

## Bolivia hosted ALICE2 and CLARA in April



#### May 14, a great day:

Praises and strong messages in favour of intercontinental connectivity marked the ALICE2 launch

#### COMCLARA 2010: Promoting and supporting research in Latin America





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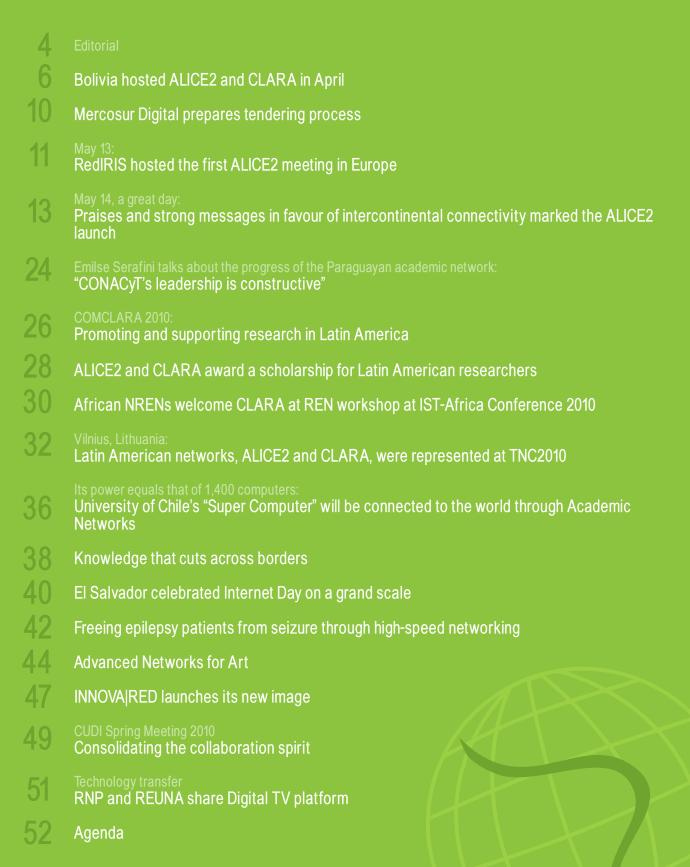
A project implemented by CLARA

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«The European Union is made up of 25 Member States who have decided to gradually link together their know-how, resources and destinies. Together, during a period of enlargement of 50 years, they have built a zone of stability, democracy and sustainable development whilst maintaining cultural diversity, tolerance and individual freedoms. The European Union is committed to sharing its achievements and its values with countries and peoples beyond its borders».

The European Commission is the EU's executive body.

# Contents



# Editorial

## The ALICE2 Launch Held at the EU-LAC Ministerial Meeting for Science and Innovation Friday, 14th May, Madrid, Spain

The following text is the speech given at the ALICE2 Launch by Mário Campolargo, Director for «Emerging Technologies and Infrastructures», European Commission, Information Society and Media Directorate-General.

It is my pleasure to introduce the launch of the ALICE2 project that will allow the consolidation and extension of the RedCLARA network.

RedCLARA is the advanced network established in Latin America for regional interconnection and linked to the European GÉANT network. RedCLARA is the einfrastructure for collaborative research and education providing a first-class platform to support both regional development and cooperation between Latin American and European Researchers.

For the Commission, RedCLARA is a particularly good example of this cooperation between Europe and Latin America, and especially for the Information Society Directorate, it is the most concrete and successful case of implementing the recommendations of previous Ministerial Fora on Information Society for bridging the digital divide and establishing the related connectivity.

We also recognise that Science is a global enterprise and that research collaboration is a positive sum game. Only by bringing together the best minds and resources around the world can we effectively address the major challenges faced by our societies and our planet. This is why the European Framework Programme for Research is open to participation from all countries around the world. Information and Communication Technology is a key enabler. Thanks to the e-Infrastructures it brings together researchers and allows the sharing of resources, giving access to information, data and facilities. The regional development of e-Infrastructures give support to cooperation and emergence of virtual research communities that work on challenges and solutions of both global and local interest.

The applications that can run on top of these global networks are limitless. Some of these application areas, such as telemedicine or distance education, can have a profound impact on society and can make a strong contribution to social cohesion. This is why we need sustainable, durable, efficient and accessible e-infrastructures in Latin America.

These are some of the strengths of the RedCLARA model:

- it is locally managed,
- it has built a sense of ownership and responsibility,
- it has and is still having beneficial effects in the not always easy telecommunications market,
- it has locally developed a very valuable ICT know-how, which is in turn transferred to the private sector in the form of highly competent staff that demands the same means when entering the labour market



• itis an example for the support and development of other regional networks, and CLARA has been invited to present and share its experiences in the IST Africa 2010 Conference in Durban on the 20th May.

RedCLARA has been the result of a combination of strong political will and a determined collaboration of all stakeholders: in this sense, we recognise the interest and contribution of the Latin American and European governments and NRENs involved in the process.

There are still several pending points that need to be addressed:

• Raising awareness in public authorities to get institutional support for sustainability in the long term.

• The extension of RedCLARA to other LA countries.

• Improving the connectivity between EU and LAC academic networks through the enhancement of transatlantic links, including through new optic fibre cables. In this sense, the Capacities Work

programme 2011 (expected to be approved shortly) will call for a support action addressing the feasibility of direct transatlantic connectivity between Europe and Latin America.

The launch of RedCLARA today is therefore an important event both for the European and the Latin American Research and Education Communities. It signals a very significant development in the LAC-EU collaboration that we hope it will be accompanied in the near future by an improvement of connectivity and in the eventual deployment of new fibre systems connecting the two regions.

Thanks to all for your presence, and I wish RedCLARA all the best for this new step.

Disclaimer: The views represented in this article are those of the author and do not necessarily reflect the official position of the European Commission on this subject.

# Bolivia hosted ALICE2 and CLARA in April

Five days, three venues, five different meetings, one training activity, and the participation of all institutional and technical representatives from the Latin American academic networks that are members of CLARA and ALICE2, as well as of two representatives from ALICE2 European member institutions, the Executive Director of the Caribbean Knowledge and Learning Network (CKLN), and the Director of the Mercosur Digital Project; this is how we could sum up the first ALICE2 and CLARA biannual meeting 2010 (the third since the beginning of the project in December 2008), which was held in Santa Cruz de la Sierra from April 12 to 16, with the support of the Bolivian Academic Integration Network (RIAB).

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The city of Santa Cruz was chosen to host the members of CLARA and ALICE2 in the first of two biannual meetings. Clear and deep blue skies, an ideal temperature and the excellent disposition of the hosts were the framework of a week of intense and fruitful work.

#### CLARA-TEC

The twelfth meeting of CLARA's technical forum, CLARA-TEC, was held on April 12 and 13, at the facilities of the Technology Library of the Autonomous University Gabriel René Moreno (UAGRM).

The opening of the meeting was done by Michael Stanton, former President of CLARA's Technical Commission, who thanked the host country and welcomed CLARA-TEC and the new Commission's executive committee, and congratulated Sandra Jaque, its current President.

Sandra Jaque thanked Stanton's words, then explained the meeting's agenda and began the session.

Gustavo García, CLARA's Technical Manager, talked about the deliverables and the implementation of RedCLARA's second phase, which had been fully accomplished by March 2010. García explained issues related to tendering processes, link migration, NOC applications (Network Operations Centre), the e-CienciAL project's information system, the NEG (Network Engineering Group) plans for 2010 –routing policies, provisioning study and circuit design, disaster recovery and maintenance plans.

Sandra Jaque talked about the status of the ALICE2 project, and her presentation was followed by that of Roberto Zambrana about the emerging Bolivian academic network, RIAB. The Bolivian representative indicated that until July this year the network will be going through an institutionalization process. During this phase, departmental technical committees are being set up, departmental inter-university networks are being designed and the network's topology is being developed.

In his presentation on the advances accomplished by CUDI (Mexican academic network), Hans Reyes talked about the Aztec country's National Connectivity Strategy, which is run by CUDI, the Transport and Communications Secretariat and the Mexican Federal Government and aims to implement a powerful infrastructure for 2007-2012 connectivity that makes it possible to reach a penetration rate of 60% among the

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#### CLARA-TEC

population; the target is to get six out of ten Mexicans to have access to broadband internet by the end of the stated period (which coincides with the end of the current government's administration). Reyes highlighted the fact that the Government has allocated a 3.3 Ghz frequency to CUDI for education.

Luis Castillo, network engineer at RAU, described the state of regional connections by presenting a detailed view of the layout within Uruguay. The same was done by Javier Martínez in relation to the Argentinean academic network, INNOVA|Red.

After the block devoted to national networks, José Augusto Suruagy Monteiro (University of Salvador) gave a presentation on the state of the perfSONAR project, with especial attention to its architecture (based on web services).

And as in every meeting of CLARA's technical forum, the meeting's lengthiest block was devoted to the reviewing the status of work groups. In fact, the afternoon of May 12 was devoted to the reports of the groups in the networks area: Measurements, Security, IPv6 and Hybrid Networks. On that afternoon, there was also time to review the status of the Training and Videoconference groups. The latter is intended to be renamed as Experimental Videoconference Group.

Tuesday May 13 featured space for the reports from the IPTV, Mobility and VoIP groups; but that day began with the participation of CLARA's Marketing Manager, Rafael Puleo, who gave a presentation on CLARA's service strategy, with special attention on the Videoconference service. Hugo Vecino, from the area of CLARA's software development, talked about the web services that are being developed.

The project's reports were presented at the CLARA technical forum on the afternoon of May 13, through the following presentations:

- Dynamic Circuit Technology, Iara Machado (RNP)
- EVALSO, Sandra Jaque (REUNA)
- GÉANT, EUMEDCONNECT, TEIN and AfricaConnect, Tom Fryer (DANTE)
- RNP Services, Antonio Carlos Fernandes (RNP)
- RENATE 850 Mhz GSM/GPRS/EDGE Network, Andrés Salinas (RENATA)
- GLOBAL, Walter Munguía (RAAP)

All the presentations given at CLARA-TEC are available to be downloaded at: http://indico.rnp.br/ conferenceOtherViews.py?view=clara&confld=84

#### **Technical Training**

On April 14 and 15, at the INEGAS facilities in the Autonomous University Gabriel René Moreno, the practical training courses called "Isabelvide oconference platform and VCC (Virtual Conference Center) and "perfSONAR utilities for videoconferencing support" were held. They were both promoted by ALICE2 and CLARA in collaboration with the GLOBAL project, in the case of the first course, and with CLARA's Measurements Work Group in the case of the other course.

The training course on Isabel and VCC was led by Enrique Barra, from the Polytechnic University of Madrid (Spain), and featured the participation of 35 students. The course on perfSONAR was led by José Suruagy (RNP), on May 14 with the participation of 28 people.

The evaluation of both courses is being done.

#### ALICE2

After one day of day of meetings by the institutional representatives from CLARA's member networks, including the organization of the General Assembly and an update on the "Strengthening of Regional Advanced Academic Networks through CLARA as a Regional Public Asset" (IBD-CLARA) and e-CienciAL (OAS-FEMCIDI) – Programme for Advanced Network Use Promotion in Latin America for the development of Science, Technology and Innovation projects, on the night of Wednesday April 14, the ALICE meeting was opened at a welcome dinner offered by the Bolivian Network's (RIAB) Promotion Committee at a traditional food restaurant. This camaraderie activity featured the participation of the senior staff and technicians from ALICE2's member academic networks, the European Commission's EuropeAid officer, Ovidiu Mic, the representatives from DANTE and RedIRIS (Tom Fryer and Alberto Pérez, respectively), the Caribbean network's Executive Director, Ken Sylvester, the Mercosur Digital project's Director, Marta Pesoa, Bolivia's Vice Minister of Science and Technology, Pedro Crespo Alvizuri, and the participation of representatives from RIAB, ADSIB (Agency for Information Society Development in Bolivia) and some local universities.



ALICE2-CLARA

On Thursday April 15, a detailed report on the project's implemented and ongoing activities by CLARA's Executive Director opened the session that is held every six months for control purposes and to establish action points for ALICE2. The presentation by Florencio Utreras was conducted according to the objectives established for the project; the state of the network's links, new projects, the appointment of Carmen Gloria Labbé as Innovation and Development Director, the advances in terms of inclusion –with special emphasis on the relations with CKLN in the Caribbean and with Nicaragua-, budget issues, the work plan for 2010 and the ALICE2 launch in Madrid, scheduled for May 14, were the main topics covered in the presentation.

The second session, led by Rafael Ibarra (RAICES), was devoted to the key issue of research communities. In this regard, from inside CLRA Benjamín Marticorena, Communities Coordinator, gave a report on the initiatives already developed as part of ALICE2, such as the creation of community committees, visits to the different governmental bodies and agencies for science and research in the different Latin American project members and the creation of open bids to promote research activities -for instance COMCLARA-, among others. The contribution from Europe was delivered through the presentation on the communities in the GN3 project, related to the third phase of the pan European network GÉANT, given by Tom Fryer, and the RedIRIS work groups, a presentation developed by Alberto Pérez.

The long term connection between Europe and Latin America was the key topic of the third session, where Alberto Pérez discussed the GÉANT developments and activities in terms of optical fibre infrastructure. Nelson Simoes (RNP) and Florencio Utreras introduced the optical fibre initiative in the Mercosur block, and Michael Stanton (RNP) emphasised the importance of establishing an intercontinental submarine cable. This issue was unanimously supported by the audience, since it could solve direct connectivity between RedCLARA and GÉANT in a way that is not only creative, but also efficient and cost-effective. CLARA's Executive Director, given the issue's importance, asked the senior staff from national networks to approach their countries' governments to ask for support for this initiative.

Internationalisation was the topic addressed in the fourth session, where Marta Pesoa presented the Mercosur Digital project that she leads, and its relation with CLARA, specifically in relation to the establishment of the Paraguayan network, Arandu. Ken Sylvester, leader of CKLN (Caribbean Knowledge and Learning Network), presented the advances of the C@ribnet project, which aims to establish a regional academic network in the Caribbean zone; Sylvester thanked the positive synergy established with CLARA and requested the development of an ALICE2-CLARA meeting in the Caribbean so as to further strengthen collaboration between both regions. AfricaConnect, the initiative for the establishment of a regional academic network in sub-Saharan Africa, was presented by Tom Fryer, who highlighted the CLARA collaboration with the Ubuntu Net Alliance leaders, which would lead to the participation of CLARA delegates in the sessions on AfricaConnect at the IST-Africa event at the end of May.

The fifth session was focused on a discussion about networking political issues between Europe and Latin America. Here, Aníbal Gattone (INNOVA|Red) talked about the Innovation Forum and the topics to be included in the political events agenda. The costs shared between the networks –GÉANT-RedCLARA, was analysed by Alberto Pérez (RedIRIS). The intercontinental coordination, reflected in the CCIRN forum and other related initiatives, was discussed by Michael Stanton (RNP).

The final session was devoted to details on the future actions as part of ALICE2; annual work plan, new work tools and the deliverables involved.

It is important to point out that according to the agreements established at the end of sessions, it was decided that the second ALICE2-CLARA annual meeting will be held from September 27 to October 1, 2010 in Managua, Nicaragua.

The presentations given at the ALICE2 meeting are available for download at the project's Intranet.

## Mercosur Digital prepares tendering process

Simone Cardoso



Marta Pessoa in the ALICE2-CLARA meeting in Santa Cruz, Bolivia.

he objective of Mercosur Digital is to contribute to the regional economic growth and integration by promoting electronic commerce and training on information society topics. To this end, the project's members aim to create a common regulatory framework for the block, to improve the technical infrastructure, to implement web services and applications for small and medium sized businesses, as well as to train human resources. For the project's director, Marta Pessoa, Mercosur Digital will help to reduce the asymmetries related to information and communication technologies between the countries in the block. "The project will enable the conduction of secure electronic transactions between Mercosur countries. This is why we are also working on issues like digital signature, data protection, electronic crime and electronic tax notes", explained Marta.

In April, Marta Pessoa was in Santa Cruz (Bolivia), where she participated in the meeting with the representatives from the regional academic networks that are part of CLARA and the ALICE2 project. The purpose of the meeting was to identify the possibilities for collaboration with other Latin American research and education networks. One of the integration opportunities is the Virtual Training School, which will address topics related to digital economy.

The project is justified by the ideal scenario of Latin American countries: the increase of GDP, the large number of credit card users in the region and the increase in the number of mobile phone, internet and broadband users. Between 2000 and 2007, the population of internet users in Latin America increased from 18,1 million to 122,4 million, which represents a 1300% growth in eight years. Furthermore, in relation to the countries with e-Commerce development, this has already been stabilised and has reached its maturity; the countries that are developing virtual economies have a great potential for growth. According to studies developed by Visa, in Latin America e-Commerce, including tourism, featured a business volume of US\$ 5 billion in 2005, and in 2008 it exceeded US\$ 16 billion. The forecast for this year is to reach US\$ 30 billion. With the implementation of the improvements planned by Mercosur Digital, the perspectives tend to improve.

May 13:

# RedIRIS hosted the first ALICE2 meeting in Europe

Such an important landmark in the history of ALICE2 as its launch would evidently bring together the great majority of directors from the academic networks that are part of it. With this scenario in mind, after the project's meeting held in Bolivia, it was agreed to organise the first of this type of meetings in Europe and RedIRIS offered its house and excelled in hospitality.

#### María José López Pourailly

ne of the last spring showers was pouring down on the streets of Madrid on that Thursday May 13. when the institutional representatives from the Latin American and European networks that are members of the ALICE2 project met at 9.00 on the seventh floor of the Bronce Building by the Manuel Gómez Moreno square. RedIRIS was the host, led by Tomás de Miguel Moro, Director, and Alberto Pérez Gómez, deputy director; it was the first time that an ALICE2 meeting was held on Europe and it featured the presence of representatives from three of the four networks from that continent that are part of the initiative and of DANTE; we are talking about the already mentioned RedIRIS (Spain), the Director of Renater (France), Dany Vandromme; and GARR (Italy), represented by Fernando Liello. Pedro Veiga, Director of FCCN (Portugal) arrived in Madrid on May 14 to take part in the project's launch ceremony. Cathrin Stöver, International Relations Manager, and Tom Fryer, International Relations Officer, participated in representation of DANTE. From the world of European institutions with which CLARA and Latin American networks have significant common grounds in terms of collaboration, the meeting featured the participation of TERENA, represented by John Dyer, business and technology strategist.

As could be expected, the welcome message was delivered by the hosts, Tomás de Miguel and Alberto Pérez, who were followed by the President of the CLARA Board, Martha Giraldo, who thanked the hospitality offered by RedIRIS and the participation of the great majority of ALICE2's member institutions.



From left to right: John Dyer, Florencio Utreras, Tomás de Miguel and Alberto Pérez.

The ALICE2 project's implementation report was presented by Florencio Utreras, CLARA's Executive Director, who was followed by Benjamín Marticorena, CLARA's Communities Coordinator, who talked about the activities aiming at the development of Latin American research communities and at the technical and financial support opportunities that have been created for them as part of the Project. Tom Fryer did something similar in relation to the communities incorporated through the pan European project devoted to the implementation of GÉANT's third phase, GN3. John Dyer introduced TERENA's activities and task forces and work groups, placing the emphasis



From left to right: Álvaro De La Ossa, Andrea Daniela Morales, Cathrin Stöver, Florencio Utreras, Martha Giraldo and Ida Holz.



From left to right: Dany Vandromme, John Dyer, Tom Fryer and Alberto Pérez.

on the importance of collaboration for the effective construction of a community.

After the lunch break, the afternoon featured a session devoted to discussing intercontinental issues, such as those related to the possibility of sharing costs between GÉANT and CLARA in terms of interconnection (Tom Fryer), the EELA (Europe Link to Latin America) initiative, which promotes the establishment of a submarine transatlantic cable for direct connection between RedCLARA and GÉANT (Fernando Liello), and the integration of ALICE2 with CKLN (Caribbean Knowledge and Learning Network) and the European territories in the Caribbean region (Dany Vandromme), based on the experience of Renater.

The meeting's last block was devoted to exploring issues in the field of services; the session was led by Alberto Pérez and included presentations by Rafael Puleo, CLARA's Marketing Manager, who talked about the Videoconference integrated service; by Diego López, RedIRIS' Middleware Manager, who explained the federated authentication in Europe and Eduroam; by Víctor Castelo (Scientific Research High Council, Ministry of Science and Innovation, Spain), who talked about e-Science advances in Europe; and by Salma Jalife (Cudi), who talked about the GISELA project and the future of computing grid services in Latin America.

The meeting was concluded with thanks to RedIRIS and its staff, and with an invitation to share a camaraderie dinner, where the meeting's success and the ALICE2 launch scheduled for hte following afternoon were celebrated (read the article called "May 14, a great day: Praises and strong messages in favour of intercontinental connectivity marked the ALICE2 launch", published in this issue of DeCLARA).

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14 de mayo, un gran día:

## Praises and strong messages in favour of intercontinental connectivity marked the ALICE2 launch



"For the Commission, RedCLARA is a particularly good example of this cooperation between Europe and Latin America and, especially for the Information Society Directorate, it is the most concrete and successful case of the implementation of the recommendations from previous Information Society Ministerial Forums by the European Commission to bridge the digital divide and to establish a unifying connectivity", with these words Mário Campolargo, Director of Emerging Technologies and Infrastructure of the European Commission's Information Society, opened the official launch ceremony for the ALICE2 project and the second phase of RedCLARA, on May 14, 2010, as part of the Europe, Latin America and the Caribbean Science and Innovation Ministerial Conference (EU-LAC), held at the IFEMA Exhibition Centre in Madrid (Spain). A top-level ceremony where the emphasis was placed on the fundamental relevance of collaboration and the need to improve connectivity between academic networks in Latin America and Europe through a direct transatlantic link between both continents.

María José López Pourailly y Tania Altamirano López

powerful tool, an example of collaboration, a successful collaboration  ${\sf A}$  story, were the phrases with which Mário Campolargo, Director of Emerging Technologies and Infrastructure of the European Commission's Information Society, Florencio Utreras, CLARA's Executive Director and Martha Giraldo, President of the CLARA Board, celebrated the official launch of RedCLARA's second version on May 14. The context was ideal, the Science and Innovation ministerial delegations from Europe, Latin America and the Caribbean, who had participated during the morning in the Ministerial Conference in preparation for the EU-LAC Heads of State and Government Summit (that would be held on May 18 in Madrid, Spain), after lunch, dessert and coffee, were open to receiving the messages that the already mentioned authorities had to deliver in favour of the development of science and the advance of innovation within Latin America and between Latin America and Europe and they were certainly eager to listen to the sound of ancient instruments recovered by the ASTRA project, thanks to the capacities of the GÉANT, EUMEDCONNECT and RedCLARA networks, through the performance of the first musical piece written in Latin America by the Lost Sounds Orchestra and the Caprici Art and Music Choir.

The expectations were high and the result was superb: May 14, 2010 marked a new landmark in the history of advanced networks that we write in our dark skinned America.

#### Preparation

At the beginning of the year, the story of ALICE2 launch and RedCLARA's second version began to be written. To have an impact, to surprise, to thrill, to produce something that went beyond the purely technological side to talk about the fruitful relationship between Latin America and Europe in the field of scientific, technological, educational and social advances; that is what the Visibility team had in mind. The answer was shortly made evident: CLARA had already established collaboration and friendship bonds with the ASTRA (Ancient Instruments Sound/Timbre Reconstruction Application) project, the sounds of the Epigonion and the Barbiton, recovered by this project, led CLARA to dream with recovering the sounds of pre-Hispanic Andean instruments. The invitation to Domenico Vicinanza and Francesco De Mattia, ASTRA's Technical and Artistic Directors respectively, was promptly accepted.

In the beginning of the second half of the year's first month, maestro De Mattia visited Chile to meet CLARA's Director, Florencio Utreras, and the Communications and Public Relations manager, María José López, and the expert in pre Hispanic musical instruments and musicology from the Chilean Pre Columbian Museum, José Pérez de Arce, in order to face the new challenge. The meetings were very productive and De Mattia went

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back to Europe with a mission for ASTRA to recover the sounds of a drum from the Gentilar culture (north of Chile), dated between 1200 and 1470 B.C. and a bone flute (quena) from the Nasca culture (south of Peru), from the year 1000 to 700 B.C. and a personal assignment to work on the musical score of the Loa (praise) for "La Púrpura de la Rosa" ("The Blood of the Rose"), the first opera written in Latin America after the conquest.

"The reasons that led me to choose La Púrpura de la Rosa for the ALICE2 launch ceremony are many and varied, almost in layers. I came to know and appreciate La Púrpura long ago, during an artistic collaboration with René Clemencic, who had recently recorded it. I must say that, in the first place, I was already fascinated by its rhythmic and timbre variety, and by the freshness of the melodies. This is complemented by the fact that I am a lover and follower of speculative music, especially J.S. Bach's music, and inevitably this led me naturally, as a consequence and automatically I would say, to search and individualise the real sense of that structure and its musical discourse. The fact that La Púrpura is historically the first piece written in the new world, made me think immediately in a cultural bridge between the western and Latin American cultures, and therefore it seemed to me it was the perfect piece and the ALICE2 infrastructure had to be used immediately: I could not let go that opportunity. In Madrid it was fascinating to play the epigonion alongside the bone guena and the drum reconstructed over the RedCLARA infrastructure, and I had the privilege of working with outstanding musicians with whom we are already planning future collaborations", recalls Francesco De Mattia.

It was soon evident that the recovery of the sound of instruments would not be an easy task; time was pressing, but the promise had been made to the European Commission and the Spanish Presidency of the European Commission; the drum and the quena had to emit their sounds and thrill the ministers. The networks and grids were prepared for the conduction of complex computing that would lead to their modelling and synthesis. The accomplishment of the sound was just a matter of time and, it is necessary to say, of the huge workload of ASTRA's technical team.

"Musical instruments from Latin America are incredibly interesting, for many reasons: musical, historical, philological, artistic and scientific. The relationship between the music and society is "written" through the characteristics and the sound of these instruments. To work on the quena and the drum was a fascinating experience for the entire group. To recover their sounds and listen to it for the first time after hundreds of years, has been fantastic", indicates Domenico Vicinanza, ASTRA's Technical Director. "I always enjoyed working with Latin America's pre Hispanic culture. There is such richness, a different kind of richness which complements the European one, from the artistic and social points of view. I have had the chance to meet and get to know wonderful people and it has been marvellous to be able to collaborate with artists, scientists and



Caprici, May 9, rehearsal



Fiorenza Calogero and Enrico Vicinanza, general rehearsal, May 13



Francesco De Mattia and Paolo Cimmino, general rehearsal, May 13

researchers. I hope this is the first of a long series of experiments and collaborations, and that we can soon face as ASTRA and the Lost Sounds Orchestra the challenge of new instruments and new concerts", concludes Vicinanza.

And the voices... the Loa, the celebration song of "La Púrpura de la Rosa" required excellent soloists and choir. Maestro De Mattia brought together the first, and Enrico Vicinanza and Fiorenza Calogero, voices from the south of Italy, accepted unconditionally, in the same way that the percussionist maestro Paolo Cimmino. The search for a choir would involve greater difficulty. However, the same difficulty led to meeting wonderful people and voices that make up the Coral La Paz, and later Lynette Carveth, director of Caprici Art and Music, a choir that would perform the Loa (praise).

Once the voices, the choir and the musicians were defined, and the sounds of the instruments obtained, it was intended to take Latin America to Europe through videoconference. However, it was necessary to write this off, given the complexities involved in performing the piece in the time and physical space available. It is important to point out the huge artistic contribution from Costa Rica, in the person of Álvaro de la Ossa, Director of the Costa Rican academic network, CoNare. This collaboration involved the participation of musicians and technicians from his country.

#### Hours before

The previous days before the launch were intense. It was necessary to put all the pieces together, to bring the sound of the pre Hispanic bone quena and drum together with the sounds of the epigonion and the barbiton, and bring all of them together with the voices and musicians.



Rehearsal became the most frequently used word and it was urgent to have a place to be able to actually do it. Lynette Carveth, director of Caprici and one of the voices in the choir that would bring to life to the Loa of La Púrpura de la Rosa, got permission to use Madrid's Anglican Church to do this, and the first meeting for musicians, soloists and choir was scheduled for Sunday May 9. That rehearsal would only be attended by Francesco De Mattia, Enrico Vicinanza and Caprici in full... The piano was played by De Mattia's hands and the Caprici voices directed by Stephen Knight burst the air inside the church in great harmony: "Viva Filippo, viva!"

That first rehearsal was clearly a promise of success.

The second rehearsal was scheduled for May 11. This time Fiorenza Calogero (soloist) and Alberto Román (Bass) joined. But, certainly, the forces of nature had not been taken into account, and the wind scattering the ashes of the Eyjafjallajokull volcano from Iceland to the centre of Europe held Fiorenza for eight hours at Naples airport... She waited stoically and responsibly, but she was not able to meet everybody for rehearsal at the church, and to celebrate maestro De Mattia's birthday.

On May 12, Enrico, Fiorenza and Francesco met Lynette to review the villanelas (ancient Neapolitan song) and the solos in the Loa that would be interpreted on May 14 in front of the ministers.

On May 13, while the European and Latin American senior staff from ALICE2's member academic networks was meeting at RedIRIS, and under a heavy rain, musicians and voices met at 16:00 at IFEMA to conduct the general rehearsal. The group was completed after the arrival of the percussionist Paolo Cimmino.

At the venue people were working on the last details in the meeting room and the dining room that would welcome ministers and their delegation. In the latter place, a stage was set up for the concert that would represent the grand finale for the ALICE2 and RedCLARA's second phase launch. The sound check and the first chords began, the voices were heard, and in that place where everybody was performing urgent tasks, calm and contemplation took over for a couple of hours. Everybody was spellbound watching the rehearsal.

On the night of May 13, the ALICE2 general Coordination offered a dinner for the representatives from the networks attending the meeting that had been held in RedIRIS, who would participate the following day in the launch, and for the musicians participating in the concert. It was necessary to reward them for the wonderful thing they were contributing to the project for its launch; and in the middle of the lively and relaxed



Francesco De Mattia and Paolo Cimmino, general rehearsal, May 13



Ministerial Forun nology and 2010, Ma



Mário Campolargo

Martha Giraldo

Florencio Utreras

dinner, they received from the hands of CLARA's Executive Director, ALICE2 coordinating institution, an anthology of Latin American music.

The friendship and camaraderie spirit that night showed what ALICE2 is above all things: a project sustained by a great human network.

#### May 14: The Launch

The person in charge of the opening at 15:30 on May 14 at IFEMA, was Mário Campolargo, Director of Emerging Technologies and Infrastructure of the European Commission's Information Society, and he did so by qualifying ALICE and ALICE2 as an example of collaboration between Europe and Latin America. In terms of future challenges, Campolargo pointed out the need to attract the attention of public authorities in order to get the institutional support required to achieve RedCLARA's sustainability in the long term; the need to expand the network to other Latin American countries and to improve connectivity between academic networks in Europe, Latin America and the Caribbean through the extension of the transatlantic links, including new optical fibre cables. "In this sense, the Capacities Work programme 2011 (expected to be approved shortly) will call for a support action addressing the feasibility of direct transatlantic connectivity between Europe and Latin America", indicated the executive.

Campolargo indicated that the importance of the ALICE2 launch reaches the European and Latin American research and education communities: "It signals a very significant development in the LAC-EU collaboration that we hope it will be accompanied in the near future by an improvement of connectivity and in the eventual deployment of new fibre systems connecting the two regions".

Florencio Utreras, CLARA's Executive Director, had the mission of introducing ALICE2 and RedCLARA to the ministers and their delegations,

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through the presentation called "A successful collaboration story", the project's General Coordinator made a brief review of ALICE2's story and pointed out that through RedCLARA2 it is expected to expand and promote the work done by RedCLARA in the identification of communities for research, development and consolidation of a sustainable model, in regional inclusion and in capacity building.

Martha Giraldo, President of the CLARA Board and Executive Director of Colombia's national network, RENATA, stated that the only way for Latin America to become competitive is through the creation of several virtual research institutions which include researchers from several countries: "With these new powerful networks, researchers will share their instruments and data, their computing resources and their digital libraries and, even more importantly, they will work together in multi-national teams. Only by inter and extra regional team work will significant results be attained in addressing important problems such as infectious diseases, climate change, biodiversity, seismology, deforestation and water pollution. It is these tools which will permit researchers in the region to be part of large scale experiments in astronomy, physics and biotechnology", she explained.

After the speeches and presentations by Campolargo, Utreras and Giraldo, it was the beginning of the concert in which for the first time in history the sounds of pre Hispanic instruments were joined to those of Ancient Greece. Such unique alchemy was (and is) possible thanks to the perfect



Caprici and Lost Sounds Orchestra playing the Loa of La Púrpura de la Rosa



Caprici in concert



Stephen Knight, Director of the choir



Lynette Carveth, Caprici

combination between the capacities of the advanced networks GÉANT, EUMEDCONNECT and RedCLARA, grid computing, and the singular and complex physical modelling synthesis technique developed by the ASTRA (Ancient Instruments Sound/Timbre Reconstruction Application) project, which enabled the recreation of sounds from the European barbiton and epigonion (heard at the launch of GÉANT's third version in December 2009 in Stockholm) and, exclusively for the ALICE2 launch, of a drum from the Gentilar culture (north of Chile), dating from 1200 to 1470 B.C. and of a bone flute (quena) from the Nasca culture (south of Peru) from the year 1000 to 700 B.C.

With the participation of the Lost Sounds Orchestra and Caprici Art and Music, three villanelles (typical song from the Neapolitan baroque) were presented as well as the recreation of the Loa (praise) of the first musical piece ever written in Latin America, La Púrpura de la Rosa, a one-act opera composed by Tomás de Torrejón y Velasco on a script by Pedro Calderón de la Barca; 1701.

The audience was captivated. The concert fulfilled its objective: it had an impact, it surprised, it thrilled and showed that the academic networks' technology does not only strengthen scientific development,

education and innovation in the field of science, but also strengthen the arts and the recovery of the global historical heritage. And certainly, the concert above all managed to show the power of collaboration and of the fruitful relationship between Latin America and Europe.

"When I first heard of the project, I thought how exciting it would be to participate in a performance that involves musicians from so many different cultures. I believe strongly that music is an important force in bringing people from different backgrounds together. This was further enhanced after meeting Francesco De Mattia and María José López,as I was so impressed by their passion and enthusiasm. The work that was chosen for us to perform is a gem that has been almost lost in time. I was pleased to have the opportunity to discover this magnificent piece and for our choir to increase it's repertoire. I did not know what to expect regarding the 'Lost Sounds Orchestra', and it wasn't until the performance that we were able to hear the amazing sounds that were produced and to realise the relevance of this exciting project. The mix of modern with ancient is important in maintaining our past alive and to learn from our predecessors by developing music with their influence using the technology available to us today", comments Lynette Carveth.

At the end of the Loa, Florencio Utreras and Martha Giraldo gave the Spanish minister of Science and Innovation, Cristina Garmendia, and the Argentinean minister of Science, Technology and Productive Innovation, José Lino Salvador Barañao, the illustrated map of the RedCLARA topology. Minister Garmendia thanked the gesture by unfolding the map to show it to the audience and congratulated CLARA's Executive Director for the ALICE2 launch and for the magnificent concert given.

Hugs and congratulations were multiplied among the representatives from the academic networks that are members of ALICE2, DANTE, the European Commission's representatives and certainly, the musicians.

Campolargo's words lingered in the air, regarding what the Commission expects for the future of the network and of Martha Giraldo: "Thanks to European cooperation, Latin America has built a powerful infrastructure supported by the regional and national organisations that administrate, develop and promote its use. The ALICE2 Project is, and will continue to be, a powerful tool for the development of Latin America and to accomplish a greater collaboration between our researchers and their peers in Europe and all over the world".





Florencio Utreras greets the Spanish minister of Science and Innovation, Cristina Garmendia, with th illustrated topology map of the RedCLARA network; she shows the map to the attendees



## What would you like to happen with ASTRA and the Lost Sounds Orchestra in Latin America?

#### Francesco De Mattia answers:

"Taking into account the collaboration established with CLARA, my objectives are: 1) develop and carry out a series of collaborations to explore contamination between European cultures (especially Mediterranean) and Latin American ones, especially through the reconstruction of pre-Hispanic instruments, thus opening musical language towards new paths and leading it as well towards new possible horizons, 2) the exchange of musical experiences in technical and interpreting aspects, 3) to create training sessions, aimed at the production of concerts, 4) to strengthen the publication and dissemination of everything resulting from this research, including the edition and printing of unpublished music (or the oral tradition passed on through various systems) in conventional notation. I am sure that with the ASTRA project and the Lost Sounds Orchestra —which is based in the University of Malaga- we will achieve this important cultural objective; of course, the use of a research network like the one CLARA has is fundamental for the success of this complex project which takes a look at the future; the network will eliminate distances between the two continents, thus carrying out in a concrete way a cultural change."

#### Acknowledgements

For the preparation, organisation and execution of the ALICE2 launch concert, CLARA had the support of various institutions, academic networks, projects and people. We want to thank especially each of them for their wonderful and generous contribution; it was all possible thanks to you.

ASTRA (Ancient Instruments Sound/Timbre Reconstruction Application): Domenico Vicinanza, Technical Coordinator Francesco De Mattia, Artistic Coordinator Mariapaola Sorrentino, Instrument modelling and test coordination

Lost Sounds Orchestra: Francesco De Mattia: Artistic Director and Concert's General Director Paolo Cimmino, Percussionist Enrico Vicinanza, Soloist Fiorenza Calogero, Soloist

Caprici Art and Music (choir): Lynette Carveth, director of Caprici and soprano Stephen Knight, Musical Director Agnieszka Ceglowska, soprano Ligia Gutiérrez Vargas, soprano Isabel Rivero Requena, soprano Federico Teja, tenor Jason Willis Leigh, baritone Ryan Borges Machado, baritone Ariel Hernández Roque, tenor Alberto Román, bass (musician)

#### chile:

Chilean Museum of Pre-Columbian Art José Pérez de Arce, expert in musicology, Chilean Museum of Pre-Columbian Art

Costa Rica

Álvaro de la Ossa, Executive Director of RedConare Cornelia Miller, Coordinator of the PRIAS-CeNAT Danny Silva, RedConare School of Musical Arts of the University of Costa Rica (UCR) FundeArte Symphonic Orchestra Distance State University (UNED) Musicians: María Luisa Meneses, flute Enid Ulate, flute Manrique Mendez, percussion Carlos Alberto Castro, guitar Channel 15 UCR (television), video recording and music excerpt from La Púrpura de la Rosa: Herberth Chavez, Jorge Calderón, Gustavo Lizano, cameramen Bryan Fernández, sound Alex Picado, technical support Nelson Brenes Mejía, producer

Europe: RedIRIS (Spain) GÉANT DANTE

Peru: RAAP Joaquín Guerrero, Pontificia Universidad Católica del Perú (PUCP)

#### Message from the ministers for the May 18, 2010 Summit:

Page 5: In "Thematic Priorities", section "LAC-EU Collaboration Priorities" from the "Document on the Joint Research and Innovation Initiative", issued by the European Union-Latin America and the Caribbean Ministerial Meeting on Science, Technology and Innovation in Madrid, Spain, on May 14, 2010.

"It must focus specially on the research infrastructures based on ICT (abbreviated as e-Infrastructures) in two major strands:

"Connectivity between EU and LAC in order to enable cooperation in science and R+D through the improvement of academic networks' interconnection, and the strengthening of the transatlantic links, including the installation of optical fibre cables.

"E-Infrastructures to support collaboration in the specific research/application domains (energy, environment and climate change, agroalimentary sector and health services) improving access and use of simulation and supercomputing facilities."

Download document in Spanish at: <u>http://www.micinn.es/stfls/MICINN/Prensa/FICHEROS/2010/ALCUE\_Iniciativa\_Conjunta\_II\_ES.pdf</u>

#### 6th EU-LAC Summit, Madrid, May 18, 2010 MADRID DECLARATION:

Excerpt (pages 9 and 10):

"Towards a new stage in the bi-regional partnership: innovation and technology for sustainable development and social inclusion"

"III. Promoting Innovation and Technology on a bi-regional scale for sustainable development and social inclusion"

"38. Aware of the key role played by science, technology and innovation for achieving sustainable development and social inclusion, through the social appropriation of knowledge, as well as mutual benefits through cooperation in capacity building, research programmes, and technology transfer activities, through innovation strengthening thematic networks and at increasing competitiveness, at favouring science and technology independence and at promoting greater uptake of science and technology in Latin America, the Caribbean and in the EU, we agree to give priority to bi-regional and triangular cooperation as well as to activities in these fields, especially to enable access to cooperation opportunities to countries with low or no participation in European Programmes.

"39. We also decide to strengthen the science, technology and innovation dialogue at ministerial and EU-LAC S&T Senior Officials levels in order to ensure updating and monitoring of priorities and joint instruments, taking into account the interest and differences between and within each region in order to strengthen the enabling environment for social and technological innovation across our societies.

"40. Fully committed with priorities and decision taken in earlier EU-LAC Summits to achieve a "EU-LAC Knowledge Area", we agree on the development and implementation of the EU-LAC Joint Initiative for Research and Innovation (the <Initiative>) adopted at the EU-LAC Ministerial Forum on Science and Technology held in Madrid on 14 May 2010. The Initiative is based on a set of pre-existent and new actions combining different types of instruments at national, regional and bi-regional levels, as appropriate, in a complementary and synergistic manner in pursuit of the objectives of the Initiative. The Initiative frames Science and Technology cooperation in close coordination with higher education and innovation actions. This is expected to create conditions for strengthening the interface between research and innovation and to facilitate technology transfer and adaptation in formats accessible to micro and SMEs, including through knowledge and innovation centres network, participation in the European Research Framework Programme, progressive opening of national research programmes, interconnectivity between research infrastructures and promoting cooperation in capacity building human and institutional.

"41. In order to pursue these objectives, the above mentioned Joint Action Plan as regards research, technology and innovation comprises implementation of the Joint Initiative for Research and Innovation as well as other bi-regional activities regarding Research and Development and innovation.

"42. We very much welcome that the VII LAC-EU Summit will be held in Chile in 2012 and we accept with pleasure the invitation to participate.

Download the full document at:

: http://eu2010.es/export/sites/presidencia/comun/descargas/Cumbre\_UEALC/may18\_madriddeclarationES.pdf

Emilse Serafini talks about the progress of the Paraguayan academic network:

# "CONACyT's leadership is constructive"

In Paraguay, efforts do not stop so that the ARANDU Network project can move forward. Its most recent step is the signature of a cooperation agreement between the National Science and Technology Council (CONACyT) and the Paraguayan Communications Company S.A. (COPACO). Emilse Serafini, project coordinator, talks about the history, the achievements and challenges related to this network that will begin to work experimentally as of July 30.

#### Ixchel Pérez



Arandu is a Guarani word that means Wisdom. And it is precisely this virtue what can be obtained from the development of the Academic Network for Science, Education, Technology and Innovation that will carry this name in Paraguay.

It is a project that has been taken up again with greater strength since 2009 and is promoted by many of the most important universities in Paraguay. Although it faces several challenges, its development moves confidently forward.

As part of the process, CONACyT and COPACO recently established an agreement that aims to jointly promote ARANDU, as well as to implement initiatives in the field of science, technology and innovation. It was signed by

the president of CONACyT, Dr Juan Carlos Rolón, and the president of COPACO, the engineer Mario Esquivel, and it includes the development of research projects of particular concern of both institutions, training for human resources, technical advice and support, as well as the exchange and use of knowledge and the provision of mutual services taking advantage of the available infrastructure.

The Coordinator of the Mercosur Virtual School and of the ARANDU Network, Emilse Serafini shares advances and challenges of the initiative that holds out promise to change the prospects for science and technology in Paraguay:"It is important to highlight the effective actions of CONACyT in this process. Its leadership is constructive, which is why it has not been overwhelmed by adverse situations, such as the lack of resources. Instead, it has seen a challenge full of opportunities in the ARANDU project".

## How was the ARANDU project conceived and how did it evolve?

In the year 2002, Paraguay, through the National Computing Centre (CNC) of the National University of Asunción (UNA), participated in the meetings and work groups of the Latin American National Research and Education Networks (NREN), and signed the Toledo declaration on Research and Education Networks in Latin America. In 2003, it signed the Constitution Act of the Latin American Cooperation of Advanced Networks (CLARA).

Since 2002, several meetings were held in Paraguay with the aim of creating the national network. The ARANDU network project was discussed by many universities, state agencies and trade unions related to ICT. Unfortunately, the national network could not be materialised (in terms of infrastructure, institutionality and resources) due to development stage of that time, especially in terms of financial sustainability issues, despite having 80% funding from the European Union through the ALICE project (Latin America Interconnected with Europe). In December 2009, representatives from the UNA, CNC, Bi-national Itaipu Entity, the Ministry of Finance (MH), the Catholic University Nuestra Señora de la Asunción, the Autonomous University of Asunción (UAA), the National University of the East (UNE), the Paraguayan Telecommunications Company (COPACO) and the Itaipu Technological Park (PTI) unanimously decided to ask the National Science and Technology Council (CONACyT) to coordinate the ARANDU project. Since that date, it is performing that role, and a technical group has been set up. This group includes representatives from CONACyT, the universities, COPACO and PTI, and works in close collaboration with technicians from CLARA and from the Brazilian National Research and Education Network (RNP).

## Which have been the latest advances in the implementation of this academic network?

Through the Mercosur Digital Project, we are currently developing Contract 4 (C4) called "Technological Platform and Support to Paraguay", whose purpose is the definition of the necessary platform for the connection between ARANDU and CLARA.

Thanks to the creation of the Technical Group, there have been meetings with the C4 experts, and three concrete stages for the implementation of ARANDU have been established.

A great step forward was the far-reaching cooperation agreement signed between CONACyT and COPACO, which enables the execution of joint projects.

Another point that can be highlighted is the collaboration that RNP will provide through the donation of communication equipment that will make it possible to illuminate two COPACO fibres, which will become the main communication and integration backbone available for the ARANDU network.

#### Which are the next steps?

First, to effectively connect the following institutions: National University of Asunción, Catholic University Nuestra Señora de la Asunción, Autonomous University of Asunción, National University of the East, CONACyT, COPACO and PTI. Subsequently, we plan to get other universities and local institutions involved in the project by promoting the presentation and execution of research projects with an emphasis on collaboration and integration.

## Which are the benefits of this network's implementation?

There are many. We can mention the following:

Scientific, cultural and economic growth will be strengthened through the application of Information and Communication Technologies as a tool for shared development.

It will deploy service platforms to support research and teaching at a national level, introducing the use of high-speed network technologies, as well as related facilities.

It will promote collaborative and complementary work, so that the higher education institutions and technological and research centres are able to share experiences, propose, design and develop joint projects at a national and international level.

#### What are the challenges for ARANDU?

These are also many, and include: To promote and encourage the research culture in our country; to establish, operate and expand a technological infrastructure in accordance with the needs of a NREN; to encourage the exchange of knowledge, technology, good practices, and collaborative work; to establish connections with other advanced networks through CLARA and its complementations; to promote the use of ICT for new learning and scientific research environments; and to collaborate with social and economic development through better conditions for research and innovation.

More Information: ARANDU: http://www.arandu.net.py

# Promoting and supporting research in Latin America

32 communities across the entire region participated in the call by CLARA Communities' programme, version 2010, which offers the opportunity to strengthen their work links in various areas of research, to consolidate their relations and make use of the telecommunications and informatics resources available through RedCLARA. What are the results? Nine communities in Colombia, Argentina, Ecuador, Brazil, Peru and Costa Rica were chosen and will be able to become part of this initiative that aims to encourage the creation of groups dedicated to research through the services and applications developed in advanced networks.

#### Tania Altamirano L.

COMCLARA 2010:

**C**LARA, versión 2010, COMCLARA2010, un programa desarrollado en el marco del proyecto América Latina Interconectada con Europa (ALICE2), y que ofrece a los investigadores de las instituciones conectadas a las redes nacionales de investigación y educación (NREN) asociadas a CLARA, la oportunidad de fortalecer sus vínculos de trabajo en el ámbito de sus intereses de investigación, consolidando sus relaciones y empleando recursos de telecomunicaciones e informática que pueden usarse a través de RedCLARA.

On May 14, CLARA's website published the results of CLARA Communities, version 2010, COMCLARA2010, a programme developed within the context of the Latin America Interconnected with Europe (ALICE2)project which offers researchers from the institutions connected to the national research and education networks (NREN) that are members of CLARA the chance to strengthen their work links in the field of their research interests, consolidating their relations and making use of the telecommunications and informatics resources that can be used through RedCLARA.

The research areas included in the initiative covered health, materials technology, food, water, social sciences, biotechnologies, astronomy, education, natural disasters, cultural heritage (archaeology and intangible heritage), information and communication technologies (e-Government, grids, digital libraries) and energy technology (renewable energies).

The communities selected in the 2010 call are:

Latin American Colaboratory of Experimental Software Engineering Research. Area: Education Country: Colombia

Latin American Network of Nanotechnology and Society. Area: Materials Technology Country: Costa Rica

Microorganisms, Agriculture and Food Network. Area: Food Country: Peru

Integrated Coastal Management of the Southern Cone. Area: Multidisciplinary Country: Uruguay

Map and Programme of arts in digital dance (and performance). Area: Cultural heritage Country: Brazil Latin American Community of Learning Objects. Area: Education Country: Ecuador

Latin American Community of Digital Libraries and Repositories. Area: ICT - Digital Libraries Country: Colombia

Gamma Radiation Observatory. Area: Astronomy Country: Argentina

Education and research. Area: Education Country: Colombia

#### The benefits

According to the programme's call, the communities chosen will receive support from CLARA through the ALICE2 project to hire a coordinator who is responsible for the promotion, mobilisation and internal coordination between members. They will also receive funding so that the main organiser or/and the coordinator can participate in at least one annual conference that is relevant for their speciality and where networking is promoted. Additionally, they will have access to the videoconference services from national networks for the development of regular activities, such as workshops, virtual information days and distance seminars. They will also receive technical support from CLARA for one year in the use of its services and applications to meet the goals set out by the community for that period.

For further information, please visit: http://www.redclara.net/index.php?option=com\_con tent&task=view&id=144&Itemid=325

## ALICE2 and CLARA award a scholarship for Latin American researchers

The two Latin American researchers whose proposals were accepted at the e-2010 eChallenges Conference have been awarded with a scholarship by the Latin American Cooperation of Advanced Networks, through the ALICE2 project, so that they can participate in the event that will be held in Poland from October 27 to 29.

#### Ixchel Pérez

A Colombian researcher and a Bolivian researcher were the only two Latin American people chosen to participate in the e-2010 eChallenges Conference, as their proposals were accepted by the organizers among many other proposals around the world.

Complying with the regulations of the competition developed to encourage the regional participation in the Conference, CLARA awarded a scholarship for both specialists to attend the annual event supported by the European Commission which is usually attended by more than 650 representatives from leading organisations in the commercial, governmental and research spheres around the world.

The purpose of the Conference is to share knowledge and experiences in issues related to research, development, the industry and new technologies. It is in this context that the specialists that were awarded the scholarship by CLARA will share their knowledge through their presentations. They are the Engineer MSc Roberto Zambrana, researcher from the Institute of Applied Electronics of the Universidad Mayor de San Andrés (UMSA) in Bolivia, and Marta Lopera, PhD in Neuroscience and Behaviour Biology and Director of the research group on neuroscience and cognition of Colombia's Cooperative University (UCC).

The scholarships, made possible thanks to the ALICE2 project and its mission to promote knowledge and the creation of communities, consist of a return ticket to Warsaw, Poland –the country where the event will be held-, registration to eChallenges and up to 4 days of

travel allowance (according to the EuropeAid rate for Poland).

CLARA had made an open invitation to the entire Latin American scientific and research community to participate in the competition, promoting extensively the availability of scholarships for researchers who submit papers that were accepted by the eChallenges organisers.

Lopera submitted a paper on the Cajal Museum, of which there will be a virtual exhibition on the life and work of Santiago Ramón y Cajal (1852-1934) that will be launched within the context of the Psychology Congress to be held in June 2011 in Medellín, Colombia (an activity that brings together international scientific leading figures and over 2,000 participants from several countries).

The artistic compilation will not be open to be managed on the internet. The idea is to turn it into an academic activity, aimed at specific populations: researchers, teachers, students, visitors, in a scientific environment, according to Lopera's explanation on the proposal submitted to eChallenges: "Colombia is in a consolidation stage of its scientific activities; the life and work of Cajal serve as a reference for contemporary researchers and he is a master for the younger generations", explains the researcher in her paper. "The new technologies at the service of scientific dissemination provide support to a fast and smooth knowledge dissemination and management", she states in the document that gained her access to the Conference.



#### Optical fibre

Roberto Zambrana is a Researcher at the Institute of Applied Electronics of the Universidad Mayor San Andrés and Head of the ICT deparment. Last year, he was awarded a scholarship to participate in LANOMS2009 and one to participate at the TERENA Conference 2010 this year.

He has been chosen one more time to attend an important international event and was given a scholarship by CLARA. "Having been chosen makes me very happy, because as it is customary in this kind of events including peer-review procedures, the research has been assessed by other specialists who have made positive comments on the paper submitted", said Zambrana. "This feeling is intensified if we take into account the fact that the topic addressed has an evident technical content. Finally, it is also pleasant to know that only two Latin American researchers will be part of the group of presenters", he added.

Zambrana explains that he has developed projects in the area of telecommunications, particularly related to searching for low-cost connectivity solutions, taking into account that in most cases, many projects for network implementation have limited resources. One of the most fascinating areas for the researcher is communication through optical fibre, which has evolved significantly over the last few years, particularly as one of the media used in the networks based on Ethernet technology, which usually have been considered only for local area infrastructures.

With his proposal called "Inexpensive Optical Ethernet Solutions for high-reliability, high performance and high-availability enterprise networks", Zambrana shows that the new technologies developed, added to the new functionalities available in low-cost communications equipment, make it possible that Ethernet technology is also used at transport levels, reaching large area coverage near 100 Km. "In many institutional contexts, especially in developed countries, funding is not a problem, as opposed to the institutions in our region. such as universities or municipal and local governments, which intend to buils these infrastructures, whose consolidation is delayed or, in many cases, impossible given their financial limitations. In this context, the solution proposed in the research provides an alternative with investment and operation costs which are a lot lower, but featuring performance levels similar to other more costly alternatives", he says.

The fact that his research was chosen, according to Zambrana, could contribute to those entities that intend to carry out these implementations and have limited economic resources.

More information: http://www.echallenges.org/e2010/ http://www.alice2.redclara.net

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## African NRENs welcome CLARA at REN workshop at IST-Africa Conference 2010



The photo shows participants at the 1st ERINA4Africa Workshop in Kigali discussing best practices in e-Infrastructure applications development in Africa.

n mid May, Maria José López Pourailly and Annibal Gatone made the long journey to Durban, South Africa to bring their experience gained in CLARA to the Workshop on Building a Research and Education Networking Infrastructure in Africa. UbuntuNet Alliance in collaboration with DANTE, the e-Infrastructure Unit of the EC and other REN stakeholders has been associated with IST-Africa Conference & Exhibition since 2007. The one-day Workshop on Building Research and Education Network Infrastructure in Africa has been the centre of focus over the years as a parallel activity at this big annual event which brings together researchers, academics, policy makers and government officials. This year, IST-Africa Conference & Exhibition was held at the Durban International Convention Centre in South Africa on 19-21st May 2010.

Third in a series of REN Workshops at IST-Africa Conference, this year's workshop was special. For the first time CLARA was represented - bringing a wealth of experience from Latin America - marking the beginning of the South-South collaboration in research and education networking. We are grateful

#### Tiwonge Msulira Banda, Alianza UbuntuNet

to Cathrin Stöver of DANTE for facilitating the UbuntuNet-CLARA experience sharing! The European Commission representation in the persons of Kostas Glinos and Leonardo Flores gave ongoing support and encouragement. Also present were friends from the African Union and the emerging West and Central African Research and Education Network (WACREN). The strengthening of WACREN gives hope that, soon, an inter-connected academic and research network will benefit every country in the African continent.

The programme of the 1 day workshop, setting the stage for the long awaited European Commissionfunded AfricaConnect, was divided into 4 sessions chaired by well known professionals. The sessions focused on: the state-of-the-art of the African Research and Education Networks and experiences from Latin America; emerging content networks; political will and capacity and finally a round table discussion on the next steps and synergy among actors.

Currently, documentation for AfricaConnect is being developed and negotiations between DANTE and the European Commission are on-going. The experiences gained by DANTE in the implementation of the

RedCLARA network play a significant part.

Learning from CLARA was exciting and will be ongoing. Maria José López Pourailly presented the story from ALICE to ALICE2 and the presentation was key as UbuntuNet Alliance is preparing for AfricaConnect. Annibal Gatone presented



Margaret Ngwira

#### **Check this out!**

NUANCE is the name of the UbuntuNet Alliance newsletter. With three years of on-line life, network, collaboration and education are the main issues that this information media covers and disseminate among the communities gathered in the UbuntuNet Alliance. NUANCE is a powerful tool that plays a significant role in keeping the world informed about the advances of the Sub-Saharan NRENs and of the future regional advanced network.

María José López Pourailly

Ever since mid 2009, when the collaboration between CLARA and UbuntuNet Alliance Communication and Public Relations staff started, there has been a lot of synergy between the two institutions. A good example of this is what the May's edition of NUANCE highlights in its contents; we are talking about two specific articles that you should check out:

- South South: UbuntuNet and CLARA share intelligence on the vital role of Dissemination and Marketing
- CLARA ALICE2 publishes a White Paper

But really, with or without knowing about the importance that they are giving to our Latin-American initiatives and processes, to visit the current and past editions of NUANCE it is important to learn about the Sub-Saharan situation, the advances and difficulties that the African NRENs are confronting, the cientific and thecnological developments in the region and, of course, the future implementation of their own advanced network and their connection to GÉANT and, hence, to the rest of the world.

- If you want to revise the last edition of NUANCE, please go to: http://www.ubuntunet.net/may2010
- NUANCE past editions: http://www.ubuntunet.net/taxonomy/term/4
- UbuntuNet Alliance: http://www.ubuntunet.net/

both the progress of InnovaRed and Contents and Applications in Latin America. We must express gratitude to the GLOBAL Project (which has already united CLARA and UbuntuNet), for providing remote participation to the event through the GlobalPlaza. All presentations and video recordings are available at http://www.globalplaza.org/spaces/ist-africa-2010ren-workshop/events/building-research-and-educationnetwork-infrastructure-in-africa.

UbuntuNet Alliance and its NREN Community see great potential in collaborating with CLARA and its NRENs. Quoting Margaret Ngwira of UbuntuNet Alliance, "the South-South collaboration between CLARA and UbuntuNet Alliance is critical as the two regions have much to share and learn from each other and undoubtedly have a bright future which the interconnected network can only make brighter."

The Feasibility Study for AfricaConnect (FEAST) encourages twinning between Africa and Europe. Already, KENET (Kenya) and DFN (German) signed an agreement for collaboration which includes NREN capacity building. UbuntuNet would like to extend the same call to CLARA NRENs to twin with UbuntuNet NRENs!



María José López Pourailly and Tiwonge Msulira Banda

## Latin American networks, ALICE2 and CLARA, were represented at TNC2010

On the week from May 31 to June 3, the academic networks world experienced one of its most appreciated forums for participation and exchange of ideas: the TERENA Networks Conference. Held in the capital of Lithuania, Vilnius, the activity featured the representation of engineers from five of the networks that are members of CLARA and the ALICE2 project, and two members of the CLARA team.

María José López Pourailly

Getting to Vilnius from Latin America is, to say the least, an adventure. But don't get me wrong, it is not an unpleasant adventure; quite on the contrary, it is one of those adventures that are remembered forever with a smile. Because after a minimum of two or three changes of plane and airport, it is very pleasant to find this small, clean, beautiful and friendly city. This is how the long voyage began for the Latin American people who attended TNC2010, an event in which it is always worth participating and which this year was held in the capital of Lithuania with the support of the local academic network, LitNet.

Whether you agree with the entire programme or not; whether you are an expert in advanced technologies and leading applications or not; and whether you have met your peers from European academic networks or not, to attend TERENA Conferences is always a great experience for members and researchers from Latin American networks. Because apart from being a space where relevant issues for the scientific, technological and educational scenes are explored and discussed in the field of academic networks, TNC is a meeting point for people with a vocation for collaboration and that helps opening up doors for development and innovation. This is what was experienced by the five engineers from CLARA and ALICE2 member networks, who were awarded a grant by this project to participate in TNC2010.

The open call to apply for the grants was sent by electronic mail, through the CLARA-TEC mailing list, on April 22 this year. Nine criteria were taken into account in order to be eligible for the funding to participate in TNC2010 (including airfares and accommodation). Strictly sticking to the rules, the criteria were:

"1.- The areas of work/research of the applicants will have to be among the ones considered in TNC2010, which is why applicants are advised to review the Programme in the following URL: http://tnc2010.terena.org/schedule/index. php?showday=2010-05-30

"2.- Applicants must speak English fluently.

"3.- They must have attended more than one CLARA-TEC meeting.

"4.- National Networks must explicitly support them.

"5.- Applicants must commit themselves to coordinating a presentation via Videoconference, no later than two weeks after the event, in order to show CLARA-TEC the information collected, possible projects or synergy for the CLARA WG, etc.

"6.- The Evaluation Committee will try to achieve a wide representation of all the sub-regions within Latin America.

"7.- Priority will be given to those people who have not participated previously in technical events on behalf of CLARA.

"8.- Priority will be given to people with technical qualifications.

"9.- Every person must check the requirements to enter the country where the event will be held (visa, vaccines, etc.)".

The evaluation panel was constituted by Iván Morales, vice president of CLARA's technical commission (RAGIE), and the Commission's members Javier Martínez (INNOVA|Red) and Andrés Salinas (RENATA). "The entire selection process was conducted by sending comments and objections via email, to then perform a formal election, also via email, and inform CLARA's management, as well as the accepted and rejected applicants. Only six people applied; the person that was not selected had already participated in and a previous TERENA event and there was another applicant from his own country who had not represented CLARA in such event before, and so, given the conditions established in the original call, we had to turn her down because of the selection criteria", explains Iván Morales.

Finally, the grants were given to Sandra Jaque (REUNA), Carlos Bran (RAICES), Jaime Martínez (UNICAUCA-RENATA), Roberto Zambrana (RIAB) and Azaél Fernández Alcántara (Cudi). Each one of them was contacted after the event by DeCLARA to learn about their impressions regarding TNC2010. These were their answers:

#### Sandra Jaque, REUNA (Chile):

"I think it was an excellent experience, because I believe the TERENA conference is a good space to learn about what is going on in other Academic Networks, mainly in the European ones, both in terms of technology and management, trend and strategy issues. On the other hand, it is very positive to be able to contact peers, to envision opportunities for new contacts, ideas for future projects, etc. In conclusion, it is a very positive event where it would be great to always have representatives from Academic Networks from Latin America; I believe it would be very beneficial if CLARA, through ALICE2, could continue providing this financial support for its member institutions".



Azael Fernández, Jaime Martínez, Sandra Jaque and Carlos Bran.

#### Carlos Bran, RAICES (El Salvador):

"To participate in the TNC2010 event represents a very interesting exchange experience, since it makes it possible to get in contact with the work developed by academic networks with a greater level of maturity comparedtoours. This gives us the opportunity to explore new projects and initiatives which serve to encourage the creation of new ideas for the deployment of new services in our networks; furthermore, it is positive for the strengthening of contact groups, with highly skilled professionals in the areas of internetworking, with whom we can share our initiatives and request assistance for their implementation.

"It is therefore particularly important to continue promoting and funding the participation of technicians from the different NREN in CLARA, in favour of the wealth of knowledge and the homogenisation of the experiences of the technicians from the different networks; personally, I am very enthusiastic with the opening of these opportunities by CLARA and ALICE2, and I thank them for the support given".

#### Roberto Zambrana, RIAB (Bolivia):

"The experience in Vilnius has meant a lot for all of us. In my particular case, I have strengthened my arguments to continue convincing our national authorities that the support for our country's Academic and Scientific Network must be established as a priority, so that we can walk along the roads opened by our Latin American peers, but, additionally, with the constant advise from the multiple achievements of our friends in the European context.



Azael Fernández and Roberto Zambrana.

"Undoubtedly, the evolution of our networks features different stories, but it is hard to avoid comparisons at seeing that CLARA, thanks to the wise administration of its senior staff and the support obtained in ALICE2, through the @LIS Programme, is about to improve the connectivity conditions, increasing the backbone links from 155 Mbps to 1,000 Mbps or more, while GÉANT has minimum backbones around 10,000 Mbps (10 Gbps), and now they are consolidating fibre backbones illuminated with 10 Gbps light channels (lambdas) which can carry up to 100 Gbps with the current technology.

"And one thinks, what can you do with so much speed?, and we have found the answer precisely through multiple conferences that have shown outstanding and novel experiences like the "super high" video transmission (four times higher than the maximum we know as 1080p), which is available in cinema screenings, and to conduct, for instance, remote surgical operations or any other experience related to the implementation of a common storage infrastructure for all the universities in a country. This basically means to have a "virtual hard disk" containing all the data and applications from all universities.

"It was also impressing to access, talk and relate to representatives from the institutions that lead the networks' technological development, like the Internet Engineering Task Force (IETF), or from the most important companies in the field of telecommunications, such as CISCO, JUNIPER, ADVA, and others; and we are not talking about business representatives, but about senior managers and top-level technicians.

"Well, it would take very long to tell about all our experiences in TNC2010, however, I conclude by indicating that this kind of meetings must be promoted and increased, and not only by passively receiving information, but also within the context of our own experiences, which are humble but highly significant, pursuing a more active exchange in order to enrich the activities we have been carrying out and, hopefully, include in our regular meetings the participation of colleagues from European networks".

#### Azael Fernández Alcántara, Cudi (Mexico):

"Definitively, my participation at the TERENA 2010 meeting turned out to be a unique, unforgettable and rewarding experience. On the one hand, among the cultural and linguistic diversity of the activities in each country, not only in terms of academic networks, but also companies from all continents, we could find a unity and community that is linked by means of a common language, as happens in the world of networks (protocols, mathematical formulas, good practices, etc.), in order to overcome possible communication barriers between the different countries with their own realities and contexts.

"It was very interesting and it is very important to bring attention to the characteristics and differences of the event in comparison to our meetings; for example, with the participation of sponsoring companies giving information on the latest development states of technologies and their products; the topics offered and the concurrent sessions model... unfortunately, it is possible to be in one room at a time, but this problem is overcome through the online broadcasting system, which makes it possible to learn about the other interest topics, live and on demand, and which I strongly recommend to be discussed.

"In my case, I participated and attended the plenary sessions and several workshops which are already helping me to expand my knowledge and enhance it and I will happily share this with the CLARA community. The workshops included one on Juniper, on ADVA, one part of DNSSEC and one on "OpenDRAC: Cooperative Development".

"The sessions I attended were: all the plenary sessions, "On-demand Network Services", "Advanced networking", "Transport Networks 1", "All for one and one for all – GÉANT panel", "NOC", "Future networking", "Networking services" and "IPv6". "Finally, I participated, got connected and performed some tests with a connection only through IPv6, keeping the IPv4 part of my computer off in order to test the internet access of several applications through a IPv4 and IPv6 mapping service which was implemented during the meeting, and which we will try to replicate in our meetings.

"And, certainly, coexistence is important and productive with the meeting's participants at lunch, during breaks and during the welcome dinner, where you share information not only about academic network issues, but also about cultures and ways of life from various places.

"Because of all this, I am grateful for this opportunity to attend and I suggest you should continue supporting other people for future meetings and events, so that we can continue having a Latin American presence, expand everybody's knowledge and developing communication links and bridges".

Jaime Martínez, UNICAUCA – RENATA (Colombia): "A quality event. You can learn from the experience gained by networks in other countries in research and development activities, in different areas of knowledge, which make use of advanced networks as the tool that

brings to life services for the community's benefit.

"A very significant aspect is the fact that you interact with people who are willing to share their knowledge and engage mutual participate in each other's activities, thus providing the opportunity to make new contacts with institutions and individuals and continue sharing knowledge.

The sessions were very compelling and extremely useful to strengthen work groups. In particular, I found a lot of material and new ideas to be applied in the IPTV work group.

"I thank CLARA very much for this opportunity which will undoubtedly bring benefits to our networks, and I hope it continues giving this opportunity in future events".

## Synergies between CLARA and TERENA

Rafael Puleo and María José López, CLARA's Marketing Manager and Communications and Public Relations Manager, respectively, were sent by CLARA to participate in the event. Their mission was not only to attend the plenary sessions and workshops to "feel the pulse" of what the Conference offered and find among all presentations what can be beneficial for implementation in Latin America. They also had to take part in the activities established for the TERENA Work Groups on Public Relations and Communications and on Services Marketing.

Thus, on Sunday May 30, María José López participated in her area's meeting, where she participated in the "Pimp my videoconference" workshop, aimed at the preparation in groups of a dissemination plan for a videoconference service offered by an academic network X. "Without false modesty, it was very rewarding to see that the plan we developed in my group turned out to be the winner, since the main part of it was built on a plan we had already developed in Chile for the same service", indicated López.



John Dyer and María José López.

One of the aspects to be highlighted in terms of communications and marketing

is the invitation made by CLARA to TERENA for them to have a member of the Communications work group to participate in the ALICE2 project's meeting that will be held in September in Managua (Nicaragua), where the first face-to-face meeting of the communications and public relations Latin American network will be held. The aim will also be to get related to Europe, Africa and the regions that benefit from GÉANT's connectivity thanks to the joint funding from the European Commission.

Finally, it is important to point out that at the TERENA stand they were distributing Compendiums and White Papers on Latin American Academic Networks, materials produced as part of the ALICE2 project.

> More Information: TNC2010: http://tnc2010.terena.org/

## University of Chile's "Super Computer" will be connected to the world through Academic Networks

The equipment that is established as the most powerful in Chile and the fifth fastest equipment across Latin America will make it possible to solve in just a few minutes computing processes that used to take up weeks or even months. The challenge is now to work on research activities that it was not possible to develop before.

#### Catalina Ramos Serón, REUNA

Curiosity and excitement were stirred up in Chile with the arrival of the iDataPlex IBM recently acquired by the University of Chile's Mathematical Modelling Centre (CMM). And it could not have been different, since it is a last-generation computer that opens up the doors to a High Performance Computing (HPC) that in the near future, sustained by Academic Networks, could be on the same level as European countries, Japan or the USA.



Claudio Baeza, researcher who leads the CMM's High Performance Computing Laboratory.

Although it is not the fastest equipment in South America (the largest one is located in Brazil and it is 30 times more powerful), it will be able in any case to compute optimal investments and operations for complex networks in problems related to energy and telecommunications; simulate complex

environmental conditions in mining projects; estimate more accurately the water resources available and analyse images in real time coming from medicine, bioinformatics and astronomy, to name just a few applications.

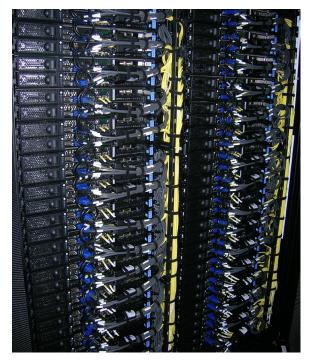
All of this is possible given the equipment's power, which equals that of 1,700 personal computers, and its computing capacity which is accomplished thanks to its 528 cores and other 80 supporting cores. The engineer from the CMM's High Performance Computing laboratory responsible for purchasing the equipment, Claudio Baeza, said that this technology is present in almost all areas of knowledge in the developed world, which is why having access to it "makes the difference when doing research and cutting-edge science".

In this sense, Francisco Escala, Systems Manager at IBM Chile, commented that it is reckoned that the "University of Chile will be able to create new knowledge for the country by making use of a high-performance tool that will have particular impact on medicine, biotechnology, mining and astronomy". He added that the equipment's technology makes it possible to consume up to 40% less energy than other equipment with a similar capacity.

#### With world-class research in mind

Another important advance resulting from the purchase of this equipment, which cost over 600,000 US dollars, is that it will enable the Chilean scientific community to create groups of highly qualified experts in parallel and distributed computing that will interact with the world's most advanced computing centres through the connection provided by the National University Network (REUNA) for the University of Chile, as a member of the Corporation.

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The IBM iDataPlex has the size of two refrigerators (2.09 meters high) and it took two years to get it.

According to Baeza, for the CMM Academic Netwoks play a very important role in the development of High Performance Computing. "Apart from demanding powerful equipment to work collaboratively like the iDataPlex IBM, large computing centres also feature the fundamental requirement of having a fairly stable high-speed academic network, and in Chile this can only be provided by REUNA".

In this context, the Mathematical Modelling Centre will focus its attention on the establishment of a cooperation network with universities, observatories and other research centres, making the equipment available for the national scientific community that requires the use of high performance computing. All of this with a view to turning Chile into a world-class excellence centre in terms of research and advanced training on applied science.

## GLOSSARY

**Mathematical Modelling:** It is a scientific model which mathematically represents the reality (e.g. facts, variables, parameters, propositions, etc.) of situations whose behaviour is difficult to be observed and studied.

**High Performance Computing (HPC):** High Performance Computing is a discipline dedicated to solving problems that given their computing complexity cannot be solved by a desktop computer. In order to meet this objective, High Performance Computing is supported by equipment with a greater power and computing capacity.

## Mathematical Modelling Centre

The CMM's mission is to create new mathematical methods to solve problems that are applicable both in the industry and science, and its purpose is to develop science according to the highest possible standards, which also lead its activities in industrial research and education.

## **IBM DataPlex's Technical Features**

- 528 computing cores, 66 Intel Xeon X5550 nodes
  80 support cores, 10 Intel Xeon E5540 nodes (I/O nodes, metadata server, queuing, development, frontend, grid gateway)
- 1,7 Terabyte of RAM

• Switch Infiniband Qloic 12800-180, full non-blocking, 40 GB/s, 25.9 Tbs, 168 enabled ports out of 432 ports

- 2 switches of 48 Gigabits ports
- Infiniband has an added through-put of 80 Gbps
- Lustre as file system over Infiniband

8 Terabytes of storage, which can be easily expanded
In the future GPU Nvidia Tesla Fermi will be added to some computing nodes



# Knowledge that cuts across borders

The new Venezuelan Digital Academic Library (BDAV) eliminates the direct access barriers between users and contents, the time and space limitations of libraries' information services and the problems intrinsically imposed by the printed medium. The BDAV aims to integrate, in one single portal, all the digital repositories of scientific and academic information of higher education centres in that country.

### Ixchel Pérez Santamaría

Seven years of working together on a project and the creativity to overcome challenges enabled the National Association of Libraries, Networks and Information Services Managers from the Academic, University and Research Sector (ANABISAI) to materialise on May 7, 2010 a goal that had been stated in 2003: the creation of the Venezuelan Digital Academic Library (BDAV).

"During the University Library Updating Seminar: Venezuelan Libraries in the Digital Age, held on October 23-24, 2003 at the University of Los Andes (ULA), it was agreed to set up a work team constituted by the academic and research libraries in the private and public sector in order to create the National Network of Digital Academic Libraries", recalls Carmen Ibarra, coordinator of the Multiple Resource Centre of the National Open University (UNA).

The evident power of technology across all areas and the growth experienced over the last few years in the production, distribution and consumption of scientific information were some of the factors that drove Venezuelan libraries to search for a new way of delivering the wealth inside them to the public. According to the specification of one of the project's declarations, one of the aims was to reach the largest possible audience, with the least possible amount of limitations of use, in order to promote research across all spheres of national life and at all educational levels. Since 2003, several Venezuelan universities began to make serious efforts in order to develop digital libraries, including the University of the East (UDO), the Central University of Venezuela (UCV), the National Experimental University of the Táchira (UNET), the National Open University (UNA), and the Central Western University Lisandro Alvarado (UCLA). Their aim was to upload their digital contents, basically BA and MA dissertations, to the Network and become part of the National Network of Digital Academic Libraries, adds the specialist.

During the creation of the network they had to overcome important challenges, such as the lack of financial resources to acquire the required technological infrastructure, given the financial limitations of universities and public institutions in general.

ANABISAI promoted the project in different spheres. "Since ANABISAI has been working on this project we have received a great deal of "moral" support from all sectors. In 2006 we received funding from the Ministry of Science and Technology and we organised a training activity for 45 members of staff. 25 of them were computer experts and 20 of them were librarians and/or information specialists from 19 Venezuelan academic and research institutions", indicates Ibarra.

Finally, as a result of perseverance, this year the initiative has become a reality in the BDAV, which is available at http://www.bibliotecadigitalacademica.org.

ve/bdav/. The new information resource aims at bringing together in one single portal all the digital repositories of scientific and academic information from universities, higher education institutes and technological and research centres across the country.

"The BDAV brings together the library efforts from the academic and research sectors and it is a tool that aims in the first place to facilitate access to a collection of BA and MA dissertations from universities and research institutes. It also aims to streamline and share human, technological, material and financial resources", emphasises the coordinator of the UNA's Multiple Resource Centre.

The initiative includes the creation of a cooperative information system operating exclusively on the internet through a national portal. It also includes the establishment of international interoperability standards for metadata exchange, the promotion of free access to information and knowledge -through the development of legal instruments that contribute to the effective participation of institutions- as well as the creation of innovative information services aimed at meeting the current and potential information needs of the Venezuelan society.

Access to the BDAV is free of charge. It is a userfriendly portal which can be accessed without the need to create an account, and which aims at the democratisation of knowledge and at the visibility of Venezuela's scientific and intellectual production. "We aim to retrieve, protect, disseminate and share through the internet the country's intellectual production and academic and scientific memory", states Ibarra. "It is worth mentioning that thanks to this initiative it has been possible to define a Project for Bibliographic Resources Acquisition, in electronic version, under a national license scheme. This was done with the intention of building a national consortium funded by the Venezuelan State in order to ensure access to high-impact international collections for the academic sector. At the moment, we are in the process of figuring out the financial and connectivity resources required for the project to work successfully", she adds.

"We aim to retrieve, protect, disseminate and share through the internet the country's intellectual production and academic and scientific memory".

Although the BDAV's official launch is a recent event and the current work has focused on disseminating the resource and on the implementation of some technical adjustments that are typical of this kind of initiative, lbarra assures that they have already received important requests from experimental universities that want to learn about the necessary requirements to take part in this ambitious project.

The BDAV portal explains that the higher education institutions and research institutes that wish to participate must have institutional repositories, offer free access to the full texts, be providers of metadata (OAI-PMH) and be registered in the portal.

### More information:

BDAV: http://www.bibliotecadigitalacademica.org.ve/bdav/ ANABISAI: http://www.anabisai.org.ve/

## El Salvador celebrated Internet Day on a grand scale

The international celebration of the Internet Day (DDI) became a whole week of parties in El Salvador, where a series of activities and conferences were held. The Salvadorian Advanced Research and Education Network (RAICES) was an active member of the celebration's Promotion Committee, which was led by the El Salvador Connection Association and the SVNet Association.

Ixchel Pérez



More than 300 people got together in different Salvadorian groups and stages to listen to the lectures commemorating the DDI, which is celebrated internationally on May 17 and which was celebrated for the entire third week of that month in the Central American country.

Apart from the professors, students and researchers that attended the celebration, every day there were large numbers of people connected via internet to the lectures, thanks to the direct broadcasting by the Clic Foundation. In fact, 114 people got connected to watch the conferences held at the Higher School of Economy and Business, which even exceeded the audience onsite.

Most of the activities were held in member universities from the Salvadorian Advanced Research and Education Network (RAICES), which was part of the event's Promotion Committee. "RAICES supported the celebration because Advanced Networks represent an effort that makes use of the Internet as the main tool, in a specific way and with particular purposes, which also play an important role in our countries", explained Rafael Ibarra, Director of RAICES.

The Promotion Committee was constituted by the Salvadorian government and 14 institutions from different spheres of society, such as Spain's Cultural Centre in El Salvador (CCESV), the Central American University José Simeón Cañas (UCA), T-Box and the Clic Foundation. The event was coordinated by the Connection to Development Association in El Salvador and the SVNet Association, and was sponsored by the CCESV, Telefónica Foundation, Technology Club and Microsoft.

The celebration, held for the second year in a row in that country, had the purpose of promoting the possibilities offered by new technologies in order to improve the standard of living of citizens and therefore that of the population.

"The celebration contributes to raising awareness about the importance of the internet, so that it becomes a truly accessible resource for Salvadorians, particularly the possibilities it offers to our society and economy, and the different ways of bridging the digital divide", pointed out the engineer Gilberto Lara, President of the Connection Association.

Lara also summoned all people attending the conferences to become aware of the fact that internet promotion must not be limited to just one week a year. "Everyone of us, as a citizen, must work on its promotion,

and must be eager to involve all those people who have never used the internet; let us motivate them to get internet access in order to gain knowledge", he said.

## Advanced networks had their own space

The activities began exactly on May 17, at the UCA, with three interesting lectures on interactive generations, technologies in risk management and geographical information systems integrated into the web.

That day featured a review of the internet's history, including its evolution in El Salvador. "In 1994, the SV domain appears in El Salvador, and this has resulted in a spiralling development in all aspects of our society, contributing to the new peace process of that time, and has had a positive impact on education, the dissemination of our culture, the emergence of an alternative press, development of a different type of commerce and, above all, on the creation and consolidation of social networks", pointed out Dr Mauricio Pohl, head of the UCA's Electronics and Informatics Department.

The representative from the SV domain administrator, SVNET, the engineer Nelson Quintanilla, showed the network's accelerated development through figures by explaining that SVNet administrates a set of 65,000 IP addresses and 4,500 domain names, which are both fundamental aspects for internet operations.

Other four universities that are members of RAICES hosted the events: the Technological University (UTEC), the Francisco Gavidia University (UFG), the Don Bosco University (UDB) and the Central American Technological Institute (ITCA).

"Apart from using RAICES' member universities as venues for the scheduled events, there are also talks about what Advanced Networks are, and what can be done in them, and there is also promotional material (like banners) presented in some of the meetings", explained Rafael Ibarra.

Carlos Bran, technical director of RAICES, was in charge of giving an interesting presentation on the opportunities and challenges of advanced networks in Latin America and Central America; he presented before an audience of nearly 75 people and explained that the four main objectives of advanced networks are: promote collaboration between countries and organisations; encourage academic, scientific and technological development; develop collaborative projects in one-to-one and one-to-many modalities; and test the new generation of technologies and protocols from data networks.

"Advanced networks aim to encourage the development of new applications and services related to research and education, as well as to develop and maintain high-performance network infrastructures to support massively demanded applications", indicated the engineer.

Students and teachers learned in detail about the Latin American Cooperation of Advanced Networks (CLARA), as a non-profit organisation focused entirely on promoting educational, scientific and cultural activities.

Bran explained that CLARA, thanks to funding from the European Commission, has led to the construction of an Advanced Network in Latin America that is connected to its pan European peer, GÉANT.

The specialist added that ALICE, which enabled RedCLARA's implementation, has been regarded as the most successful collaboration project across the region, and that it currently focuses, under the name ALICE2, on strengthening the network infrastructure, the development of applications and on the growth of national networks.

Bran also explained that RAICES is working to achieve high-capacity connectivity between the higher education institutions in El Salvador and abroad, in order to promote research, and internet applications.

> More Information: RAICES: www.raices.org.sv Conexión: http://www.conexionelsalvador.org/ SVNET: http://www.svnet.org.sv/ Fundación Clic: www.clic.org.sv

# Freeing epilepsy patients from seizure through highspeed networking

90% of the world's 50 million epilepsy sufferers live in developing countries. Despite the success of modern drug therapy, a large minority of patients is resistant to anticonvulsant medication, leaving surgery as an effective alternative treatment.

Helga Spitaler, Region Marketing Officer, International relations, DANTE

Treating epilepsy with surgery is complex and skilled and many developing countries lack the expertise. Thanks to the power of two high-capacity datacommunications networks – EUMEDCONNECT2 and GÉANT – the outlook for millions of epilepsy sufferers is being dramatically transformed and the costs of treatment substantially reduced.

## Bridging the surgical treatment gap

Exploiting the power of modern communications networks, medical specialists in the Hôpital Charles Nicolle in Tunis, Tunisia and in its namesake in Rouen, France are reducing geographical isolation and collaborating effectively on the diagnosis and surgical treatment of epilepsy patients. Established in 2006, the programme focuses on epilepsy patients for whom drug therapy has failed to achieve freedom from seizures. The collaboration relies on the power of regional Internet networks dedicated to research and education use: EUMEDCONNECT2, bringing together researchers in seven southern and eastern Mediterranean countries, and GÉANT, its pan-European counterpart.

To establish suitability for surgery, each of the patients in the neurological department of the Tunis hospital is the subject of a thorough assessment, including brain imaging and video electroencephalography (EEG) - producing huge, bandwidth-hungry files. These are transmitted over a path consisting of the Tunisian national network (run by the Centre de Calcul



el Khawarizmi), EUMEDCONNECT2, GÉANT and RENATER (the French national network) to clinicians in the Rouen hospital.

The two groups of doctors are able to discuss the findings in real time and arrive at surgical decisions together – exchanging best practice into the bargain. An infrastructure with the capacity and reliability of these regional and national networks is essential to this international collaboration, ensuring the rapid and secure transfer of the video-EEG recordings and MRI scans. EUMEDCONNECT2, GÉANT and their Tunisian and French counterparts are designed and used for applications requiring huge volumes of data to be transmitted quickly, reliably and with total integrity of information.

## A model for the future

Published results for this pioneering collaboration between medical teams in different countries show a success rate close to 100%. Unremarkable in developed countries, where sophisticated epilepsy surgery has been routine for many years, such a success rate is rare in the Mediterranean rim. In Tunisia there are some 40,000 epilepsy sufferers, of whom 8,000 have a drug-resistant form of the condition. This means a considerable and permanent health improvement, potentially for many thousands in the Tunisian population – and a major reduction in cost, because this is a permanent once-only treatment making lifelong drug therapy unnecessary.

"Working in real time with colleagues in Rouen to examine individual cases has offered new perspectives for our first group of epilepsy patients. After successful surgery they are all enjoying a life free from seizures. Actually, they have all begun a new life – all made possible by this technology." Amel Mrabet, Head of the Neurological Department, Hôpital Charles Nicolle, Tunis, Tunisia.

The programme has proved so beneficial that planning is underway to set up collaborations with other Maghreb countries, benefiting an even wider population and increasing the savings in proportion.

Although there are several active epilepsy medicine collaborations between developed and developing countries, this programme is the first in which Internet technology is making a dramatic difference. It isn't only epilepsy sufferers who benefit. DANTE – responsible for building and maintaining EUMEDCONNECT2 – is behind a network of networks stretching around the globe and connecting millions of researchers, academics, scientists and doctors. Many of these research and education networks are used for medical applications, reducing the costs of high-quality medical care, enabling medical skills transference and spreading

sophisticated clinical practice to remote parts of the developing world lacking in skilled personnel and resources.

Si bien hay varias colaboraciones activas de medicina de la epilepsia entre países desarrollados y en vías de desarrollo, este programa es el primero en el cual la tecnología Internet está haciendo una tremenda diferencia. No sólo son nuestros pacientes con epilepsia los que se benefician. DANTE -responsable de construir y mantener EUMEDCONNECT2- está detrás de una red de redes oue se extiende alrededor del mundo y que conecta a millones de investigadores, académicos, científicos y doctores. Muchas de estas redes de investigación y educación son utilizadas para aplicaciones médicas, reduciendo los costos del tratamiento médico de alta calidad, permitiendo la transferencia de habilidades médicas y difundiendo sofisticadas prácticas clínicas a lugares remotos del mundo en vías de desarrollo que carecen de personal especializado y recursos.

> For more information, see: EUMEDCONNECT2: www.eumedconnect2.net GÉANT: www.geant.net Hospital Charles Nicolle (Túnez): www.italiatunisia. com/CharlesNicolle/index.html Hospital Charles Nicolle (Ruán): www.chu-rouen.fr DANTE: www.dante.net CE: http://ec.europa.eu/europeaid/index\_en.htm http://www.geant.net/Media\_Centre/connect/Pages/ april\_2010\_GEANT\_in\_Action.aspx

## Within the GÉANT project, the NA2 Communication & Promotion Activity has launched a new public newsletter called GÉANT Connect.

Paul Maurice, Senior Communications Officer, DANTE

The aim of this newsletter is to provide stakeholders such as the GÉANT community, the European Commission and the wider research and education community with a regular update on the project and its vital work in supporting European research, as well as giving an insight into the users who depend on the network, and the community that makes GÉANT the success it is.

GÉANT Connect lives within the public GÉANT website, and the first issue can be viewed here: http://www.geant.net/Media\_Centre/connect/Pages/ Connect\_April\_2010.aspx

We hope you enjoy it.

# Redes avanzadas para el arte

La Red Nacional Académica de Tecnología Avanzada (RENATA) ha firmado un convenio de renombre internacional con el Gran Teatre del Liceu de Barcelona y ocho universidades colombianas, gracias al cual las entidades educativas podrán recibir las transmisiones del curso Ópera Oberta. Esta alianza marca el inicio del uso intensivo de las redes avanzadas en Colombia para la difusión del arte y la cultura.

#### Ixchel Pérez

Going beyond science and technology, advanced networks in Colombia have been put to the service of culture, thus showing the vast possibilities offered by this type of infrastructure to boost the development of countries in all areas.

The National Academic Network of Advanced Technology (RENATA) signed an unprecedented agreement with Barcelona's Gran Teatre del Liceu that will initially enable between 300 and 400 students from eight Colombian universities to have the chance to watch, as if they were in Spain, the pieces that are part of the Opera Oberta course.



"I feel particularly proud and moved, if I may say so. Since my incorporation to the General Management in July 2008, one of my most definite objectives has been the development of Information and Communication Technologies in order to bring to and offer other audiences the universal form of art that opera is", emphasised Joan Francesc Marco, general director of Barcelona's Gran Teatre del Liceu. Opera Oberta is the world's most important course in the dissemination of opera arts offered by means of Information and Communication Technologies. Through this course, more than 4,500 students from 50 universities around the world have the chance to learn about the opera through direct shows.

"Opera Oberta is a live and dynamic project where the leading role of the theatres, particularly the Liceu, should be decreasing as the leading role of universities and academic networks increases", explained Joan Francesc Marco.

The Colombian universities will receive high definition transmissions of the five pieces in the opera season of Barcelona's Gran Teatre del Liceu, as well as the correspondingpreviouslecture, through videoconference. All of this is possible because they are connected to the advanced network infrastructure of RENATA, a member of RedCLARA.

"The signature of the agreement between the Liceu, RENATA and the universities is an important act because with this alliance we open the intensive use of the RENATA Network for art and culture dissemination, and with this we offer the best example for universities to see the opportunities of the new possible developments that can be established in this field, by making use of these new technologies", highlights Martha Giraldo, RENATA's Executive Director.

The agreement was signed in a ceremony held at the Spanish Ambassador's Residence in Colombia, Mr Andrés Collado. The event was attended by Joan Francesc Marco Conchillo, General Director of Barcelona's Gran Teatre del Liceu, Rosa Bassedas, Head of the General Direction Cabinet of the same theatre, Martha I. Giraldo Jaramillo, RENATA's Executive Director, representatives from the eight institutions involved in the project and members of the country's academic community.

The ceremony featured the presence of members from RENATA's Directing Council and from its regional networks, representatives from the National Ministry of Education, the Ministry of Information and Communication Technologies, the Ministry of Culture, Colciencias, Zoom National University Channel, Universia and Campus Party Labs.

According to Giraldo, RENATA will bring students from different cities closer to a cultural show to which they could not have attended, given its characteristics, costs and complexity.

"Through the agreement, the Autonomous University of Bucaramanga, the University of Ibagué, the University of the Atlantic in Barranquilla, the University of the Cauca in Popayán, Colombia's National University in Bogotá, the Andina and Libre de Pereira Universities and Medellín's EAFIT University, will receive transmissions in high definition", specifies Camilo Jaimes Ocaziónez, RENATA's communications coordinator.

The initial number of students and universities involved in the project could grow in the short term, adds RENATA's Executive Director: "We already have two more institutions, apart from the eight already mentioned, that will be incorporated into the agreement". Ocaziónez explains they are the Santander Industrial University and the University of Caldas, whose vice-chancellors, Jaime Alberto Camacho Pico and Ricardo Gómez Giraldo, respectively, have endorsed their participation in the project.

## A door for CLARA

RENATA becomes the Opera Oberta project's Latin American leader on this side of the world, since it is the country featuring the largest number of universities that will be able to benefit from the course, explained Giraldo.

The Colombian NREN's Executive Director also highlighted the fact that the doors of Barcelona's Gran Teatre del Liceu are open to all higher education institutions belonging to RENATA, in the case of Colombia, and to CLARA, for the rest of Latin America. "Signing the agreement is an inflection point for both RENATA and



the Liceu. Through RENATA, a new door is opened for growth in a friendly territory into which new institutions, not only from Colombia but from the whole continent, will be incorporated. Mexico and Chile are also becoming involved", specified Marco.

The agreement's signature was o relevant that it was even mentioned in the Barcelona newspaper La Vanguardia, with a daily circulation of over 200,000 copies. The newspaper dedicated one page to the subject, where it also explained that during Marco's visit the countries connected to RedCLARA were invited to become involved in the initiative.



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Marco explained that an "important meeting" with RedCLARA's members took place. "I am certain that this videoconference will bear more important fruits to incorporate other universities and other countries in Latin America", he said.

## Interview with Martha Giraldo, RENATA's Executive Director: **Highly proud**

### Why does RENATA support the dissemination of culture?

We are interested in promoting academic reflection on the possibilities offered by the use of advanced networks in the fields of education, the arts and culture, which are endless. Enabling a larger number of people to have access to participating in or developing high-quality cultural programmes, without any limitations imposed by the space in the rooms, is something really novel that we should learn how to take advantage of. New opportunities open up for research and for the development of collaborative cultural projects, at both national and international level, in order to promote culture, strengthen our identity and promote our intangible heritage, among others.

#### How many students do you expect to benefit?

It is reckoned that in the first phase between 300 and 400 students from the eight higher education institutions will be able to access the Introductory Course on the Gran Teatre del Liceu's Opera. But it could be a larger number: we already have two more institutions, apart from the eight already mentioned, that will be incorporated into the project.

For RENATA it is a great honour to bring students from Barranquilla, Bogotá, Bucaramanga, Ibagué, Manizales, Medellín, Pereira and Popayán closer to this cultural show to which they could not have attended otherwise, given its characteristics, costs and complexity.

## What can you highlight from the visit of the Liceu's senior staff last week?

The visit from the Liceu's representatives served as an important step in the cultural rapprochement between Europe and Latin America. It also served to display the importance of High-Speed Academic Networks in cultural and educational activities.

The visit from the senior staff of Barcelona's Gran Teatre del Liceu featured three important moments: First, a meeting with the academic managers from each of the universities participating in the Opera Oberta project in Colombia was held. This meeting featured the revision of academic and technical advanced related to the project and action points and goals were agreed. The next season's timescale was established; the issue of students' academic registration was defined and it was agreed that the country's institutions will be responsible for developing a script for the lesson previous to one of the operas, as well as a conference for the next season.

On the other hand, the launch of the Opera Oberta project was held at the Spanish Ambassador's Residence, which also featured the event where the signature of the eight institutions currently involved in project was made official, with the corresponding commitment from them to ensure the programme's success. This activity also served to engage the Spanish Government in the project and to invite national institutions to join.

Finally, there was a videoconference meeting between the Liceu's senior staff and CLARA's National Networks, as well as some institutions from Argentina, Panama, Peru, Ecuador and Costa Rica. These two last countries openly expressed their interest in joining the initiative.

## More Information:

RENATA: www.renata.edu.co Barcelona's Gran Teatre del Liceu: http://www. liceubarcelona.com/ Ópera Oberta: http://www.liceubarcelona.com/index. php?id=265&L=1

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# INNOVA|RED launches its new image

In mid June, Argentina's national education and research network, INNOVA|RED, launched the changes applied to its image, which included improvements in the institutional logo, the creation of prospectus and a new version of its website. This way, the institution aims to strengthen its work with the academic environment and establish itself as a powerful tool for data transfer and for the development of collaborative projects in the country's academic and scientific areas.

Tania Altamirano L



Under the slogan "state-of-the-art in academic communications", Argentina's national network launched in mid June a new and enhanced institutional image which included improvements in the institution's logo, its website's renovation and the creation of printed informative contents.

"When we say "state-of-the-art" in the slogan, we are talking about the permanent commitment of incorporating the latest technology developments so that there are no tasks which are not carried out because this technology is lacking. This is our commitment, to which I would like to add that our staff is imbued with the same commitment to customer service", stated the Executive Director of INNOVA| RED, Aníbal Gattone, in a letter published for the launch.

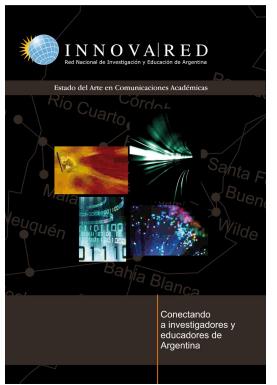
"This concept reflects our mission, where we understand the state-of-the-art as the highest development level available to provide the education and research community with the most advanced and innovative means for them to carry out the tasks that require data transmission", explained Carolina Almaras, Public Relations and Marketing Manager of the Argentinean network.

According to Almaras, the idea of this new image came up from the constant effort to renew the responsibilities and commitments with our users, which has resulted in the growth of the technical management area, the strengthening of the Public Relations and Marketing area and, in general, in a greater participation and collaboration with peers from the scientifictechnological community.

## The innovations

In accordance with INNOVA|Red's vision of being recognised as a fundamental part of the academic world aiming to provide solutions in the area of data transfer, the new website's version includes in its structure an area related to institutional information, a section





dedicated to advanced network technologies and a space with recent and relevant information for the community.

As for the technical innovations, the page includes a link to live and direct transmissions (via streaming), an access to the technical area and a link to publications on topics related to advanced networks around the world.

Almaras pointed out that through the technical area, INNOVA|Red's members will have the chance to see the status of their links through the Free Monitoring Service, Pandora FMS, open up support tickets towards the Network Operation Centre (NOC), see their link's traffic with the CACTI system, as well as historical data.

As regards the printed

material, the network will hand out prospectus with maps of the member institutions' backbones.

"We are particularly interested in providing the administrators of member networks with a set of monitoring tools which enable them to know exactly the status of the services offered", indicated Javier Martínez, INNOVA|Red's Technology and Operations Manager. "Over the last year we have multiplied traffic by four. This growth has implied a great challenge for the area, and which we have been able to overcome. What comes next is even greater and we are working hard to be prepared for this challenge", he added.

## The benefits of change

To Almaras, as a national education and research network, INNOVA|Red contributes to the CLARA vision by being part of the Latin American telecommunication system for research, innovation and education, which is connected to the European advanced network GÉANT through the ALICE project.

Furthermore, for the Public Relations and Marketing manager, through this new change of image and with the incorporation of new contents and services into the website, the collaboration of local academics and researchers with their peers across the globe will be boosted and strengthened, making it possible to share information and resources through advanced networks.

On the other hand, through a constant contents updating, INNOVA|Red will make available for its members information on the latest events and projects, as well as new technical procedures. "To these values, we add our culture of strong commitment towards the quality of the services we offer to the scientific community. We come from the academic world and we know what their needs are and we know the ways to fulfil them", indicated Almaras.

"The advanced networks we run as the sole providers in the country are a tool without which a nation's scientific and technological development is not possible. The collaboration environment required for cutting-edge science, demands large scale communications and computing and storage centres. In our country, we have accomplished development levels in some areas of which we are very proud. We are working for these areas and especially in order to help all areas to be expressed in their full capacity. We want Argentina to keep the leadership it has featured throughout its history", concludes Gattone.

> Enlace sugerido: INNOVA|Red: http://www.innova-red.net/

## **CUDI Spring Meeting 2010**

# **Consolidating the collaboration spirit**

Featuring the participation of 422 members of 75 education and research institutions and companies interested in putting forward projects which make use of the National Research and Education Network, the twenty-first meeting of the University Corporation for Internet Development (CUDI) in Mexico was held in the city of Morelia, Michoacán. Presentations, workshops and plenary sessions were part of this meeting's agenda, whose main objective was to disseminate the technology advances in the Aztec network and in the development of applications in the 13 communities that are part of it.



From April 19 to 23, academics, researchers, technicians and authorities from the institutions that are part of the University Corporation for Internet Development (CUDI), were brought together at the Michoacán University of San Nicolás de Hidalgo in the city of Morelia, Michoacán, Mexico, to take part in the Mexican network's twenty-first biannual meeting: CUDI Spring Meeting 2010.

The event, whose objective was to disseminate the technology advances in the CUDI network and in the development of applications in the 13 communities that belong to it, featured the participation of 422 delegates from 75 education and research institutions and companies interested in putting forward projects which make use of the National Research and Education Network (NREN).

Presentations, workshops and plenary sessions were part of the broad agenda of the four day meeting, and featured the participation of academics, researchers, technicians and authorities that are members of CUDI.

## Success experiences

One of the most remarkable aspects of the meeting was the presentation of TelePresence technology, organized for the first time in the country. This showed the efficacy of the NREN as a communication medium.

Furthermore, there were workshops on network monitoring and university networks and IPv6. The

latter workshop was held during three days and was led by the engineer César Olvera, one of the world specialists on this subject. There were also eight application workshops held in parallel related to: telemedicine advances. new paths for the education community, trends in engineering



education, tools for science teaching, open network of digital libraries, math teaching technologies and students producing free software. The children's workshop "CUDI brings the universe to your state" featured the face-to-face participation of 200 children



plus others in four remote rooms, and showed a model to bring science closer to children in a playful way by making use of the Mexican network's connection. All these workshops featured a broad participation and highlighted the high level of collaboration existing between the CUDI member institutions.

On the other hand, during the event the engineer Alberto Zambrano, president of the Governing Council and the presidents of the CUDI committees presented their reports on the major advanced accomplished over the last year.

As regards the plenary session, this featured the participation of Benjamín Marticorena, Academic Relations Coordinator from CLARA, who gave a presentation on the importance of communities for CLARA and the ALICE2 project.

Likewise, there was a presentation on the advances in Health and Education in the Michoacán State Network, and there was also a demonstration of how health can be supported through a telemedicine application between the women's hospital and an ambulance. Furthermore, the event featured the important participation of María Eloisa Talavera, Information Society Coordinator of the SCT, who commented on the advances of the National Network for Broadband Promotion (NIBA) and State Networks, which are both projects being fully consolidated in favour of the country's education and health.

As in previous meetings, this one featured concurrent sessions attended by specialists on topics related

to national research and education networks. There were 56 presentations in seven round table discussions addressing the following topics: Unified Communications, Hybrid Networks, Security, State Networks, Shared Laboratories, Health, Digital Libraries, Education, Health, Ecology, Astronomy and Supercomputing Grids and Mathematics.

Through the May newsletter, the CUDI community expressed its gratitude to the Michoacán University of San Nicolás de Hidalgo for its significant support for this event, especially its vice-chancellor, Dr Silvia Figueroa Zamudio, Dr Fernando Velazco and the entire team of enthusiastic young people who supported the event's organisation by assisting presenters, and helping with registration, connectivity, videoconferences and recording of presentations.

All sessions were broadcasted live and direct both via commercial internet and the CUDI network. Additionally, for those who are interested in accessing the meeting's materials, these are available on the activity's website and the presentations can be consulted in the Corporation's video collection.

> Recommended links: CUDI: www.cudi.edu.mx Reunión CUDI Primavera 2010: http://www.cudi.edu. mx/primavera\_2010/index.html

## What's next: CUDI Autumn Meeting 2010

The CUDI Autumn Meeting 2010 will be held in the City of Tampico, from October 13 to 15 this year, with the support of the Tamaulipas Autonomous University.

The Tamaulipas Autonomous University has increased the preparation activities for the meeting in Madero, a city which features a great cultural, culinary and touristic wealth. Its vice-chancellor, Engineer José María Leal Gutiérrez expressed his support for the event and stated that he is absolutely confident that the results will be successful.

With the aim of accomplishing a greater integration and participation by the university community, the Education Support Technology Directorate (DITAE) has organised a series of meetings with its researchers, academics, specialists in communications and students.



If you want to receive further information on the activity you can write to: cudiuat@uat.edu.mx.

## Technology transfer

# RNP and REUNA share Digital TV platform

Simone Cardoso

A digital TV channel broadcasting the university productions from one country and sharing contents between the participating TV channels, so that they can use these contents in their programmes. These are the objectives of the project developed and implemented over its network by RNP (www.rnp.br), the Brazilian academic network. Recently, the project was replicated in the Chilean academic network, REUNA (www. reuna.cl). This replication is the result of a technical cooperation agreement between both institutions. The agreement establishes technology transfer and technical training for REUNA representatives so that they can implement the project.

In RNP, the idea of an application which could enable the creation of a shared channel to broadcast videos from various sources and to share those videos in separate broadcasting grids, came up in 2006 in order to address, initially, the demands from the Brazilian Association of University Television, which today brings together 48 higher education institutions that produce educational and cultural programmes. The RITU –University Television Exchange Network- was created for them, and it favoured the exchange of content between education institutions, as well as the creation of a reference programme grid. The Brazilian project was completed in 2008, with the participation of eight television channels. Another similar demand that is being addressed by RNP, is the creation of a Public TV Exchange service (ITVP) between educational and university TV channels through a system that shares digital content through the lpê network, which is run by RNP. The aim of this service is to bring together the programmes from 59 television channels, at a time when Brazil is structuring its move towards Digital TV. Without ITVP, university television channels from public institutions face a common problem: lack of resources for the development of quality programmes in suitable amounts to supply the list of programmes. According to the RNP communication manager, Mariana Daemon, the project intends to promote the joining of efforts and to share resources and contents.

It is now time for REUNA to get this application. The RITU platform's interfaces have already been translated into Spanish. So, in the future Chile will be able to have a digital television channel with programmes entirely produced by the country's university television channels. Furthermore, the university TV channels that are part of the platform will be able to share contents and reproduce them in their local programmes. For the time being, it is necessary to hold on.

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## JULY

29 - 2 | 9th International Conference of the Learning Sciences

Chicago, Illinois, USA http://www.isls.org/icls2010/

- 28- 3| GRID2010 Conference Dubna, Russia http://grid2010.jinr.ru/
- 7-10| Digital Humanities Conference London, United Kingdom http://dh2010.cch.kcl.ac.uk
- 8 | «Standby Databases» Conference RENATA, via Videoconference http://www.renata.edu.co/index.php/component/content/article/22especiales/1128-julio-8-bases-de-datos-standby-acis.html

## 15-18 16th International Conference on Computing in

Economics y Finance London, United Kingdom http://comp-econ.org/

### 15-17| IASTED Conference Banff, Alberta, Canada http://www.iasted.org/

29-31 Higgs Hunting Orsai, France http://www.higgshunting.fr/index.html

## AUGUST

- 2-5| TeraGrid 2010 Pittsburgh, Pennsylvania, USA http://www.teragrid.org/tg10/
- 15-22| Super Computing and Distributed Systems Camp (CS Camp) Santander, Colombia http://www.sc-camp.org/
- 24-27| XIX Congress of the Chilean Association of Automatic Control Santiago, Chile

http://www.reuna.cl/index.php/es/eventos/945-xix-congreso-de-laasociacion-chilena-de-control-automatico25-28| 4th Latin American Conference on High Performance Computing (CLCAR) Gramado, RS, Brazil http://gppd.inf.ufrgs.br/clcar2010/

29-3| CERN School of Computing (CSC) Uxbridge, United Kingdom https://csc.web.cern.ch/CSC/





## SEPTEMBER

3| Pedagogy symposiums on history, geography and social sciences at UCT Temuco, Chile http://www.uctemuco.cl/eventos/681

13-15 | CaBIG Annual Meeting Washington, DC, USA https://cabig.nci.nih.gov/2010

13-17 | EGI - European Grid Initiative Conference Amsterdam, Netherlands http://web.eu-egi.eu/

15-17 Literature Congress "Crime and Social Control at Medellín's Book and Culture Fair

Medellín, Colombia http://www.renata.edu.co/index.php/convocatorias/979-llamadoa-presentar-ponencias-para-el-qcongreso-de-literatura-crimen-ycontrol-social-fiesta-de-la-cultura-y-el-libro-de-medellin.html

16-18 | I Latin American Meeting on Science and Technology for the Region's Development RENATA, via Videoconference http://www.renata.edu.co/index.php/component/content/article/22especiales/986-renata-transmitira-i-encuentro-latinoamericanode-ciencia-y-tecnologia-para-el-desarrollo-de-la-region-del-10-al-12-de-mayo.html 20-24 IEEE International Conference on Cluster Computing 2010 Crete, Greece http://www.cluster2010.org/

27-29 | ICT2010 Conference Brussels, Belgium http://ec.europa.eu/information\_society/events/ict/2010/index\_ en.htm

27- 1| ALICE2 – CLARA Second annual meeting Managua, Nicaragua http://alice2.redclara.net





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