

DECLARA

Bulletin

Year 13



Pure life and knowledge!
TICAL's Costa Rican
edition will host two more
events

Europe and Latin America
expand their collaboration
for open science

RedCLARA partner
networks have fast and
direct access to Microsoft
services

RedCLARA announces
peering with Google

n° **49**

April 2017



RedCLARA:

A clear path for your data

We empower your research and developments

Editing
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Editorial

TICAL will be held in Costa Rica this year! For RedCLARA, the National Council of Rectors (CONARE) and RedCONARE (the Costa Rican National Research and Education Network), it is a great honor to receive the seventh edition of the Conference of IT Directors of the Latin American Universities, or simply TICAL2017. We will be pleased to welcome you to the Intercontinental Hotel & Resort Convention Center in San José, capital of Costa Rica, on July 3, 4 and 5. This event will not only be an opportunity for university ICT managers to share their experiences on high-impact projects, but also provides a platform for building networks that will last for many years.

We're also proud to host the Latin American e-Science Meeting, sponsored by the BELLA Project (Building the Europe Link to Latin America). We will have the participation of the scientific community that every day uses ICT as a vehicle to extend the frontier of scientific knowledge. This meeting will be held in parallel with the TICAL experience, having its plenary sessions together and its parallel sessions in the same convention center. For this year, the call for papers for the Latin American e-Science Meeting is being promoted in six major areas: Biodiversity, e-Health, Environment (including Natural Disasters), Astronomy, Art and Culture in Network and High Energy Physics.

Another event that will be held during these days is the meeting of Internet Society, called "ION Costa Rica 2017". The encounter will take place on July 3 and will further enrich our already varied agenda.

For RedCONARE it is a good time to be the host network of TICAL, as it is in several processes to update its infrastructure and service platform. These events will catalyze research and education in our country, making our network known and inviting all researchers, teachers, administrators and students to participate in it.

I want to extend the invitation to all ICT managers and researchers from Latin American universities to participate in these events and personally and professionally enrich themselves with the events and the wonders of Costa Rica. Welcome everybody!

**Mariano José Sánchez
Bontempo**

Executive Director of RedCONARE

Pure life and knowledge!

TICAL's Costa Rican edition will host two more events

The seventh edition of the Conference of ICT Directors of the Latin American universities will take place from July 3 to 5, in San José, capital of Costa Rica.

Luiz Alberto Rasseli



TICAL got a beautiful "plus" in 2017. The event, to be held in the city of San José, capital of Costa Rica, from July 3 to 5, 2017, will also host the ION Costa Rica Conference and the Latin American e-Science Meeting 2017. The novelties were announced in March in the official sites of RedCLARA and TICAL.



The BELLA-T Latin American e-Science Meeting (July 3 to 5) seeks to offer a new space for the exchange of knowledge and good practices in the use of Information and Communication Technologies (ICT) in research, aiming to contribute to the improvement and optimization of the management and work of the scientific groups of the region.



To this end, the event calls on Latin American researchers to present papers that expose their experiences in the development of collaborative initiatives that involve the use of ICTs (advanced networks, databases, repositories, visualization, supercomputing, among others) in areas such as Biodiversity, e-Health, Environment, Astronomy, Network Art and Culture, and High Energy Physics, considered a priority. More information can be found on the event's website: <https://eventos.redclara.net/indico/event/788/>

The ION Costa Rica Conference is an Internet Society initiative and will be developed during the first day of TICAL (July 3); it will bring together network engineers and leading industry experts to talk about emerging technologies and hot topics of technology. Early adopters will provide valuable information about their own deployment experiences and bring participants closer to the new





standards emerging from the IETF.

The event will have a half-day program to cover topics such as IPv6, DNSSEC, Securing BGP and TLS for Applications, allowing network operators to stay ahead of the curve to understand and implement emerging Internet technologies and presenting a unique opportunity to discuss the future of the Internet with the people who help create it. More than a simple series of conferences, ION will provide hands-on interaction with panelists, so attendees take the answers they need to implement new standards and technologies in their own networks.

This is the first time since its creation in 2011 that the TICAL shares its stage and call with other events. The new sections and activities raise the expectations about TICAL2017, which promises to be one of the most attractive editions of recent years. "We hope that 'Ticos' (as Costa Ricans are known) and people from all over our region can participate and learn from each other's experiences, as well as initiate joint projects with colleagues from other countries," says Alonso Castro Mattei, Director of the Center of Informatics of the University of Costa Rica.

In November, the Conference opened its call for papers on the



thematic areas defined by the Program Committee: ICT Solutions for Teaching, ICT Support Solutions for Research, ICT Solutions for Management, Management and Governance of ICT, Software Infrastructure and Development, Information Security and

Value Added Services for Advanced Academic Networks. In the same month, it announced a special call to receive proposals of innovative ICT projects developed by students named "Young ICT innovating to improve its university".





TICAL is the most important meeting space for the university community with responsibilities in ICT management in the region. In it, the leaders of the area are nourished by the experiences, initiatives and shared knowledge exposed by their peers and contribute significant and unprecedented solutions for the institutions of Higher Education. TICAL is the space to share and support the use of ICT in the universities of the continent, and enhance its teaching, research, extension and management activities.

TICAL2017:

<http://tical2017.redclara.net/index.php>

Make your registration at:

<https://eventos.redclara.net/indico/event/659/>

ION Costa Rica:

<http://www.internetsociety.org/deploy360/ion/costarica2017/>

Latin American e-Science Meeting:

<https://eventos.redclara.net/indico/event/788/>



BELLA-T opens tender for infrastructure

The initiative, which aims to enable scientific collaboration between Europe and Latin America, will soon begin its terrestrial phase.

Luiz Alberto Rasseli

A Tender for Infrastructure and Telecommunication Services was open in March 6 in order to start the process that will unite the national research and education networks (NRENs) of Brazil, Argentina, Chile, Peru, Ecuador and Colombia, create an infrastructure in Chile and an underwater connection between Brazil and Colombia.

The efforts, funded by the European Commission through EuropeAid, are part of the BELLA-T Project, the "terrestrial" phase of the BELLA program, which aims to enable scientific collaboration between Europe and Latin America.

Contracts for Irrevocable Use Rights (IRUs) are expected to be signed for periods of 15 years or more, in use of optical fiber and/or optical channels with capacities of 100 Gbps or more. To participate in the Bidding, interested companies should visit the URL: <https://bella-tender.redclara.net>

According to the BELLA-T network manager, the colombian Eliana Alonso, the tender is one of the first and most relevant phases of the project. "The infrastructure will now be defined for the next 12 years, so the technical characteristics, quality, scalability and guarantees that the candidate can offer are very important", she says.

Subsequent to this assignment will come bidding aspects of equipment and integration of the different networks. In the final part of the project, the BELLA-S (the submarine cable between Brazil and Portugal) and BELLA-T projects will be integrated, which will allow the use of infrastructure from and between the different Latin American networks to Europe.

Coordinating the initiative from the end of 2016, Alonso fulfills the role of ensuring success in integrating the different stages of the project at a technical level, working as a team with RNP, REUNA, RENATA, CEDIA, GARR and RedCLARA network managers.

"Our goal is to plan and ensure a project implementation stage within the agreed times and with the expected quality to then deliver the project to the operations area."

Among the advantages of BELLA-T is the possibility to configure completely secure and high quality connections between the different institutions, laboratories, research centers of Latin American countries, for the exchange of information in real



time and without capacity limitations, extending this possibility to the European academic networks. This opens the space for better collaboration and research. In addition, it stimulates the deployment and capillarity of broadband in Latin American countries and the access to prices of Internet services that are significantly lower, similar to those which are practiced in the European Union; this through an optical network with high standards of quality and service led by RedCLARA and the NRENs.



"The mother of the Internet"

Former president of RedCLARA was honoured by the Uruguayan television on Women's Day

"A spectacular woman", "the mother of the Internet in Uruguay", "pioneer", "woman of character and attitude". These were just some of the compliments received by RedCLARA's former president, Ida Holz, in a tribute to her made by the Uruguayan television channel Teledoce on Wednesday, March 8, on the occasion of International Women's Day.

Luiz Alberto Rasseli

The interview detailed Holz's trajectory in the development of the Internet in the country, as well as presenting her as an example of how women can achieve successes previously seen as exclusive to men. "Being a woman was never a limitation for me", said the teacher. "I do not think the Internet space is exclusively for men. It is a matter of character, rather than gender".

The teacher was also emphatic when asked about what is necessary so that there is no more violence against women in Latin America: "We need education from the earliest age and women who are abused to have the courage to defend and denounce abuses publicly".

Ida Holz (78) is a prominent engineer who was part of the first generation of university graduates trained in Computer Engineering in Uruguay and was a pioneer in building the human network that later allowed Internet development in Latin America and the Caribbean.

Her most relevant contributions have been at regional level. During the early 90s, she was part of a group of regional Internet pioneers whose collaborative efforts in search of critical mass and cooperation made possible the development of the first national networks that served as the basis for the development of what is now the Internet in Latin America.



She was also part of the region's major organizational initiatives. She played a leading role in the construction of the Latin American Network Forum, the Internet Address Registry for Latin America and Caribbean (LACNIC), the organization of Latin American and Caribbean ccTLDs (LACTLD), and the Latin American Cooperation of Advanced Networks (CLARA).

The complete interview is available at <http://www.teledoce.com/programas/calidad-de-vida/homenajamos-a-ida-holz-la-ingeniera-uruguaya-que-fue-pionera-en-internet/>

* With information of LACNIC

RedCLARA partner networks have fast and direct access to Microsoft services

Configured at a speed of 10 Gbps, the access to Microsoft's public cloud is provided within the unlimited bandwidth model for the national academic networks connected to RedCLARA. For those who have already implemented this connectivity model, the access to Microsoft services will have no bandwidth restrictions (unlike the 10 Gbps physical link capacity).

Luiz Alberto Rasseli

Office 365, Windows Update and Onedrive are some of the services contained in Microsoft's public cloud in São Paulo, to which the Latin American national academic networks members of RedCLARA can access in a fast, secure and direct way, from the connection established on November 16, 2016. The connection is the result of an agreement between RedCLARA and Microsoft.

The 10 Gbps connection is dedicated to the traffic of the members of the Latin American networks that are part of RedCLARA. This implies a great benefit to the institutions that are partner and connected to such networks, as they will immediately see its speed of access to Microsoft's public cloud services being improved. Why does this happens? Simple: because to get to the Microsoft cloud, universities and research centers will no longer use its commercial Internet connections (which are always congested), but transit through their national academic network and RedCLARA, boosting their level of security in access to the data. In addition, because academic networks have no bandwidth restriction to reach Microsoft services, the speed of access to them improves considerably.



In summary, this connection ensures a better user experience for RedCLARA member networks who are Microsoft customers and adds value to the institutions by optimizing the use of the academic network.

RedCLARA announces peering with Google

The service is available for the advanced networks connected to RedCLARA since March 1, bringing benefits to academics and researchers throughout the region.

Luiz Alberto Rasseli

RedCLARA's Google peering consists of a 10Gbps data connection established in São Paulo through CLARA backbone, which allows members of academic networks to get faster access to Google content since they are no longer dependent on the commercial network. All the public services are included, such as the search engine, Gmail, Youtube and the business suite.

The agreement was devised in 2016 and became real at the end of February with the aforementioned interconnection. According to the Technical Manager of RedCLARA, Gustavo García, the use of the services will be transparent to the users of the academic networks, "that will not have to change their configurations". The result will be greater speed and capacity of access to services, optimization of the academic broadband use of institutions and the improvement of income, since it will avoid the use of congested commercial internet connection.

The agreement with Google is the second of the type signed by RedCLARA, which already has a similar peering with Microsoft.



Europe and Latin America expand their collaboration for open science

Over a million records of open access publications from Latin America are now discoverable through the OpenAIRE platform. Since December 2016, OpenAIRE began harvesting records from LA Referencia, the large regional repository network that aggregates metadata of open access publications.

Comunicaciones LA Referencia

LA Referencia contains over 1.2 million records of open access content from nine countries in Latin America: Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Mexico, and Peru. The records provide access to the peer-reviewed journal articles and theses and dissertations in these countries across all research disciplines. This effort integrates the research outputs of the two regions and will significantly raise the visibility of Latin American publications outside the region.

OpenAIRE and LA Referencia are two of the largest and most well-developed regional repository networks in the world. Together the two regions represent about half of the world's open access repositories and a large portion of the world's research output. Both regions are also well progressed in terms of open access, with strong open access policy environments and comprehensive repository coverage.

Regional and national networks, such as OpenAIRE and LA Referencia, play a critical role in supporting open access because they create communities of practice, define standards, and maintain services that reflect the needs of their regions. Yet, the research enterprise is increasingly global, and regional networks must also give users a comprehensive international view. Sharing metadata allows networks to focus on their local communities, while still representing a fuller picture of research outputs.

This activity builds on earlier collaborative efforts of the two networks, in partnership with COAR, to adopt common guidelines, technology transfer, and capacity building that helps to enable cost efficiencies across networks and ensure more seamless discovery and integration of content. COAR, OpenAIRE and LA Referencia have also been working with other regions to promote greater alignment and are working towards greater connectivity of research across the world.

LA Referencia is the network of open access repositories from nine Latin American countries. It supports national open access strategies in Latin America through shared standards and a single discovery platform. LA Referencia harvests scholarly articles and theses & dissertations from national nodes, which, in turn, harvest

from repositories at universities and research institutions. This initiative is based on technical and organizational agreements between public science and technology organizations (National Ministries and Science & Technology Departments) and RedCLARA.

COAR is an international association with over 100 members and partners from around the world representing libraries, universities, research institutions, government funders and others. COAR brings together the repository community and major repository networks in order to build capacity, align policies and practices, and act as a global voice for the repository community.

OpenAIRE, funded by the European Commission under H2020, is the Open Access Infrastructure for Research in Europe, based on the network of open access repositories and open access journals. OpenAIRE aims to promote open scholarship and substantially improve the discoverability and reusability of research publications and data.



Using RedCUDI in the Pierre Auger Observatory Remote Control Room located at UNAM

CUDI

The control room is the first installation of its kind in America and allows operating telescopes and fluorescence detectors at a distance, from Mexico to Argentina, maximizing operating times and optimizing the transmission of scientific data.

The Pierre Auger collaboration initiated the development of remote control rooms a few years ago and is in regular operation since 2014. The control room helps collaboration saving travel tickets and per diem. "It allows us to operate the fluorescence detectors without traveling to the observatory. The reduction in operating costs makes it possible to consider extending the operating periods of fluorescence detectors without increasing (strongly) the cost of operation", commented Dr. Lukas Nellen, responsible for the setting. There are three remote control rooms in Germany, one in Spain; others are in the process of opening in France, Italy, Puebla and some in the US. The Mexican room is the first in the Americas and works with monitoring pages, console for two operators, maps and task list.

"The time difference of seven hours and the fact that the Observatory in Argentina is between the hours of Europe and Mexico, allows us to split shifts from 12 to 6 hours. We can take the first turn and end it at 23h, which corresponds to 6 am in Europe. Thus, the shifts are not too heavy for the staff operating the equipment", added Nellen.



The connection between the Remote Control Room located at UNAM and the Pierre Auger Observatory is done through the links of the National Network for Research and Education, the Mexican NREN and its international links. The traffic goes through RedUNAM, CUDI / NIBA, RedCLARA and InnovaRed.

"A European Community project, the AugerAccess, contributed to the optic fiber installation in the Centre; originally we had satellite and microwave connections, none of these had the bandwidth and the quality required for the service. Having a good network service is important not only for remote operations, but also for access to observatory data", completed Nellen.

To read the full story, visit: <http://www.cudi.edu.mx/noticia/usando-la-redcudi-en-el-cuarto-de-control-remoto-del-observatorio-pierre-auger-ubicado-en-la>

Leonardo Rodríguez:

"We hope to strengthen the articulation with the scientific communities of the other national networks"

The premise that "a great power carries a great responsibility" can be applied very well to the moment that the new director of the Colombian academic network, RENATA, Leonardo Rodríguez, lives. After assuming the role of legal representative of the network, Rodríguez, who holds a master's degree in Organizational Management and specialist in Human Resources Management, started 2017 with the challenge of further increasing RENATA, one of the more modern infrastructures in Latin America, and that demands to be recognized and managed to get the most out of it.

Luiz Alberto Rasseli

In this interview, Rodríguez tells us about his plans at the local level, explains how he believes the Network can benefit the country, and gives ideas, together with RedCLARA, to consolidate national networks as strategic allies in education and research on the continent. "We are aware of the need to strengthen collaborative work with national networks."

For its efforts and infrastructure, RENATA is a very active NREN in the region and in the interior of its country. How did you receive the challenge of managing the network and what do you do to keep the work growing in 2017?

The challenge of managing the NREN of my country is received as a huge challenge: to position it as the strategic ally of Colombia's National System of Science, Technology and Innovation. For this, we have an infrastructure that is one of the most modern in Latin America, and perhaps at a global level, that demands to be recognized and managed to obtain the greatest benefit from it, and that contributes to the development, productivity and competitiveness of the country.

You currently have a very robust network infrastructure. In what ways can the network "expand" its field of action and benefit the country?

There are different ways in which our infrastructure can benefit

the country. The first is related to its appropriation by the national academic and scientific community; an appropriation that leads to the use of the NREN to promote training processes under new methodological tendencies at all levels (basic, middle and higher). The second refers to the promotion of collaborative work in the field of research and science. On the other hand and as a third way to benefit the country, RENATA, with its infrastructure, has all the possibilities to support the development of initiatives that are related to e-Government in the country.

What are your plans or proposals for the academic community of Colombia to know what the academic networks in the country are dedicated to and to enhance their use?

We want to consolidate RENATA as a strategic ally of the National Science, Technology and Innovation System (SNCTI). For this, we have planned strategic alliances with National Government entities, starting with the ICT Ministry, the Ministry of National Education and Colciencias, which are part of our Board of Directors, and continuing with other territorial and specialized entities that are interested in science, technology and research processes. From these alliances, we want to promote research with the specialized groups of the Academic Networks of the country; mainly with the allies of RENATA and those that eventually arise from the institutions that are linking to our network.



It is necessary to enrich our network with services that meet academic, investigative and, why not, administrative, recurrent needs in the institutions allied to RENATA.

Likewise, it is necessary to improve the relationship with the academic and research departments of the Higher Education Institutions, as well as their scientific teams, so that we can ensure that RENATA is known and appropriated by its main beneficiaries.

Another strategy that is worth mentioning is the dissemination and promotion of research and collaboration projects in which RENATA participates.

Colombian researchers are responsible for most of the accesses on platforms such as Colaboratorio. What is the reason of the success of the tool in the country? And, what fruits are harvested today through its use?

Our Colaboratorio, a platform that brings together tools and collaboration services for remote interaction in real time, with the highest quality and at the highest speed, is being used by more than 4,500 teachers and researchers in the country. In Colombia we have the largest number of users of this tool developed together with RedCLARA within the MAGIC project.

These results were possible thanks to the appropriation sessions through which we trained researchers and engineers from more than 120 institutions affiliated to RENATA throughout the country.

It is important to point out that thanks to the Colaboratorio, the University of Caldas, the University EAFIT, University del Norte and Colciencias have found opportunities to finance projects and search for partners to form alliances through the Partners and Funds service.

On the other hand, the University of San Buenaventura has benefited from the RENATA Cloud service for storing its scientific and academic production and the implementation of editorial management software.

Through the National System of Open Access to Knowledge (SNAAC), 41 repositories are now harvested, containing more than 160,000 digital objects from the different areas of knowledge available free and open.

And, last but not least, the University of Antioquia has three postgraduate programs that rely on the VC Espresso service as a collaboration and communication tool for the development of activities.

Consolidating national networks as strategic allies for education and research on the continent is, without a doubt, one of RedCLARA's objectives. How can RENATA assist in this process?

We are aware of the need to strengthen collaborative work with national networks and RedCLARA, with the aim of consolidating the networks of countries as the strategic allies for research and education in the continent.

We hope to strengthen the articulation with the scientific communities of the other national networks with some of



the strategies that we have related before, being an example in the work articulated with the Government and promoting the participation of the academic networks of the country in the initiatives that arise at the international level, as well as the academic networks of other countries in those initiatives that may arise from Colombia. One of the peculiarities of RENATA is the recognition and linking of different interest groups to our communicative strategies, so that, in addition, we manage to act as a good channel of dissemination that contributes to the collaborative work.

AGENDA

May

8-12 | RIPE74
Budapest, Hungary
<https://ripe74.ripe.net/>

9 | RICH Expert Seminar
Lisbon, Portugal
<http://www.rich2020.eu/>

10-12 | IST-Africa 2017 Conference
Windhoek, Namibia
<http://www.ist-africa.org/Conference2017/default.asp?page=welcme>

16-17 | NCSC One Conference
The Hague, Netherlands
<https://www.ncsc.nl/english/conference/conference-2017>

16-18 | PRACEdays17
Barcelona, Spain
<http://www.prace-ri.eu/pracedays17>

21-23 | European Campus Card Association Conference
Birmingham, England
<http://www.ecca.eu/>

23-24 | ENOG 13 / RIPE NCC Regional Meeting
San Petersburg, Russia
<https://www.enog.org/enog-13/>

29-2jun | TNC17 - Networking Conference
Linz, Austria
<https://tnc17.geant.org/>

June

6-7 | Next Generation Internet Summit
Brussels, Belgium
<http://www.eismd.eu/next-generation-internet-summit/>

8-9 | E-irg workshop
St. Pauls Bay, Malta
<http://e-irg.eu/e-irg-workshop-june-2017>

12-13 | South Eastern Europe (SEE 6) Regional Meeting
Budva, Montenegro
<https://www.ripe.net/participate/meetings/regional-meetings/see/see-6>

18-22 | ISC 2017
Frankfurt, Germany
<http://isc-hpc.com/isc-2017.html>

19-22 | Cloud Identity Summit (CIS)
Chicago, USA
<https://www.cloudidentitysummit.com/en/index.html>

28-29 | Net Futures Conference
Brussels, Belgium
<http://netfuturesconference.eu/>

July

3-5 | TICAL2017
San José, Costa Rica
<http://tical2017.redclara.net>

3-5 | Latin American e-Science Meeting
San José, Costa Rica
<https://eventos.redclara.net/indico/event/788/>

3 | ION Costa Rica 2017
San José, Costa Rica
<http://www.internetsociety.org/deploy360/ion/costarica2017/>



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