DeCLARA

LOCAL SUBJECTS

19 - 21 of October:
Caracas received the members of CLARATEC

A new stage for Panamá:
RedCyT in the pole position of RedCLARA

Costa Rica linked
CR2Net made specific its connection to RedCLARA

Vigny Alvarado Castillo:
Costa Rica has Potential to Offer to the Global Academic Networks

Peruvian scientists, academics and researchers, be prepare to take off
RAAP has Started its Flight

November 28 - 30:
Second Annual Meeting of the ALICE – CLARA Project

RedCLARA NEG-TREK
Captain Porto: We Know What You Did... (Last Summer)

CENTRAL SUBJECTS

Recommendations of Participant Organizations of the Civil Society for the IV Summit of the Américas

RNP stimulates the use of Planet Lab in Brazil

Project endorsed by NSF
GENI: A geniality or the promise of a new internet architecture?

Important document in Internet2:
How will future academic networks be handled?

New GÉANT2 Video:
Lights. Camera. Action!

AWARDS & GRANTS

AGENDA

Editorial

The integration through the electronic communication networks, has been always a yearning extremely coveted by the academic and research communities. We remember the precursory BITNET, as the network that in the 70s got together diverse universities, mainly North American, that were benefited from the development of joint projects that united their better researchers and equipment, without concerning the geographical distances. The development of the Internet, as we know it nowadays, appeared like a simple and cheap alternative, so that who could not work with the BITNET of long ago, could look for to do it in modern networks of academic profile. In our region, diverse circumstances made difficult the integration between the institutions. The results were inefficient and isolated efforts. The formation of true national academic networks was frustrated.

Joaquín Guerrero
President of RAAP (Peru),
Vowel of the Directory of CLARA.

At the beginnings of the present millenium, the European Commission, through the ALICE project, finances the creation of a regional infrastructure based on advanced communication networks, giving the first step to the creation of the CLARA organization and to the implementation of RedCLARA. Today, near to be year old –since it was constituted like the first Latin American Research an Education Network-, CLARA has obtained, in a very short period, which in the last 30 years had been impossible to obtain: the creation of a network that, in a common effort, had join the academic community of our region. Those who have worked in similar projects, perfectly know the difficulty that always has this task brought with itself; nevertheless, a chimera is becoming a reality, in each country a national network have been constituted by institutions that have left of side their ancient problems and now they see with dazzling clarity the importance of working together. All of us know that we are creating an infrastructure that would have to be constituted in an invaluable tool -thanks to the possibilities that offers: the collaborative work and the transference of knowledge and technology -, oriented to facilitate the technological takeoff of our countries; but in most of the cases, the national networks are still embryonic, they are very fragile, and the well known difficulties are still present and the look threatening.

Just a few days ago, the Peruvian NREN, the Peruvian Academic Network or RAAP, was presented in society. The expectation that there is in the country is great, the universities and research centers want to participate in such a transcendental project, nevertheless there are many doubts, questions that maybe have not been already pronounced, but that are latent, that are in the air. Not everybody knows what is an advanced network, what they can obtain with it; not everybody knows what, where and to whom they can find in the network; not everybody knows the costs that today represents to integrate the network. These questions must be solved by CLARA and NREN from their respective positions.

But, beyond these questions, of apparently simple answers, the greater uncertainty, the one than can make be in danger the success of the general project is: which is the cost that in a very near future could mean to be part of the network. In most of the

- 1

countries of the region, the national networks are in the heat of their formation process, surpassing discrepancies and certainly, making a great effort, mainly economic. We are in the last year of the ALICE project and we just begin to see the results of the three years of intense work carried out by the managers of this project of regional integration. The institutions that conform the different NRENs are just starting to give content to the networks, and the risk of an increase of the costs that the operation of each network involves are already blossoming.

We have only taken the first steps oriented to achieve the central objectives of ALICE and CLARA, now the national networks must begin to give sense to the process. There are diverse projects of CLARA oriented to guide them in their initial efforts, nevertheless, these projects and the local efforts of each NREN, will be vain if the institutions that conform these last ones, are suddenly affected by increases in the costs that it involves to be part of the academic network, before to have assumed the added value that represents to be a part of it. In a network solidly constituted, the institutions must see gradually increase the yield of their investment, in accordance to the concretion of projects that allow, as much to finance it as to look for their continuous growth; to reach this situation in our networks, will require the indispensable economic support that guarantees for them a healthful development, that allows them to become real motors of the regional development.

28 al 30 de noviembre
Second Annual Meeting of the ALICE – CLARA Project

In the occasion the Uruguayan Academic Network (RAU) -host- will carry out the launching of the advanced network RAU2.

The capital city of Uruguay, Montevideo, was chosen for the carrying out of the second annual meeting of the ALICE project –that it is financed until May of 2006 with 10M Euros contributed by the @LIS Programme of Cooperation of the European Commission- and CLARA. The event will be developed in the Sheraton hotel and will join up to the representatives of the 18 countries members of CLARA, those of DANTE, the European Commission and of the countries partners of the ALICE project.

Taking advantage of the meeting and of the presence of the international visitors, during the morning of Tuesday 29 of November, RAU will inaugurate the Academic Uruguayan Advanced Network (RAU2) and its connection to RedCLARA (established the 6 of June of 2005). Given the relevance of this ceremony, that will count on the presence of authorities of the national government and of the organisms that are partners of RAU2, the assembly hall of the Libertad Building (of the Presidency) has been selected for its event.

The Minister of Education and Culture of the Uruguayan Government, Jorge Brovetto, will inaugurate the new network and the President of CLARA, a representative of the European Commission and a representative of DANTE will present some speeches.

In addition, RAU plans the presentation of some applications to demonstrate the capacities and benefits that the advanced networks delivers to the sciences, the technologies and the culture.

A new stage for Panama:
RedCyT in the Pole Position of RedCLARA

Friday 9 of September had a new glance for the Panamanians. That day was settled down the connection of the Scientific and Technological Network of Research Centers and Universities of Panama (RedCyT), with RedCLARA, to 10 Mbps.

María José López Pourailly

RedCyT is a foundation without profit aims and with academic base, whose objective is to facilitate and to coordinate the development, display, operation and transference of the technology of services and applications of the advanced networks, in order to extend the leadership of the superior education, and to accelerate the availability of new services and applications of Internet in Panama.

Today, the National Secretariat of Science, Technology and Innovation of Panama (SENACYT) and the Catholic University Santa Maria La Antigua (USMA) are connected to the RedCyT network. According to the plan drawn up by the directors of RedCyT, before 2005 finishes, there would have to be connected to its network the Technological University of Panama (UTP) and the University of Panama (UP). The remaining initial members of the Panamanian network -Independent University of Chiriquí, Latin University, Ministry of Farming Development, Latin American University of Science and Technology- are waiting for their connection to be established in the future, the reasons of the lack of this connection have their roost mainly in financial restrictions. Nevertheless, it is possible to indicate that although these institutions are not connected, they also continue being members of the RedCyT foundation.

"The interconnection with RedCLARA is without a doubt the beginning of a new stage in the advance of sciences, information technologies and of the superior education in our country", affirms Ignacio Laguna, Networks Engineer of SENACYT, and representative of RedCyT in CLARA. According to Laguna, "RedCyT was the first step to accelerate the development of the national academic network and to promote the technological transference; now, the interconnection with RedCLARA, comes to reinforce and to extend this initiative for the benefit of Panama".

When he was questioned about how he would define to RedCyT and which would he say that it has been its impact in the Panamanian community, Laguna respond: "RedCyT has been the product of a collaborative effort with the Universities and SENACYT, we are sure of the benefits that the advanced networks are going to offer to our scientific community, not only because of the support of I&D activities on of high performance networks, but also by the integration of the Universities and Research centers that are expected to participate in collaboration initiatives".

Obviously after reaching a great goal there's always people to be thankful of, and before dismissing this note, Ignacio Laguna has requested a space to do it: "I want to thank to all those that have supported this project, specially to my partners Glorizel García and Francisco García, without their support we had not been able to advance; to Diana Candanedo, for her work with the Universities; and to all the team of SENACYT, that has given their sand granite to obtain this interconnection".

RedCyT Team: Francisco García, Glorizel García and Ignacio Laguna.

Costa Rica linked
CR2Net Made Specific its Connection to RedCLARA

After the meeting sustained by the members of the ALICE project in Costa Rica, in 2003, its bulletin nº 20 the CONICIT (National Advice for Scientific and Technological Researches of Costa Rica) closed a report dedicated to this subject indicating: "Thanks to this initiative in a near future it will be possible to speak of joint research and development, combining efforts and the individual capacities of all the countries that are members". That "near future" became present for Costa Rica the 12 of September of 2005, when it was established the connection of CR2Net -National Research Network- to the node of RedCLARA located in Mexico, at 10 Mbps.

María José López Pourailly

One of the most solid democracies of Latin America, little more than 4 million inhabitants, a rate of alphabetization of 95% and near 88,324 university students -education is obligatory and gratuitous until the 18 years-: these are some of the records that mark the presentation of Costa Rica, country that the 18 of April of year 2001, by means of the signature of the Executive Decree Nº 29431 - MICIT, established the creation of the National Network of Advanced Research: CR2Net. Country that is already connected to RedCLARA.

CR2Net is constituted in Costa Rica to create the National Research Advanced Network, which is dedicated to the research in all the areas of the knowledge and also to Superior Education. Among other objectives, CR2Net persecutes the integration of a national strategy to interconnect Costa Rica with the world-wide Advanced Networks of Research and Education and the coordination of all the necessary aspects that can guarantee the operation and sustainability of the network. It is in this frame that the participation of CR2Net in the ALICE project (América Latina Interconectada con Europa - Latin America Interconnected with Europe) becomes serious, during the 5th Work Meeting of the CLARA group, celebrated the 26 of November of 2003 in the High Technology National Centre (CENAT) of Costa Rica.

In which it is refer to its members, CR2Net is conformed by the University of Costa Rica (www.UCR.ac.cr), the National University (www.UNA.ac.cr), the Technological Institute of Costa Rica (www.ITCR.ac.cr) and the Remote State University (www.UNED.ac.cr) -all these, of state character-, the Costa Rican Dept. of Social Insurance (www.CCSS.sa.cr), the National Meteorological Institute (www.IMN.ac.cr) and the National Centre of High Technology (www.micit.go.cr/CENAT). These organisms are interconnected tat 45 Mbps with CR2Net.

Proposals of development

The connection of the Costa Ricans to RedCLARA would be useless, if there were no projects to carry out, we talk about projects that require the capacities of this network. At national level, CR2Net has already identified some projects to be worked immediately on its network, these are: Videoconference over IP, of Data Endorsement Centre, Virtual Libraries and Voice over IP.
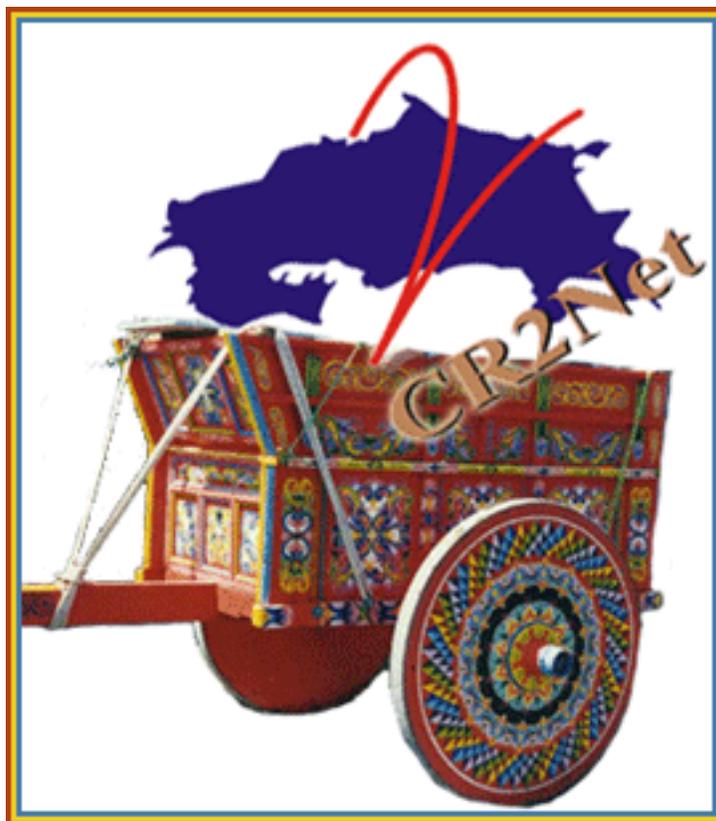
In addition to these projects, the Costa Rican network would like to make available for the scientific and academic communities, data bases of images and videos referred to the biodiversity of Costa Rica, material that has been collected by different ONG.

CR2Net is also interacting with national scientists like doctors Jorge Páez and Pedro León. Dr Páez, Director of the Space Research Centre, has a Radius Observatory located in the province of Guanacaste (region of Santa Cruz) that, among other activities, it interacts with the Scientific Laboratory of Sttugart (Germany) in remote visualization. With Dr. León, Director of the National Centre of High Technology, the working area is totally different and it is referred to the projects of Nanotechnology and Bioinformatics, in a while these will be using the connectivity of CR2Net with the National Research and Education Networks, to take advantage of its potentials.

Another beneficiary of CR2Net will be the Remote State University that will make use of its network to link its Videoconference Centres with the projects of the World Bank network, for example the GDLN.

The National University, has also showed its interest to develop some of its projects, using CR2Net, some of them will be developed by the following laboratories, centres and schools: Volcanologic and Seismologic Observatory of Costa Rica (OVSICORI), Tropical Apicultural Research Centre, Veterinary Medicine School, International Economic Policy Centre (CINPE), Polymer Laboratory, School of Biology, Mesoamerican Centre of Sustainable Development of the Dry Tropic, Institute of International Conservation and Handling of the Wild Life, Regional Institute of Studies in Toxic Substances, Training

Programme in Environment and Metrology, and the Institute of Research and Forest Services.

And well, with so many plans ahead, that shows as much evidence of the necessity of counting with a network with the capacities like the ones that CR2Net and its recent connection to RedCLARA presents, there's not much to say, only perhaps to dedicate a warm congratulation to each one of those who gave life to CR2Net and to wait until the development of these projects start on to become true.

More information: www.crnet.cr/cr2net.

Conceptual Topology of CR2Net
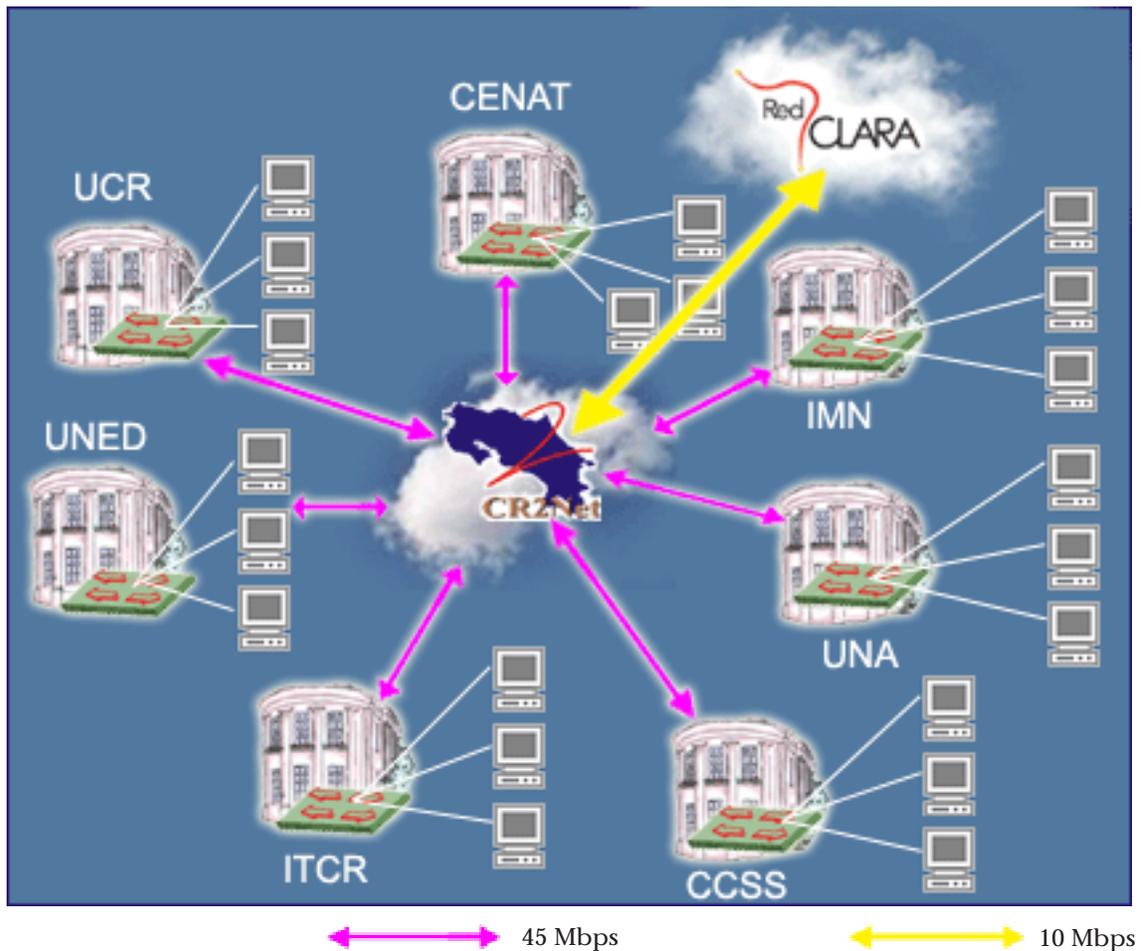
Vigny Alvarado Castillo:
Costa Rica Has Potential to Offer to the Global Academic Networks

In CLARA the visible face of Costa Rica is the one of Vigny Alvarado, Coordinator of the Technical Committee and member of the Directive Council of CR2Net. With him we talked about the Costa Rican network and about the Latin American Cooperation of Advanced Networks.

María José López Pourailly

Which is the fundamental importance of CR2Net for Costa Rica?

The main importance of CR2Net for Costa Rica it's the possibility that been tied to the Advanced Research Networks gives to our country; that is to make use of the different technological resources that are available in those networks, resources that Costa Rica cannot acquire by its onerous costs. In addition, it is the possibility of acceding to diverse scientific information or of participating in international scientific projects; next to this, the possibilities of education and knowledge to all the citizens are extended, by means of the institutions members of CR2Net. It is, again, a tool of transcendental use for the development of the nation, as well as it was it in its beginnings the commercial Internet. Also, through CR2Net a national institutional network its born, one in which its members will have the opportunity to make joint developments to share resources and to make available, for all the national scientific and academic communities from the different areas of the knowledge, those resources.

Which have been the greater challenges that the advanced network of Costa Rica has faced during its implementation?

The challenges of greater impact appeared particularly when we were trying to obtain the resources to participate in the ALICE project, which now offers the opportunity to integrate an advanced research network that nowadays is known as CLARA. Additionally, we are in the process of making of CR2Net a sustainable project, for this it is require the participation of all those national institutions of research and education who should be integrated to the solidarity model that we have proposed for the financial management of CR2Net. Also we considered as a great challenge the management of the network, the legal figure of CR2Net must take shape according to the state legal ordering, which is one goal to be obtain.

Which are the greater challenges that CR2Net faces today?

The greater challenge is to obtain the total use of the available bandwidth. This takes to us to establish a very aggressive campaign of spreading and promotion at scientific and educational levels. In parallel, the integration and participation of new members for CR2Net, with the intention of increasing the potential that can offer Costa Rica to the Global Research and Education Networks.

What importance has for CR2Net and the scientific and academic Costa Rican community, the connection to RedCLARA and the membership in CLARA?

We consider that the link to RedCLARA is the access door to the NREN`s and is the more appropriate and viable way to obtain the Costa Rican presence and access in them and, by means of these, to tie to our scientific and academic community with the different centres.

In your own words and from your personal point of view, which will you consider are the real benefits of been part of CLARA and of its network?

I consider that the main benefit is the participation in a shared model to face the high costs of which it implies to maintain a connection of this level with the other networks. In addition, we have the importance of been part of a regional network that is devoted to the development of each one of our countries, by means of the use and access to diverse technologies to which, given our circumstances, it would be extremely difficult to accede because of our particular realities.

In the context of the integration to the pan Latinamerican network that is RedCLARA, What seeks CR2Net for its scientific and academic community?

CR2Net visualizes a total mutual understanding of the different sectors; in particular, of the scientific, academic and health sectors. They are the ones that must take the greater or total benefit from this type of infrastructures for the well-being of the Costa Rican society.

What importance has for CR2Net to take to Costa Rica to be one of the first Central American countries in counting with direct connection to RedCLARA and, through it, to the international advanced networks?

To be truth, I consider that the real benefit of the interconnection of CR2Net to RedClara will be shown and harnessed once the rest of the Central American and South American countries counts with their connection. Then CLARA will have to count on an aggressive program of collaboration and development in R+D+E, that should start now, with the aim of shaping and consolidating the region.

If on you depended, what project would you immediately impel in CLARA to hit directly to Costa Rica?

I would give priority to the execution of a project -led by CLARA- to establish a model of spreading and entailment, starting from the knowledge that already exists at CLARA, for the use of the network from the perspective of the access to diverse scientists and their world-wide research laboratories, according to the national requirements.

If you could define how will be and how it is going to be developed the future of CR2Net, What would do? How would you write the history of that future?

Well, the first thing that I would do is the definition and the establishment of a work team endorsed by the advisory committee of CR2Net and CONARE, for the management and development of CR2Net, because it is require a human group for the management of all the administrative aspects and of promotion and spreading, as well as of national and international representation, to manage to attract diverse projects of research and academic development, oriented by a policy of State coordinated by the Ministry of Science and Technology. One of the first projects would be to dedicate a good part of the time to promote in different organizations, those projects in which the potential that represents Costa Rica participates, to obtain financial resources that allow CR2Net to maintain a growth in its bandwidth availability and, at the same time, to impel the development of the infrastructure that allows us to reach the Information Society.

Areas of research to be developed by CR2Net:

Medicine
Health and Pharmacology
Biotechnology
Biodiversity
Antiofidic Serums
Seismology
Veterinary Medicine
Agriculture
Cattle Farming
Automatic Control
Remote Education
Electronics
Gender Studies
Clean Energy
Sciences of the Sea
Limnology
Environmental Contamination
Sustainable Development
Software Development
Power Systems
Science and Engineering of the Materials
Labor Security
Environmental Hygiene
Enterprising and Companies Incubation
Mathematics, Physics, Chemistry and Biology
GIS
Digital Government
Atmospheric Numerical Models
Exchange of High Resolution Satellite Images for Central America
In Real Time Modulation of the Atmospheric Conditions

Recommendations of Participant Organizations of the Civil Society for the IV Summit of the Américas

"The Fundamental Roll of Science, Technology, Engineering, Innovation and Education in Sciences within the framework of Discussion of the IV Summit of the Americas", is the subject that was approached -in the meeting of the 5 of September 2005 in Buenos Aires (Argentina)- by representative organizations of the civil society related to science, technology, engineering, innovation and education in sciences of the Western Hemishpere - CLARA, among them -, who have also participated in the preparatory process towards IV the Summit of the Americas, through different dialogues within the framework from the Organization of the American States (O.A.S.). Within the meeting recommendations, point 7 stands out: "To create networks of excellence centers that create a suitable level of critical mass to produce research and innovation at the highest level ".

María José López Pourailly

The forum (round table) on "the Fundamental Roll of Science, Technology, Engineering, Innovation and Education in Sciences within the framework of Discussion of IV the Summit of the Américas" was summoned by the O.A.S. and the General Coordination of the Forums for the Participation of the Civil Society of the IV Summit of the Americas of the Ministry of foreign affairs, International Trade and Culture and the Secretariat of Science, Technology and Productive Innovation of the Ministry of Education, Science and Technology of the Republic of Argentina.

This round table discussed and reflected around "the fundamental contribution of science, technology, engineering, innovation and education in sciences for the development of our population in the Americas. Particular emphasis was put on the creation of decent use, reduction of poverty and fortification of the democratic governability - central subjects of IV the Summit of the Americas". It is possible to indicate that the mentioned Table is part of the preparatory activities for the IV Summit that will be celebrated in November of 2005 in Mar del Plata.

The objective of this Round Table was to draft a document with precise recommendations, in order to be presented to the national coordinators of the Group of Revision and Implementation of congresses (GRIC), with reference to the XL meeting of this group taken place from the 7 to the 9 of September in Buenos Aires. The goal was obtained and the recommendations were also presented in the Regional Forum of the Civil Society "To create jobs to face Poverty and fortify Democratic Governability", carried out in Buenos Aires, on the 6 and 7 of September.

From the nine recommendations elaborated by Round Table, we emphasize the ones referred to funding science, technology and innovation (recommendations 3 and 6), and those referred to the collaboration and creation of scientific networks (recommendation 7):

"3. The public funding of science, technology and innovation must be integrated in national and regional policies, and be coordinated at the highest levels of government ".

"6. Target that for end of the next decade, private investment in science, technology and inovation in Latin America and the Caribbean must be higher than public investment. The stimulus and the responsibility to elaborate legal frameworks for this, falls in the hands of governments of the region.

"7. To create networks of excellence centers that create a suitable level of critical mass to produce research and innovation at the highest level ".

The whole document can be downloaded at
http://www.redclara.net/doc/Espanol_final_report_BuenosAires_Sep_2005.pdf

The participants of the round table included the following civil society organisations:

- Inter-American Network of Academies of Sciences (IANAS)
- Asociación INTERCIENCIA
- Federación Mundial de Organizaciones de Ingeniería (WFEO)
- Cooperación Latinoamericana de Redes Avanzadas (CLARA)
- Red Iberoamericana / Interamericana de Indicadores de Ciencia y Tecnología (RICYT)
- Asociación Interétnica de Desarrollo de la Selva Peruana (AIDESEP) -Perú
- Corporación para la Educación y Promoción Popular (CAUSAI) - Ecuador
- Facultad Latinoamericana de Ciencias Sociales (FLACSO) - Argentina
- Grupo de Análisis para el Desarrollo (GRADE) - Perú
- Regional Center for Space, Science and Technology Education for Latin America and the Caribbean (CRECTEALC)
- Grupo REDES - Argentina
- Red Teleinformática Académica (RETINA) - Argentina
- Universidad Bolonia - sede Buenos Aires
- Universidad de San Martín -Argentina
- Women in Global Science and Technology (WIGSAT) - Canadá
- Young American Business Trust (YABT)

RedCLARA NEG TREK

Captain Porto: We Know What You Did... (Last Summer)

María José López Pourailly

María José López Pourailly

Yes, we know what the serious Captain Eriko Porto did: he flew to a rare planet, one that is full of pleasures and entertainment... Well, yes, he took his vacations, we must clarify. Anyway, he's back, but we took advantage of his absence to stole his diary, and now we've got the new reports of the voyages of the CLARA Network Engineering Group - NEG. Aren't we great?

NEG mission: following the route drawn up by the crew of the ALICE Project -the mother airship-, to explore new worlds, to seek out the unique and perfect way to establish the CLARA ring backbone and the connection of the Latin-American NRENs to it and to Europe - to boldly go where no other Latin-Americans has gone before, and to take CLARA members there.

The following quotes have been taken of captains Eriko Porto diary.

Friday 09th - September
The BGP peering with RedCyT (NREN from Panama) was established.

Monday 12th - September
The provisional peering between CR2Net (NREN from Costa Rica) and CUDI -who is announcing their prefix to RedCLARA-, was established. This provisional peering was established with the aid of CUDI, which willingly accepted this configuration in order to provide the means to the launch event of CR2Net.

We are now in preparation to receive the auxiliary equipment to be placed in Tijuana and in the NRENs from Central America, that are going to provide the adequate means to activate the connections from Nicaragua, Guatemala and El Salvador, and establish a direct peering between CR2Net and RedCLARA. This is foreseeing to be taking place in the middle of October.

The CLARA-NOC is working on the configuration of IPv6 multicast in RedCLARA, and as soon as it is ready we will announce to the NRENs the availability of this additional service in the network.

I must tell to everybody that I will be on vacation for the first two weeks of October (the Planet of Pleasures will be mine), of course the CLARA-NEG activities will be conducted by my friend Spok... Ooops... I mean Guilherme Domingues, who has recently joined the NEG group. Yes, I should do this but... "Aruba, Jamaica, ooh I wanna take ya , Bermuda, Bahama, come on pretty mama, Key Largo, Montego, baby why don't we go..."

Captain Porto in the Planet of Pleasures.

RedCLARA Chronology

31 - August - 2004 >>> provisional backbone activation with a connection from REUNA (NREN from Chile) to the RedCLARA router (Juniper rented) in Sao Paulo, and a connection to GEANT (European network) through the international link of 622 Mbps. Connection enabled through a cross-connect in the PoP of Buenos Aires (AR).

17 - September - 2004 >>> installation of the first Cisco 12006 router (donated by Cisco) in the city of Santiago (CL).

20 - September - 2004 >>> installation of the second Cisco 12006 router in the city of Panama (PA), and connection establishment between RNP and RedCLARA.

05 - October - 2004 >>> installation of the Cisco 12006 in the PoP of Sao Paulo and migration from the provisional to the original planned backbone, using the Cisco routers from Santiago and Sao Paulo and removing the rented Juniper. Still using the by-pass in Argentina.

11 - October - 2004 >>> completed the connection with REACCIUN2 (NREN from Venezuela).

27 - October - 2004 >>> installation of the Cisco 12006 router in Argentina and no more by-pass in the rack.

15 - November - 2004 >>> installation of the Cisco 12006 router in the PoP of Tijuana.

24 - November - 2004 >>> completed the connection with CUDI (NREN from Mexico).

13 - January - 2005 >>> RedCLARA ring conclusion with the Panama router activation.

10 - February - 2005 >>> completed the connection with RETINA (NREN from Argentina).

13 - April - 2005 >>> completed the connection with RAAP (NREN from Peru).

07 - June - 2005 >>> completed the connection with RAU (NREN from Uruguay).

24 - June - 2005 >>> tested the connection with RedCyT (NREN from Panama) - BGP peering session is down until clearence from the executive diectorate (administrative issues pending).

11 - July - 2005 >>> established the TJ-SD link and peering with CalREN.

22 - July - 2005 >>> established temporary multihop-ebgp peering with Abilene through the TJ-SD link.

09 - August - 2005 >>> implemented native IPv6 in the backbone of RedCLARA.

09-12 - August - 2005 >>> established IPv6 peering with RETINA, CENIC, GEANT and CUDI.

23 - August - 2005 >>> established IPv6 peering with RNP and GEANT.

09 - September - 2005 >>> established the BGP peering with RedCyT (NREN from Panama).

12 - September - 2005 >>> established provisional peering between CR2Net (NREN from Costa Rica) and CUDI, who is announcing the prefix to RedCLARA.

19 - 21 of October:
Caracas Received the Members of CLARATEC

With REACCIUN2, the Venezuelan Academic Network as host, in the Crystal Hall of the hotel Caracas Hilton (Caracas, Venezuela), was developed, during the third week of October, the second technical joint meeting CLARA-ALICE of this year. This one was centered in the Multimedia Communication (Videoconference and Voice over IP).

The communication infrastructure for the meeting was provided by CANTV, that installed a connection of 2 Mbps. to CNTI, to directly connect the participants of the meeting to RedCLARA. In the hall in which the event was developed, the was wireless connection (WiFi) and Ethernet (provided by CNTI).

With regard to the developed agenda, the activities were divided in two days of training and a day of Technical Forum; according to the following details:

Wednesday, 19: Training of VoIP, in charge of Prof. Paulo Aguiar, who was attended by Fábio David, both of the Federal University of Rio de Janeiro, Brazil.

Thursday, 20: Technical forum of CLARA (opened to guests).

Friday, 21: training of Video conference, lead by Prof. Liane Tarouco, of the Federal University of Rio Grande do Sul, Brazil, attended by Leandro Bertholdo of the Point of Presence of RNP in Porto Alegre.

New GÉANT2 video:
Lights. Camera. Action!

The Works of DANTE

The new GÉANT2 video dispels the theory that "sequels never live up to the standard of the original". This latest film features interviews with a number of users, including CERN, German Weather Service, e-Science Centre UK, and the BioCASE project, with each explaining how GÉANT2 will benefit their research. In addition there is an interview with Viviane Reding, European Commissioner for Information Society and Media.

The movie acts as a trailer for the upcoming DVD, which will be brimming with extras and additional material. Case studies, user interviews, NREN profiles and web links will create the most comprehensive GÉANT2 product yet. To see the movie visit: www.geant2.net/media and follow the links.

Peruvian scientists, academics and researchers, be prepare to take off

RAAP Has Started its Flight

The 19:00 hours of Lima were running that September 29. A springing wind refreshed the air among the trees and the gardens of the Pontifical Catholic University of Peru (PUCP). In one of them a dark and enormous awning rose, one that was prepared to receive almost 300 people who would do of the Peruvian Academic Network - RAAP launching, an event really difficult to forget. One in that it was clear how much the academic and scientific communities of Peru longed for to count on a research en education network, that opened to them the doors of the collaboration.

Text: María José López Pourailly
Photographs: Giovanna Fernández. Área de fotografía, Puntoedu.
Dirección de Comunicación Institucional-PUCP.

The preparations had not been little. Joaquín Guerrero, President of RAAP, Daniel Díaz, technical representative of RAAP in CLARA, and Eliana Torres, Executive Director of RAAP, had worked intensely so that everything was perfect. Nelson Simões, President of CLARA, was just arriving from Brazil to celebrate in the name of the Latin American Cooperation of Advanced Networks, the important step that gave Peru in the footpath of the development of the region. The word "nervousness" was prohibited, but this one became meat in those who were fitting the last details.

19:30 hours

A giant screen, unfolded in a flank of the stage shows the RAAP logo. Students, formally dressed up, give the welcome to the assistants, they accommodate them in its chairs and they give printed material to them of RAAP and CLARA. The invitees sees how are getting to occupy their positions in the front the spokesmen Luis Guzmán Barrón, Director of the PUCP, Henning Reinmann, Representative of the European Union in Peru, Benjamín Marticorena, President of the CONCYTEC (National Advice of Science and Technology), Nelson Simões, Gabriel Frías, of Telefónica Peru, John Martínez, of Cisco Systems, and, of course Joaquín Guerrero.

The space is full; the public, anxious.

Words that are more than words

Eliana Torres, recently named Executive Director of RAAP was the one in charge to present to the members of the podium, each one of which knew, from its scope of action, how to emphasize the most relevant of the moment that Peru was living that day. The voices of each one of them sounded in different and excellent cords:

institutions of communication and integration acquire a more serious and lasting sense. In that dimension, the university institutions must, along with our main challenges, to make an intelligent and responsible use of the means that the technology makes available for us. This imply to use with creativity and efficiency the new resources to extend and to diversify the ways that allows us to make our work, that is not other than the one to form professionals highly qualified, but also responsible and committed with the development of their society ".

"We are sure that RAAP will allow to guide the relations of collaboration, to guide the relations of the Peruvian universities and between them with its pairs of the rest of the world. It will be a valuable tool for the development of the superior education and for the fostering of the scientific and technological activities of our area".

Luis Guzmán Barrón, Director of the Pontifical Catholic University of Peru:

"The fast exchange of information, the amplitude in the data storage and the simultaneity given by the interactivity, have produced deep impacts in our way of coexist. But those advances not only must be taken like mere technical simulations, but also like a new land of possibilities to enter in relation to the others; that is to say, like an instrument to constitute a world in which the

Henning Reinmann, Representative of the European Union in Peru:

"The creation of the research network infrastructure in Latin America, RedCLARA, is important in itself, because it takes us to be connected with the Pan-European research network, GÉANT, for the first time; that is to say, the interconnection between our two continents. The significant thing of this act, is the connection of the Academic Network of Peru and the connection from Peru to

RedCLARA, that was effective in last May".

"With this official presentation of the Peruvian Academic Network, it is opened, for the researchers, the collaboration and sharing of the information and resources through a series of interconnected networks. Thus, we have already the key to enter to a future which is technologically and scientifically shared".

Nelson Simões, President of the Directory of CLEAR:

"I believe that the launching of this network, the RAAP, today is possible because here it was combined a very special mixture of organizations and people, who did of this a reality. It is not simple to make a national network, an operative network, an organization that is conformed by institutions, universities, research centers and branches of the government, and to do it knowing that this is an important tool for the development of the science, the education and the innovation of a country ".

"This is a great success, not only for Peru, but also for our region, because of the eighteen countries that conform CLARA, only four began already with a network; and the example of Peru, is the example of how to advance fast and with vigor, involving those key education institutions of a country ".
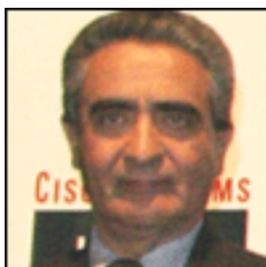
Benjamín Marticorena, President of the CONCYTEC:

"What there is to do now, without a doubt, and RAAP it is planning it, it is to put the network to the service of the groups research already constituted, consolidating them, and to open new groups of investigation that work in mesh (...) In fact, I believe that one of the most important subjects that supports this Peruvian network, is to give an instrument of collaborative work, that is, in fact, the main issue. This is: to reunite the effort of all those that are interested in a specific thematic, to reunite to those people, with the material capacities, and as well with their appeal capacity to place to new groups and new resources in this scenario, whether they are internal or external".
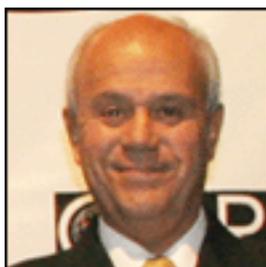
Joaquín Guerrero Rodríguez, President of RAAP:

"The creation of the RAAP network represents a new and great technological effort oriented to support the education and the research in our country. The advanced networks like GÉANT, Internet2, RedCLARA and now RAAP, facilitate the collaborative work and, therefore, the academic integration. This is a research tool, nevertheless this tool is just mere tool, perhaps a beautiful monument, if there are no contents to give sense to it. It corresponds, then, to our researchers to make of the RAAP a tool that impels the development of our country".

Piu Avanti!

But although the word certainly has the power of the indelible thing, when it is about advanced networks nothing suits better than to expose the capacities and applications of these, by means of live demonstrations that in addition speaks about of collaborative work. As it indicated Joaquín Guerrero, "one of the great advantages of the advanced networks is the one of being able to unite to diverse institutions, to allow the collaborative work between them, facilitating the integration between the people". That integration was exemplified by means of a brief videoconference in which representatives of RNP (Brazil), CUDI (Mexico), REACCIUN2 (Venezuela), and of the International Center of the Potato (Peru), saluted to the public and celebrated the launching of the RAAP; thus, it was proven the sense of union of the networks that are connected to RedCLARA.

This demonstration was followed by a Telemedicine application of the Major National University of San Marcos with INICTEL (the taking of measures of cardiac signals of a patient) and another

one of satellite samples of geographic territory, in charge of the International Center of the Potato.

And after so much technological and advanced wonder, a culture bath came more than well. This one was in charge of the Center of Peruvian Music and Dance (CEMDUC) of the PUCP, that with their songs and beautiful typical dances, illuminated the RAAP takeoff still more; one that certainly will be remembered and celebrated during long time by the communities of scientists, academics and researchers of Peru.

Review the speeches (only in Spanish) given in the launching of RAAP by:

Mr. Luis Guzmán Barrón, Director of the Pontifical Catholic University of Peru:
http://www.redclara.net/doc/Lanz_RAAP/LanzamientoRAAP_disc1.pdf

Mr. Henning Reinmann, Representative of the European Union:
http://www.redclara.net/doc/Lanz_RAAP/LanzamientoRAAP_disc2.pdf

Mr. Nelson Simões, President of the Directory of CLARA:
http://www.redclara.net/doc/Lanz_RAAP/LanzamientoRAAP_disc3.pdf

Mr. Benjamín Marticorena, President of the CONCYTEC:
http://www.redclara.net/doc/Lanz_RAAP/LanzamientoRAAP_disc4.pdf

Mr. Joaquín Guerrero, President of RAAP:
http://www.redclara.net/doc/Lanz_RAAP/LanzamientoRAAP_disc5.pdf

RAAP Released its New Web

That the Peruvian network has faced the 2005 with determination, is not a mystery for anybody. Only a little more than four months it released its new logo, and just a pair of days before the network was "presented in society", it layed its new Web site on line.

Clean pages, a simple and very intuitive navigation, a clear and direct message for its present members and for those who are interested in integrating the first academic advanced network of Peru, and a patent commitment with CLARA, ALICE and CONCYTEC - evidenced through the presence of the logos of these institutions and the links to their Web sites-, are the basic characteristics of this Web, that contains everything what one hopes to discover and to know of RAAP.

http://www.raap.org.pe/

Eliana Torres Montes:
Executive Director of RAAP

For some time the Executive Direction of Academic Peruvian Network – RAAP, has been being in the hands of Eliana Torres Montes, Industrial Engineer (University of Lima) who has a Master in Management of Systems and Information Technologies in Business (Polytechnical University of Madrid).

Eliana has a trajectory of more than fifteen years of experience in Systems Engineering, Data networks and Telecommunications in the educative sector. In addition, it has participated actively in the development of the Internet in Peru (from its beginnings in 1991). In the last five years, she has worked in the arena of the consultancy in Information and Communication Technology matters.

Respect to which will be her objective in the new task that undertakes as the director of RAAP, she says: "The fundamental role of the executive direction, is to direct the operations of RAAP with the purpose of letting grow the infrastructure of the institution, so that it manages to cover more regions of the country and to explore to the maximum the possibilities that the advanced networks offers; spreading and fomenting the collaborative research, the knowledge interchange and the integration of the research, innovation and education groups".

RNP Stimulates the Use of Planet Lab in Brazil

Researchers can develop projects in the area of networks by mounting their own network for experimentations.

RNP

The National Research and Education Network of Brazil (RNP) has made a call for researchers in the area of computer sciences to present projects of networks and grids that can be benefitted with the use of the equipment of a global network.

In 2004, RNP integrated Planet Lab, a virtual laboratory for experimentation in new technologies and protocols of networks. This is installed in three points (PoPs) where RNP has presence. These are Rio de Janeiro, Ceará and Great Rio do Sul. In these places, the Brazilian investigators count with infrastructure mounted on the network of Internet, on machines distributed around the globe, to experiment. The six equipments, two in each Pop, used by Planet Lab were contributed by Intel.

Planet Lab was presented officially to the Brazilian scientific community in May of 2004, within the framework of the 5th Workshop of RNP, by Dorgival Guedes, of the department of Sciences of the Computation of the UFMG, institution that obtained the first node of the program in Brazil. Supported by Intel, RNP is in charge of the installation and functioning of the nodes, becoming responsible also to lodge each one of the projects that will be distributed between users.

In his spaces (slices), each user (researcher) puts his applications and mounts his own network connecting itself to other nodes of Planet Lab distributed around the world. Each slice has two months of duration and can be renewed. The user institutions can access to Planet Lab by presenting a proposal to RNP, this will be assessed by the National Laboratory of Networks of Computers (Larc). Once approved, each slice will host the proposed project that could be associated to so many accounts as necessary to make possible that other participants can work in the same atmosphere.

Planet Lab began in 2002 with Intel, HP and Google as partners and today have more than 500 nodes lodged in 275 places, providing the development of projects in networks that never could be mounted by common institutions. By this, it constitutes a great vehicle of distribution of applications that allows that institutions make contact with other research institutions around the world.

A project example that is developed in Planet Lab is Internet Backplane Protocol (IBP), a protocol for the administration and use of remote storage, developed by Logistical Computing and Internetworking (Loci) to give to support to network logics in great scale, in distributed systems and applications. This service is used at the moment by GT Digital Video of RNP to store the videos that are part of the service Video by Demand.

Important document in Internet2:

How Will Future Academic Networks Be Managed?

Internet2 has published a document in which it outlines the Results of a workshop dedicated to the subject of handling academic networks under the title of "Manageability Issues In Future Academic Networking", this is an excellent material to open the discussion around the challenges that the networks of the universities and the companies will face in the new era of networks of multiple connections, "lambdas personal", incremental security and more.

The mentioned document constitutes, in words of the leader of Canarie -partnership that leads the network Canadian outpost CA*Net4 -, Bill St.Arnaud, a first step to recognize that network engineers are moving away of the world in which network design serves all, towards one in which a variety of networks and solutions of technologies of information to various communities of users must be approached.

According to St.Arnaud, a good example of this new vision and way to act, is reflected in the program individualized portal of the University of British Columbia (UBC) and in the programme "transmogrifier" that allows users and departments, to make its

own configurations VLAN. The leader of CA*Net4, adds that UBC in addition is to the vanguard in the handling and support of a great number of initiatives of lambda directly connected for individual or group users (academic departments, of companies and others).

Unload the document "Manageability Issues In Future Academic Networking", in Internet2:
http://security.internet2.edu/docs/Internet2_Reconnections_Workshop.pdf

Project endorsed by NSF

GENI: A Geniality or the Promise of a New Internet Architecture?

Will it be possible to obtain Internet free of faults or security attacks? Perhaps. Let us think about this idea, and add a penetrating computer science vision an the construction of a bridge that eliminates the breach between physical and virtual worlds, through the inclusion of mobile, wireless networks and of sensors. Have you got this vision in mind? Now group everything in an only concept, this is what has been named GENI.

María José López Pourailly

The National Foundation of Sciences (NSF - the United States) is endorsing the development of an initiative that could change everything we understand today as Internet architecture. It is the Global Environment Networking Investigations, known as GENI.

"I dream of GENI", seems to be the slogan at the interior of the CISE (Computer and Information Science and Engineering of the NSF). Beyond the game of words that alludes to the successful TV series "I dream of Jeannie" -carried out in the Seventies by Barbara Eden-, that clearly reflects the dream of those who devised project GENI. This new network promises advantages that the remembered character of Doctor Bellows could never imagine. What kind of advantages? Security from the construction, sensors and mechanisms of wireless communications.

GENI, that was announced the 24 of August during the meeting of the SIG in Data communications (Philadelphia, the United States), arose from the idea "to clean the slate" of Internet, widely discussed during the last years by the Program of Technology of Networks and Systems of the NSF. Within this group, the predominant voice has been the one of its Director, Guru Parulkar. From outside the NSF, many architects of network and researchers from the Massachusetts Institute of Technology (MIT), have added themselves to this preoccupation. The subject is important, as the Internet was not created to respond to directed attacks of security.

Certainly new designs of network are required to surpass the subject of the virus attacks, of the robberies of identity, and other so many threats of the already aged architecture of Internet. Experts in networks and technicians, question the effectiveness of a new architecture before the bit and bytes problem is not surpassed; by this they mean that decoding binary codes of each package that is transferred by the network -where everything is bit and bytes-, for long time has been no mystery for hackers and those who work to protect networks from assaults. There is no encryption that is faultless. And this could be the case for a parallel network or one with a different architecture even if not connected to Internet, it would be enough to discover the physical cable and connect to it. Thus many congratulate but watch with certain incredulity the GENI initiative.

The GENI promises

Part of the inspiration for GENI comes from the experimental network PlanetLab, present in Latin America through RNP in Brazil.

According to the NSF, GENI will promote network architectures that balance "the privacy and the fulfillment, and that vary the type of protection of form individualized according to local values and differences". Those who work in GENI maintain that a new Internet, like the one they propose, could support the elections of privacy to which individuals and communities could chose. Balance will have to be one of the key concepts for those who elaborate this new network architecture mainly, in the matter of privacy, because although the insufficiency of this erodes confidence in fundamental segments for the present economy as electronic commerce, exceeded privacy could be result in a impenetrable smoke screen at the time of detecting the origin of attacks to network.

The experimental network of GENI will be connected to experimental networks that have National Lambda Rail (NLR) and Internet2. But GENI will be unique, in terms of the experimental, the network that it establishes, and also the hardware that uses; according to the indicated thing by the NSF, GENI will provide new classes with platforms for networks, and new computational paradigms that will be made possible by dominant mechanisms.

All the information available about GENI can be found in : http://www.cise.nsf.gov/geni/

A**w**ards

G**r**ants

Marie Curie Actions
http://europa.eu.int/comm/research/fp6/mariecurie-actions/opportunities/proposals_en.html

A**g**enda

October:

30 Oct. - 2 Nov.: ACUTA Fall Seminars
http://www.acuta.org/relation/downloadfile.cfm?docnum=446
Denver, CO, The United States.

November:

15 - 18: TERENA Networking Conference, 2006
http://www.terena.nl/
Catania, Italy.

16 – 18: Information Society Global Summit
http://www.itu.int/wsis
Tunez

28 al 30: Secon Annual ALICE Project – CLARA Meeting

http://www.redclara.net
Montevideo, Uruguay.

29: RAU2 Launch Event
http://www.rau.edu.uy
Edificio Libertad, Montevideo, Uruguay.

28 of November to 2 of December: International Distance Education Meeting
http://www.udgvirtual.udg.mx/articulo.php?id=207
Guadalajara, Mexico