

Latin American GRID Initiatives: Background, Best Experiences and Ongoing Projects

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Abstract. In this talk, some background and success stories in the area will be recalled and currently ongoing projects will be described. One of the first regional efforts in LA was the Latin American Grid Initiative, launched in 2005, and sponsored by IBM. It involves several Florida universities and some others from Latin America and Spain, specifically Mexico, Argentina, and Puerto Rico. In the case of Mexico, one of the first national grid initiatives was the GRAMA project (Mexican Academic GRID, 2004-2005) which aimed at the construction of an inter institutional Grid in Mexico, sponsored by CUDI (Mexican NREN) and CONACYT (Mexican Ministry of Science and Technology). After GRAMA, a second national initiative also sponsored by the same actors was the LNGSeC project (GRID National Laboratory for e-Science Support) whose focus was mainly on the development of national infrastructure to support climate model applications.

Simultaneously to several of these efforts, EELA was helping in a very important way in the development of GRID infrastructure, human resources training and in the process of application gridification. EELA initiated the 1st of January 2006, coordinated by CIEMAT (Spain). It was a 2-year project run by 21 institutions of Europe and Latin America under the FP6 Programme. EELA-2 (E-science grid Facility for Europe and Latin America) was approved to continue previous success but ended in March 2010. EELA-2 left behind a high-value legacy of 11 JRU in LA and 61 running applications in different scientific areas.

Today, from a regional perspective, Latin America participation in GISELA (Grid Initiatives for e-Science virtual communities in Europe and Latin America) becomes crucial since after JRUs consolidation in 11 LA countries, the main tasks of GISELA will be to foster the creation of National Grid Initiatives (NGI) at the country level, and of the Latin American Grid Initiative (LGI) at the continental level, in close collaboration with National Research and Education Networks (NRENs) and CLARA. Today's participation of Latin American countries in EPIKH (Exchange Programme to advance e-Infrastructure Know-How) is very important in terms of reinforcing the impact of e-infrastructure in scientific research, and educational events, such as grid schools and HPC courses. Finally, it is well known that grid applications depend on connectivity, international and domestic; hence, CLARA is a critical regional infrastructure that needs to find a long term financial model and increase bandwidth to its member countries. The current status of CUDI's infrastructure will also be discussed as well as a recent federal initiative in Mexico to promote high capacity bandwidth access as a citizen universal right.