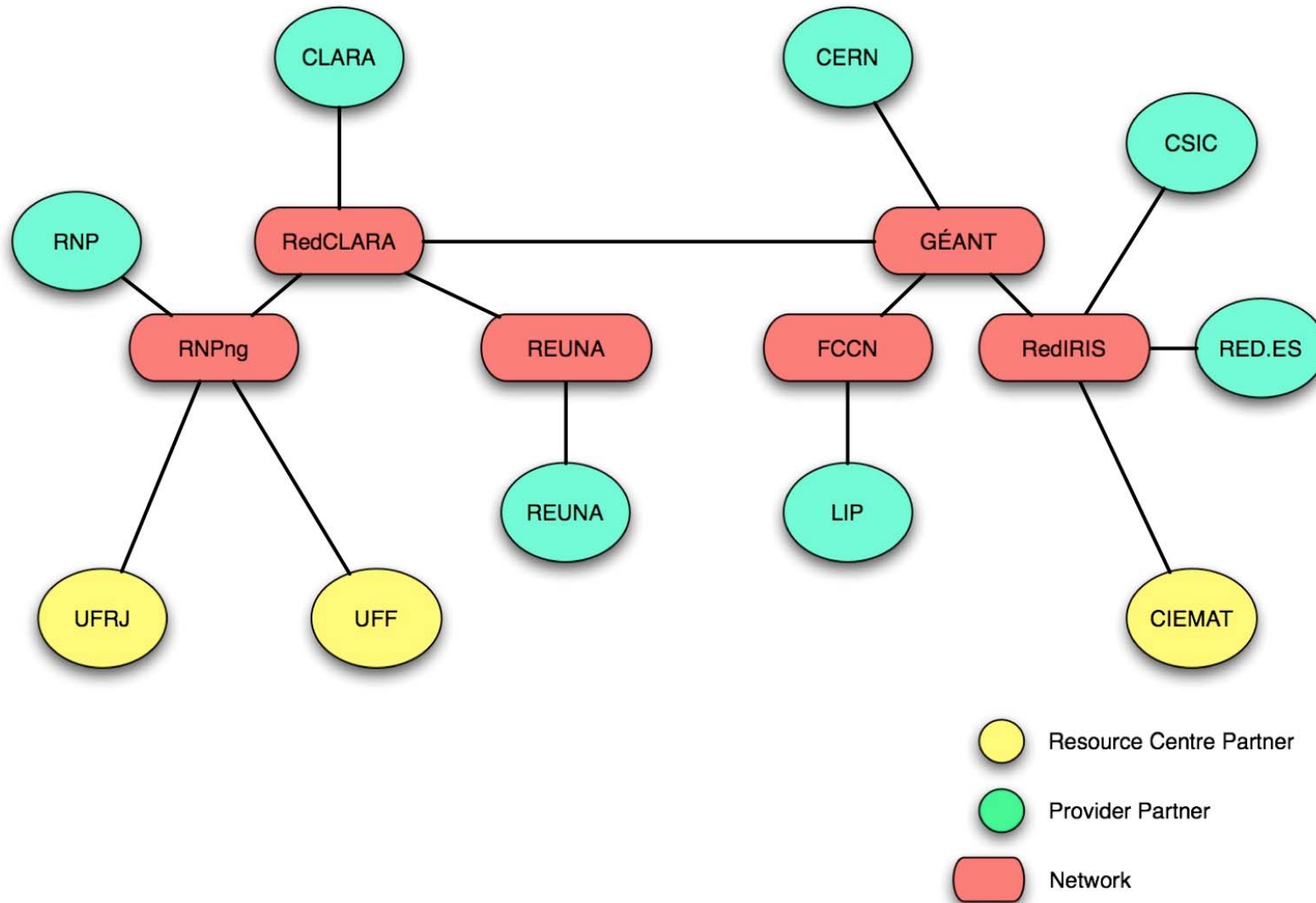
CERN, 03 of Mars 2006



www.eu-eela.org



- **Pilot Pilot Testbed**
- **Three Task versus four scientific areas.**
 - Biomed applications
 - HEP applications
 - Additional applications
 - e-education
 - climate applications
- **Other Issues**





INFN - GridICE - Grid Monitoring Service - Mozilla Firefox

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http://ice-eela.cimat.es/gridice/site/site.php

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GridICE
the eyes of the Grid

is monitoring

Geo view Site view VO view Help About

GridICE >> Site::ALL

General Network **Gris** Host Job Charts

Site ▼	GK#	Q#	RunJob	WaitJob	SlotLoad	Computing Resources				Storage Resources				
						MH#	Power	WN#	CPU#	CPUload	Available	Total	%	
CIEMAT-LCG2	1	5	13	0	18%	27	613K	24	96	0%	2.3 TB	4.1 TB	43%	
EELA-CIEMAT	1	14	0	0	0%	12	204K	8	32	0%	53.4 GB	53.7 GB	0%	
EELA-UFF	1	14	0	0	0%	3	10K	1	2	0%	27.5 GB	33.8 GB	18%	
EELA-UFRJ	1	14	0	0	0%	6	26K	3	6	0%	139 GB	139.3 GB	0%	
INFN-CATANIA	1	5	124	0	77%	96	1M	77	226	21%	2.3 TB	3.5 TB	34%	
TOTAL	#5	5	52	137	0	19%	144	2M	113	362	4%	4.8 TB	7.8 TB	19%

Generated: Mon, 30 Jan 2006 18:01:14 +0100 GridICE Homepage



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Task 3.1 Biomed Applications

- **The choices has been performed according to:**
 - Interest on the Latin American Partners.
 - Consolidated User Communities.
 - Maturity of the Applications.
 - Availability of Resources.
 - Particularities of the LA Community.

- **EGEE Pilots**

- GATE (Interest from CUBAENERGÍA).
 - Clinical Data Available from the Health Service of Cuba.
- WISDOM. Interest from ULA on Behalf of the LA Bioinformatic Community.
 - Participation Possible at Three Levels (Resources, New Targets and Proposed Proteins).
 - It Can be Considered for the New Data Challenge.



- **EELA Pilots**

- CECALC web portal (ULA - <http://www.cecalc.ula.ve/>)
 - Biocomputing portal with >500 Users. Consolidated Community and Well-Accepted Interface. Concurrency of interests with EGEE.
- Protein Dynamics (UFRJ)
 - Experience on Parallel Computing and Grids.
 - Focus on Structural Dynamics and Rational Drug Design.
 - Must to be confirmed.



Task 3.2 HEP Applications Highlights I

- **Mature applications**
 - Already running on EGEE infrastructure
 - Should be able to run on EELA infrastructure immediately
- **Selected Applications are those included at proposal,**
 - LHCb (UFRJ)
 - ALICE (UNAM)
- **but maintaining lateral vision (opening the doors):**
 - CERN experiments, ATLAS & CMS.
 - Others HEP experiments, Pierre Auger Observatory & HEP theory.





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Task 3.2 HEP Applications Highlights II

- **HEP application can stress infrastructure immediately**
 - Identify bottlenecks
 - Networks
 - Computing
 - Storage
- **HEP applications will be ready to run in the EELA pilot GRID test bed**
 - Need immediate and good interaction with WP2



- **For Climate Applications**

- Gridification of scientific meteorological data, and profit the framework provided by the storage in grid.
- Negotiating the data involved.
- Migration of data mining clustering algorithms to GRID (both standard methods and neural network Self-Organised Maps SOM). These algorithms will relate both climate simulations and local observations performing what is called a downscaling process.



- **For e-Education**

- Identification of some “Candidate” Candidate Applications

- e-Education

- Remote Laboratories

- *Magnetic Oscillation (UFRJ)* ★

- *Nuclear Magnetic Resonance (UNAM)* ★

- *Food Engineering Freezing Process (UNAM)*

- e-Courses

- *Collaborative Aspects (UNAM): Middleware*

- *Semantic Aspects (CEDERJ-UFRJ): incorporated into a Pilot Course*



- GAUP has been approved.
- Questionnaire for new applications is in last step to be approved.
- During the EELA KoM all LA CA Managers was brought together, and the CA at LA are being created.
- First Tutorial has been executed at Madrid from 20-24 February with a big succes of assitence, 18 for Admin, 25 for User.
- A first candidate to bring the infrastructure has showed his interest, UNEX.



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Thanks

**thanks,
gracias,
muito obrigado,
grazie,
merci beaucoup**