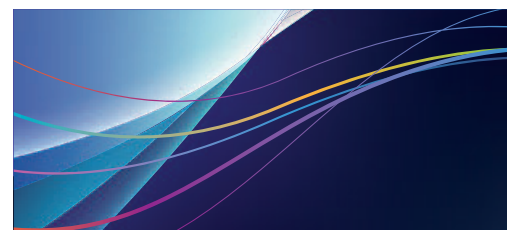
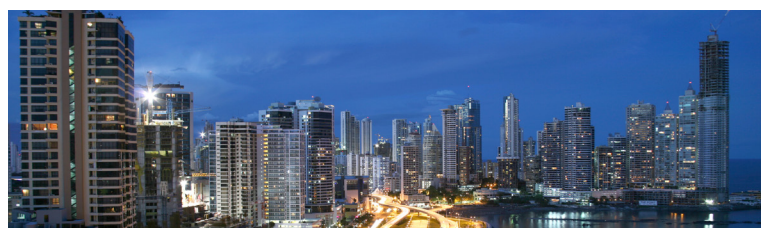


# DECLARA

ALICE2 Work groups:  
In search of original ideas  
for group benefit

From Panama:  
First TICAL Conference

Colombia brought together  
experts in Digital Libraries and  
Repositories in two big events





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«The European Union is constituted by 27 member states which have decided to progressively join their practical knowledge, their resources and their destinies. Over an expansion period of 50 years, together they have built a stability, democracy and sustainable development zone, and have also preserved cultural diversity, tolerance and individual liberties. The European Union is committed to sharing its achievements and values with countries and peoples which are beyond its borders».

**The European Commission is the executive body of the European Union.**

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# Editorial

Carmen Gloria Labbé,  
Innovation and Development Manager,  
RedCLARA.



TICAL 2011, the first activity of the newly-formed Network of Directors of Information and Communication Technologies (ICT) put forward by RedCLARA, was conceived with the aim of creating a meeting space to exchange experiences and knowledge, and to develop initiatives which contribute to improving the management of ICT units in Latin American universities. Today, just a few days after the event, we are certain that the purpose that motivated the original network cluster at the meeting held in Santiago de Chile in last January was on the right track and has enormously exceeded the expectations generated by this first conference.

Delegates from all over Latin America were able to share and enrich themselves through the experiences, discussions and projections related to the challenges faced by universities today, which are under stress due to the changes affecting society. Undoubtedly, following this initiative –the first of its kind at a regional level- a new scenario for collaboration opens up, hosted by the Network of ICT Directors, which we hope will contribute to addressing a good deal of the challenges faced by higher education within a global context, where the management of knowledge supported by ICT is a priority task.

Along these same lines, we attended top-level conferences addressing highly relevant issues. On the other hand, the topics and experiences presented showed us how ICT Management Offices are tackling aspects like ICT governance, service management, advanced requirements for the scientific community or the new ways and means to manage teaching and learning, among others.

In the same way, the great enthusiasm shown by those who were invited to take part in the Network of ICT Directors encourages us to continue working, fully confident in the relevance of this initiative. We already have a clear route to move forward. The work has just begun, and we believe the scenario looks promising. In RedCLARA we are willing to support the upcoming work, making available for the Network the whole infrastructure for collaboration which we have been developing, as well as our human capital.

Finally, we would like to thank the organisations which provided us with their support from their various fields of action in order to organise TICAL 2011: the Inter-American Development Bank, through the Project called “Strengthening Regional Advanced Academic Networks through CLARA as Regional Public Asset”, the European Commission as part of the ALICE2 project, Internet Society, PADTEC and particularly Panama’s Scientific and Technological Network REDCYT, which welcomed us in Panama City and supported us in the organisation of TICAL 2011.

We wish the brand-new Latin American Network of ICT Directors a lot of success and see you in TICAL 2012!

COMCLARA 2011:

## Welcome to the new communities!

After a strenuous year of work RedCLARA's Communities programme is beginning its second cycle. Thirteen initiatives constituted by Latin American researchers will receive RedCLARA's support to strengthen their work links through the networked services developed to operate over advanced Internet.

Tania Altamirano L.



A videoconference meeting was the starting point of COMCLARA 2011, RedCLARA's Communities programme which is executed as part of the initiatives of the Latin America Interconnected With Europe project (ALICE2) and which is aimed at researchers from the institutions connected to the National Research and Education Networks (NREN) that are members of RedCLARA.

The programme, whose objectives focus on strengthening the work by consolidated Latin American research groups –and on promoting the creation of new initiatives, began in 2010, when nine communities were chosen and received support for visibility, coordination, management and development activities. As of May 2011, the second generation of communities is already underway.

“After the call for papers process we received 37 proposals from Chile, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, Peru and Uruguay, representing various areas of research like Water, Food, Biodiversity, Biotechnology, Social Sciences, Natural Disasters, Education, Nanotechnology, Cultural Heritage, Health and Information and Communication Technologies (ICT)-Grids”, stated Ana Cecilia Osorio, Communities General Coordinator.

The result included nine communities chosen to be part of COMCLARA during the present year, which will receive support to hire a part-time coordinator, funding for the implementation of a relevant congress, access to RedCLARA's specialised services (high quality videoconference, DSpace, among others) and technical advice. Furthermore, the group is complemented by four communities from the 2010 version, who will continue working hand in hand with the new teams.

According to Osorio, to date communities have organised two videoconferences, one for the start-up (Thursday May 26th) and the first monthly coordinators meeting (Thursday June 16th). “During the first meeting,

they received information on RedCLARA's support and commitment towards communities, the main services available, administrative guidelines and procedures (documentation, work plan), as well as an account of the work done in 2012" she indicated.

### On the diary

In order to continue, the communities will enter a phase of tuning in with the work plan according to the format defined by the COMCLARA Programme in order to be able to meet the commitments planned, which include the elaboration of at least one project that will have to be submitted to an international funding agency and that guarantees the community's sustainability beyond 2012 and the intensive use of the network itself, through the applications promoted by RedCLARA and the NRENs that are part of it.

Furthermore, we have planned the development of activities which consolidate the community, increasing the number of its participants and creating strategic alliances which encourage some external acknowledgement of the community; and it is expected to generate a high level of visibility for the community and its activities through dissemination activities, publications, events, papers presented in seminars, among others.

"With this we expect to guarantee the success of these contributions and the permanence of work groups beyond 2012", concluded Osorio.

### COMCLARA Communities 2011

Community	Area	Country
Mapa e Programa de Artes em Dança (e performance) Digital	Cultural heritage	Brazil
Pre-service Teacher Training	Education	Chile
International Network for the Recovery of the Immaterial Heritage of Musical Traditions	Cultural heritage	
Scientific and High-performance Computing	ICT-Grids	Colombia
Art and Culture in the Network Community	Cultural heritage	
Latin American Community for Research and Knowledge Generation	Education	
Latin American Community of Digital Libraries and Repositories	ICT Digital libraries	
Latin American Community of Space Data Infrastructure	Natural disasters	Ecuador
Flu Programme for Central America and Panama (FLU-CAP)	Health	Guatemala
Latin American Regional Open Community for Social and Educational Research	Education	Mexico
Image Processing Online Latin America	Health	Uruguay
Gamma Ray Burst Observatory	Astronomy	Venezuela
Latin American Community of Learning Objects	Education	

# Honduran lands hosted the RedCLARA and ALICE2 meeting

The José Cecilio del Valle University in Tegucigalpa, Honduras, hosted the RedCLARA/ALICE2 meeting, which was held from June 20th to 24th. Apart from the technical and executive sessions, there was a course on IPv6.

Ixchel Pérez



Honduras welcomed the members of RedCLARA's Executive Board and of the ALICE2 project, as well as the presidents and technicians from the different National Research and Education Networks (NREN), in the first annual meeting of these teams. The venue of the event was the José Cecilio del Valle University (UJCV), in Tegucigalpa.

As in all the meetings that are held in countries which are not connected to RedCLARA, the Directing Board took the opportunity to talk about the benefits of advanced internet both among the academic community as well as among the host country's authorities. "In the same way as in the meetings that were held in previous years in Bolivia, Paraguay and Nicaragua, during the meeting in Honduras we tried to encourage university Vice-Chancellors to get connected to RedCLARA", pointed out Rafael Ibarra, leader of the eighth Work Package, related to inclusion (Work Package 8, WP8) from ALICE2.

In fact, staff and university Vice-Chancellors were involved since February in opening the doors to the meeting and in preparing Honduras for it: Julio Retamales, Deputy Minister for Planning (SEPLAN), Eduardo Pavón, Director of SEPLAN and Ivette Castillo, Deputy Director of Science and Research at SEPLAN, are some of the officials with whom we discussed the possible creation of a NREN in Honduras and therefore the possible connection of this country to RedCLARA.

The meeting in Honduras was favourable to discuss the benefits brought to Latin America by advanced networks, as well as RedCLARA's prospects. Furthermore, there was a technical training course on Transition Mechanisms into IPv6, whose purpose was to give all participants an overview of the existing strategies and mechanisms to implement the sixth version of the Internet Protocol in their networks.

This course was delivered in three days, in which advanced topics related to IPv6 were discussed, such as transition, security and DNS mechanisms. The aim was to provide a theoretical and practical basis which allows participants to define their strategy and decide what transition mechanisms they can use in view of IPv6 implementation.

The workshop was delivered by Alvaro Vives from Spain, telecommunications engineer from the University of Vigo and member of Consulintel, where he participates in several projects related to IPv6.



ALICE2 Work groups:

# In search of original ideas for group benefit

The end of June marks the end of the call for papers and selection process for the establishment of the new teams that, as of July, will begin to work on initiatives which take advantage of the services infrastructure offered by advanced networks, thus generating new possibilities for the academia and research. The increase of collaboration with Europe and applications in the area of network performance measurements, IP television and wireless mobility, are some of the results obtained to date from the work of these groups.

Tania Altamirano L.

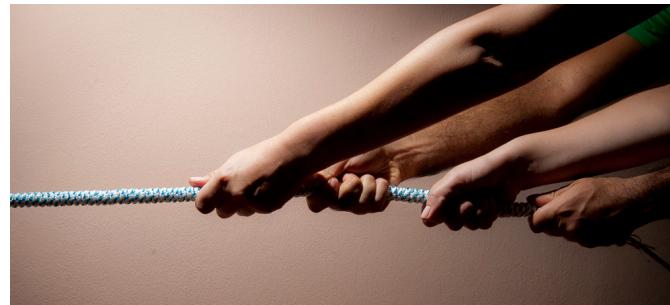
As a way of contributing to the development of networks and the deployment of new pilots for network services which are relevant for the National Research and Education Networks (NREN) connected to RedCLARA, and also in order to support the transfer of knowledge between NRENs, the creation and development of a programme of Work Groups related to the area of technology and networks in the Latin American academic community has been encouraged since 2005 through the Latin America Interconnected With Europe programme in its first and second version, ALICE2.

This programme aims to promote the interaction between RedCLARA's activities and the research groups from the institutions participating in the community, and also to contribute to the promotion of permanent innovation both in the network's services and applications.

"The purpose is to contribute to the generation of knowledge about technologies, protocols and tools in the field of Information and Communication

Technologies which support the activities of NRENs through a collaborative work which focuses on strengthening an expansion that promotes networked collaboration or the deployment of a pilot for a new technology" points out Sandra Jaque, President of RedCLARA's Technical Commission.

Through the Work Groups (WG), collaboration projects showing the feasibility of using new protocols, applications and services are developed. In the same way, the growth of RedCLARA's networks, as well as the growth of those of the NRENs which are part of it, poses challenges in relation to how to make better use of the services infrastructure, thus generating research spaces in areas including voice over IP, videoconference, security, measurements, Eduroam, IPTV and IPv6 Services.



## In progress

The current call features fourteen applications coming from Mexico, Venezuela, Brazil, Colombia, Argentina and Peru, which include collaboration proposals where members of the different countries connected to RedCLARA are participating.

According to Jaque, it is expected that the new groups, apart from accomplishing the results stated in the proposals, will actually produce a collaborative work in the different stages of the group's work, either during the beginning, during the deployment of a technology or through the use of it. "There are WG which submitted a combination of a topic developed in the previous period; from them it is expected that the knowledge acquired can become a service or an application that remains available for RedCLARA as a whole", she explains.

According to Jaque, although this is volunteer work that is added to the tasks of the group's coordinator and its members, it is relevant to have work groups because those NRENs with more experience on a certain topic can share it with the others, thus generating greater knowledge, improving an original idea through group work and, in some cases, these ideas can become a service or an application that will be available to the national networks themselves, either directly or operating the service through RedCLARA.

"This is why on this occasion we launched the call not only for NREN coordinators, who normally are the ones taking part in the WG, but this was also expanded to academics and researchers from the institutions which are part of the NREN. We hope this will make it possible to expand membership and thus accomplish a better achievement of results", she added.

According to Claudia Córdova, RedCLARA's Training Coordinator, some of the main results obtained from the work done by the previous groups are proposals that are ready for implementation. "Many of the results of the collaborative work by the groups in their respective topics, have now reached such a level of development that they are ready to be deployed as experimental services in RedCLARA. For example applications in the area of network performance measurement, IP television and wireless mobility", she explains.

According to Sandra Jaque, we can add to this the increased collaboration with Europe. "Both the Measurements WG and the Euroam-WG have established a fluent exchange with counterparts in Europe", she concludes.



Courtesy of the Tourism Authority of Panama

## From Panama: First TICAL Conference

The first edition of this initiative, which brought together renowned actors related to Information and Communication Technologies in Latin American institutions, was held between the Pacific and the Atlantic with a temperature of 30 °C

Tania Altamirano L.

The arrival of Information and Communication Technologies (ICT) into organisations in general, and into universities in particular, has produced a radical change in the way they conduct their activities. Today, the university sector is faced with a scenario of new and increasing demands, which implies a permanent adaptation of their ICT units' strategy in order to help the organisation meet its strategic objectives.

Within this context, it becomes fundamental to exchange experiences on issues which today represent first-order concerns at the time of making plans for ICT management, for the development and implementation of services with effectiveness and quality standards, and for decision making in relation to the incorporation of emerging technologies, among others.



With the aim of making a contribution to these issues, the Network of Directors of Information and Communication Technologies from Latin American Universities (TICAL), with support from RedCLARA, organised the First Conference of Directors of Information and Communication Technologies in Higher Education Institutions, TICAL 2011, on June 20th-21st.

During the two days of the event, the participants took part in a wide programme which featured the plenary sessions called “Advanced Computing: Science’s Third Pillar”, delivered by Dr Juan Sánchez, Vice-President for Research at the University of Texas, USA; “e-Infrastructures in Europe”, given by Dr Víctor Castelo, expert in research networks at the CSIC’s Informatics General Adjunct Secretariat in Madrid, Spain; and “The next generation of super computers, will it

follow the path of telescopes or that of particle accelerators?”, conducted by Bill St Arnaud, Consultant in Green ICT and responsible for the implementation of Canarie’s optical network, CA\*net4, in Canada.

Furthermore, the agenda included parallel and common sessions, as well as panel discussions featuring the participation of academics and researchers from all over Latin America.

Check a detailed article with all the alternatives of TICAL2011 in the next edition of DeCLARA, scheduled to be issued in September 2011.

**Conference’s official website:**  
[http://tical\\_2011.redclara.net](http://tical_2011.redclara.net)

TNC2011:

## Focusing on the end user

Prague hosted the TERENA Network Conference, TNC2011, which was held from May 16th to 19th and which made it very clear that in the world of National Research and Education Networks the user is master and lord, and the applications and services developed by the networks over their backbones represent a major way to serve this sovereign. The presentation by RedCLARA's Communications and Public Relations Management Team at TERENA's TF-CPR group in the afternoon of May 15th, served to show that Latin America is dedicatedly and finely in tune with research communities.

María José López Pourailly

"NRENs and user communities", "The role of NRENs", "The future of NRENs", "Networking with extra-regional partners", "User interaction and Information security", "Collaboration tools and technology", "High-quality multimedia applications" and "Advanced applications" are some of the titles of the sessions that made it evident at TNC2011 that today more than ever academic networks must focus their attention on the user and, when it comes to him/her the emphasis must definitely be placed on promoting and facilitating collaboration with his/her peers –even when the future of networks is involved.

And if the Conference's programme, which brought together five hundred people from the world of advanced academic networks in all five continents, already anticipated that the topics to be presented at the Clarion Hotel (the event's venue) would have to do with how to provide a better support for those scientists and academics who get connected and conduct their research and initiatives in science, innovation and development by making use of advanced internet, the actual experiences exceeded expectations. Like never before, the core message of this meeting was to remind the audience that without the people who make use of them, advanced networks are nothing.



And it was thus made evident in the messages delivered by the speakers in their presentations and by the audience in the videos they recorded with their views of what the Internet is going to be like in twenty years time.

The relationship with the industry, the development of advanced applications and multimedia, issues related to security, mobility, federations, interoperability and of course middleware and IPv6 were certainly part of the programme, which can be seen at: <https://tnc2011.terena.org/core/schedule/list>.

### RedCLARA, present!

The importance of participating in the TERENA conferences does not only have to do with the level of the contents presented and discussed every year, but also with the contacts and relationships that are established there. In communicational terms, the result of adding these two factors is the big plus, since this result is the one that allows the incorporation of new ideas and proposals into national networks, that is, possibilities for growth for the NREN and its members. Now, if we add the possibility for communication and public relations staff to participate in a face-to-face meeting by the work group put forward in this field by TERENA, the TF-CPR (Task Force – Communications and Public Relations), then participating in this event becomes a need.

The reasons presented in the paragraph above and the mandate to establish a direct relationship by the communications and public relations group from the Latin American networks (LA NRENs PR Network) led RedCLARA to invite, through the ALICE2 project, the heads of communications and public relations from RedCLARA's member networks to participate in a competition to be awarded funding for the participation of two of them at TNC2011 and at the TF-CPR meeting. The competition consisted in submitting a content and

design proposal for a RedCLARA brochure and the winners were: Camilo Jaimes Ocazi3nez, RENATA's Communications Manager (Colombia), and Ixchel P3rez Santamaría, Head of Communications at RAICES (El Salvador) and RAGIE (Guatemala).

Camilo and Ixchel participated along María José L3pez, RedCLARA's Communications and Public Relations Manager, at the TF-CPR meeting held on May 15th, where Ms L3pez was scheduled to give a presentation featuring a retrospective of RedCLARA (as a network and as an institution), ALICE2, the communities in the Latin American advanced network, the services developed to cater for them, the different tasks of the Communications and Public Relations area, as well as the development of the LA NRENs PR Network group. The presentation by RedCLARA's representative was published at <http://www.terena.org/activities/tf-cpr/pastmeetings/prague2011/agenda.html> and was widely commented by those who attended the meeting, who celebrated the large amount of effective actions developed by the area, the abundance of dissemination material which externalises and shows the work done not only by RedCLARA but also by the group of Latin American academic networks, and the services provided for communities through the Portal, especially in the areas of collaboration implemented with web 2.0 tools.

What did their participation in TNC2011 mean for Ixchel P3rez and Camilo Jaimes?

Ixchel P3rez Santamaría (RAICES and RAGIE): "The experience of participating in TERENA 2011 was very enriching, since it allowed me to learn more about the different experiences of European networks and the trends for the NRENs. Through the conferences I could reassert the view that advanced internet has increasingly to do with services for and reaching out the communities, beyond the mere infrastructure; furthermore, I could strengthen my conviction that we must

develop projects with young people, as future leaders. Likewise, I could make contacts to strengthen the actions conducted in the national networks in El Salvador and Guatemala, especially in terms of cultural projects”.

Camilo Jaimes Ocazi6nez (RENATA): “Speed, swiftness... The pace at which we are moving in Latin America causes surprise in TERENA.

“TERENA welcomed us with generosity and enthusiasm. The week we spent there was very intense. The presentation given by Marfa Jos6 Lopez, RedCLARA’s Communications and PR Manager, surprised in a very positive way the members of TERENA’s communications team: it was highly interesting for them to learn about the big transformations in communicational processes over the last 15 months, or even one year.

“The initiative associated to our LA-NRENs PR Network was received with a lot of enthusiasm due to the efficiency with which we have developed and established communication channels that facilitate the dissemination processes of the activities we are developing in our national networks.

“The presentation by RedCLARA was the most innovative and remarkable in the communications session precisely because all this communicational articulation in such a short time, I insist, reasserted the huge importance of the communicational processes associated to the dissemination of scientific and technological work. In fact, in Latin America we are totally aligned with the objectives they have over there.

“From a personal point of view, I go back to my country with a huge satisfaction at confirming that RENATA exists and is positively valued by colleagues and managers from different European networks... People are looking at us in Europe and they follow our progress with interest and respect... And they read everything we publish through their

information systems... I confirmed this first-hand when I was exchanging ideas with different people who attended the event.

“The challenge is increasingly bigger”

TNC2012

The next TERENA Conference will be held in May 20th to 24th, 2012 in Reykjavik, Iceland.

**More information:**

TNC2011: <https://tnc2011.terena.org/>

**Download the presentations given at TNC2011 at:**

<https://tnc2011.terena.org/core/presentation/list>



# Colombia brought together experts in Digital Libraries and Repositories in two big events

In May, Bogotá hosted the First Latin American Conference on Digital Libraries and Repositories, BIREDIAL 2011, and the third meeting of the IABD-RPA project, which aims to create a Federated Network of Scientific Documentation Institutional Repositories. These two events represent further regional advances in the digital dissemination of and access to knowledge.

Ixchel Pérez/Camilo Jaime

Until recently, the creation of digital libraries and repositories in Latin America was basically linked to isolated initiatives by institutions or countries and not to a shared work across the region. But the outlook has started to change following the creation of a community promoted by COMCLARA, the Latin American Community of Digital Libraries and Repositories, CoLaBoRa; the development of the IADB-RPA project called “Regional Strategy and Interoperability and Management Framework for a Latin American Federated Network of Scientific Documentation Institutional Repositories”; and a series of activities led by countries like Colombia, a leader in this subject.

One of these activities took place on May 9th to 11th in the Colombian capital, Bogotá: the First Latin American Conference on Digital Libraries and Repositories, BIREDIAL 2011, which focused on “Knowledge Management, Open Access and Latin American Visibility”. The activity was organised by the Colombian Digital Library (BDCOL), the National Academic Network of Advanced Technology (RENATA) and the CoLaBoRa community, and was supported by RedCLARA.

The event was held at the Universidad del Rosario, an institution which has stood out for promoting





the subject of digital libraries in Colombia and in the region. The activity featured the participation of more than 150 people, including researchers, heads of digital content in institutions, the Government, the private sector as well as local and international guests, who had the chance to learn about the scientific and technological advances in terms of digital libraries and repositories.

According to Malgorzata Lisowska, director of the Universidad del Rosario's library, main researcher in the Colabora Community and event host, this meeting became a great opportunity to create national and regional synergies regarding the Open Access to Latin America's academic and scientific production.

“The event had a great impact on the development of Open Access and institutional repositories in Colombia and especially in the region. There were keynote speeches, conferences, posters exhibition, tutorials and parallel panel discussions on the subject. Furthermore, it was possible to learn about the regional state of the art in terms of the development of repositories and a regional manifesto was signed for the creation of a repositories network in Hispanic-America”, adds Lisowska.

The three days of the conference featured more than 40 speakers from 13 Latin American and European countries, who shared experiences on implementation, the development of collaboration projects between topical networks and the advances and challenges in issues related to digital content management policies in the region, which features only 5% of digital repositories across the globe, according to the DOAR (Directory of Open Access Repositories).

The main speakers included people like Norbert Lossau, who spoke about the experiences of the Confederation of Open Access Repositories (COAR), Eloy Rodríguez, with his presentation



on Portugal's Open Access Scientific Repository (RCAAP), Edwin Montoya, who talked about the Colombian Digital Library, Luis Núñez, RedCLARA's Academic Relations Manager and Carolina Botero, with a presentation on the Creative Commons licences.

The activity featured discussions on the challenges in relation to Digital Libraries and Repositories. According to Losowska, the main challenges addressed were the accomplishment of a uniform development across the region, the development of institutional mandates and policies on Open Access, interoperability and development of standards and research communities.

The conference's programme also included topics like intellectual property, institutional repositories, good practices, mandates and standards, protocols, national and regional initiatives and perspectives, impact and quality measurements, innovation, productivity and competitiveness, as well as the topic of academic networks.

Edwin Montoya, Head of Systems at the EAFIT University and Coordinator of the Colombian Digital Library (BDCOL) Project, thinks that BIREDIAL 2011 became the first formal space for national and regional discussion on the impact of the open access scientific, academic and cultural production on the region and that we must think of future versions which enable the strengthening of the agreements and ideas that resulted from this first edition.

"We agreed with all participants that this event will be held regularly and will be held in a different country every year. In 2012 it is expected to be held in Peru2, explained Lisowska.

## Further advances in the subject

Immediately after this event, on May 12th-13th, the third meeting of the IADB-RPA Project was also held in Bogotá. This is a project funded by the Inter-American Development Bank (IADB) and executed by RedCLARA, which aims to develop an agreed-upon strategy and a framework of agreements related to the interoperability and management of information for the construction and maintenance of the Federated Network of Scientific Publications Institutional Repositories (RPA).

This network will aim to store, share and give visibility to Latin America's scientific production in order to support the region's scientific and technological development.

The project started in July 2010 with a time span of three years, and features the participation of 15 members from eight beneficiary countries: Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru and Venezuela. RedCLARA coordinates the programme's activities with other similar projects so that it optimises the use of resources and to avoid the duplication of actions.

"This was the second meeting of the project's Component II: Establishment of a framework of agreements and common policies, and focused on addressing aspects of interoperability, security and information quality", explained María del Rocío Cos, Project Manager from RedCLARA.

According to Cos, two previous meetings have already been held: the first focused on Component I: Regional Agreed-upon Strategy of the Federated Network; and the second focused on establishing the juridical framework for the management of information and the definition of resources and services available.

“This meeting featured the participation of representatives from COAR, a European consortium, to show a work methodology, and representatives from BIO-MED Central, who presented a project, Open Repositories. Both were searching to establish strategic alliances with Latin America”, explained Cos. “Additionally, the advances of Components I and II were presented”, she added.

Latin America has only 5% of world repositories. But with this initiative and others, Cos reckons that great advances are being made in the subject of digital repositories. “Firstly, each member country is elaborating its joint work strategy in order to define a national repository, which is the one that will be connected to the federated network. This implies that member institutions, which are mainly the NRENs and the Ministry for Science and Technology in each country, are organising themselves in order to define a national repository and thus, for the federated network they are defining quality policies, interoperability and security standards and the services it will provide”, concluded Cos.

### **More information:**

<http://www.biredial.org>  
<http://www.bdcoll.org>  
<http://www.renata.edu.co>

REUNA in the big leagues:

# It expanded its network capacity by eight times

This performance evidently increases the data transfer capacities between higher education institutions and research centres connected to REUNA's network, thus opening up new and more powerful opportunities for communication, interaction and collaboration.

REUNA Communications Team



With the purpose of consolidating a national high-speed network, the REUNA Corporation expanded by eight times its network capacity, thus taking a significant technological leap. This update means that REUNA's network moved from having a capacity ranging from 2,5 Gbps to 1 Gbps between Antofagasta and Osorno and from 155 Mbps between Arica and Antofagasta. This step forward places REUNA among the academic networks having gigabit capacities (1000 Mega bits) per second.

Although the expansion of the Arica-Antofagasta remains pending, Sandra Jaque, REUNA's Technology and Operations Manager, points out that during the second half of 2011 the expansion of this segment will be materialised. However, she highlights the fact that the institutions located in the Arica-Antofagasta segment also benefit from the network expansion "because they won't have to compete for capacity with other institutions located outside the segment, since they now have 155 Mbps practically for their exclusive use", she explains.

## The new network's potential

With the updating of equipment and changes in the network configuration, it would be possible to conduct over 500 high-definition videoconferences

simultaneously; it would be possible to transfer, in the best-case-scenario, the equivalent of the contents of one DVD in only 6 minutes; and to transfer online, from one end to the other, a high-definition movie.

It will also be possible to use the network's expansion, adds Sandra Jaque, for projects which are demanding increasing computing capacities. "For example, through REUNA's network all member institutions across the country will have a quality and ready-for-use channel to access what will be the National Laboratory for High Performance Computing (NLHPC), a project led by the Universidad de Chile's Centre for Mathematical Modelling.

A network with these features, as highlighted by Sandra Jaque, is exceptional, "RNP, Brazil's network, is the only one in Latin America that provides access for its member institutions with high capacities, and therefore with this new configuration REUNA becomes the second network in the region to interconnect its member institutions with capacities of up to 2,5 Gbps", she points out. At world level, other high-capacity networks are Internet2 (USA), AARNET (Australia), and GEANT (Europe). (See graph with the capacity evolution of international networks).

### How the network expansion was conceived

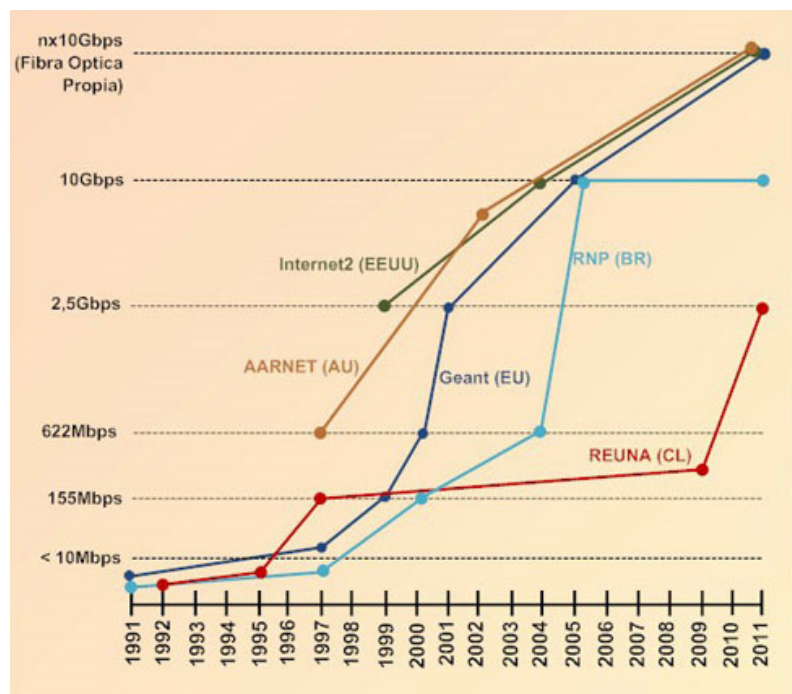
The Corporation defined as a priority for 2007 to work on a strategy which could enable an update in REUNA's network. Therefore, as of that date efforts were made and studies were conducted in order to materialise this challenge. This is how in 2008 REUNA became a fundamental part of the EVALSO (Enabling Virtual Access to Latin-American Southern Observatories) project.

Thanks to this collaboration initiative, REUNA expanded its network capacity in the Antofagasta-

Santiago segment to 2,5 Gbps. This collaborative project, apart from connecting the Paranal and Armazones Observatories with Europe through a high-speed network, also makes it possible for the network capacity to be used by REUNA's member institutions located in the Antofagasta-Santiago segment.

In the meantime, the connectivity for the South of the country is another concern. The Santiago-Osorno segment is expected to be improved through internal efforts by the Corporation and the support from Telefónica for Bussinesses, which develops a technical-economic proposal that we can afford.

REUNA will continue to work towards accomplishing greater capacities which enable to further boost collaboration and research between the institutions that are part of it. Some of the action points to be followed are the design of a high-speed node in Santiago (metropolitan network of 10 Gbps or higher), and also the accomplishment in the future of a network backbone based on 2,5 Gbps or higher throughout its entire extension.





## Colombia launched National Grid

The national distributed computing system provides a great technological capacity for the development of highly complex scientific projects. The initiative, which was launched at the end of April, implies the intensive use of the National Academic Network for Advanced Technology (RENATA).

Ixchel Pérez

Research groups from 24 institutions distributed in five Colombian cities make up the first National Computing Grid, a project of national scope which will set the trend in the use of distributed computing.

The initiative, led by Grid Colombia, was launched in April by representatives from member entities, the Ministry of Information and Communication Technologies, Colciencias, the Korean Government, RENATA and the US Open Science Grid (OSG). Grid Colombia is the academic organisation aimed to centralise efforts for the implementation of this first national grid, which facilitates the establishment and development of e-Science in Colombia through the infrastructure of the National Academic Network for Advanced Technology, RENATA.

According to Dago Bedoya, RENATA's Academic Manager, "Grid Colombia is the Colombian mega machine which makes available for the country's

academic community one of the most important services for any high speed academic network, i.e. the advanced computing service. With Grid Colombia the country has a great computing capacity for the development of highly complex academic or innovation projects. This powerful infrastructure allows the development of activities which require a great computing capacity, large-scale academic work".

The project's national scope, apart from showing the association capacity between groups from different regions, implies the intensive use of RENATA. Although a significant part of research groups in Grid Colombia work in areas related to information and communication technologies, in the consortium there are also several groups whose strengths are also basic science, physics and mathematics, and in the environmental area in energy and environment.

The project features the support and international advice from GISELA and OSG. This support is fundamental, not only for the top-level training and advice, but also because it contributes with a prospect for internationalisation from both the European and North American perspectives.

### Más información:

<http://www.gridcolombia.org/>  
<http://www.renata.edu.co>

### Interview:

## “The Grid’s real power is the people”

Diego Rincón, Manager of RENATA’s Advanced Computing Community, states that the most important thing about having a National Grid in Colombia is not the technology, but its use by the scientific community in their processes and projects.

What is the objective of launching a National Grid?

The launch of the National Grid Initiative or NGI has several objectives. The first is to disseminate among the scientific community the fact that this infrastructure is available to support processes and projects in which they are working; the second is to generate a sense of community among participants in the initiative; the Grid’s real power is not the ‘wires’, but the people, who are the ones that make the development of the project possible.

What is the importance for Colombia?

It is a great step forward for Colombia, since the development of this infrastructure helps us to participate and collaborate with projects at an international scale and, at the same time, promote our own developments.

How is the Grid constituted from a technical point of view?

Currently Grid Colombia features more than 20 institutions working in infrastructure, gridification of applications and training for members. Initially we adopted the implementation of Globus, used by OSG, which is the consortium of organisations that collaborate for the American Grid, but our plans include being compatible with the most heavily used applications for this technology.

What are the challenges to make it work better?

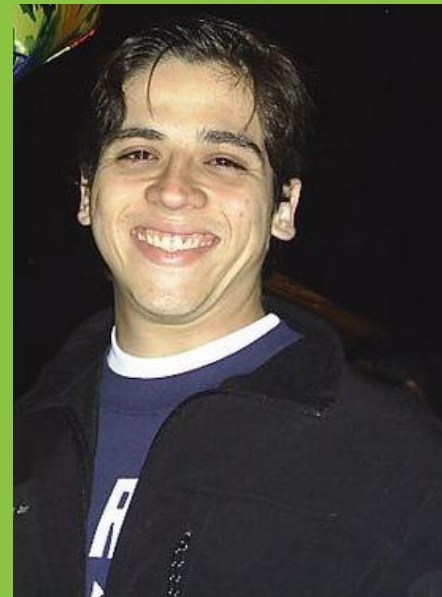
There are many problems, both technical and social; the hardest one is to create the community work as distributed as we did it in the initiative, but we made things so that physical spaces do not represent a barrier to generate further developments and so that the people participating in the project feel comfortable working with people from different cultures, from different parts of the country and the world.

What has been the impact following the initiative’s official launch in April?

Following the launch we have moved forward towards a stage which focuses more on the development of projects where the grid provides direct support; this has led the entire community to work in a much more united and committed way, since the results can already be seen more easily than in the development phase of the grid.

What are the pending steps?

There is still a lot of pending work; there are very important subjects like gaining a deeper understanding of technology and, above all, what I think is most important, the training for the people who are going to use the grid, who are the scientists associated to research projects. In parallel to this, we also have to increase the infrastructure available, since the more computing resources we have the stronger allies we can become for scientific communities worldwide and we will be able to participate in much more interesting things.



# Agenda

## JULY

**6 – 8 | 11th IEEE International Conference on Advanced Learning Technologies**  
Georgia, USA  
<http://www.ask4research.info/icalt/2011/>

**18 - 21 | – TeraGrid'11 Annual Conference**  
Salt Lake City, USA  
<https://www.teragrid.org/web/tg11>

**30 June – 1 July | NZ e-Research Symposium 2011**  
Dunedin, New Zealand  
<http://www.eresearch.org.nz/nzers2011>

**19 – 21 | 2011 Symposium on Application Accelerators in High Performance Computing (SAAHPC'11)**  
Tennessee, USA  
<http://saahpc.ncsa.illinois.edu/>

## AUGUST

**17 – 19 | 2nd International Congress on Computer Science and Informatics in northern Chile (INFONOR-Chile 2011)**  
Copiapó, Chile  
<http://www.infonor-chile.cl/>

## SEPTEMBER

**5-9 | Latin American Conference on High Performance Computing (CLCAR 2011)**  
Colima, Mexico  
<http://clcar.itcolima.edu.mx/es>

**12-19 | XXIII International Symposium on Nuclear Electronics and Computing (NEC'2011)**  
Varna, Bulgaria  
<http://nec2011.jinr.ru/>

**14 – 16 | European Conference on Web Services (ECOWS)**  
Lugano, Switzerland  
<http://ecows2011.inf.usi.ch/>

**26 - 28 | ISC Cloud '11 Conference**  
Mannheim, Germany  
<http://www.isc-events.com/cloud11/>







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