RedCLARA

In terms of inclusion we have scored a new goal:

Bolivia is already part of ALICE2 and RedCLARA

In the heart of South America

11th CLARA Technical Meeting

December 1st and 2nd

The third version of GÉANT was unveiled in Stockholm

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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.

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Editorial

Florencio Utreras,
CLARA Executive Director

It is exactly one year since the beginning of the ALICE2 Project and it is time to make an assessment of the activities carried out over this period. As we remember, the project's objectives are five: 1) Push RedCLARA to the technological frontier; 2) Create and enhance users communities; 3) Ensure sustainability; 4) Incorporate as many countries as possible in the region; and 5) Train technicians, managers and users.

Given our major strength, it has been natural that we show greater progress in Objective 1, where thanks to a Tendering process efficiently carried out we have managed to have a RedCLARA whose backbone has increased from 155 Mbps to 622 Mbps, a RedCLARA where links to countries are at 155 Mbps –except Ecuador at 45 Mbps, a situation that will shortly be solved with the new tendering process about to be completed- and maybe the most important, a RedCLARA where the first 10 Gbps link (Chile-Argentina)is in its trial phase and where a second one (Argentina-Brazil) has already been hired.

The current tendering process will certainly make it possible to add links at 2,5 or 10 Gbps, thus moving forward towards the final objective, a RedCLARA 100% based on optical links.

As regards organizational aspects, we have created the Technical Management, restructuring the work with the NEC, the NOC and the new System Operations Centre (SOC), which be in charge of maintaining the applications and systems which CLARA is currently developing in favour of users and communities. It is precisely to this end that also the Marketing and Services Management and the Application Development Projects Coordination (part of the Technical Management) have been created. This way we expect to meet the expectations of creating services aimed at the needs of communities with strong technical and economic sustainability bases.

In order to meet Objective 2, we have created the Academic Relations Management and have appointed an Applications Committee, which will advise the project regarding relations with user communities. We have also developed an Applications Workshop and are in the process of identifying several academic communities to whom we will offer technical advice and support in the development of project proposals, which we expect will generate a large amount of collaboration initiatives in Latin America and between the region and Europe. We will also visit all National Science and Technology Agencies in order to strengthen our links with them, get their impressions and requirements, and strengthen the link them and the NREN in the region.

As for Sustainability, we have move forward in the creation of a stronger structure, a new Strategic Plan and the beginning of a Membership analysis process, which we expect to be completed in 2010. We are already envisioning the financial mechanisms that will allow for sustainable funding for the future, by means of an operational costs reduction strategy and an increase of income through new services.

In terms of Inclusion, we have moved forward with the incorporation of Costa Rica –which is already connected to RedCLARA- and the recent signature of the agreement with Bolivia for its incorporation into ALICE2 and prompt connection to RedCLARA. Another important and successful landmark was the organization of our meeting in Paraguay, which generated links with the Vice-Chancellors from Universities in that country and also with the CONACYT, which we hope will contribute to Paraguay's soon incorporation into our network. And during 2010 we expect to visit, also with the ALICE2 meeting, a new candidate to member for membership to CLARA and thus meet the goal of incorporating three new countries into RedCLARA. Our relationship with the Caribbean, which led to C@ribNet's participation in our August meeting in Costa Rica, will have to be strengthened and expanded in 2010.

Finally, the development of Technical and Management Training workshops organized during the ALICE2 meetings, the Users Workshop in Costa Rica, and the Technical Training Workshop in Bolivia, as well as the First Workshop Meeting with Providers, are turning into a reality the objective of strengthening the community of engineers, managers, administrators and users which make up CLARA and the essence of the ALICE2 Project's Objective 5.

2010 will be filled with plenty of challenges; we will have to consolidate the services for communities and complete the development of RedCLARA; we must incorporate two countries into the network and develop several training events; we must complete a long term Financial Plan and develop a participation bases which includes communities, ONCYTs, enterprises and other agencies which influence and are interested in CLARA. In sum, it will certainly be an interesting year, in which CLARA will be able, as it has been so far, to meet and exceed expectations.

In terms of inclusion we have scored a new goal:

Bolivia is already part of ALICE2 and RedCLARA

On Thursday December 3rd 2009, at the facilities of the Chilean NREN (REUNA), the Bolivia's longed for inclusion into ALICE2 and RedCLARA took place. Through the signature of the agreement for the adscription to the Project and the Corporation, done by the Executive Director of the Agency for the Information Society's Development in Bolivia –ADSIB-, Jorge Alejandro Patiño Córdova, and the Executive Director of CLARA, Florencio Utreras, the Andean country does not only become part of this great common Latin American dream, but also begins to plan its connection to RedCLARA by the middle of the first half of 2010.

Welcome, Bolivia! And to properly celebrate this longed for incorporation, let us talk about it and the goals that are posed for the new Academic Network with Jorge Patiño.

María José López Pourailly

Bolivia's membership in CLARA had been deactivated since January 2008, ¿what made ADSIB resume its involvement with CLARA?

We have a significant degree of progress in the project for the National Academic Network in Bolivia and great possibilities for its consolidation for the next year. In this sense it was very important that Bolivia was considered within the ALICE2 project to manage our inclusion into RedCLARA. At the same time, I think we never stopped being involved with CLARA, although the Agreement was not in force, the relationship with CLARA's management has always been a close one with the objective of consolidating Bolivia's RAN. Thus, we have managed several activities together this year, like the "International Workshop on Inter-University Networks" which was held in La Paz in November and the participation of Bolivia in the recent CLARA Assembly in Asunción.

Being part of the ALICE2 implies, evidently, Bolivia's connection to RedCLARA, which I understand is expected to be carried out in July 2010. In this regard, what are the benefits which you consider the connection to RedCLARA will bring to Bolivia?

We have high expectations with the connection to RedCLARA. I think the RAN in Bolivia will be

enormously enhanced with RedCLARA, from the participation in joint research projects, the possibility of managing distance trainings with other countries and our incorporation into a global scientific community, among others. Obviously, these possibilities depend on the capacity of a good management of the RAN in Bolivia.

Will the connection be made through ADSIB or will you create a national network for this purpose?

The objective is to have an independent management of the RAN which results from the country's academic and scientific communities themselves. In this case, the members Assembly would be the network's highest authority, and the Executive Board elected from its members would have normative and consultative functions; in the same way we think the Board will feature the participation of a representative from the entities whose consolidation we are currently promoting such as the ADSIB, the Vice-Ministry of Science and Technology (VCyT), the Executive Committee of the Universidad Boliviana (CEUB) and the National Association of Private Universities (ANUP), among others.

The objectives of the RAN would include the provision of modern technological resources for the Bolivian academic/scientific community to support innovation, research, creation and distribution of knowledge and the promotion of the joint work and the exchange of services and information between Universities in the local and international context.

The RAN's official name has not been defined, as the members Assemble is precisely the entity that will have to give it a name. In the same way, we expect to have a 1 Gb capacity on the national backbone axis.

Which do you regard as the main contributions that Bolivia can make to ALICE2 and CLARA?

I think Bolivia, given its geographical location, is an important point of connection for the development and expansion of RedCLARA. Let us hope Bolivia can be in the future a fundamental part within the network's infrastructure at a regional level.

Does the new membership leave you in the same conditions as the current members of CLARA and ALICE2?

I think it does in terms of physical connection, but since Bolivia is just in a consolidation stage of its National Academic Network, it will require from us a greater effort in several areas in order to really make use of the advantages of RedCLARA and our contribution to the entire system.

What do you expect from Bolivia's incorporation into the project and the future connection to RedCLARA?

We expect that both the RAN and our connection to RedCLARA are an important contribution within the consolidation of the Bolivian Innovation System (SBI) which is being promoted by the Vice-Ministry of Science and Technology, with the intention of promoting the country's productive, competitive and social development. In the same way, the substantial contribution that will be possible to make directly to the country's academic and scientific system.

More information:
ADSIB: http://www.adsib.gob.bo/adsibnueva/

CLARA Training activity in La Paz

Bolivia moves forward along the road of Academic Networks

Between 2-4 November, the Institute of Applied Electronics of the Universidad Mayor de San Andrés (UMSA), in La Paz, Bolivia, hosted the CLARA's Workshop on Technical Training for South America, an activity that is part of the Work Package 8 (WP8) of the ALICE2 project, whose objective is to attain the incorporation and connection to RedCLARA of Honduras, Nicaragua, Bolivia, Paraguay and Cuba.

Verónica Uribe

Five years after the creation of CLARA, the National Academic Networks that constitute it are actively working on the promotion of research and the use of advanced networks in their corresponding countries. With thirteen NRENs (National Research and Education Networks) connected to RedCLARA, and all of them actively operating in their corresponding countries and cooperating at a regional level and with Europe, it is clear that it is evolving in a positive way in the attainment of the ALICE2 Project's objectives. But this is a long road, and by the middle of the first year since its beginning, there is still a way to go and inclusion is one of the key issues.

Honduras, Nicaragua, Cuba, Paraguay and Bolivia are currently making a big effort to set up their National Networks, and the last two countries are those which have shown greater advances along these lines. Within this context, CLARA, thanks to ALICE2, provides those nations with its support and assistance through training activities and workshops which, among other activities, would serve to reach the goal of establishing

the already mentioned NRENs and, certainly, their connection to RedCLARA.

News from Bolivia

This way, last month Bolivia received a CLARA training activity aimed at technicians from its universities, who will be the future operators and users of the NREN. From the 2nd to 4th November at the Institute of Applied Electronics of the Universidad Mayor de San Andrés (UMSA) in La Paz, the technicians were trained on advanced routing, a subject that will help them in the implementation and design of its National Network. In this regard, Claudia Córdova, Training Coordinator at CLARA, says "there were three days of intensive hands-on full-time workshop. Besides, it featured the participation of two participants through remote router, from the networks laboratory of the University of Oregon in the USA".

The topics discussed during the training activity include the IPv4/IPv6 routing, the design of resistant networks, the BGP: configuration, filtering and multi-homing and the technical proposals for the design of the Bolivian network. Additionally, the meeting also was used to discuss the characteristics of this future National Network. "The workshop was the context for a series of discussions on the emerging Bolivian NREN, not only between the representatives from the different Bolivian universities who attended the three-day workshop, but also between the NREN promoters and organizations like the EslaRed Foundation, WALC and the Network Start-up Resource Centre", states Claudia.
This was also expressed by Roberto Zambrana, consultor for the ADSIB for the development of the Bolivian network and local contact for the organization of this event: "The activity also favoured a good reason to gather the network administrators from the universities and also present the advances and next steps along the toad towards the constitution of our Academic and Research Network".

A happy ending…

With a total of 25 participants coming from 16 universities in six of the nine departments in Bolivia, the November training activity has proved to be successful. The Training Coordinator gives her opinion in this regard: "The collaboration was active, very close and very friendly, from the beginning of the course's proposal until days after each of the representatives had gone back to their countries of origin. Both Roberto Zambrana and Alejandro Patiño, Executive Director of ADSIB, and Héctor Ayala, also from ADSIB, collaborated a great deal with this management. It was a pleasure to work with them and with the students from the UMSA assigned for support".

The participants and the organising team in Bolivia were very satisfied with the tools acquired during this training activity. "We were all very happy with the knowledge acquired in the activity, but above all we felt very committed to helping the Bolivian National Network to be constituted according to the plans presented", points out Roberto Zambrana.

Beyond the objectives and results of the event itself, the CLARA training event has managed to give a newer thrust to the creation of the Bolivian National Network; for Zambrana "in fact, the impact of this training activity has several dimensions. On the one hand, it contributes towards the legitimating of the Bolivian network's constitution process, especially taking into account failed efforts in the past; it makes it possible to engage a group of actors (technicians) who are very important (although not very noticed) in the process, and improves and deepens the specialised technical knowledge on current issues which can be applied in an immediate way in favour of its institutions. Besides, it promotes knowledge and the exchange of experiences on the different universities and network infrastructure that they manage and opens discussion and therefore the opening of new lines of research within the participating universities".

… And a good start

Although the training activity is over, the work in Bolivia continues. "Our main objective is to constitute our longed for Bolivian Academic and Scientific network. The work has been started since the beginning of the year, and we think there is commitment from the different actors for this to become a reality. A promotion team has been created, including representatives from the Vice-Ministry of Science and Technology, the Vice-Ministry of Higher Education, the Agency for the Development of the Information Society in Bolivia (ADSIB), the Executive Committee of the Universidad Boliviana (CEUB), and the National Association of Private Universities (ANUP)", comments the consultant

from ADSIB. The final objective of all this effort is one: to manage to have the Bolivian National Network officially constituted by the end of this year or the beginning of the following, and that is first Board is elected.

In order to achieve this objective, the support and the participation of CLARA and the ALICE2 project in the initiatives leading to the creation of the Bolivian network are very important. This is how Roberto Zambrana describes them: "Currently the connection alternatives between the university networks in the country are being discussed with the Bolivian telecommunications operator (ENTEL). In the same way, it is expected that this company presents an offer to the tendering call to materialise (among others) the international segment between La Paz and Arica (Chile). After the conclusion of the tendering process, the help from CLARA's managing staff will be fundamental to negotiate a complete package in the best contractual conditions, and which eventually can include the connectivity services within Bolivia".

Apart from the challenge taken on at the beginning of the year (the conformation of the Bolivian NREN), Bolivia is getting ready for a new challenge. "At the last ALICE2 assembly, where I had the chance to participate, representing my country, Bolivia was proposed as the host country for the next meeting to be held during April 2010. This request was accepted and therefore, we have taken on another important challenge, which will imply making our best efforts", concludes the ADSIB consultant. And we should add, with exclamations signs, what efforts!. Yes, because a few days after the interviews that make up the body of this article, the Executive Director of ADSIB, Jorge Alejandro Patiño signed Bolivia's adscription to the ALICE2 Project and CLARA.

Rafael Ibarra will have a post in the LACNIC Board

The Executive Director of RAICES was elected, together with Alejandro Guzmán Giraldo and Hartmut Richard Glaser, through the electronic elections held between 10th and 20th November, where the Registry's member institutions participated. CLARA congratulates the winning candidates.

Tania Altamirano L.

The Electoral Commission of the Internet Addresses Directory for Latin America and the Caribbean (LACNIC), announced on 27th November the election of Rafael Ibarra, Executive Director of the Salvadorian Advanced Network for Research, Science and Education (RAICES); Alejandro Guzmán Giraldo, Product Development Senior Engineer at INTERNEXA from Colombia; and Hartmut Richard Glaser, Executive Director of the Internet Managing Committee in Brazil, to take on the three posts in its Board as of 1st January 2010 and until 31st December 2012.

Ibarra's proposition was made by the Latin American Cooperation of Advanced Networks (CLARA), as member of LACNIC, because of his work and experience in the area of information and communication technologies. "Rafael Ibarra is one of the people who have worked the most in Latin America in favour of internet and the information society's development. He has actively participated in the LACNIC meetings since its creation, and also being an active participant in the creation of LACTLD and El Salvador's NIC. We have not mentioned the effort in favour of academic networks and the development of regional policies through the eLAC2007 and eLAC2010 Plans, of which he has been one of its promoters. Rafael would be a highly important contribution to LACNIC" indicates CLARA's Executive Director, Florencio Utreras on the LACNIC website.

In the balloting, carried out electronically between 10th and 20th November, the participants included LACNIC's member institutions from 29 different countries, including the founding members.

"My objective is to be able to continue creating synergies in the Latin American region, collaborating and contributing with ideas, work and results for the objectives which are close to LACNIC, but also to those organisation goals planned at a longer term, with a deeper transcendence and decisive impacts at improving the quality of life of a greater number of inhabitants in Latin America and the Caribbean", expressed Ibarra in his application.

About 'Lito'

According to the LACNIC website, Rafael (Lito) Ibarra was born in San Salvador, El Salvador in 1957. He has got professional degrees in electronic engineering, business administration and a postgraduate in new information and communication technologies.

Apart from holding the post of Director of Informatics at the Universidad Centroamericana José Simeón Cañas in El Salvador, he is a member of the national commission for the information society in his country; participates in socio-technological undertakings and collaborates with private technology and telecommunication enterprises, state institutions, other academic entities and non governmental organisations.

He is a founding member of LACTLD and CLARA at an international level, of SVNet, Infocentros and RAICES at a local level and director of the Salvadorian CONACYT, as well as other organisations and private enterprises in the field. He regularly collaborates with printed and digital publications and frequently gives talks and conferences with the aim of disseminating and encouraging the proper use of new technologies.

Further information:
http://www.lacnic.net

Paraguay 2009:

¡Tapeguahê porãite ALICE2!

Welcome ALICE2! With an intense agenda and a lot of warmth, both human and atmospheric, from 16th to 20th November, the Universidad Nacional de Asunción (UNA) in the Guarani capital, hosted the second annual meeting of the ALICE2 project's members. Additionally, during the event there was an e-Science workshop, a technical training on IPv6, the course on Marketing Management for networks and the CLARA Assembly meeting. An enriching experience for a country that is working hard to materialise its connection to advanced networks through Arandu.

Tania Altamirano

With he President of CONACYT, Juan Carlos Rolón Gadea; the Vice-Chancellor of the UNA, Pedro Gerardo González; the cooperation director of the European Commission delegation, Pierre-Yves Baulain; the executive director of CLARA, Florencio Utreras, and representatives from the member national networks in CLARA and ALICE2, all of them brought together in an entertaining cocktail party at the Sheraton Hotel's terrace in Asunción, a new version of the ALICE2 Project's members meeting was welcomed. The activities included presentations, workshops and training activities which engaged each of the participants in different initiatives to assess, improve and encourage the work done throughout Latin America.

e-Science Workshop

The activities started at eight in the morning on Wednesday November 18th with a workshop which featured the welcome by Florencio Utreras, who introduced the participation of CLARA's Director of Academic Relations, Benjamín Marticorena, related to academic networks and e-Science.

On the lines below, the director of the Programme for the Promotion of Advanced Networks Use in Latin America for the Development of Science, Technology and Innovation, e-CienciAL (OAS – FEMCIDI), Ana Cecilia Osorio, talked about the main activities developed on this subject at the institution. On

behalf of the consultants Alberto Cabezas and María Soledad Bravo, in charge of the "Consultancy for the Development of Executive Documentation on the use of Networks", developed as part of the "Strengthening of Regional Advanced Academic Networks through CLARA as Regional Public Asset" project (funded by the Inter American Development Bank), the Director of CLARA made a presentation on the definition, history and development of academic networks in our region.

The successful collaboration stories followed, with Fernando Liello, from the Italian network GARR with the Auger and EVALSO projects; Michael Stanton, Director of Research and Development at RNP (Brazilian NREN), with the EELA-2 Project; Luis Messina, with RUTE and other Telemedicine projects; Paola Arellano, Executive Director of REUNA, with the RINGrid project; and Sebastián Drude from the Freie University in Berlin, who talked about the DOBES network.

After lunch and with the afternoon's heat already putting the air-conditioning's resistance to the test, Hugo Vecino, Software Engineer at CLARA, presented the Videoconference for Work Groups initiative; Iara Machado, RNP, presented the Indico coordination application, and Walter Munguía, from the Peruvian RAAP, spoke about the ISABEL platform and the GLOBAL project.

In the afternoon, the Marketing and Services Manager at CLARA, Rafael Puleo, conducted a workshop focusing on users' needs. Without computers, mobiles and developed in groups of four people, Puleo set the following question forward: what does a researcher need?

The conclusion of this first day was done by Luis Furlán, from the Guatemalan network RAGIE, with plans and conclusions, and by Benjamín Marticorena, in the user communities' organisation.

ALICE2 Meeting

Thursday 29th and Friday 20th were devoted to presentations by project's different components. The beginning was done by the Work Packages 1 and 2 (WP1 and WP2) with the presentation by the Finance Director Mark Urban, Florencio Utreras and Michael Stanton. During this session, according to what was planned in the ALICE2 project, an Applications committee was set up, which will be valid for one year and whose members, chosen across Latin America, are:

- Mónica Rubio, Astronomy
- Graciela Lesino, Renewable Energies
- Eduardo Gotuzzo, Epidemiology
- Alfredo Sánchez, Digital Repositories
- Dr Marion Hatch, Archaeology
- Mavis Montero, Nanotechnology
- Luis Nuñez, Grids
- Gregory Randall, Medical Images
- Dora Canhos, Biodiversity
- Carla Quiroga, Food

Later on, María José López, Public Relations Manager, in charge of WP3 – Visibility, talked about the activities developed in relation to the website, informative and promotional material and the new initiatives to make the work done by all the member networks in RedCLARA known. During her presentation López mentioned the printing of new brochures and the creation of backpacks, memory sticks and post-it blocks as part of the new dissemination material. Furthermore, she presented the creation of ALICE2 screensavers commemorating historical dates for Latin America and the electronic distribution of the latest edition of the DeCLARA bulletin and the fortnightly Newsletter DeCLARA Express. As

for the participation in outstanding events, the manager pointed out the allocation of two full scholarships for the Latin American Network Operation and Management Symposium, LA NOMS 09 and the coverage of the launch ceremony of the third generation of the GÉANT network.

Then, in the WP4, Gustavo García, Technical Manager at CLARA, presented the advances of the network and explained that the link between Caracas and Panama is still pending due to the lack of a card at the end of the national network, a situation which is expected to be solved next year with the help of Ecuador. Additionally, he presented the evolution of the RedCLARA2 installation process through several graphs, the last of which represented the state of the network by 6th November 2009. Later on, Iara Machado, RNP, spoke about the work done in the work groups constituted in July this year, which was then used for the technical meeting (CLARA-TEC) in previous days (See note: 'In the heart of South America: 11th CLARA Technical

Meeting'). Alex Moura spoke about the work done by the Network Engineering Group (NEG) and Gustavo García, on behalf of Claudia Hinostroza, presented the advances of RedCLARA's Network Operation Centre (NOC).

Then Rafael Puleo, Marketing Manager at CLARA, in charge of the WP5 – Marketing and Services, presented the results of the Workshop on users' needs and on the advances of the videoconference initiative for RedCLARA.

The WP6, focusing on projects and communities and led by Luis Furlán, RAGIE, featured the participation of Benjamín Marticorena, Academic Relations Manager at CLARA, who spoke about the users community's plans for the next year and Rocío Cos, who made a presentation on CLARA's ongoing and new projects.

In terms of Inclusion, in the WP8, led by Rafael Ibarra (RAICES) presented the Mesoamerican plan and there were interventions by Roberto Zambrana, ADSIB consultant, Bolivia, and Jorge Rául Cabañas, Director of Arandu, Paraguay (we must add that he was a kind and welcoming host of the meetings held at UNA).

Claudia Córdova, Training Coordinator, Iara Machado (RNP) and Hugo Vecino, Software Engineer, participated in the WP9 block, dealing with Training activities. Córdova spoke about the workshop held in Bolivia (you can read the article on this activity called 'Bolivia moves forward along the Academic Networks road'), the training on advanced routing – held in Río de Janeiro- and the Marketing workshop for national networks and the IPv6 workshop for technicians (you can read the related article called 'IPv6 Workshop: Learning in order to replicate'), planned to be held in Asunción. Furthermore, the Coordinator presented the figures from an inventory of training needs (technical, administrative and user courses) and the next activities to be held in 2010.

The second day of activities focused on dealing with administrative and budget issues, as well as the planning of future activities according to the work presented, and was led by Florencio Utreras and Mark Urban.

In the heart of South America

11th CLARA Technical Meeting

At the Universidad Nacional de Asunción in Paraguay, with lots of orange juice, Paraguayan soup and chipas, for the second time this year, the technicians from the national networks and RedCLARA's Network Engineering Group (NEG) and Network Operations Centre (NOC) got together to share experiences, ideas and solutions which can boost the work done by the entire network.

This occasion also featured the Technical Commission's change of direction, and the man who was its President since the creation of CLARA, Michael Stanton, with a short and moving speech thanked for the support received over the years and said goodbye to his role as Coordinator at the technical Meetings and the Presidency is now in the hands of Sandra Jaque, to whom he wished the best of lucks.

Tania Altamirano L.

On November 16th and 17th, Paraguay hosted the eleventh version of the technical meetings. In hot Asunción, also known as the heart of South America, there was a meeting of the technical representatives from the national networks that are part of CLARA and RedCLARA's Network Engineering Group (NEG) and Network Operations Centre (NOC), in order to configure a joint x-ray of the work done by all the members of the network.

On the first day, the activities started with the presentation by Technical Management, done by Gustavo Adolfo García Plaza, followed by the presentations by the CLARA NOC – by Sandra Jaque from Chile's national network, REUNA-, CLARA NEG, with Alex Moura, from the Brazilian network, RNP- and the presentation on the Videoconference Project offered by CLARA's Marketing Manager, Rafeal Puleo, and the technician Hugo Vecino Pico.

The day's programme then featured CLARA's Executive Director, Florencio Utreras, who presented the current state of the ALICE2 project. He was followed by Tom Fryer, from the European organisation DANTE, who presented the experience in circuits of the pan European research network, GÉANT; and by Michael Stanton, from RNP, who spoke about the "Internet of the Future" initiative. At the end of the day, the Vendors, CISCO, Padtec and Extreme companies offered workshops to present the technologies they offer as network equipment providers.

During the second day, the Work Groups (WG), approved by the Technical Commission in June and working since July this year were divided into two sub-groups: applications and networks. The first group included members from the IPv6, Hybrid Networks and Measurements and Security WGs; the second group featured members of the IPTV, Videoconference, VoIP and Eduroam WGs.

There was a positive evaluation of this change, since there was more synergy between the participants, and this made it possible to have richer discussions, and there was an opportunity to discuss technical subjects with coordinators as well as to establish points of technical definition on the direction of the groups", tells Iara Machado, who led the activity with Michael Stanton.

The results, the ideas and the commitments

Later on, after the group meetings had ended, there was a plenary meeting to share the results of all the WG led by the coordinators in each group.

The IPTV WG led by Jaime Martínez from the Colombian network RENATA, concluded that the best alternative for this application is to have a distributed, multichannel service (with a programme for everybody) and the MPEG-4 AVC / H264 format was chosen for their work, and therefore a free software solution which guarantees stability, service availability and support provision will be adopted.

The Videoconference WG, coordinated by Daniel Díaz (RAAP, Peru), focused on the VC SIP/H.323 platform, considering the state of equipment and the experience of the GLOBAL project.

The report by the Eduroam WG, presented by Johnny Laura (RAAP) featured the presentations on the G3 Service Activity in EU, made by Josh Howlett and on the authentication service for Mobile Users at the Universidad de El Salvador, made by Eric López (RAICES, El Salvador). Additionally, he highlighted the need to use digital certificates in order to guarantee the integration with the service in EU.

Paulo Aguiar (RNP), in charge of the VoIP WG, made a presentation on the need to design an integration strategy between the NREN that are part of RedCLARA which already support VoIP and, depending on their individual experience, establish a basic platform for interoperation. Furthermore, they expect to organise a training levelling course to prepare NREN to implement the service.

The presentation by the IPv6 WG, coordinated by Azaél Fernández (CUDI, Mexico), covered the organisation of an IPv6 training activity and included the proposal for organising a competition for the development of specific applications for this protocol. Additionally, he spoke about the need for more local IPv6 Relays within RedCLARA, in each NREN and within the participating institutions so as not to depend on external equipment.

The Hybrid Networks WG, coordinated by Hans Reyes (CUDI), extended an invitation to more NREN to participate, and the discussions featured the request for the definition of a hybrid network and practical examples of usage, reasons for its implementation, applications which benefit through its adoption and the organisation of a training activity.

Leading the Measurements WG, Daniela Brauner (RNP), presented as points for discussion the dissemination across institutions, the use in the backbone by the NREN, problems with permissions, authentication, firewall to access measurement information and the auditing of monitoring points (Security WG). In the same way, regarding the policies and procedures for service use, the presentation dealt with bandwidth consumption and the regularity of measurements.

As for the Security WG, its coordinator, Liliana Solha (RNP), spoke about the possibility of monitoring via Darknet and the security audits (backbone infrastructure, corporate servers and systems, and projects critical servers). She also talked about the celebration of the International Day for Computer Security (DISI09), which was held on December 2nd in Brazil, delivering 30 information kits among the members of the networks to be distributed among their corresponding partners.

"Although the work groups have made progress since the last meeting in Costa Rica, we still have not been able to implement the scholarships and equipment, but it is important to highlight the first experience we are having with the Videoconference WG, which is working with CLARA for the implementation of the service", pointed out Iara Machado in her evaluation of the work done over the last three months of operations.

Farewell, dear friend

On the previous to last night in Paraguay the Technical Commission meeting was held, where according to the established rules a new Presidency had to be elected. The Commission's conformation is as follows:

- President: Sandra Jaque (REUNA, Chile)
- Vice-President: Iván Morales (RAGIE, Guatemala)
- Javier Martínez (INNOVARED, Argentina)
- Michael Stanton (RNP, Brazil)
- Andrés Salinas (RENATA, Colombia)
- Carlos Fernández (CONARE, Costa Rica)
- Fernando Muro (CUDI, Mexico)

On November 17th, at the end of the CLARA-TEC meeting, and with his typical naturalness Michael Stanton took the word and in a brief but very moving intervention he thanked for the support received; apologised for some involuntary inconvenient and said goodbye to his role as President of the Technical Commission and, within this role, as Coordinator of CLARA-TEC events, to be succeeded by Sandra Jaque, the recently elected President of the Commission and Technical Manager of the Chilean network, REUNA. "Next year the meeting will be organised by a different team. Thanks you everybody", concluded Michel among the clapping of the audience.

The technicians have the word

It is good to get together and sharing is even better, but the situation in each network is different and the benefit they obtain from the experiences in other countries varies depending on their individual conditions. In order to learn more about the effects of CLARA-TEC on its members, we spoke to some of the participants and this is what they told us.

Daniel Díaz Ataucuri (RAAP, Peru): "This meeting, as well as the previous ones, meets several objectives. One of them is to exchange experiences with each of the NREN in CLARA, to learn about what they are doing. For example, this time we saw what they are doing in terms of measurements and there is a very interesting proposal to make a pilot between the NREN to conduct the corresponding tests; we have also seen a presentation on VoIP which proposed alternatives and scenarios to be used by the user networks and we have talked about videoconferences not only in H.323 platforms, but also in Zip, which is the current tendency. Therefore, it is important because it gives an updated vision of what the different groups are doing and also allows for the planning for the following months, in view of the 2010 meeting, because one of the commitments we have with

ALICE2 is to have some basic services implemented in the network".

Jaime Martínez Ramírez (RENATA, Colombia): "On the one hand it helps us to see the state of advance of each of the groups and on the other it helps us to improve through the experiences that others have had in certain aspects that each of the WG is elaborating; furthermore, we get encouragement or find new ways to make thinks for the benefit of all members on the network. These meetings are fundamental because they help all of us to improve.

People are working on many things simultaneously, both at administrative and technical levels; as for the first, the network is becoming increasingly larger, the quality of connections is being improved, thus lowering costs; at a technical level, services which did not exist are being implemented; they are working to be able to have those services reaching all members and work is being done on new implementations on the network equipment that will create more services. This is very good.

For example, they are planning to implement the IP use service where you can pick up the phone and call any university institution that is member of RedCLARA, we are talking practically of the whole of Latin America; another service will be IP television: from your computer you will be able to watch 100% educational programmes on many subjects, like channels on health sciences, engineering, art, education; the expectation is that this application is in high definition, this is the impact that it will have on the users. By mid 2011 we would already see many of these applications up and running.

Eric Ramírez López (RAICE, El Salvador): "The most important thing is to get connected to people who are doing the same; learning from the initiatives in other networks and seeing how we can take advantage from them and incorporate them into our local networks; sharing knowledge and making connections for me are the most valuable aspects. Now, I'm taking back lots of ideas, the subject of voice over IP structure; we have an idea but the approach given here is different, and besides there is the issue of videoconference. This will not radically change what we are doing but it will help to improve and will guarantee there is harmony between the systems that are being done in different countries".

Azaél Fernández (CUDI, Mexico): "The feedback one gets from the members from other countries is quite interesting. The personal experience, to provide feedback and enrich oneself. Learning how they are doing things in other networks; the models that each country has are different, some of them have support from the government while others do not have it, and this marks a difference for the evolution of the network; if there are more or less resources it is more complicated to have the necessary updates. In Mexico we do not have that governmental support and we have tried to expand our own optical fibre; we are showing that experience, so that other countries can make use of it. We are still in the service tendering process and then we will se how it is administered, so as to get agreements with the government, the academic and the private enterprise, which must work together and make progress for the benefit of the country".

Luis Castillo (RAU, Uruguay): "The meeting is very good and we should participate more, be more involved; the problem is we are very few and we are doing too many things. One of the tasks I signed for is to make a list of what we are missing because of the lack of capacity. It is true that we cannot compare, there are different countries, different sizes, different investments on human resources, nothing can be compared here, but it is an opportunity and from that point of view it is

fundamental that we are present. When I get to RAU I try to transmit everything that is happening here to each of the people working on every area. In fact, Uruguay is a small country but we try to make and participate in as many things as it is reasonable to, in order to be able to make progress and have the new technologies".

Iván Morales (RAGIE, Guatemala): "We have the pleasure of actively participating in many of the groups and we see this as a prospect for the future. At the moment we do not make full use as would be expected but it is a project that is gradually fitting. There are increasingly more people who are familiar with the subject, who already know what advanced networks are, and what RAGIE is about and the approach we have taken in using the network not so much for research, but for the dissemination of education as such, because our researchers are still used to working alone, on their Excel sheet and do not know about any other tools. It is fundamental to share experiences, goals, ideas, and solutions. For example, I think it is very illustrative to see how INNOVARED in Argentina achieved a solution with one fibre provider, with an association between

RedCLARA, themselves and the provider, in order to obtain a high capacity network. By imitating that business model, in Guatemala we have knocked on the doors of many providers who have an infrastructure and in December last year we contacted a few of them; we have managed to get a couple of them interested in participating in the links tendering process and it is almost a fact that they are going to apply, and in previous talks they have said they are willing to make some strong concessions if everything goes well. Guatemala and Central America will have a one lambda backbone with an initial capacity of 2.5 Gb, something we used to think as impossible. Here we get innovative ideas from other networks, which helps us encourage the development of ours".

Roberto Zambrana (Bolivia): "It is a very important meeting for us, especially because now we are hoping to re-launch our academic network in Bolivia. We have

tried many times before, which have not been materialised for various reasons. It is important to share experiences with other people who have already started; others who have already made it, and experiences are always useful. And from the technical perspective, I was interested in participating to see what other connectivity solutions were available and the new CLARA legislation for connectivity gives the possibility of making a negotiation with the Bolivian telecommunications provider so as to, on the one hand open the tendering process, thus giving a potential connectivity solution between Arica (the network's closest point of presence) and La Paz, and on the other hand, so that from La Paz we are able to distribute the other departments in Bolivia through the telecommunications operator's infrastructure. Otherwise, the network would remain in La Paz and it wouldn't make much sense to have a network for only one city".

Michael Stanton:

"We all form one single world network, and we should all be able to benefit from this as much as possible"

In the creation of RedCLARA and the collaboration story that has been written by CLARA through the ALICE and ALICE2, EELA and EELA-2 and RINGrid projects, to name some of the most relevant projects from the technical point of view –in terms of the research challenges regarding the network infrastructure's uses and applications-, Michael Stanton, Director of Research and Development at RNP (Brazil) and today ex President of CLARA's Technical Commission (renewed within the context of the CLARA, CLARA-TEC and ALICE2 meetings, held in November in Paraguay) has been a predominant figure. His comprehensive knowledge and vast experience, as well as the generosity with which he shares that knowledge and experience, have been fundamental in RedCLARA's structuring and consolidation process. Certainly, the fact that Michael leaves the Presidency of Technical Commission of the Latin American Cooperation of Advanced Networks does not imply an end, but a new way of being involved with the community that has been created over the network and this led clearly to the following interview, where through his humbleness, future vision and generosity he shares not only his evaluation of his role until November, but also his view on our Latin American advanced network's future.

María José López Pourailly

You were in charge of the CLARA Technical Commission for five years, the first five years. After all this time and the experience gained, and so many experiences and lessons, how would you describe the labor of the First Technical Commission of CLARA? Which were the main lessons and most important achievements?

CLARA began in 2003, and ALICE too. At that time there were very few active Research and Education (R&E) networks in Latin America, namely those in Argentina, Brazil, Chile, Mexico and Venezuela. With the creation of the new networks, there were so many new faces, eager to find out how things worked. Since RNP had (and has) the largest and most structured network organisation in CLARA, and we were also actively developing our own networks and support activities since 2002, it was more or less natural for us to try to pass on to others our own experiences. This began in Rio in 2004, when Cathrin [Cathrin Stöver, till December of 2007 the ALICE Project Manager – DANTE] suggested we organise the first technical meeting during the CLARA launch event. This also included the first capacitation event we organised, which used RNP working group coordinators to let people know what RNP was up to in this area.

I have worked fairly closely with Cathrin since the beginning of the ALICE project, and this has helped enormously to guide technical matters along a

productive course. Naturally we have had to make up our own culture along the way, and this happened as early as the Veracruz meeting in 2005, when we drew up our own constitution (Reglamento de la CT). Fernando Muro from CUDI, who has been the vicepresident of the Technical Committee since 2005, has also been very supportive, both personally, and bringing the support of CUDI for our activities.

Main lessons: the sheer diversity of situations in different countries, which depend on the scale of local ambitions and competence, and also, especially, on the degree to which government support can be leveraged, through recognition of the important role that research networks have to plan in national development. I am particularly pleased by the impressive development of research networking in Ecuador and Colombia, and also by CLARA's success in acquiring access to optical infrastructure, initially in Southern Cone countries.

11 Technical meetings have passed, several training events, hundreds of trained people. Could you tell us how did you and your team do to coordinate all these major events?

Since the very beginning, I have been able to count on the very able work of RNP's Girl Friday, Iara Machado, who has been of the utmost importance in technical activities since their inception in 2004. Iara, who has worked with me at RNP since 2002, mainly involved there in coordinating our programme of Working Groups, which have been developing new network services for

us. Iara brought her experience from RNP to CLARA, where she took care of developing CLARA working groups. Iara also has assisted me (and the Technical Committee, at whose meetings she has been a regular participant) in planning the Technical Meetings and also the Capacitation events which were held during the same week. She has assumed an enormous load of work at these meetings, and her enthusiasm is contagious. She has set a high standard for others to follow.

Why it is so important to perform those Technical Meetings and Training events?

The principal reason is to spread more equally among CLARA member networks the knowledge and expertise that the older and larger organisations have accumulated, as well as providing contact with other world centres to improve specialised information flow. We all form one single world network, and we should all be able to benefit from this as much as possible.

Which was the regular feedback after those events?

At Cathrin's insistence, we polled our meeting participants to find out their views on what we had prepared for them, and attempted to use this feedback to make course corrections.

The process of the establishment of the RedCLARA meeting was all carried out under your presidency, how do you evaluate that process, and how do you envision the future of the RedCLARA network?

I would like to think we have managed to form a sustainable community through the activities of the last few years. It is true to say, none the less, that we may have leaned heavily on RNP experience and expertise during this time. RNP is clearly a very atypical network within CLARA, and it will be instructive to see how the organisation and the network will develop under other leadership. Obviously, RNP is not going away from Latin America anytime soon, but it is true to say that we also have our own collaborations with networks in other parts of the world, some of which depend on the adoption of newer networking technologies which are still uncommon in LA. RNP supports the extension of such infrastructure to other parts of LA, and the Brazilian government is providing considerable support for this activity, at least in Southern Cone countries.

I think there is still some way to go before we can say that RedCLARA has achieved its goals. Apart from those countries which are still unconnected, there is still only partial coverage of universities and research institutes in several of the smaller countries, whose NREN is no more than a limited metro network in the capital. I will be very happy, for instance, when RedCLARA provides connectivity for the community of researchers in the Amazon basin. That kind of integration will be remarkable.

You are one of the persons that better know RedCLARA, CLARA, and all the people that are part of this network and community. Baring all that in mind and considering your own experience as President of the Technical Commission, what would you advice to the new Presidency in order to help them to succeed?

Be inclusive: recognise your limitations and learn from others, giving them the opportunity to participate in this important group activity. Be open to new ideas and techniques. Remember that CLARA represents advanced networking in countries with around 600 million inhabitants.

You will continue integrating the Technical Commission, how do you envision your new role?

I'm unsure whether I will continue to be the RNP representative. We are a big organisation, and there are other capable people who can contribute to CLARA.

IPv6 Workshop

Learning in order to replicate

As part of the technical training activities, organised within the context of the ALICE2 and CLARA meetings held in Paraguay, the technicians from the different academic and educational national networks had the opportunity to participate in a course where they were able to learn about, handle and implement information related to the Internet Protocol Version 6.

Tania Altamirano L.

During three days, amounting to 20 hours of work, the technicians from the different Latin American national networks participated in the IPv6 Service Implementation Workshop, held from 18th to 20th November in parallel to the CLARA Assembly and the ALICE2 Project meeting, both held in Asunción, Paraguay.

Azael Fernández Alcántara and José Guadalupe Serrato, both from the Universidad Nacional Autónoma of Mexico, member of the University Corporation for Internet Development (CUDI); Andrés Ernesto Salinas Duarte, from the National Academic Network for Advanced Technology (RENATA) in Colombia; and Piers O'Hanlon from University College London (UCL) in England, were the instructors of the training activity dealing with topics like IPv4 vs IPv6 routing, Multicast introduction in IPv6, the current state of IPv6 at a global and Latin American level, IPv6 security, services and applications with IPv6 support and introduction to IP mobile.

Through lectures, presentations and simultaneous practical work, the workshop enabled the participants to learn about and apply the basic concepts, characteristics and functionalities in relation to IPv6, while working directly on their own equipment and interacting with the instructors and members of other networks.

The person responsible for IPv6 at UNAM and coordinator of the IPv6 Work Groups in CUDI and CLARA, Azael Fernández Alcántara, indicated that: "My vision is that the knowledge acquired will enable a better understanding of the basic conceptual elements of IPv6 and related protocols; the security issues

mentioned, the recommendations in the systems and applications with IPv6 support; which will help for the operation and administration of networks with the Version 6 of Internet Protocol, as well as the services provided by the participants' institutions and NRENs".

What about the results?

"It was very good; I liked the topics and the bases a lot; it is important to include NREN in this type of activities, in order to disseminate information, in this case on IPv6 use, which is essential", stated Dany Silva from the Computing Unit at the National Council of University Vice-Chancellors Network (CONARE), who also talked about the benefits that training activities will bring to this institution: "They are going to be very helpful, because we are going to request a group of addresses from LACNIC (Internet Addresses Registry for Latin America and the Caribbean) and without this workshop we would not have known which way to go with this group of addresses. Now we can make certain decisions and start working once again".

On the other hand, through the course the participants received the necessary information to implement services and replicate the course on their corresponding NREN, as in the case of the Ecuadorian Consortium for Advanced Internet Development (CEDIA). "We are organizing an IPv6 course for the beginning of January aimed at CEDIA members, and I am going to replicate what I learnt here, so I have one month to perform the tests and be ready to answer the questions people make", stated Claudio Chacón, Technical Coordinator at the Ecuadorian network.

"In general terms, the participants' reception was very good; the attention given to each of them was as personalised as possible; their questions were answered and thery were encouraged to participate and give feedback to the others", commented Azael Fernández about the workshop.

About IPv6

According to the material prepared for the workshop, the IPv6 protocol is a new IP (Internet Protocol) version, designed to replace version 4, which is currently in use and which poses some limitations to network functioning today and therefore for the internet of the future.

With IPv6 implementation it is expected to have a practically endless address space; computer and router self-configuration; more efficient support for mobile computing, security and service quality; better management of real time multimedia traffic, multicast applications and mechanisms for gradual transition from IPv4 to IPv6. These characteristics will enable, for instance, a better coexistence of telephony, mobile and wireless communications and audiovisual media y larger, more efficient and more secure networks.

16th – 17th November, Paraguay

Leaders from national networks are trained on Marketing Management

Within the context of the Training Programme aimed at strengthening the management capacity of National Networks, which is part of the "Regional Advanced Academic Network Strengthening trough CLARA as Public Regional Asset" (funded by the IABD), and as part of the CLARA meetings in Paraguay, the Behavioural Marketing Workshop was organised in order to provide the senior staff from the national networks in CLARA with skills that enable them to develop a marketing plan for their networks.

María José López Pourailly

The origins of the Marketing workshop held in Asunción can be found in the Strategic Leadership Course developed between 2008 and 2009, which consisted in a face-to-face meeting, held nearly a year ago in Río de Janeiro (Brazil), and two distance modules, delivered through CLARA's moodle platform.

In order to understand this unique Workshop – which will be completed and complemented with two distance modules – and appreciate the value of the experience in Asunción, we talked to Paulina Cendoya U., Professor and Pedagogical Designer, expert on Distance Education in charge of the Training Plan for National Networks strengthening.

Everybody said this workshop was an excellent experience, what are the reasons for this evaluation in you opinion?

I think the Workshop managed to connect each of the participants with their networks' basic definitions, and thus structure initially their target audience, this audience's needs and to establish who their competitors are.

The Workshop was structured so as to allow them to "discover" each of these topics, each participant collaborating with his/her own experience and creating

Paulina Cendoya

the scenarios to apply this learning to their own reality.

According to your point of view, and after some time, what was the most important thing about this Workshop?

I think the most important thing was the collaborative work in relation to the Workshop's objective. I mean the concentration and contribution that each participant knowingly offered, presenting their experience and taking in the others'.

This exercise managed to create knowledge that will be later applied to each national network for the development of their Strategic Plan.

Will this training activity continue and in what way?

The Workshop is part of the second course organised as part of the Training Plan aimed at strengthening the National Networks' management capacity, Quality Management, which also includes the development of two e-Learning modules on Financial and Operational Management and Human Resources Management.

This second course's objective is to provide the necessary knowledge and tools to achieve an excellence management within the National Networks organisation, with tools that are useful to solve problems in each thematic area. The intention is that each participant can apply the tools in his/her everyday work practice, according to his/her needs and personal and contextual interests.

Further information:

http://cursos.redclara.net/

REUNA has a new face and home

Get to know the Chilean network's new image and renewed website

Under the concept of Networked Science and Education, since 26th November Chile's National University Network left red and green behind and introduced a modern and stylish range of blues and greys which shape its new corporate image. Logo, web portal, typography, stationary and branding manual are the elements where this change is present, going beyond the cosmetic aspect and seeking to more efficiently reflect the objectives, services, applications and possibilities that the institutions offers to its partners.

Tania Altamirano L.

At the end of November, REUNA gathered its members, technicians, administrative staff and members of the Editorial Committee at the Literary Café in Balmaceda Park in Santiago. With all the family present and a pleasant cocktail party, its Executive Director, Paola Arellano, presented a story of the Corporation's 18 years which ended with the launch of the new image that joins them together since that day.

"REUNA is not only about technology; it is also about advanced networks and services, but above all, it is about the convergence of people who are interconnected through this technological platform in order to support two fundamental concepts like networked education and science. For this reason, what we want to express with this new concept is that geographical barriers have been eliminated and that technologies are a bridge to unite the most diverse areas of knowledge", stated the Executive Director.

In her presentation, Arellano explained that this new image is the result of six intense months of work, where a contest was launched among all members resulting in 27 proposals, of which the winning initiative was that by the Universidad de La Frontera academic, Gerardo Araneda.

"We have created a new logo to renew the brand, which is inspired in connectivity, communications and globalization, which reflect our institution's efficiency and quality", indicates the branding manual.

And a new image entailed a new website, which contains and fits in with the changes that the Corporation wants to express in this new stage. "The website had to be coherent with the new image, and coherent not only in terms of design, colours and structure, but also content", states Arellano.

This change arose as an initiative from the REUNA Editorial Committee, CER, created in 2008 and constituted by representative members from various member universities, with the idea that the new image could be the reflection of an organization which offers cutting-edge services and technology, in order to strengthen its members' scientific, educational and technological collaboration at both local and international levels.

And, what is it like?

The new website, resulting from the joint work by the Communications Unit, the Software Development area, the Editorial Committee and the contribution from all the Corporation's members, has a heading, a central menu, a highlight area (notes and videos) and a calendar of events. It also has a members' news section and

Executive Director of REUNA, Paola Arellano, and Network members.

another section with information from international networks, a space to verify the connection to academic networks, a secondary highlight for events and an area aimed at international alliances.

It seems like a lot, doesn't it? Fortunately, all of this has a easy to understand structure and a user friendly content, in a clearly organized space where it is easy to get carried away and navigate click by click through the sections. Those who knew the former website will find this new house is spacious, cosy and very functional.

Besides, according to the Executive Director, at entering www.reuna.cl, the visitor will not only find a renewed graphic image, but also he/she will be able to learn about the applications and potentialities offered by REUNA to its members and the possibilities for collaborative projects development through several successful stories which empirically show the huge advantages of participating in the connection.

"We want to understand what we do from the user's point of view. This is why we have decided to highlight our services, like, for instance, events transmission by the Academic Network, as well as to present cases of use which show what members are doing successfully and which can serve as an example to encourage other institutions who then promote their initiatives through Academic Networks", indicated Arellano.

Cheers!

During the launch ceremony the REUNA community was greeted by Mario Campolargo, Director of Emerging Technologies and Infrastructure at the European Commission's Directorate General for Information Society and Media, who talked through a video (available on the website) about the potential of information and communication technologies to revolutionise the scientific process.

Launch Ceremony

"In order to do research in what is very small, or very large, or very complex, we have to raise the experimentations at a level never achieved before, as in the case of astronomical observations, with very complex virtual simulation models or like the case of research in climatology", expressed Campolargo.

In his turn, the President of the Corporation's Board, José Palacios Guzmán, Representative from the Universidad de Atacama, colloquially talked about the long way REUNA has gone in its almost 20 years of existence and the lessons learnt over time. "We are in the face of a new image which we can see not only on the website, stationary or brochures; it is something we can feel, in this relationship between people which has been brought together to achieve this change", he expressed. "REUNA is not magic; it has some magic and that is going to be what we want it to be", he stressed.

REUNA's history through its logos

The Colombian experience

In mid February the National Academic Network for Advanced Technology, RENATA, invited designers across the country to participate in the contest for the design of a new corporate image. 125 proposals from 20 cities was the response received by the Evaluation Committee, constituted by María José López Pourailly, Public Relations and Communication Manager at CLARA; Carlos Cortés, Director of Colombian Designers; Rodrigo Velasco Gómez, Editor of the architecture journal Alarife I, II and III and university professor; Juan Pablo Salamanca, Creative Director of Pensá Diseño and professor at the Universidad Javeriana, and Martha I. Giraldo, Executive Director of RENATA. This committee chose the proposal submitted by the designer Carlos Idrobo, who expressed in an interview with the Colombian network's bulletin that: "I imagined a network with its points of union and convergence, also with a lot of exchange dynamics, as if they were nervous impulses. The most complicated thing at the time of defining the proposal was to get the logo to suggest technology while maintaining a kind, elegant and singular appearance".

"RENATA has shown, through this contest, that it understands the value of getting support from the minds and hearts of dreamers who want to transform the world with their magic and talent", stated Carlos Cortés.

RENATA:

The power of a website

RENATA's website has become an example of the power of networks in the interaction and consolidation of academic and scientific communities. Its contents, structure, navigation, graphic design, functionality and use of web 2.0 criteria have led to the award for the "Best Research Website" in Colombia.

Ixchel Pérez

A public accountability audience of the Ministry of Education; the famous Polish opera Król Roger and an arthroscopic surgery are only three examples of the diversity of videoconferences that converge in RENATA's website, which has become an important information disseminator and interaction centre for the academic and scientific community.

To move from education, to art and science is something you can do with just one click when navigating through the www.renata.edu.co portal, which received an important award at the Colombia en Línea 2009 awards: Best Internet Research Website. The awards were born ten years ago as an idea of the Colombian Informatics and Telecommunications Chamber (CCIT), the El Tiempo Publishing Company and the Online Government Programme.

"In RENATA we are very happy because since the beginning we bet for the portal to become the information, communication and interaction centre for the country's academic and scientific community. This award is a good indicator showing that they road we are taking is the right one", points out Camilo Jaimes Ocaziónez, Communications Coordinator at the National Academic Network for Advanced Technology (RENATA), one of the CLARA members.

The Best Internet Website category awards the portal put forward by the web with scientific, educational and cultural purposes, as well as the use of the networks and services convergence. This is one of the thirteen categories of Colombia en Línea, a contest in which 600 websites participated this year.

The massive participation forced the panel of judges to work for over a month in short listing the three finalists in each category. RENATA's website competed for the first place in the best research website category –given for the first time ever- with Universia (www.universia.net.co), the Hispano-American universities portal, and with la Revista (www.revistavirtualpro.com).

"Our big competitor was the UNIVERSIA Colombia portal. We felt very proud for the award we obtained in winning them, because in RENATA we admire and respect the importance and great quality of the work they do", pointed out Martha I. Giraldo, Executive Director of RENATA.

On this occasion, the panel of judges evaluates contents, structure, navigation, graphic design, functionality and use of Web 2.0 criteria (participative aspects like blogs, virtual forums and social networks).

The election of the winners was performed by the panel of judges constituted by: María del Rosario Guerra, Ministry of Information and Communication Technologies; Guillermo Santos, Director of Technology at the El Tiempo publishing company; María Isabel Mejía, Director of the Online Government Programme

Camilo Jaimes Ocaziónez shows the award

by the Ministry of Information and Communication Technologies, and Ramiro Valencia Cossio, Executive President of the CCIT.

Simple but impressive

The challenge for a good research website is that it deals with complex subjects but it must not be complex. RENATA's website –which receives 17,800 visits every month, on average- has been able to combine the contents' quality with navigation's straightforwardness, an attractive design and interaction with the audience.

"We bet for simplicity, dynamism and clarity in the information layout. The idea has always been to get the website to be pleasant, interactive, fresh and with interesting news. We have thought about providing the academic community with e-Science-related information, but in an organised and accessible way, that is, easy to find and make use of", points out Jaimes Ocaziónez.

Besides, adds the Communications Coordinator at RENATA, the team has worked hard to get the graphic part to be clean, elegant and subordinated to user-friendliness, interactivity and freshness which encourages the academic community to visit the website, "to be in RENATA and in permanent contact with RENATA".

RENATA launched its first internet website in 2005, since its constitution, in order to take on the leadership in the articulation and involvement of the country's academic institutions into the advanced technology network. This website focused on disseminating information about the entity and operated until 2008, when it was re-launched with intention of having a website which made it possible to connect the scientific and research community.

Since 2005, the website has received around 700,000 visits. Only in 2009 it has received 174,623 visits altogether. The RENATA statistics indicate that this year there were 132,322 new visitors and 403, 198 pages were seen.

Jaimes Ocaziónez highlights the fact that the latest innovations introduced into the website include its move to Web 2.0 and strengthening the role of www.renata.edu.co as a space for media convergence. Every month, the website supports the organisation of more than 30 academic events which can be accessed by the community through the six RENATA live rooms on the internet page.

Despite the advances, Jaimes Ocaziónez thinks there is a lot to be done yet. "Our website's reception has been regularly increasing, which makes us constantly reflect on the applications the community may need".

According to RENATA's Communication Coordinator, between 2008 and 2009 the monthly average of visitors increased by 1,000 visitors. "Everything leads to new and permanent challenges", he states.

Statistics from www.renata.edu.co in 2009

Calls for proposals: 86
News items: 198
Events supported: 187
Response Centre: 514
e-Science Resources: 235
e-Science Bulletin: 10
Data base subscribers: 4471

Martha I. Giraldo, Executive Director of RENATA:

"We want the website to be the meeting point for our community"

Martha Giraldo, Executive Director of RENATA

Why has RENATA's website become an important research tool?

RENATA's website is an important tool for research promotion because we inform the academic community about the most relevant scientific events at both local and international level.

In the same way, through www.renata.edu.co we make available for the academic community information related to calls for proposals for education and research; we highlight the academic projects which set the scene in our network's use and we promote the academic activities which are run both over RENATA and RedCLARA.

In 2009 we supported more than 170 events which have produced more than 93,000 connections for the academic community. The results in this sense are highly satisfactory.

What are the characteristics that made it stand out among the other websites?

www.renata.edu.co is a website that was designed and conceived taking its audience, that is, the academic community, as the starting point. The idea for the website since it was redesigned in 2008 was to have an online service and information centre for e-Science in Colombia, through which our community could have access to academic projects, interesting documents, academic activities and e-Science resources, as well as the technical advancements that are typical of our infrastructure. Since the beginning we were aware of how important it was that www.renata.edu.co became the meeting point for our community with information which interests them.

The media convergence is another aspect we have also had in mind and achieved. This results in the possibility of supporting our connected institutions with the visibility of their audiovisual academic products. In this moment, through RENATA we have 18 university radio stations and four television channels, spaces through which we have managed to attract more than 5,000 since June 2009.

In terms of graphic design, we wanted to have an elegant and friendly website which invites our scientists to create, produce and work in collaboration. And in terms of Internet, we focused on having a website which meets the W3C parameters, the international organisation that contributes with the specifications, master lines, software and tools to lead the internet to its fullest potential. The above results in the accessibility of search engines and in the usability for the users.

What challenges does this award impose on you?

We have to be in a constant search for tools which will enable us to produce an increasingly effective and powerful work for our community. What comes next is very much focused on the incorporation of Web 2.0 tools for RENATA. Our plan is that our portal can be the engine and generator of an academic community in permanent communication, interrelation and collaboration.

CLARA and ALICE2 initiative

Opening up possibilities for development

From 19th to 21st October Punta del Este, Uruguay, became the venue for the 6th Latin American Network Operation and Management Symposium, LANOMS 09. Aware of the needs for technology communication and dissemination existing in our region, CLARA, through ALICE2, brought together the Latin American networks that are members of the project and their partner institutions, to present applications for two scholarships to participate in the event.

Verónica Uribe

LANOMS, Latin American Network Operation and Management Symposium, is an activity that has been organized since 1999 and whose first venue was Río de Janeiro in Brazil. Ten years later, Punta del Este, Uruguay, is the city that welcomed such important event, which brought together specialists from the region to deal with topics like the latest technological advances in all aspects relates to the operation and management of infrastructures like advanced networks, services application and systems distribution in general.

In its 2009 version, LANOMS was promoted by the Universidad de la República (Uruguay), with the intention of reaching its main goal: the opportunity to exchange ideas and results about the research, standards and user communities in the field of operations and management. There is no doubt about the great importance of this meeting, both to exchange ideas on the different projects that are being executed across the region, and to design common lines in the development of advanced networks in Latin America.

CLARA, through the ALICE2 Project, gathered the Latin American networks in ALICE2 and their partner institutions to submit applications for two scholarships to participate in the event. These consisted in the cost of the airfare and a subsistence allowance. Applicants had to send by October 7th their CV, a cover letter in English written and signed by the applicant, explaining his/her motivation to participate in LANOMS 2009 and indicating how he/she thinks this could help his/her performance in his/her own NREN – university or scientific field- and contribute to the work developed over RedCLARA; one proposal for a thematic Blog related to one (or more) subjects included in the programme for LANOMS 2009, and a letter signed by the Director of the NREN in his/her country (or the person immediately below), explaining why it is important that the applicant participates in LANOMS.

The contest's two winners were Jorge Joel Reyes from the Universidad Autónoma Metropolitana (Mexico City, Mexico) and Roberto Zambrana from the Universidad Mayor de San Andrés (La Paz, Bolivia).

But, what do both scholarship winners think about this experience? Did it meet their expectations? Below there are some thoughts on LANOMS 2009 from the point of view of the ALICE2 and CLARA contest's winners.

"This experience has been very enriching. Not only because of the multiple topics covered, but also for the exchange with colleagues from other countries in our region and other continents. I believe the research work presented at LANOMS features a great theoretical depth and the results are applied to real and current needs. I was able to ascertain that there are research areas on which we are working at my university and whose humble contributions could add to the current issues at LANOMS", comments Roberto Zambrana, and adds that: "The truth is that the event's thematic content is quite vast and given its short duration, I had the impression it would be a brief workshop for the presentation of results of research on different areas and, therefore, without many possibilities for interaction. On the other hand, I thought many of the subjects would reflect the state of the art in the application of various tools or systems, but maybe relevant for use in advanced realities or scenarios with better conditions, as opposed to those which can be found in the countries in our region".

Víctor Hugo López López

Place and date of birth: Sinaloa, Mexico. October 3rd, 1959

Studies: BA in Electronic Engineering (Universidad Autónoma Metropolitana)

Position: Head of the Academic Computing Section

Institution: Universidad Autónoma Metropolitana (Mexico)

Topic of the blog submitted for the scholarship contest: A logbook which becomes a parallel and distributed computing resource for express consultation regarding technological solutions provided by the everyday application of the computerised networks' technology and services, whose synchronisation and reproduction ensures the synchronic and asynchronous response without having one single repository.

Roberto Guido Zambrana Flores

Place and date of birth: La Paz, Bolivia, July 1st 1971

Studies: BA in Engineering of Electronic Systems (Military and Engineering School)
MA in "Telecommunication Networks" (School of Engineering – U.M.S.A.)

Position: Professor-researcher

Institution: Universidad Mayor de San Andrés (Bolivia)

Topic of the blog submitted for the scholarship contest; CLARA's regional implementation of the "Computer Emergency Response Team" (CERT).

To conclude, the winner from the Universidad Mayor de San Andrés (Bolivia) stated that: "One of the most important objectives had to do with meeting peers from other countries, who were working along research lines similar to our country's, in order to learn about their experiences and also contribute with our own".

The experience was equally productive for Victor Hugo López López, who regarded it as "an academic activity for scientific research and important technological development, considering that its context has a full coverage, structured in six themes (Management Paradigms, Models, Theories and Architectures; Enabling Management Technologies; Operation and Management Functions; Information Technology Service Management; Management of Emerging Network Services and Special topics of interest to Latin America)".

In relation to the computing, informatics and telecommunications tools, I did expect the presentation of papers illustrating the orientation of scientific research on these topics (particularly instrumentation and expansion of computerised networks as covered at the NOMS – IEEE/IFIP Network Operations and Management Symposium-, as well as at the APNOMS – Asia-Pacific Network Operations and Management Symposium-), which was met (Self Management and Security Management with its corresponding three papers; as well as Infrastructure Management and Traffic Engineering and Fault and Performance Management also with its three corresponding papers)", stated the winner from the Universidad Autónoma Metropolitana (Mexico).

Finally, López stated that he "expected the presentation of technological developments which showed the viability and feasibility of relating higher education institutions with (local and international) technological corporations, involved in the integration of this resource into their processes of direct and indirect production of goods and services. In this case, I regarded as crucially important the presentations by the Information Society (ISOC: Christian O'Flaherty – Senior Education Manager-), as well as by the Latin American and Caribbean Internet Addresses Registry (LACNIC: Raúl Echeberría – Executive Director of LACNIC-), which left me pleasantly satisfied. These papers on computerised network management and security are important, but scientific and entrepreneurial projects to bring this technological close to as many people as possible would be more important".

As could be expected, LANOMS 2009 was highly useful, not only for the winners of the two scholarships but for each person participating in the event. The exchange of knowledge and experiences is the basis for any regional project to be able to take shape and develop to its fullest potential and each of these activities, where different researchers from the region get together to share their knowledge and learn from each other, represents one step forward in the development of the dream of having all countries interconnected and attaining the development of advanced networks and technologies in Latin America.

UbuntuNet-Connect 2009 points towards Africa-Connect!

Margaret Ngwira, UbuntuNet Alliance

The picture shows the Uganda Minister of Information and Communication Technology, Honourable Aggrey Awori who opened the Conference with participants. The Chair of UbuntuNet Alliance, Professor Zimani Kadzamira is next to Carmen on the right and the CEO, Tusu, in an orange shirt in the second front row at the left.

In 2008, UbuntuNet Alliance started a series of annual conferences under the name of UbuntuNet-Connect. UbuntuNet-Connect 2009 was held in Kampala from 12 – 13 November 2009 on the theme: Opening New Frontiers for Research and Education Networking in Africa. Implementation of Africa-Connect was high on the agenda and the presence of Carmen Mena- Abela of EU and Cathrin Stover of DANTE was a highlight. The roadmap for implementation was further refined in a participatory manner. Another high spot was the admission of the 11th member of UbuntuNet Alliance, SomaliREN! The Conference was preceded by capacity building activities:

- a training course in Advanced Routing for Technical Managers from all UbuntuNet Alliance member NRENs, jointly funded by the Association of African Universities (AAU) and the Internet Society (ISOC). Additional Uganda participants were welcome, so about 24 people participated in the training.
- a Grid Computing training hosted by Leandro Ciuffo of the EELA Project who assisted with the Malawi Grid Computing training the year before. UbuntuNet Alliance has a Special Interest Group (SIG) on Grid Computing. The participants enjoyed the exposure!

The Conference itself had several components: presentations by potential fibre Infrastructure providers – WIOCC and SEACOM, a Content session and a report back on the FEAST Project: Feasibility Study for African-European Research and Education Network Interconnection. One interesting aspect of the FEAST project is the "Twinning" concept – opportunities for African NRENs to twin with their European counterparts. The first twinning agreement to be signed was between the Kenyan NREN, KENET and the German NREN, DFN. Details of this agreement can be read in the November issue of NUANCE. http://www.ubuntunet.net/november2009#mou.

December 1st and 2nd

The third version of GÉANT was unveiled in Stockholm

"You are inventing the future Internet, which is an invitation to those brilliant young minds that will lead our futures", with these words the European Commissioner for Information Society and Media, Viviane Reding, through a video message, celebrated the commemoration of the third term of the successful pan-European GÉANT network. Organised by DANTE, SUNET and NORDUnet, this particular celebration took place under the form of a conference that was carried out in the Museum of Modern Art in Stockholm (Sweden) during the first two days of December. More than 200 delegates from Europe, North and Latin America, the Caribbean, Africa and Asia participated in the event that by means of a series of key speaker presentations and panel discussions, represented the diversity of institutions and people that are daily benefited by GÉANT: end users, industry, NREN leaders and policy makers. And of course, in such a bright occasion culture couldn't be left aside, and fortunately it did not, on the contrary, it was a main character of the opening session, that was combined with the celebration of the TEIN3 Network extension to South Asia during the ASEM Workshop held in Kuala Lumpur (Malaysia).

María José López Pourailly

From 2012 the 40 million researchers and students that across Europe are currently using GÉANT, will be able to better tackle the new science challenges thanks to super-fast connection speeds of up to 100 Gigabits per second, ten times higher than today! This immense growth in the GÉANT network capacity will benefit researchers from all over the world. Faster speeds will help scientists and academics to collaborate in a better fashion and environment, to process massive amounts of data, to generate more knowledge and do better science. That is the promise of the GÉANT 3 project, which is funded in almost equal parts (of € 93 million each) by the European Union's (EU) 7th Framework Programme and Europe's National Research and Education Networks (NRENs).

With the objective of shaping the Internet of the future through the pan-European GÉANT network and a portfolio of advanced services, GÉANT 3 will run until 2012.

Commemorating a third term of the successful GÉANT network and project that lie at the heart of the EU's e-Infrastructure strategy, the conference gathered more than 200 delegates from Europe, North and South America, the Caribbean, Africa and the Asia-

Pacific region, who attend to the series of key speaker presentations and panel discussions that were carried out representing the diverse and ample spectrum of institutions and people related with the advanced networks development including end users, industry, NREN leaders and policy makers.

Day 1

After the two hours given for registration and the standing plated lunch, Hans Doebbeling, General Manager of DANTE, welcomed all the attendees and introduced the salutation video sent by Commissioner Reding, and the intervention of Katarina Bjelke, Head of the Research Department of the Swedish ministry of Research and Education.

In her video, the EU Commissioner for Information Society and Media commented on the great success achieved so far with the GÉANT network, "I count on you to deeper experimentation and collaboration", she said. But Madame Reding also challenged the community to push boundaries: build faster connections – she specifically pointed to terabytes -, drive towards increased global connectivity, and use ICT as a tool for reducing emissions. Knowing about the cultural performance that was about to take place during the Conference that same day, the Commissioner finished her presentation by saying: "May this dance and music inspire your discussion".

Katarina Bjelke, stressed the need for continued investment to avoid the marginalisation of Europe as other regions of the world make such rapid progress. The representative of the Swedish ministry, also referred to a possible association between the European member states governments and the EU in order to better manage and take a proactive and well coordinated role in realising the vision of the European Research Area (ERA).

The Deputy Director General of the European Commission, Information Society and Media Directorate-General, Dr Zoran Stancic, gave a presentation referred to the future Internet and the initiatives that the EC is leading in this scope. "It is my expectation that GÉANT community is prepared to phase new challenges as the massive amount of data flow that will haul within the upcoming years", said Stancic before stating that sustainable innovation and ongoing customer adoption is necessary to justify the continued investment of research networks. And just like Commissioner Reding, he made a special remark regarding the importance of addressing the younger generation by means of new policies that must be created by the community.

And the clock marked 14:20, and the ceremonial link with Kuala Lumpur was established and the GÉANT Conference was tied up with the Launch of Tein3. In Stockholm Cathrin Stöver, DANTE's International Relations Manager, had the mission of introduce "GÉANT and TEIN3: Bringing Cultures Together Across Continents", the fantastic performance that the audience in the Modern Art Museum in Stockholm and in the ASEM Workshop venue in the capital of Malaysia, had the pleasure to attend.

Cathrin Stöver introduction:

> *"I am delighted to introduce a very special part of the programme now.*
>
> *Over the past months an exciting collaboration has taken place to create a unique*

Martha Giraldo.

Photo by David Bicho, www.bicho.se

Lito Ibarra.

Photo by David Bicho, www.bicho.se

Luis Furlán.

performance for today's launch of GÉANT here in Stockholm and the TEIN3 launch in Kuala Lumpur.

We will now see the two networks, GÉANT and TEIN3, uniting the two continents through a joint music and dance performance.

To do so, we have established a high-speed, high-quality DVTS link passing from SUNET in Sweden, to NORDUnet, GÉANT and TEIN3 to MYREN, the Malaysian NREN, spanning a distance of over 9,000 km.

The music we will be hearing is based upon traffic flows in the GÉANT and TEIN3 networks.

This network traffic data is converted into sound and transformed into melodies through data sonification. It becomes the background to the music arrangement we are to hear.

Over this background we will hear flute, harp and oboe tracks. And we will also listen to the sounds of the Epigonion and the Barbiton.

The Epigonion and the Barbiton are two ancient Greek instruments from the first century, whose sounds were lost to us. They have been recreated by the ASTRA project, using the GÉANT network.

The Epigonion was first heard again in a performance last year. And I am very pleased that this afternoon we will hear for the first time again the sounds of the Barbiton, after centuries of having been lost.

Live on stage here at the Moderna Museum we will hear the music written by Domenico Vicinanza and performed by the Lost Sounds Orchestra. The music will be sent over the networks to Kuala Lumpur. In Kuala Lumpur dancers of the Arts Exchange will perform to this music.

The dance is based on the water-stone symbolism: water and stone – two powers that influence each others behaviour. Water shapes stone, stone shapes water.

The work belongs to the Svarnabhumi Studio, choreographed by Zubin Mohamad. The images of the dancing will be relayed to us in Stockholm thus joining dancers and musicians in a truly cross-continental performance.

I would like to thank the artists and technicians that have made this performance possible and that have built a team of dancers, musicians and network engineers for this special event.

And now without further ado, I have the immense pleasure to introduce to you:
GÉANT and TEIN3 – bringing cultures together."

The performance was perfect and the attendees in Stockholm were absolutely enchanted by the sounds of the Epigonion and the Barbiton played by maestro Francesco De Mattia, Artistic Coordinator of the Lost Sounds Orchestra (http://www.lostsoundsorchestra.org), who played alongside Domenico Vicinanza and Gianluca Mercurio, both on percussion.

After the wonderful performance, Hans Doebbeling gave a brief overview of GÉANT and informed about the

Lost Sounds Orchestra: Francesco De Mattia, Domenico Vicinanza, Gianluca Mercurio.

María José López Pourailly.

creation of three new NRENs in Europe: AMRES (Serbia), MARNET (Macedonia) and MREN (Montenegro).

After the coffee break, the evening continued with the presentation of Dr Giovanni Colombo - EIT Executive Committee and Adjunct Professor, Politecnico di Torino – who talked about the need of develop applications and technologies to enable research and education advancement; he gave special attention to the impact that this will imply for the next generation.

A Panel Discussion was the last session of the day, under the title "Keeping Europe at the cutting edge of Science Discovery", and with Kostas Glinos -Head of Unit "GÉANT & e-Infrastructure" in DG INFSO (The Directorate General for Information Society and Media)- acting as chairman; the panel members referred to the need for continuous innovation to keep Europe at the forefront of collaborative research and to the urgency of reducing carbon emissions (ICT is responsible for 2% of global CO2 emissions).

During the evening the attendees and speakers participated in a Gala Dinner held at the Vasa Museum.

Day 2

On Wednesday, December 2nd, speakers and panel sessions continued raising awareness of issues and challenges that networking can help to address. Delegates were reminded of the stark differences between connectivity across the world and the severe need for geographical extension of the internet. Apart from this central issue, the call was to foster virtualization, take risks and achieve desk-to-desk connectivity.

Kostas Glinos pointed the fact that the Conference was occurring at the same time that the EC 5th Freedom for scientists - Free circulation of knowledge and technology – was approved, was mot only a happy coincidence but something really related to GÉANT, as he said that the conclusions are pretty much related to the pan-European advanced network infrastructure.

ALICE2 at Stockholm

Representing CLARA and the ALICE2 project, Martha Giraldo – President of the Board of Directors -, Luis Furlan - Vice-President -, Rafael Ibarra – Treasurer- and María José López – PR Manager -, assist to the event, in which 200 ALICE2 brochures and pendrives were distributed among the attendees.

Martha Giraldo was interviewed by DANTE staff, and a nice video of this interview - in which she refers to the strong liaisons that CLARA has with the GÉANT project and of course to the benefits that the connection of the RedCLARA network to the GÉANT network is bringing to the Latin-American scientific and academic communities – is published under this URL:
http://www.geant.net/Events/LaunchEvent/Pages/EventInterviews.aspx

More information:
All the presentations and videos have been published in the GÉANT website:
http://www.geant.net/Events/LaunchEvent/pages/home.aspx

More speed and greater capacity for Argentina

With presentations by five specialists and the participation of more than 40 researchers, the capital of tango gave the first step towards the development of a national e-Science programme. Following a modernisation process, high-capacity computer clusters were set up in the country. This link through Innova-Red and its connection to RedCLARA will give room for the creation of an infrastructure which makes it possible to make the most out of this equipment.

Tania Altamirano L.

Within the context of the Large Equipment and Data Bases National Systems Programme, on October 21st and 22nd, Argentina's Scientific-Technological Articulation secretariat (SACT) carried out a workshop for the launch of a National Grids initiative in order to promote the creation of a calculus grid which makes it possible to maximise the use of the resources available and serve as a basis for the development of a National e-Science Plan.

"It is a different way of working, favouring collaborative groups between geographically people, sharing ideas, making use of great international facilities. But to get to this point, it is necessary to take some preliminary steps. The first is the structuring of a national advanced network which allows us to communicate at great speed", stated Alejandro Ceccatto, Scientific Technological Articulation secretary of the Ministry of Science, Technology and Productive Innovation in the article 'Work on last details of superfast electronic motorway', from the Argentinean newspaper, La Nación.

According to the activity's official website, after the two stages of calls for Equipment Updating Projects carried out between 2003 and 2006, a significant number of 'clusters' was set up in Argentina, intended to solve problems which demanded extraordinary calculus resources.

Gradually, a technicians and users community was created around these clusters. These people has shared basic knowledge which could be related through current and developing communication systems by means of the National Advance Network INNOVA/RED, thus creating a calculus infrastructure shared by the entire national science and technology system.

According to Cecatto, to this end the country will have to acquire a communications backbone which will join the main cities, thus configuring a national academic network, whose work will consist in the provision of advanced networks services for universities and technological centres throughout the country. It will also have to set up, over the advanced networks infrastructure, a national grid, both for computing and data, which makes it possible to guarantee a distributed calculus capacity in an efficient, secure and accessible way for any researcher from his/her computer.

“It is a huge step. Without this infrastructure we cannot even begin to speak. But now we have to develop the applications, something that is not simple, and to change a whole work culture”, indicated the researcher at the Computer Science Department at the Universidad de Buenos Aires, Esteban Mockkos, in the La Nación article.

The initiative’s launch ceremony featured presentations by four specialists on the subject of clusters integration and Grids development, who spoke about their corresponding experiences. The guest experts were Doctor Ognjen Prnjat, Administrator of the European and Regional Grid of the Greek Network for Research and Technology, GRNET; Doctor Rob Gardner, from the University of Chicago’s Computing Institute; Doctor Roberto Barbera, member of the University of Catania’s Physics Department and the National Nuclear Physics Institute (INFN) in Italy; and Doctor Kanellopoulos Cristos, from the Aristotle University in Greece.

Another participant was Doctor Ánibal Gattone, executive director of the Argentinean national network, INNOVA/RED, who spoke about the infrastructure development experiences in Europe and Latin America.

Later on, researchers participated in a workshop where they shared their experiences on cluster management and discussed the grid architecture that best fits in with the available resources and capacities. This served to collect a series of recommendations that will be incorporated into the activities of the Future Advising Committee of the Nantional High Performance Computing System (SINCAD), which will assist SACT on the subject.

The researcher from Conicet and the Universidad de La Plata, María Teresa Dova, who works in high energy physics, expressed her enthusiasm to the Argentinean media when she declared: “I am sure this is the second big revolution. Not only for us, but for Argentina’s great science, from climate to bioinformatics, solid physics and quantum computing. The grid will make it possible to share resources, but fundamentally people. And that, I think, is the most important”.

If you want to know more about the activity and download the experts’ presentations, you can visit the following address:
http://indico.cern.ch/contributionDisplay.py?contribId=6&confId=66398

INNOVA|RED develops workshop with its partners

More than 20 technicians from across the country participated in the activity that was held in Buenos Aires from 3rd to 6th November, with the aim of promoting the services offered by the Argentinean national network, its potential use and, manly, the benefits they get through their connection to RedCLARA.

Tania Altamirano L.

With the aim of letting people know about the services and benefits included in the INNOVA|RED membership, the Argentinean national network organised a workshop held from 3-6 November in Buenos Aires, which featured the participation of the technicians from its member institutions.

Javier Martínez.

"The fundamental idea was to gather the community and show them what being connected to CLARA's network meant for them. They have two services, namely internet and the connectivity to RedCLARA, and we wanted to show them the benefits, the capacities, the potential use and evident advantage of being connected", states the INNOVA|RED Technical Manager, Javier Martínez.

According to its website, INNOVA|RED connects 30 institutions, which include fifteen universities and higher education institutions, nine national research laboratories and six government agencies. Furthermore, the network services local universities through an agreement with the University Interconnection Networks Association (ARIU), which covers 80% of the researchers community's traffic, acting as the Argentinean academic Network Access Point (NAP).

"We had been thinking about an activity that would fundamentally bring the community together in order to tell them about the possibilities they have by being part of INNOVA|RED and about the services that are being offered; then, Michael Stanton – President of CLARA's Technical Commission-, told me he was going to Argentina and I thought this was the right opportunity to organise it", tells Martínez.

The workshop featured the participation, through videoconference, of CLARA's Executive Director, Florencio Utreras, who spoke about the ALICE2 Project and the work done by CLARA, and the person responsible for the Spanish network RedIRIS, Esther Robles, who made a presentation of the European initiative GÉANT 3.

It also featured the participation of a representative from the switches and data communications provider, Juniper, who answered the audience's questions regarding the equipment's characteristics and possibilities.

Achievements? "There came people from Malargue, Squartini, Rosario; people moved. Argentina is a big country and, in general, there is a limited budget for technicians to move from their university to Buenos Aires to attend a talk. This workshop was also useful for us to learn about our members' requirements. Before we could speculate, but we did not know for sure, and now we realised that their needs are absolute and that they are willing to receive any kind of help and training; there are universities which need everything", points out Martínez and concludes that: "In the future we want to repeat the experience but as a more practical training".

If you want to know more about INNOVA|RED, visit its website at: http://www.innova-red.net

Álvaro de la Ossa, director of Costa Rica's CENAT:

"We are focusing on making the network known"

In August The CLARA-TEC and ALICE2 meetings coincided in San José. The host country, recently connected to RedCLARA, shared with the different NRENs and learned about their experiences. A few months later, Dr Álvaro de la Ossa gives an account of the impact that the event has had on the country and tells us how they are addressing the road of advanced networks.

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Ixchel Pérez y Tania Altamirano

Between 2004 and 2006, Costa Rica had its own research and education network, CR2NET, which was constituted by seven universities. This network was connected to RedCLARA, but unfortunately aspects like the scarce use of the network's resources, the limited coordination between the institutions involved and the poor dissemination of information for researchers from the universities led to its leaving the project.

However, the seed did not die and both the National Centre for High Technology (CENAT) and the National Council of University Vice-Chancellors (CONARE) promoted Costa Rica's reincorporation to CLARA and its reconnection to RedCLARA. The initiative was particularly supported by Alejandro Cruz, then director of CENAT, Carlos Fernándes, director of CETIC/CONARE and Álvaro de la Ossa, director of CNCA/CENAT.

Dr Álvaro de la Ossa Osegueda, presently the director of CENAT and one of the most prominent scientists in Costa Rica, is giving a significant thrust to this new opportunity for Costa Rica to get onboard the advanced networks train. He admits that it is not easy, but he wants the formerly hampering factors to be eliminated and, together with the CENAT team, they devote all their energy into executing an action plan that allows them to disseminate the network's advantages and to connect the universities as soon as possible.

What is your evaluation after the ALICE2 and CLARA-TEC meeting held in Costa Rica in August?

Very positive, because I think it showed the network's importance to those sectors which finally make the funding decision. They got a firsthand view of the group's size and the type of activities or projects which are developed. The president of CONARE was present at the Assembly, where he could appreciate the network's size and scope. Another positive aspect is, I think we were uncertain at that time of whether we had the technical capacity to provide the research centre with a stable signal and everything went fine, which gave us a good example to realize that we can make it within a very short-term.

The negative aspect is not the outcome of the meeting, but the fact that it has not been possible to reflect the experience from August in the universities. At this moment we only have two centres – one school and a research centre – connected to RedCLARA, apart from CENAT, and we would have expected that basically all universities would be connected by the end of the year with a substantial number of schools and research centres, but this has not happened because of a lack of coordination. We are working on improving this.

But to date, have you had any results?

No we have not. I would say that not yet. There has been a lack of resources. Firstly, in terms of human resources. At this moment the National Centre for High Technology (CENAT) took on the responsibility of coordinating the process of service provision for universities and the CONARE, the technical aspect of the connection, but in three months we have not moved forward as fast as we wanted, in order to have a higher number. We did not expect to have everybody connected by the end of the year but we did expect that there would be a representative amount of university centres with the connection in use. But there are only two educational units and the CENAT. So far we have not received the support from

the university vice-chancellors to hire people to deal with the administration and promotion of CLARA; this is a task that was undertaken by the CENAT with the resources it already had and which are not enough. On the other hand, we have not been able to disseminate the message or the information on the network in all universities.

And have you had any experiences of network use?

Very few. At this moment it is basically limited to a few videoconferences.

Do you have any sort of programme to increase the number of entities connected?

We have a list of goals. The goal is to have a significant percentage –which we did not define previously- of universities connected, but we have not achieved this yet. To date I personally worked on dissemination through talks; there is an introductory talk we have prepared, where people are told what advanced networks are, specifically what CLARA is. How it was founded, how it has developed since its beginning, what projects for collaboration between Latin America and Europe are available as part of CLARA, the type of areas which could be more quickly benefited, like nanotechnology, earths sciences, bioinformatics, etc. We know there is a significant amount of researchers, professors and administrators from universities who know about the project, which has not move forward fast enough though.

How many members do you have?

Four. The main one is the Council of University Vice-Chancellors, on behalf of the four universities: Universidad de Costa Rica, the Technological Institute of Costa Rica, the Universidad Nacional and the State Distance University.

Do you plan to have more members?

Yes we do. In fact at present we are working on an agreement with the Ministry of Culture. They are developing a project for the creation of a digital art centre, called "Ciberarte" and the alliance between the ministry and us consists in putting forward joint projects which make use of the centre's facilities to promote the introduction of technologies into the arts and culture. The role of CENAT there features three areas: one is technology provision: they will have access to our supercomputer, to the CONARE network. The other area is the search for teachers, researchers and students from universities who can develop cyber art projects. The other one is training component. The cyber art centre is proposed as a meeting point for both independent and state groups in the country, as a sort of collaboration workshop space for production, for instance, of digital animation applications, electro acoustic music, audio, video, cinema, etc.

I think this will probably be the first component to attain concrete results in collaboration – it seems impossible because it does not come from universities but from the Ministry of Culture.

What is the timescale of your project?

This is a Ministry's project, they have their own timetable, but the idea is to have the Cyber Art design ready by the end of the present year. We are supporting them on the type of equipment they need to acquire; the type of computers, supercomputers and connections; the type of specialised equipment for cinematography or digital art in general and they are providing the funding for the construction of the venue.

What has been the response from researchers like at learning about our network?

Typically, they seem interested, I think there is certain mistrust about the technologies incorporation process into their work being a fast one; they feel and perceive in advance that it will be a long, bureaucratic and complex process; this should not be like this, but in actual practice this is what has happened. Of course, I cannot generalise; there are researchers who have international contacts, who know about the existence of networks, who have used them and who are most interested in being connected. For instance, the Informatics Computing School from the Universidad de Costa Rica, where I teach, was in fact the first to be connected to CLARA; it has a cluster for data processing; it is developing an area within the computing foundation programme which has to do with distributed computing, high performance computing and they are using the cluster for research purposes. Most of the professors who are currently doing research, have got their degrees abroad and know what we are talking about; this is why it has been easier to get to them.

There are other areas which show a great interest but which are not familiar with the technology to know how to set started, especially in the area of health sciences. There we have a cooperation project between CENAT and the University of Costa Rica, where a supercomputer is being installed at the country's largest hospital, which will provide processing services in the computer science

area specifically and all the research centres around the hospital. The centre is called Centre for Research on Haematology and Related Disorders (CIHATA), and one of its specific areas of work is the development of an atlas or national compendium of haemorrhagic diseases. To this end, they have very well-equipped laboratories, a DNA sequencer; with these they produce the DNA sequences and with this we are already with supercomputers, through RedCLARA, performing simulations and 3-d models of molecules, of the proteins which cause haemorrhagic diseases. This was introduced early this year; there are already some results as part of the project.

How useful for you has been the network in this case?
To help scientists to characterise the case of some patients where it is not possible to identify at present what has produced the disease. The process in short is that they take the blood sample from the patient, then sequence the DNA; we receive one part of the sequence which corresponds to the part where they suspect there is a mutant gene or the cause for the haemorrhagic disease, and we use the cluster and some portals trough CLARA for simulation, modelling, etc. to be able to see a three-dimensional model of the molecule of the protein which is supposed to cause the disease. With this information about the three-dimensional model the scientists at CIHATA can characterise and say "this molecule has a piece of here which is not present anywhere else" and see that it is a new factor or a variable of an existing factor and what they do is to characterise it.

Once the disease is characterised, it is possible to propose a treatment for the patient, which is why this has a direct application not only on diagnosis but also on the treatment for the disease.

What other important example of use could you mention?
In the area of earth sciences, the CENAT has several projects such as the Air-Transported Research Programme (PRIAS), which has been coordinating since 2003 to date, missions of aerial photography of all entire country, with hyper-spectral and high resolution; and the applications there are thousands, such as identification of environmental risk areas; usage studies in agriculture, disasters prevention. Then, the use has been reduced to the search for contacts and scientific articles; with that information we are planning to hold a workshop on ecology and remote treatment next year.

There are other projects which have been born in this laboratory. For example, with the University of Illinois they are working on a project to make a collage with these 10,000 images, a sort of hyper-photography which we can put up on the web so that any researcher can navigate through it, identify in low resolution in the same way one would do in Google Earth and then go to us and say "I want this in high resolution" and we would provide added value to that, as a reference of points of interest on the picture or environmental risk studies. This is useful not only within the academic world, as we have also been consulted by enterprises.

What has been the impact of experience of the first connection to RedCLARA some years ago?
That experience is not very significant, since during the year we were connected the use was practically zero; there was a coordination problem and a lack of information; many people never heard about it. This is why today we are focusing on making the network known. What is interesting is that today we have the support of the Council of University Vice-Chancellors and the Council of Research Vice-Chancellors; what we lack are the human resources to be able to reach all people as fast as possible.

The short-term plan is to be able to install a hybrid network where the researcher has access to commercial internet, so that he or she can have access to the two networks at the same point. We expect to implement them shortly, which is reality by the end of the year and to have about six or eight more centres which serve as an example for others and for those who have to provide us with funding.

To sum it all, is the evaluation a positive one?
It is positive, but there are not enough visible results yet. In the ideal scenario, we would like to have by December about five or six more groups connected and before the beginning of the next academic term, around March, to have a dissemination programme already implemented and with people already informed, so that between March and July we can connect as many people as possible. I would expect to have results of substantial use within one year.

At present we are preparing a proposal for the council of vice-chancellors in order to set up a small development group and subsequently there will be an executing group. We are discussing what this group will be like, but the meetings have helped me to see what the other networks are like, how they work.

El Salvador:

Boost for IPv6

The Spanish world expert Jordi Palet expects the exhaustion of IPv4 addresses to be an imminent near future that would hamper the simplicity with which internet has grown so far. The deployment of IPv6 is fundamental to avoid that catastrophe. RAICE invited the specialist to lead a seminar-workshop on this subject in El Salvador.

Ixchel Pérez

The growing demand for internet, together with the progressive scarcity of addresses due to the insufficient space of the IPv4 protocol, do not paint a suitable landscape. This combination would hamper the incorporation of new users, devises, services and applications, and would also increase the costs of software development and internet use.

To this end, the Internet Engineering Task Force (IETF) designed the new version of the IP protocol, IPv6 (Internet Protocol Version 6) or IPNG (Next Generation Internet Protocol) to gradually replace the current version, thus offering a 128 bits address space, compared to the 32 bits of IPv4.

"The main motivation for the design and deployment of IPv6 was the expansion of the address space available on the internet, thus allowing millions of new devises to be connected (PDAs, mobile telephones, etc.), new users and 'always-on' technologies (xDSL, cable, Ethernet at home, fibre at home, Communications through the electricity network, etc.)", points out the specialist Jordi Palet, who has given many successful seminars on the subject across the globe.

The transition from IPv4 to IPv6 does not have the same rhythm in all countries nor in all sectors. Just as it happened when the internet appeared, the early adoption of the new protocol has mainly taken place within the academic community, who has taken advantage from it for experimentation and research and it has began to develop human resources on the subject, explains Guillermo Cicileo (University Interconnection Network - Ar) on LACNIC 's IPv6 portal.

This portal highlights the existing vast experience within the academic and research world. "In the Latin American and Caribbean regions National Research and Education Networks (NRENs) and their member institutions have been using the protocol for years. It important to point out the experience available in RedCLARA, where IPv6 is currently available in native form, with almost all the NRENs connected by exchanging IPv4 and IPv6 prefixes", points out the website.

As an example of the boost the NRENs give the IPv6 protocol, the Salvadorian Advanced Network for Research, Science and Education (RAICES), together with the Universidad Centroamericana José Simeón Cañas (UCA) and the Domain Names Registry SV, SVNet, organised a training activity on the subject, led by Palet.

"RAICES has work groups who come from CLARA, where there is a big boost for IPv6. This is why we have decided to put this seminar forward. The (Internet) space exhaustion is forcing all our institutions to migrate to the new protocol", explained Carlos Bran, Technical Director of RAICES.

The event, whose main objective was to introduce the IPv6 protocol and the transition mechanisms, was attended by more than 50 delegates, including students, communication systems' professionals, computing, telecommunications and network managers; managers and staff in charge of telematic networks in companies and state institutions, as well as members of RAICE's technical team.

"This seminar came to solve a great number of technical problems we have already experienced with the network we have, and will encourage us to implement another kind of alternatives which are included in IPv6, alternatives like mobility, something we have seen only at a theoretical level", added Bran.

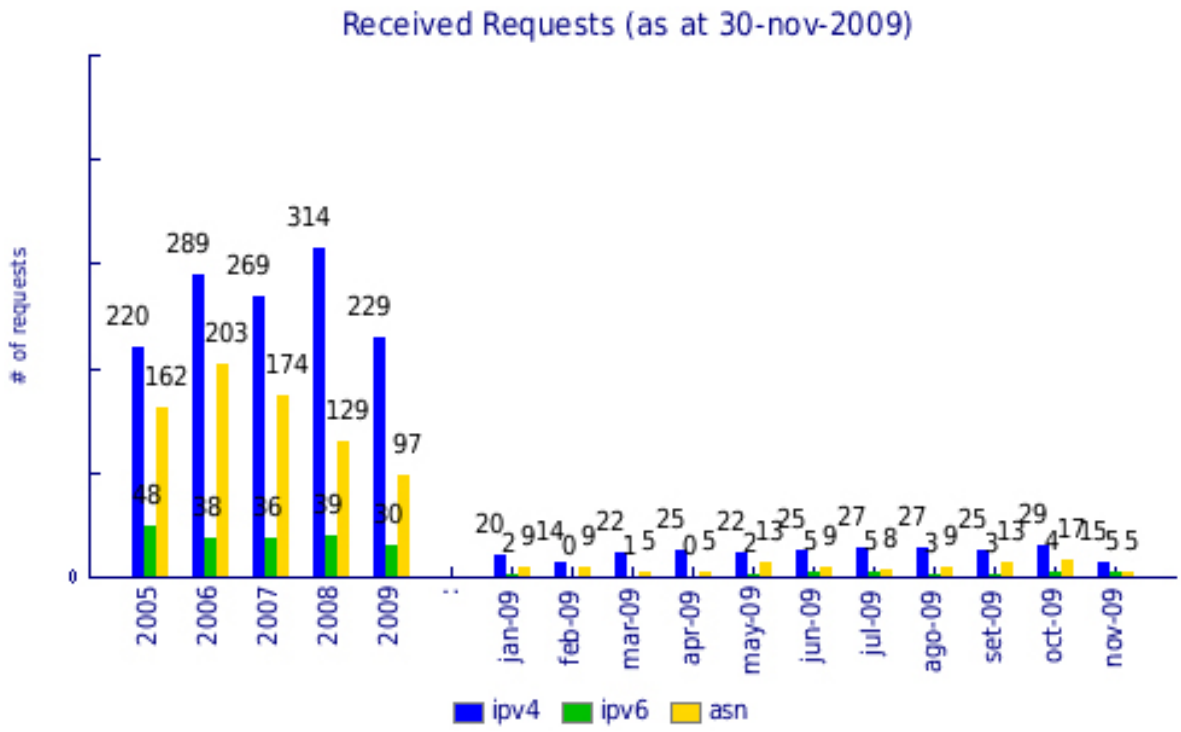
According to Palet, that is precisely the objective of this kind of events: that technology promoters in all countries can discover the possibilities of IPv6 and realise that its use is not as complex as they may have thought.

Advantages

During the seminar, Palet explained through a number of examples the applications which can be developed thanks to IPv6 and stressed the advantages of having the new protocol. "Having more addresses helps bridging the digital divide", said Palet. "It simplifies and cuts the costs of network deployment in any place and also allows for an increase of the benefits from new services and applications", he added. LACNIC's IPv6 portal stresses that when we talk about IPv6 one needs not only think of the vast amount of addresses that will be available, but also on the new applications and benefits for the end user.

"Automobiles could have the possibility of having some sort of IP connectivity by means of which to obtain different services, like global positioning, reports based on location, etc. Let us think for example in monitoring our house through the internet by means of an encrypted path, remotely activating the alarm if necessary, or that we can turn the heating on before coming home in the evenings", points out the website. "In order to achieve these type of network services it is necessary to have what is called 'end-to-end connection'. However, currently technologies like NAT affect the functioning of many applications and restrict new developments in this regard. The IPv6 protocol restores the possibility for end-to-end connections, which opens up the range of new ideas and gives greater flexibility to developers, who need not worry about the techniques to operate avoiding NAT and private addresses" he adds.

Regarded as another benefit, the portal highlights that the service quality characteristics that are available today in IPv4 are improved in IPv6, thus guaranteeing real time applications like videoconference or VoIP which can be offered to the end user and improve, for instance, telephone communications.



Amount of requests for Internet resources (IPv4 and IPv6) received by LACNIC every month and compared with the previous year.

Jordi Palet:

“IPv6 is an activator for internet innovation”

The Spanish Jordi Palet is one of the most renowned promoters of IPv6 across the globe. He has developed workshops on the subject in several countries and has written many books and material. The expert, who has worked in computing, networks and telecommunications for the last 25 years, shared his points of view on the power of the protocol that is strongly moving forward.

What is the importance of the IPv6 protocol?

With IPv4 there is actually a protocol which has allowed the network to grow, but it has reached a point where it is beginning to affect us instead of benefitting us, because once the type of applications we develop become end-to-end, peer to peer, client to client, files exchange, messaging, voice over IP, all those types of things, this makes applications become more costly and more complex to develop, which means in the end they are not developed. We could say that IPv6 restores the internet to its original paradigms, which is that end-to-end communication and, therefore, an activator for internet innovation. In a certain way, with IPv6 we are going to be able to develop new services, new applications, and new ways of working, applications in collaboration environments, for example, which although are basically possible to perform with IPv4, they impose a very high investment in costs, time for development and a great complexity. In a certain way that is the most important about the change of face for the applications of the IPv6 services, the drastic change of the end-to-end communications.

Jordi Palet, Spanish expert on IPv6

Which way are we going with that transformation towards IPv6 in the world?

Although the ISP in every country are a bit slow in the adoption of IPv6, the operative systems – either Windows, Linux, Mac OS- are prepared and are already taking advantage from IPv6. It is true that the big operators, the big international carriers already have IPv6 support. Let us say that they lack the intermediate point: the end users are prepared and the big providers are too, but those in the middle, what we call “the last mile”, are still not ready. When you get connected in your ISP, with a cable or ADSL network, that is still not ready and is what is missing.

At what speed could that part be developed?

In actual practice it is not something very complex or costly. Defining the timescale is very complex, because it depends on each network, on the size, on the infrastructure, etc. But if a provider has a network which is four or five years old, in general he/she is practically prepared; the only thing he/she must do is to be trained and conduct a study on how to implement IPv6 on its network; but he does not even have to renew his/her equipment, probably 80%-90% of the equipment is already prepared. It is more of a problem to train staff and the operator’s engineering in order to make that change.

How could IPv6 be used in the educational area?
We have seen especially that in all kinds of collaboration tools, it is from e-Learning where one can get the most advantages from IPv6 in the fastest way.

Could you give me an example?
For example, we have created collaboration applications in a network of schools in Catalonia and their benefit in particular is the reduction of the network's operation costs; they reduce the levels of technical training that the teachers must have; there are many audio, video and messaging applications which even benefit in terms of provisions, in things they can do. Nowadays this can already be done with IPv4, but only the big software developers, companies like Microsoft, can make it. That is where the change is: it is a benefit for all types of applications, either coming from big, intermediate or small software developers.

What is the importance of the development of this kind of exchange of experiences or seminars in other countries?
It is fundamental that in any part of the world there is an encouraging effect in this field. Because although there are a few engineers who are reading over IPv6, in a certain way they are not encouraged, as can be done with a workshop like the one held in El Salvador, which provides them with the guidelines to realise it was not as complex as they thought and are able to get started.

Important Groups

• RedCLARA's IPv6 Work Group
http://www.redclara.net/03/06_05.htm and his wiki
http://wiki-gtipv6.reuna.cl/wiki/index.php/Portada

• GEANT Work Group: http://www.join.uni-muenster.de/geantv6/

• 6DISS Project from the European Union which promotes the adoption of IPv6 through training activities and knowledge transfer towards developing regions: http://www.6diss.org/

• Iris Network IPv6 http://www.rediris.es/gt/iris-ipv6/index.es.html

• Research and testing projects on IPv6 promoted by the European Commission
http://www.6net.org/ http://www.euro6ix.org/main/index.php

RNP: 20 years connecting Brazil

"A history of collaboration, innovation and elimination of the barriers found on the way", this is how Nelson Simoes, General Director of the National Education and Research Network (RNP) in the green-yellow country, defined the 20 years of the organization which today connects, by means of points of presence (PoPs), the 26 Brazilian states plus the Federal District and interconnects more than 600 higher education and research institutions, thus catering for about one million visitors.

Renata Victal

In October, during the 15th Training and Innovation Seminar, a ceremony to celebrate the RNP project's 20 years was organized. The celebration was divided into two panels, chaired by the directors of Engineering and Operations, Alexandre Grojsgold, and of Services and Solutions, José Luiz Ribeiro Filho.

At the event, the first to talk were the PoPs representatives, who mentioned the different stages of the RNP backbone's evolution and the challenges of setting up a grid of networks in the early 1990's. Very excitedly, Claudia Alvetes said the PoP-BA was established at the Universidad Federal de Bahía (UFBA) with only one computer, a TCP/IP protocol manual and a 9,6 kbps link.

Alves highlighted the fact that the network's implementation was important because apart from facilitating the possibility of sharing information with various researchers in the country and the training for university professionals, it enabled cooperation with initiatives in areas like culture and environmental preservation.

The panel's participants remembered that in the 1980's the use of computer networks for scientific collaboration was beginning to spread in the USA and in Europe. In Brazil, the idea motivated researchers who were coming back from abroad. In October 1987, the academic from the PUC, Michale Stanton, currently Innovation Director at RNP, gathered a group of people to participate in a meeting at the USP Polytechnic School, which would alter the history of academic communication in the country. There were representatives from the academia, the government and Embratel (at that time, the main company of the public system Telebrás).

"In that meeting it was very clear that there were motivation and coordinated initiatives to achieve access from abroad. The one who could make it first would open the way for the others. Everybody was decided to make it", stated the engineer Demi Getschko, Director-President of the Information and Coordination Cluster at the BR Point (NIC.br) and regarded as one of the "fathers" of internet in Brazil.

In 1987 the world already had more than 50 academic networks in more than 30 countries and two years later, RNP was formally launched. The conquest was the result of the hard work by Tadao Takahashi, who made the academic network's first outline.

The ceremony continued with the panel by those who devised the RNP project and were part of its beginnings; led by the Service and Solutions Director, José Luiz Filho, who began by mentioning those who could not participate in the ceremony. "This panel brings together some of our leaders and gurus in the RNP construction, and some of them were not able to come because they are still struggling", were his words.

Ivan Moura Campos presented a brief overview of the political discussions for the establishment of a national backbone in the early 1990's. He pointed out that, at that time, telecommunication operators wanted to hire the links charging according to the time or bandwidth used. The idea of a network dedicated "24/7" to education and research was left out of that time's market.

Campos highlighted the fact that the articulations and research done by RNP between 1989 and 1995 contributed enormously to achieve the onset of the internet in Brazil. According to him, the model deployed for projects and experimental services implementation served as a reference for the reformulation of Internet2 policies, the US academic network, which faced a serious concurrence of operators and other education and research networks.

At that time, to build a national computer network, integrating Brazil's research and higher education institutes, was not an easy task. The telecommunications market was controlled by a state monopoly; the infrastructure was deficient, mainly in the states in the North, Northeast and Central-west States; the communications quality was not established; and there were a series of legal obstacles. But researchers who travelled abroad and had contact with computer networks for academic use were beginning to dream about moving Brazil towards that reality, facilitating collaborative research.

Created as a project by the Ministry of Science and Technology (MCT), RNP was given the mission of disseminating the use of networks in the country and pioneering in the development of network technologies, thus taking on a strategic role for the ministry. In 1995, RNP actively participated in commercial internet development in the country and extended its access services to all sectors of society. At that time, the network supported the creation of Internet Information Centre/BR, a support service in the incorporation of network providers and users.

"Together with the creation of the HTTP and HTML there came the concept of Web and the great application that would consolidate the internet, the browser! With those tools and a team of people from several areas, Eduardo Tadao manage to persuade regarding the importance of introducing content into our network", said José Luiz Ribeiro Filho, current Services and Solutions director at RNP.

In October 1999, the MCT and the Ministry of Education (MEC) created the Interministerial Programme for the Implementation and Maintainance of the National Education and Research Network (PIMM), with the objective of taking the academic network onto a new level.

"The association with RNP represents the union between technology and culture in favour of digital culture in the country", stated Alfredo Manevy, executive secretary at the Ministry of Culture.

Three years later, RNP was qualified by the Federal Government as a Social Organisation (LOS) and signed a management contract with the MCT, where it committed itself to reaching goals, favouring the promotion of technological research activities in development networks and the operation of advanced networks media and services. With this, it gained greater administrative autonomy to carry out its tasks

and the public power gained more efficient means of control to assess and achieve the goals established for the organisation.

Liane Tarouco surprised the audience when she presented the first emails exchanged on the creation of the RNP project in 1989. She highlighted the importance of recording declarations, documents and curious things about these last 20 years, not as a way of sticking to the past, but to think about and determine the next steps.

"The fact that nobody could give an exact definition of what RNP was made it possible for people to make a number of things that seemed impossible", with these words Eduardo Lazarte highlighted how the project started in 1989 was capable of bringing together several people who did not know exactly what the initiative would lead to, but who did believe in its potential.

The work over these 20 years was hard. It is not a coincidence that the President of the Brazilian Computer Society, Claudia Medeiros, qualified the people who have worked and are still working in RNP as "self-sacrificing". "Without RNP people would not exist from the point of view of academic communication", said Medeiros.

Nelson Simões

In its new phase, initiated with the construction of the Ipe optical network, RNP has expanded its service for scientific and teaching communities. This strategy includes the creation of new network services (like VoIP and web conference), the capilarisation of the high-speed infrastructure (with the Redecomep), the promotion of e-Science (with the participation in computing grids projects, for example) and the coordination of special projects (like the University Telemedicine Project and the University TV Exchange Network), among other actions. This must be why Claudia Medeiros stated that "the future will certainly depend on RNP, at least in Brazil".

International Connectivity

In 2009, RNP, in collaboration with the ANSP project (the Sao Paulo state's academic network) tripled its international connectivity through two new 10 Gbps connections between Brazil and the USA, thus substantially increasing the available capacity both for scientific collaboration and access to internet commodity.

Additionally, apart from operating the national infrastructure for collaboration and communication in education and research, RNP acts as a laboratory for the experimental development of new network applications and services, and as an integration agent for academic initiatives in Brazil and Latin America.

In the research segment, RNP acts together with private enterprises in the development of network technology and new applications. Among other initiatives, the organisation is also the Brazilian representative for Planet Lab, a virtual laboratory for experimentation with new network technologies and protocols which features members like Interl, HP and Google, among others.

RNP Timelibe: 20 years

1970's Brazilian researchers, while doing their masters and PhD's abroad, get fascinated at learning about the electronic exchange of information. They go back with the dream of interconnecting Brazilian academic institutions.

1980's The motivation for the use of data communications arises in universities and the 1980's are characterised by the work done to eliminate the isolation of scientific and technological communities.

1987 The world already has more than 50 academic networks in more than 30 countries. During the 7th Brazilian Computer Society's Congress (SBC), the people interested in discussing the importance of academic networks begin to articulate themselves.

1988 Birth of the preliminary project for the National Research Network, elaborated by the National Computer Networks Laboratory (LARC).

1989 In September, the National Research Network is formally launched, with the pioneering mission of disseminating internet use in Brazil for educational and social purposes. The conquest is the result of the work of the dedicated work group coordinated by Eduardo Tadao Takahashi, who made the national academic network's outline.

1990 A proposal for the creation of the advanced network is promoted and this opens a public debate on the RNP's goals and ways to achieve them. RNP begins to effectively leave the paper to become a reality.

1991 In February the first internet access from Brazil takes place, with the new exchange of TCP/IP packages; this enters history as the beginning of the creation of a new national data communication grid for the academic area.

In the same year, the 4.8 kbps circuit between the Sao Paulo and Río de Janeiro networks is defined. This will be the first internet link in Río de Janeiro.

1992 RNP encourages the implementation of electronic mail services, remote access to data bases and dissemination of discussion groups and lists. The main strategy is the plan for the implementation of a Point of Presence (PoP) in each Brazilian state.

1993 64 kbps links had already been established between Sao Paulo and Porto Alegre, and in the Sao Paulo – Río de Janeiro – Brasilia triangle. Fapesp begins to operate the first Point of Traffic Exchange (PTT). RNP's backbone moves towards a grid topology.

1994 The academic network's grid is made up of 11 PoPs, thus reaching 20 Brazilian states. Brazil has tow thousand domains (DNS), 30,000 users and is already in the world's 30th position for traffic over the global network. The 1st RNP Training and Innovation Seminar (SCI) is organised.

1995-1996 The first step towards commercial internet's implementation in Brazil is taken. RNP plays a fundamental role for being the first institution to have a data communication network with almost national coverage.

1997-1998 The RNP2 project is initiated. Beginning of the integration between the academic and commercial networks in Brazil: the academia begins to communicate without the need to go to the USA and then back.

The Emergency Service Centre (CAE) is created – former name of Cais.

In October RNP and ProTeM-CC – Multi-institutional Thematic Programme in Computer Science – with financial support from CNPq and the Internet Managing Copmmittee in Brazil, launch the "Metropolitan High Speed Networks Projects", with the aim of promoting in several areas of the country the creation of networking high speed infrastructure and services.

1999 The ministry of education (MEC) and the ministry of Science and Technology (MCT) sign an agreement for the implementation of RNP2's backbone, thus taking RNP onto a new level. The agreement was called Interministerial Programme for the Implementation and Maintenance of the National Education and Research Network (PIMM).

The National Education and Research Network Association (AsRNP) is created by the RNP employees.

The 1st RNP Workshop (WRNP) is carried out, in order to discuss the road of networks in Brazil and the rest of the world.

2000-2001 The RNP2 network is officially launched on 24th May, connecting 25 Brazilian states – in 2001 the whole country is interconnected with the Pop-RR connection-, more than 300 institutions, 60,000 computers and 300,000 users, with a 155 Mbps maximum traffic capacity; enough capacity to enable new applications with multimedia resources for areas like Telemedicine, e-Learning, Geoprocessing, Digital TV, Teleconference and others.

2002 In January, AsRNP is qualified by the federal government as a Social Organisation (LOS). RNP begins discussions on the initiatives that can enable the implementation of a new generation of communication networks in the country. The objective is to work on interactive applications for digital TV, Telemedicine, videoconference for e-learning and IPv6 applications.

The Work Groups (WGs) Programme is created. "Establishing an innovation areas that could structure our actions in experimental networks and new applications was very important to renew the collaboration with computing and networking research groups through the Work Groups (WGs)": Nelson Simoes, current RNP General Director.

A point of Traffic Exchange (PTT), run and operated by RNP, is created.

2003-2004 RNP sings the act of creation of the Latin American Cooperation of Advanced Networks (CLARA). Argentina, Brazil, Chile and Mexico begin to communicate between each other and with Europe, by means of a 622 Mbps connection between the Pop-SP

and the GÉANT Pop in Madrid.

In 2004, Giga Project's experimental network begins to operate, with a 2,5 Gbps transmission capacity, which allows for the generation of products and services as prototypes.

2005 The Ministry of Science and Technology (MCT) launches de new RNP, with the objective of improving the network infrastructure, offering innovative applications and services to meet the demands of specific communities and promoting the training of human resources on information and communication technologies.

The Community Education and Research Networks project (Redecomep) begins to be created. It aims to implement high speed networks in the metropolitan regions served by the PoPs. In order to expand the users base, RNP created the VoIP4all project to incorporate institutions into the fone@RNP service.

The RNP2 backbone is discontinued in order to give room to optical fibre, named as Ipe network.

The Higher Networks School is created. New training activities for technicians and specialists in networks and applications.

2006 RNP and the Ministry of Health (MS) sign an agreement for the execution of the pilot project which will interconnect via networks the poles of the Family Health Programme and points of health services attention points.

RNP coordinates the implementation of the Telemedicine University Network (Rute), which intends to support the telemedicine infrastructure's efforts.

Activation of the last link that was pending for the Ipe network's central ring to reach 10 Gbps.

2007 RNP opens the web conference service.

The first Redecomep is opened in Belém (MetroBEL).

The Ipe network connects nearly 400 education and research institutions.

Brazil's TV programmes begin to be transmitted by the Ipe network.

2008 The backbone's added capacity reaches 61,5 Gbps.

There are approximately 600 institutions connected to the Ipe network and over a million users that benefit from this.

RNP coordinates the Capes' Newspapers Portal's reformulation project.

The relation with the Ministry of Culture is consolidated: an Intentions Protocol is signed, thus enabling the Minc's future incorporation into the PIMM.

The ceremony for the creation of the pair of keys for the Public Keys Infrastructure for Education and Research (ICPEDU) is carried out. This is an RNP experimental service.

The Higher Networks School already has five units.

The Future RNP project is launched. It is responsible for launching the bases for the next generation of the Brazilian academic network, which will have a hybrid architecture.

2009 The Brazilian Digital Culture Forum, one of the initiatives of the pilot project between the Minc and RNP, is launched.

During the 10th International Electronic Arts Festival (Gorree), RNP supports the intercontinental transmission of the super high definition digital film.

RNP begins to transmit the TV School signal.

The Digital Mercosur project is officially launched with RNP as Managing Entity.

The Sao Paulo-Miami connection quadruples its international capacity by 20 Gbps.

The Rute initiative gathers 33 clusters inaugurated.

There are 16 Redecomep in operation.

Further Information:
www.rnp.br

Digital Mercosur is a reality

This year the Digital Mercosur Project was initiated, with a 45 months timescale and executed by four South American countries, co-funded by the European Commission, seeks to promote common policies and strategies for the Mercosur block in the field of information society, with the aim of reducing the digital gap and the asymmetries in terms of information and communication technologies in the region.

Verónica Uribe

Constituted by Argentina, Brazil, Paraguay and Uruguay, Mercosur is regarded as the world's third most successful commercial block. Its main objectives are the free circulation of goods, services and productive factors between the countries; the establishment of a common external tariffs and the adoption of a common commercial policy. Furthermore, it seeks the coordination of macroeconomic and sectorial policies between the member States; and the harmonisation of legislations in order to boost the integration process.

An important element in achieving these objectives is our region's technological development. Not only because of the benefits that research on advanced networks can offer for digital commerce, but because technological development itself is an asset for the continent. Following this idea, in 2004 the proposal for the project called Mercosur Digital was presented. Today this is already a reality which promises to contribute to South America's development with the help of CLARA.

Networked Mercosur

The fact that Digital Mercosur is a reality is the result of the effort and dedication of participants from different countries. As stated by Marta Pessoa, director of the project, "everything began in 2004, when two branches of Mercosur, RECyT and SGT-13, joint their interests in reducing asymmetries within the block in order to design the approval of a project along those lines".

In 2006, the project's final design was approved and in 2008 the funding from the European Union and the four countries in the Mercosur block was made official. On 13th April 2009 the project's execution phase was started. "This has been a great challenge because it involved the collaboration between teams in four countries, who were given the task of reconciling their national interests with those of the Mercosur block. I think this project posed a big

challenge above all because it was an integration exercise between these countries", states Marta Pessoa.

The project itself has two thematic components: the virtual school and electronic commerce. Along these lines, it is expected to achieve results in four dimensions: lifelong education, a dimension whose objective is the creation of a Mercosur virtual school and the implementation of a connection structure for Paraguay; the political and regulatory dialogue, which has goals like the regulation of anti-spam and antifraud networks, as well as personal data protection; the infrastructure, whose goal is the implementation of public keys and digital certification; and the services and applications dimension, whose objective is the creation of an electronic commerce platform and an e-logistic Hub.

At the present moment the project is in its initial stage. "A preliminary tendering process is being carried out for the hiring of experts who can define strategies and models to be adopted for the two strands", states its director.

Although it has been very hard to get to this point, there is still a long way ahead of us. The long-term objectives include the economic and technological growth for the Mercosur's member countries. In this regard, Pessoa states that: "We hope the results achieved in the area of electronic commerce enable an effective trading growth in the region. Additionally, we want the network created in the training dimension to be self-sufficient and to be integrated with other similar ongoing initiatives in South America.

CLARA's participation

An in many other projects aiming at the development of advanced networks in the region, CLARA provides significant support in the execution of Digital Mercosur. Firstly, Mark Urban, Administration and Finance Manager at CLARA, was appointed as Project Accountant during the first stage until the end of 2009. Additionally, as Mark himself says, "CLARA has supported Digital Mercosur's administrative aspect, particularly by helping with the account opening for the Uruguay Project and providing support in the relations with the European Commission Delegation in that country, the organisation in charge of the project's supervision. On the other hand, CLARA also provides support in terms of "expertise", particularly for tendering processes within the European Community, or for accountability processes".

"CLARA is an observer very keen on the Project, because of its topic, and the idea is, in the future, to support more actively its development and execution. In the same way, it is expected that the project supports and consolidates Paraguay's advanced connectivity and enables the Paraguayan network to get connected to RedCLARA. The Project's Virtual School strand could also benefit the research and education communities who develop activities within the context of CLARA. Furthermore, the project would contribute to the development of the regional cyberspace's normative basis", concludes Urban.

In its turn, RedCLARA performs, as stated by Marta Pessoa, a fundamental role in the creation and implementation of this project. "The connection infrastructure provided by RedCLARA is what makes the implantation of virtual training networks possible. Also for the electronic commerce area. Any aspiration to expand the project's results throughout Latin America would be impossible without this network". The possibility of expanding the project is part of the plan, but in a longer term. "Although at the moment the project's direct beneficiaries are the Mercosur members, in a future stage we hope to be able to replicate the project's model for the other Latin American countries", concludes Marta Pessoa.

Further Information:
http://mercosuldigital.blogspot.com/

Anel Cultural:

Academic Networks at the service of the arts

Renata Victal

Optical fibre, routers and gigabytes working to serve culture. It could seem strange, but this is a dead end alley. The events celebrated this year both within the context of the Anella Cultural Project and of ePormundos Afeto, show the many possibilities that can be reached and boost the potential of the used of networks applied to art.

Artur Serra, director of the i2Cat Foundation (Fi2CAT), a private entity promoting research and innovation of the second generation of Internet in Catalonia, sees with great enthusiasm the future of the Anella project; a future that would lead to a strengthening of the cultural links between Latin America and Europe:

"The project is the first building block of an infrastructure that will make it possible, over the next years, to work in arts and culture in the same way as in science and technology. The most difficult part is not to connect the world. The challenge is to reach local institutions and groups which sometimes, even when they are within their own universities, do not have the support or the knowledge to work through networks. This is why the Brazilian government's decision to connect RNP to important cultural centres like the Cinemateca or the National Library is so important. And this is why the participation of RedCLARA and the European academic networks is fundamental to reach those institutions and help them to discover all the things you can do", points out Serra.

Anella Cultural is an international cooperation project co-funded by the AECID, Spanish Agency for International Cooperation, directed by the CCCB and the i2Cat Foundation and featuring the initial participation of the Sao Paulo Cultural Centre in Brazil, the Museum of Contemporary Art in Santiago de Chile, the Museum of Antioquia in Medellin and the MUAC in Mexico D.F. In its technical aspects, the project features the collaboration of RedIRIS and RedCLARA, in actual practice through RNP in Brazil, REUNA in Chile and RENATA in Colombia.

"We are waiting for the materialisation of the CUDI collaboration in Mexico. Our objective is to create a stable virtual infrastructure over the academic networks for the world of art and culture. The idea is that artists and their creations can be made over such networks, in the same way science and technology are done today through networks. Apart from a demo, we intend this infrastructure to be permanent and serves to gather experiences to all groups and institutions which make use of it", hopes Serra.

In 2009 some important collaboration events (see the list below) began to be organised and the calendar for 2010, according to Serra, promises to be even better. In January, the participating institutions will have to create a calendar with the events for the year. The enthusiasm of the associate director of Fi2CAT and the expectation that the project flourishes in Latin America are both born from the results of Catalonia, where Anella Cultural is being developed since 2006 in a very positive way.

"We had the auditoriums in five cities connected with centres like the CCCB or the Liceu in Barcelona. The initiative has been taken by the cultural programmers from those centres and we began to create productions with artists like Marcel.li Antunez (Metamembrana), thanks to such infrastructure. But the most spectacular results have been achieved through the Professor Ivani Santana from the UFBA and her show ePormundos Afeto, which connected Brazil and Barcelona through an experimental telematic dance show. What was most important was not the event itself, but the community that was born out of it and that will continue working permanently on the Anella. The Anella Cultural

represents that union between culture and technology, that which makes us properly human", stated Serra.

The ePormundos Afeto event, according to the director of Fi2CAT, was the first work of contemporary dance to be performed online and which connected in October the cities of Fortaleza and Natal in Brazil with Barcelona in Spain; a living example that shows that art and technology can be together. The telematic dance presentation articulated dancers in remote environments with a robot and featured the participation of internet users, who appeared on the scene as avatars (3D animation).

Artists located in Fortaleza and Barcelona danced in real time and enjoyed the participation of the Galatea robot, which was in Natal and was remotely operated through sensors located on the body of a Brazilian dancer. Furthermore, the show could be watched online or at the Dragon de Mar Theatre, in Fortaleza/Ceará and at the Citilab – Cornellá in Barcelona.

ePormundos Afeto proposed the questioning of the changes in behaviour caused by the relativity between the far and the near, present and absent, both real and virtual, from the growing incorporation of virtuality into our lives resulting from the direct and constant contact with the digital devises which expand, reduce and take our identities to other dimensions.

All the concept of the show was in the choreography by Ivani Santana, who engaged the participation of the Catalonian group Konic, a pioneer in dance with technological mediation in Spain.

Intuitively I always had a feeling about working with new knowledge, whatever, to work on dancing a sense of repetition of what happens in actual reality in that moment. Sometimes, people put dancing and technology as two things that live together, like A+B and it could be said "so far it is A, and until now it is B" and that is impossible, even in video dancing. Where is the videographic element separated from dancing? It is impossible to say that", explains Professor Ivani.

For the researcher, art and technology have been united in an irreversible movement. She sees great beauty at reinventing and rediscovering a new way of organising the body: "That body is recorded that way, dancing in that angle and in that way, since the moment in which you brought the two languages together. Neither the dancer nor the camera would be acting in a given way, even if it was a fixed shot. The two are united, it is not a utilitarian dance, which I put and launch. The good thing is that we are rediscovering and reinventing new ways of organising the body. But sometimes I get worried that people who try to recreate on the internet a world like the one we have here (the real one), as if it was an Italian theatre box. And some art projects are struggling to achieve an environment like the real one; that will never happen", concludes Ivani.

Apart from ePormundos Afeto, the following activities are being carried out:

Post-It Project – a presentation on the temporary use of public space which started in Barcelona and is being concluded with the new proposals from Chilean Brazilian and Argentinean artists. This exhibition uses all kinds of audiovisual formats and defines the possibility of a dialogue between artists from different countries.

Cine Xcéntric: "from ecstasy to wrath" – a programme dedicated to the less conventional cinema (experimental, avant-garde and art cinema documentary) which will devote 2010 to showing Spanish cinema from the last 50 years in Latin America. The project, designed to connect film makers from both continents, will facilitate exchanges between visual artists and the discovery of new talents. The cycle will end with an international conference that will bring together the main actors in Barcelona in the first half of 2010.

UrbanLabs, innovation city – Citilab Cornella de Llobregat (Barcelona) is the first European laboratory to organise an annual meeting to recognise the projects and experiences in urban innovation, with participants from all over the world, especially Europe and Latin America.

Learn about the cultural centres which make up the project's first phase:

- Museum of Antioquia in Medellín, Colombia
- Sao Paulo Cultural Centre, Sao Paulo, Brazil
- Museum of Contemporary Art in Santiago de Chile
- Museum of the University of Contemporary Art (MUAC), Mexico
- National Library of Spain in Madrid, Spain
- Reina Sofia Arts Centre, in Barcelona, Spain
- Liceu in Barcelona, Barcelona, Spain
- Barcelona Centre of Contemporary Culture
- Pompidou Museum, in Paris, France

Florencio Utreras receives cultural award from the Chilean-North American Institute

CLARA's executive director was chosen because of his prominent role in Chile's connection to the world computer networks. The award was received from the president of the Institute's Library Committee, Anna María Prat, and consisted in a sculpture created by the artist Marcela Ilabaca, which represents the links of fraternity, brotherhood and stability existing between the South American country and the United States of America.

Tania Altamirano L.

"I felt very happy to receive an award from a community in which I have been interested all my life. I was deeply satisfied when the people from the library thought of me for something in which I have worked with so much pleasure", stated Florencio Utreras, Executive Director of CLARA, when speaking about the Library award given to him by the Chilean-North American Institute (ICN) for his prominent participation in Chile's connection through world computer networks.

"Florencio is a pioneer and like all pioneers he is a dreamer and an enterprising person of those who fill people with enthusiasm, convincing and motivating all those around him", stated the President of the ICN Library Committee responsible for giving Utreras the award, Anna María Prat, who added that: "He has always been convinced that communication networks are meaningful if they can be used to communicate, educate, collaborate and access information and knowledge".

These cultural awards have been given for four years as an incentive for people who make contributions to the country's culture and arts, and who at the same time have a link with the United States. In this opportunity, ICN highlighted the work done by Florencio Utreras since 1987, when he directed the work for Chile's incorporation into Bitnet. Later on, in 1992, he coordinated the FONDEF project for the strengthening of the National University Network, which made it possible to create a 64 Kbps national backbone for the members of REUNA; and in 1997 he promoted the strategic alliance between REUNA and CTC Mundo (currently Telefónica) which facilitated the creation of REUNA2, a broadband network extending from Arica to Osorno, regarded as the largest in Latin America, and already superseded by G-REUNA.

"I have been a huge fan of the world of libraries since I was very little and when the internet technology first appeared I was always very interested that it was part of what we did. I got involved with the library issues at the university and, of course, with aspects of the relation between the web and libraries, and therefore working on that subject was something very natural for me, like an interest" tells Utreras.

The award consisted in a sculpture by the Chilean artist Marcela Ilabaca, who represents in an abstract language the bonds and collaboration between Chile and the United States, a fundamental aspect included within the ICN's mission. "The counter form of the void suggests the new meeting and dialogue point that we want to build day after day", explained the ceremony's programme.

Artists, cultural promoters, representatives from the American Embassy, entrepreneurs, journalists, as well as relatives and friends of the awardees attended the ceremony, which was held on October 8th and featured awards for the contributions of Gladys Pinto and Mariano Silva in Cinema; Gerhard Mornhinweg in Music and Carlos Osorio in Drama. The Ernst Uthoff Award for Dancing was given to Berthica Prieto, while Gabriel Rodríguez received the Walt Whitman Award for Literature.

Agenda

JANUARY

04-08 | 3rd International Workshop “High Energy Physics in the LCH Era”
Valparaíso, Chile
http://hep2010.mindfree.cl/

5 – 8 | 2010 International Scientific Summer Meeting (ECI 2010v)
Lima, Peru
http://www.encuentrocientificointernacional.org

11 | “Mexico-Colombia Learning Objects Diploma” 4th Module Conference.
Via Videoconference
http://www.cudi.edu.mx/diplomadoOA/index.html

12 | Beginnig of the History of the Spanish Language Course
Mexico, Federal District
http://www.colegionacional.org.mx

14 | TERENA Networking Conference 2010 Programme Committee
Amsterdam, the Netherlands
http://www.terena.org/events/details.php?event_id=1532

25-27 | 29th TF-CSIRT Meeting and 2010 FIRST Symposium
Hamburg, Germany
http://www.dfn-cert.de/29tf-csirt/

25 -27 | Internet2 & New World Symphony Performance and Master Class Production Workshop
Miami, Florida, United States
http://events.internet2.edu/2010/nws/

31- 4 | ESCC /Internet2 Joint Techs
Salt Lake City, Utah, United States
http://events.internet2.edu/2010/jt-slc/

FEBRUARY

2 | 2010 Euro-Africa Cooperation Forum on ICT Research Addis Ababa, Ethiopia
http://www.euroafrica-ict.org/forum2.php

3-4 | Joint TERENA - GN3/NA3/T5 Green Workshop
Kastrup, Denmark
http://www.terena.org/events/details.php?event_id=1574

8-11 | 29th APAN Meeting
Sydney, Australia
http://www.apan.net/meetings/Sydney2010/

9-10 | 17TH DFN Workshop «Security in Networking Systems»
Hamburg, Germany
http://www.dfn-cert.de/veranstaltungen/workshop.html

15 | “Mexico-Colombia Learning Objects Diploma” 4th Module Conference.
Via Videoconference
http://www.cudi.edu.mx/diplomadoOA/index.html

MARCH

2 | TERENA Technical Commmittee
Amsterdam, the Netherlands
http://www.terena.org/events/details.php?event_id=1593

2-3 | 52nd DFN Operative Meeting
Berlin, Germany
http://www.dfn.de/en/veranstaltungen0/betriebstagung/infobt/

2-5 | First Supercomputing International Congress
Guadalajara, Jalisco, Mexico
http://www.isum2010.com.mx/

4- 5| TRANSITS CSIRT Training
Uppsala, Sweden
http://www.terena.org/events/details.php?event_id=1595

5-12 | International Symposium on Grid Computing (ISGC) 2010
Taipei, Taiwan
http://event.twgrid.org/isgc2010/

15-19| 28th Open Grid Forum
Munich, Germany
http://www.ogf.org/OGF28/

18-19 | 1st Scientific Promoters Meeting
Valdivia, Chile
http://www.explora.cl/nuevo/regional/noticias_ver.php?id=3227&sitio=14
www.explora.cl/rios.

21 | 77th IETF Meeting
Anaheim, California, United States
http://www.ietf.org
http://www.ietf.org/meeting/cutoff-dates-2010.html#IETF77

21-23| CUDI Meeting, Spring 2010
Morelia Michoacán, Mexico
http://www.cudi.edu.mx/

22 | “Mexico-Colombia Learning Objects Diploma” 4th Module Conference.
Via Videoconference
http://www.cudi.edu.mx/diplomadoOA/index.html

30-1 | JANET Networkshop 38
Manchester, United Kingdom
http://www.ja.net/services/events/2010/networkshop-38.html