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Deliverable D4.2

Roadmap for the delivery and deployment of National eduroam (RO) in Latin America

Periodical Progress Report

ELCIRA Deliverable: D4.2 – Roadmap for the delivery and deployment of National eduroam (RO) in Latin America

Document Full Name	**Roadmap for the delivery and deployment of National eduroam (RO) in Latin America**
Date	**December, 2012**
Activity	**WP4 (Promoting the deployment of eduroam services)**
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Abstract: This deliverable will provide a roadmap for the delivery and deployment of National eduroam (RO) in Latin America: This deliverable will provide a roadmap for the deployment of eduroam in the countries concerned; it will also include input to future strategies and decision-making in Latin American countries regarding collaboration with other world regions. This deliverable will provide best practice recommendations for the deployment of eduroam in Latin America. It will be based on existing documentation developed in Europe in the TERENA Task Forces and in the eduroam Cookbook of the GEANT project.

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DELIVERABLE ROUTE

	Name	**Member/Activity**	**Date**	**Responsible**
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Approved by	Florencio Utreras	RedCLARA/Coordinator	January 2013	RNP

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1.- INTRODUCTION

Taking advantage of Brazilian experience in the implementation of an identity federation (The Federated Academic Community) and therefore the Identity Management Service - eduroam - RNP will coordinate WP4, with the aim of establishing the necessary agreements to implement a federated eduroam service in Latin America, establishing eduroam exchange points in each Latin American NREN. This work package will provide policy coordination with other regional eduroam organisations providing inter-NREN agreements for cooperation. Additionally this WP will build a roadmap for future strategies and decision-making regarding collaboration with other world regions regarding eduroam. The second working group will undertake the technical work and will deploy the required infrastructure in order to support eduroam processes in two countries and establish the bases to expand this pilot experience to the other members of RedCLARA. Finally, the third working group will design and implement a virtual course to capacitate the technical teams of NRENs in order to disseminate eduroam expertise throughout the region.

The kick-off meeting for ELCIRA was aligned with TICAL 2012, and in this meeting the ELCIRA project was presented by its Project Manager, Florencio Utreras (RedClara) and each work package were presented by their project manager. This presentation was very important to give the opportunity of all members of all work packages to know how they would contribute to reach the goal of the ELCIRA Project.

2.- OBJECTIVES:

- To promote, coordinate and support the effort of a Latin American infrastructure for an education roaming service (eduroam);
- To create the infrastructure to support eduroam processes in two countries and establish the bases to expand this pilot to the other members of RedCLARA.
- To create/update virtual courses to train NREN technical teams in order to replicate the action in their NRENs and for their customers.
- To define the technical requirements of an eduroam exchange point between Latin America and Europe.
- To implement eduroam interoperability and interoperation with Latin American federations and their European counterparts.
- To provide a roadmap for future strategies and decision-making regarding collaboration with other world regions regarding eduroam.

3.- DEPLOYMENT PHASES

In order to reach the work package objectives it was developed the following roadmap strategy:
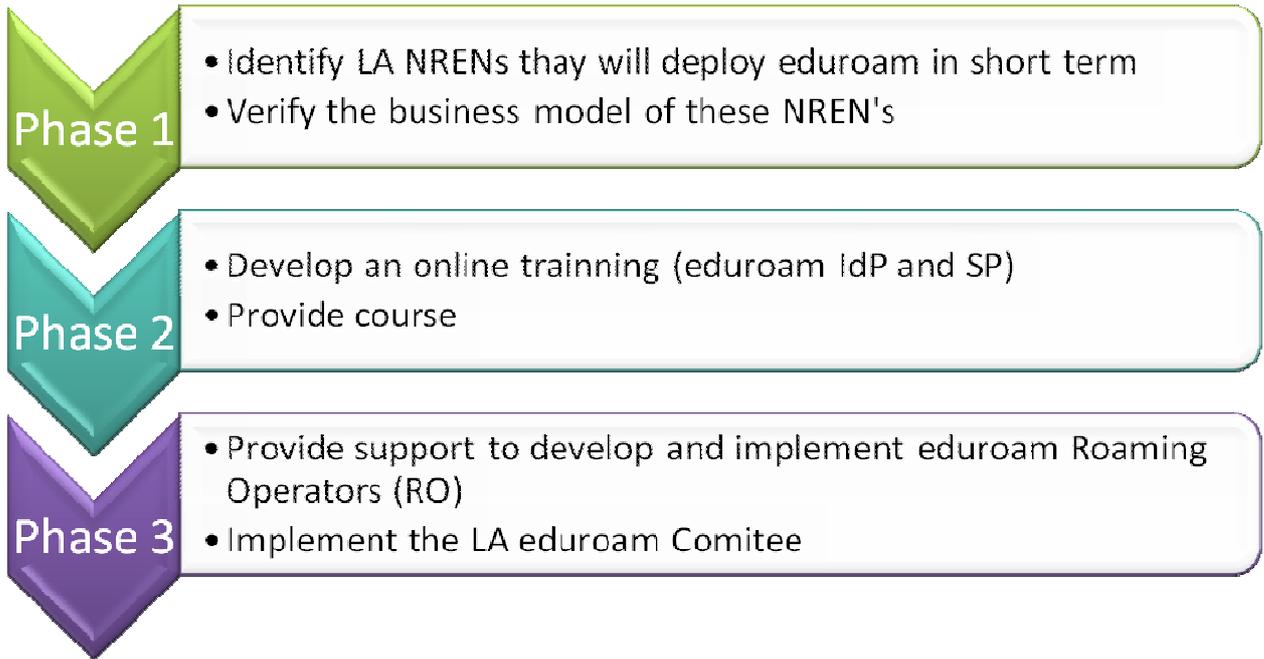
Phase 1
- Identify LA NRENs thay will deploy eduroam in short term
- Verify the business model of these NREN's

Phase 2
- Develop an online trainning (eduroam IdP and SP)
- Provide course

Phase 3
- Provide support to develop and implement eduroam Roaming Operators (RO)
- Implement the LA eduroam Comitee

4.- COUNTRIES IDENTIFIED

During the kickoff meeting in Lima, Peru in July, 5th seven countries were identified as roaming operators (RO) startups: <u>Chile</u>, <u>Uruguay</u>, <u>Argentina</u>, <u>Costa Rica</u>, <u>El Salvador</u>, <u>Ecuador</u>, <u>Peru</u> and <u>Colombia</u>.
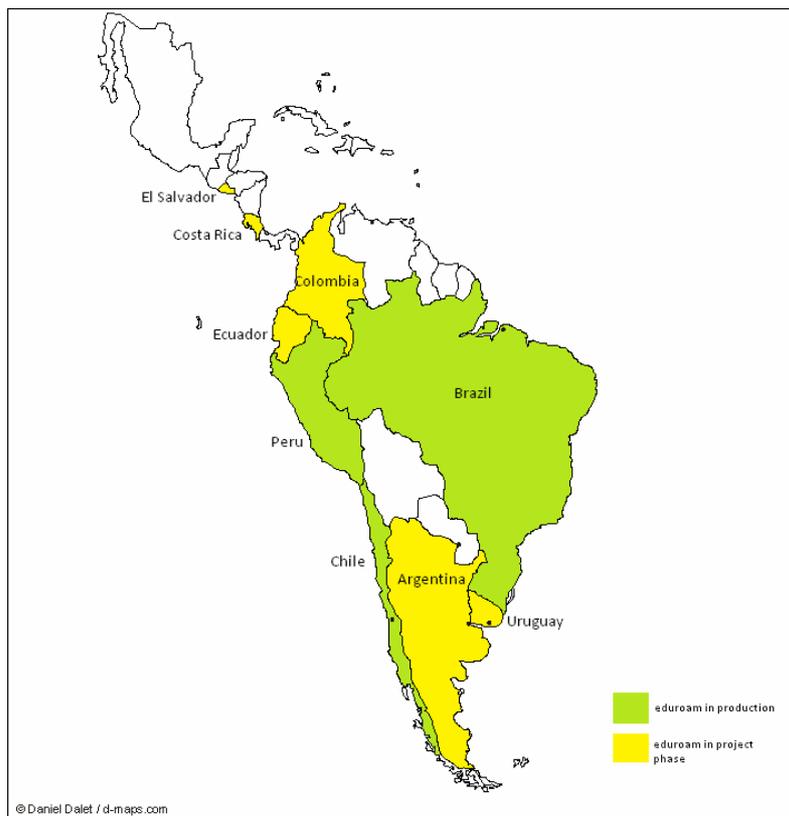
Here below some information about these three NRENs.

4.1   CHILE (REUNA - WWW.REUNA.CL)*

* Origin of Information: http://reuna.cl/index.php/es/ique-es-reuna/historia

With a mission to connect and raise collaboration among all universities, libraries and research centers in Chile and the dream of becoming, in the future, foreign institutions of similar vocation in 1986 emerges as REUNA university cooperative interconnection; in 1990 the National Commission for Scientific and Technological Research, CONICYT, given its support to the entity in 1991, is established as private corporation nonprofit. On January 2nd, 1992, by authorization of the National Science Foundation (NSF) United States and the contribution of CONICYT, Fundación Andes and the Organization of American States (OAS), Chile REUNA connects to the Internet through NSFNet network.

Since then and until 1997, REUNA is Chile's number one provider in Internet Service Provider (ISP), but to satisfy the needs of innovation and national and international connections of the academic community, before long the business of selling connectivity to the CTC Internet SA to create, in 1998, REUNA2, a broadband network connecting all member institutions of the Corporation, from Arica to Osorno.

The Corporation maintains its quality of precursor to reach the new millennium, when in July 2000, Chile established the first permanent connection to Latin American Academic Networks Advanced. REUNA2's link joins with the U.S. network Internet2. Four years later, REUNA Academic Network is the first of the continent to connect to RedCLARA, which belongs to the Latin American Cooperation of Advanced Networks, allows the academic community member of the Corporation, directly accessible to scientific institutions and university members Advanced Academic Network GÉANT pan.

In November 2006, implements and deploys G-REUNA network outperforms REUNA2 by increasing and improving the capabilities in the last mile connections to the national backbone, which enables the Corporation to better serve to member institutions.

G-REUNA infrastructure is not just art, is, above all, an environment designed to enhance human capabilities, fostering collaboration and experimentation in the sciences, humanities and arts, and a bridge between policy makers, managers, academics, researchers and students, throughout the country to address the diverse issues and problems of the university and scientist. Consistent with the mission imposed on him as

the only and exclusive national academic network, today REUNA focuses on promoting and supporting cooperation and integration of national and global higher education community, science and innovation in Chile, through its infrastructure network and advanced services that operate on it.

Information font: http://reuna.cl/index.php/es/ique-es-reuna/historia

4.2 PERU (RAAP - **WWW.RAAP.PE)***

* Origin of Information: http://www.raap.pe/site/historia.php

According to the recommendations resulting from the project CAESAR (Connecting All European and South American Researchers) in 2003 began the project ALICE (Latin America Interconnected with Europe), to develop the infrastructure of a research network that connects Latin America with the pan-European GEANT network, thus enhancing collaborative efforts between the two regions in the fields of education and research.

ALICE is framed in the @ LIS (Alliance for the Information Society) of the European Community seeks to promote the development of Information Society and fight the digital divide in Latin America, where intra-regional connectivity has not yet been developed . To complete this maze of names, mention that the project is managed by the organization DANTE (Delivery of Advanced Network Technology to Europe).

In 2002 during an event of the @ LIS, there is the proposed creation of CLARA (Latin American Cooperation on Advanced Networks), which seeks to build an infrastructure that advanced networks in parallel to form a Latin American and non-governmental organization representing the interests of this group.

Informed of this initiative was created in Peru, April 30, 2003, Peruvian Academic Network (RAAP) under the auspices of CONCYTEC, as a Civil Partnership nonprofit, becoming the National Network for Research and Education (NREN) of Peru signed in Mexico in June of that year, the statutes of CLARA, along with 16 other Latin American countries.

Formed initially by the Universidad Nacional Mayor de San Marcos National University of Engineering, Universidad Peruana Cayetano Heredia, Universidad Nacional Agraria La Molina, the Pontificia Universidad Catolica del Peru, the Peruvian Nuclear Energy Institute and the National Institute for Research and Training in Communication (INICTEL), the expected RAAP together all educational and research institutions in the country.

4.3   COLOMBIA (RENATA - HTTP://WWW.RENATA.EDU.CO/)*

Origin of Information: http://www.renata.edu.co/index.php/quienes-somos-identidad-y-objetivos-de-renata.html

RENATA is the result of the union of efforts of the national government and the country's academic and scientific community interested in using the new-generation networks in order to increase the quality of educational processes and to promote collaborative research and work among national and international peers.

RENATA is a civil, non-profit, private corporation responsible for the implementation and appropriation of this new generation data network, providing services and facilitating the connection of Colombian institutes to the research and academic network of centres in the world.

The main members of RENATA are Regional Academic Networks, which are the result of regional association of public or private academic entities. Around 90 research and academic institutions are connected to RENATA, through this regional advanced networks.

This initiative is supported at the national level by the MINISTRY OF COMMUNICATIONS, MINISTRY OF EDUCATION and the Colombian Institute for the Development of Sciences and Technology, COLCIENCIAS.

4.4   URUGUAY (RAU - WWW.RAU.EDU.UY)*

Origin of Information: http://www.rau.edu.uy/rau/historia.htm

The Uruguayan Academic Network (RAU) is a venture of the University of the Republic, administered by the Central Computer Services University (Seciu) operating since 1988.

It brings together the Faculties, Schools, Institutes and Services University of the Republic and numerous educational and research institutions of the country. (see Resources Information   RAU).

It serves all stakeholders of the country and academics Uruguayan society as a whole.

Attentive to the guidelines established in the regional and global reflection on the mission of the University Academic Networks, the UAR, seeks to be an area of integration, communication and discussion, to serve the goals of education, research and transformations society.

The RAU plays a very important tool for the dissemination, exchange and access to national information centers, regional and international, as well as in the implementation and defense of the policies and interests of the academic community on these issues.

Since the restoration of democracy, in March 1985, the University of the Republic regains its independence and joined national democratic changes, expressing willingness to tread a path of communication with academia and research.

In 1988 the Institute of Computer Science, University of the Republic (InCo) begins to form part of the UUCP network through the Computer Science Department of the Faculty of Natural Sciences (DCFCEN) at the University of Buenos Aires (UBA).

This is the first UUCP node in Uruguay although part of the UUCP network of Argentina (had a. Ar). This node was essentially used by teachers and researchers In.Co.

In 1990 the University of the Republic through the Central Computer Services University (Seciu) and a significant investment in equipment, promoting the creation of the Uruguayan Academic Network (RAU), focused on providing IT and communications services to all actors scholars of the country.

And since 1991, the UAR takes charge of providing the email service, joining the UUCP network through a node in the U.S. called UUNET. It also regulates another connection to the node "DCFCEN" (in Buenos Aires, Argentina) for traffic with Argentina. At this stage, communications lines were made by Argentina dialed calling regularly. In its principles establishing a frequency of 6 times a day and 2 respectively. International links were made by telephone at 19200 bps and switched alternately X.25 packet network. These connections were maintained until April 1994.

Also in 1990 another attempt was made international connection, as in the case of the Computer Centre of the Faculty of Engineering (cecal), which agreed to hold a connection to the network of the National Atomic Energy Commission Argentina (CNEA) to ARGCNEA2 node connected to the network through node BITNET UCHCECVM University of Santiago de Chile. The link was made by telephone to 2400 bps dialup. This node is the only node BITNET in Uruguay with a total of 60 users. In late 1991 this node leaves definitely working.

In 1991, the network already had more than 30 nodes. That year they begin to complete the formalities for obtaining international domain administration "UY" for Uruguay.

The RAU begins to participate actively in international forums Forum being founder of Education Networks in Latin America and the Caribbean.

In 1994, the network comprised over 100 nodes and 4 TCP / IP (national international offline). Through participation in international forums is successful from March 8 connection with the National Science Foundation, through which the UAR and Uruguay, are integrated to the Internet permanently. Inaugurating this time the Service DataExpress Antel, with a 64 Kbps digital channel with the U.S. through Sprint.

In October 1994 the University approved a project (with central funds) for the interconnection of all local colleges and university teachers and researchers (out of 30). This project allowed provide minimal infrastructure (or in any case improve existing) to give access to the services of the RAU. This involved the installation of physical lines, equipment modems, routers and computers at each end. With analog or digital connections, as was the level of development of networks in each case.

As of December 8, 1996 is engaged with a channel Antel TCP / IP for Internet connection of 256 Kbps, in order to expand the bandwidth of 64Kbps channel saturated which had until then. This is still working as a backup and collaborating on data entry to the RAU.

Currently governed since 1st July 1998, a Framework Agreement for cooperation between the University of the Republic and Antel, granted an extension in the Internet channel, a new channel UruguayNet and offer virtual classrooms using videoconferencing.

4.5   ARGENTINA (INNOVA|RED- WWW.INNOVA-RED.NET)*

* Origin of Information: http://www.innova-red.net/node/14

In 1990 an association of civil society, Science Today, embarked on the establishment and management of what he called "Red Teleinformática Académica" (RETINA). Shaped the project a group of scholars motivated by the lack of response to the demands providers at reasonable values, academia and the non-existence of a state plan on the matter.

The initial objective was to provide members of the academic community Argentina's ability to communicate among themselves and with their colleagues around the world using email.

The steps to seek to improve your connection with the world culminated when in January 1994, the National Telecommunications Commission (NTC) authorized to hire a satellite link itself.

Had the enthusiastic cooperation of the National Science Foundation (NSF) of the United States, which agreed that the link RETINA be held with the academic network of the NSF, and with financial support from the OAS.

The RETINA birth year, 1990, coincides with the privatization of Empresa Nacional de Telecomunicaciones (Entel). The result of this privatization led to a monopoly in two regions of the country (north and south), a second internal communications monopoly on long distance and international in another. In this context RETINA began making ICT dissemination of time (e-mail, telnet, ftp) assuming the costs of communications researchers using X.25 connections. This allowed the academic could communicate at much lower prices than commercial. In 1992 began the process to hire an international link with the relevant company (Telintar). The lack of response from the company forced to resort to the CNT to adjudicate the issue. The two years that delayed the solution generated a noticeable delay of Internet development in Argentina, by comparison with the development of neighboring Brazil and Chile.

The ARIU (University Interconnection Networks Association) emerged in 1994 as a project of the Ministry of Education funded the University Policies Secretariat and the World Bank, to give international interconnection and data output to all national universities.

From 2002 onwards RETINA led the advancement of next-generation Internet and its attendant technologies, IPv6, multicast and quality of service. Unfortunately, the December 16, 2006, the Civil Association science today informed the Ministry of Communications (SECOM) of the nation's inability to continue managing the advanced academic network as NREN (National Research and Education Network) of Argentina.

On 18 December 2006 the Ministry of Communications of the Nation (SECOM), the Ministry of Science, Technology and Innovation (SECYT), and the National Research Council (CONICET) signed an agreement by which entrusted Foundation for Innova-T (entity linked to CONICET), which carries out the necessary steps for the Internet connection II and take charge of the national operation thereof by the name "Innova | Red".

On April, 1st 2007 the Foundation Innova-T took the above activities promising a swift and efficient administration of Innova | Red, and to seek an increasing incorporation of new users that facilitate the network expansion and self-sustainability of the project medium term.

4.6 COSTA RICA (CONARE - WWW.CONARE.AC.CR)

* Origin of Information: http://www.conare.ac.cr/

The National Council of Rectors was created by "Convention Coordination State University Education in Costa Rica", signed by the institutions of the State University Higher Education December 4th, 1974 and amended by them on April 20th, 1982. It regulates aspects of coordination for the joint exercise of university autonomy in various areas.

The four state universities Costa Ricans were attached, through the National Council of Rectors (CONARE), the Latin American Cooperation of Advanced Networks (CLARA), impeller and body RedCLARA administrator, network infrastructure and telecom services.

4.7 EL SALVADOR (RAICES - WWW.RAICES.ORG.SV)

* Origin of Information: http://www.raices.org.sv/iquienes-somos/historia.html

The December 14th, 2005, just ten years after El Salvador was connected directly to the Internet, the connection was achieved Advanced Network World, known in some countries as Internet 2.

In El Salvador, this connectivity was achieved and maintained by a group of pioneering higher education institutions in technological development, combining efforts and resources, and working in coordination with the Association RedCLARA (Latin American Cooperation of Advanced Networks - www.redclara. net) and its network and with DANTE (Delivery of Advanced Network Technology for Europe - www.dante.net) in Europe, established this major milestone on the path toward developing Salvadoran science and technology.

After many years of dreaming and several Latin American power to long for some kind of network building and collaborative efforts in the continent, the European Commission providentially took the initiative to conduct a consultation process with most Latin American countries, and called for those who could be contacted in June 2002, for a meeting in Toledo, Spain.

Among these countries were El Salvador, along with eleven other Latin American nations, signed the Declaration of Toledo. Among other things, the Declaration states that "it is necessary the existence of national research and education" and "agreed cooperation in the development of national networks in countries where they do not exist, and creating a space for coordination integration and regional coordinated development ".

SEVENTH FRAMEWORK PROGRAMME
A project of the Seventh Framework Programme (FP7)

European Commission
This project is funded by the European Commission

RedCLARA
+ Red + Ciencia
A project implemented by RedCLARA

The European Commission intends from confirmed these Latin American countries, and with the active collaboration of its partners early in each signatory country, decided to launch the initiative in forming a backbone across the entire Latin American continent Connect to a number of eighteen Latin American countries, potential project partners, with each other and with academic networks in Europe, represented by the network GEANT network (www.geant.net) and technically supported by DANTE. Thus, the European Commission initiated the project ALICE (Latin America Interconnected with Europe) (alice.dante.net), which in general terms is under the @ LIS (Latin America Information Society).

The basic approach was that the European Commission would provide 80% of funds and Latin America should contribute the remaining 20% of an approved total of 12 million euros for a three-year project. The main objectives of this project were to achieve ALICE connect a minimum of 7 Latin American countries, especially those of lower income, through a trunk or backbone designed and built specifically for Latin America.

A year later, in Mexico, in June 2003, was formally the Latin American Cooperation of Advanced Networks (CLARA), with the signing of thirteen countries in the region, including El Salvador appears, represented by Jose Simeon Canas Central American University (UCA) (www.uca.edu.sv), on behalf of roots (www.raices.org.sv), which still did not have a legal personality.

To date, 14 Latin American countries managed to connect to the Red CLARA, exceeding initial targets. El Salvador was the eleventh country to connect, which occurred in December 2005, as mentioned above.

In parallel to what was happening at the international level, it was necessary to form a National Research and Education in El Salvador, known as NREN for its acronym in English. Like other countries in Latin America, El Salvador hitherto lacked a network of research and education. It was also a prerequisite that this network will feature the endorsement and support of the national higher education authorities. In the case of El Salvador, it was necessary then to conceive and construct a network of higher education institutions also received formal recognition from the Ministry of Education.

Backed by a series of letters of intent signed between December 2002 and September 2003 by the highest authorities of each of the nine colleges Salvadoran who were initially interested in participating, the Jose Simeon Canas Central American University (UCA)

developed all the tasks necessary to shape the organization and structure as the National Network for Research and Education.

Some of these tasks were the design of Acronym ROOTS, the commission logo design and the full wording of the statutes, as well as the hiring of the law firm and the staff follows procedures to formalize the organization.

The Roots recognition by the Ministry of Education came in January 2003, so that could be presented with all other documentation necessary to constitute CLARA and to sign memorandums of understanding and contracts ALICE project.

4.8   ECUADOR (CEDIA - WWW.CEDIA.ORG.EC)

* Origin of Information: http://www.cedia.org.ec/index.php?option=com_content&view=article&id=147&Itemid=78

In June, 10th 2003 establishing the Latin American Cooperation of Advanced Networks (CLARA), this member being Ecuador.

In 2004 he contracted Commercial Internet services jointly. On January 18th, 2006, is achieved CEDIA connect to RedCLARA, using a 10 Mbps connection to Santiago de Chile node via submarine cable.

In March 2007, 20 faculty members distributed in 8 provinces of Ecuador, with 17 institutions of higher education, one government agency, and two research and development institutions.

In 2008 created a node CLARA CLARA Network POP in Guayaquil. This caused the connection costs of Ecuador to the Red CLARA come down, and therefore is able to increase the bandwidth connection CLARA 16 Mbps to 22.5 Mbps

CEDIA from 2010 has a national backbone connection of 1Gbps last mile of equal capacity to each of the members. Also has 775 Mbps of Internet Business among its 26 members, and the international network connection CLARA rose in 2011 from 22.5 Mbps to 44 Mbps

Currently the commercial Internet connection is 18 STM-1.

5.- PROJECT TEAM

Work-package number	4			Start date or starting event:			Month 7
Work-package title	Promoting the deployment of eduroam services						
Activity type[1]	COORD						
Participant number	**1**	2	3	4	5	6	7
Participant short name	**RedCLARA**	DANTE	GARR	RNP	RENATA	TERENA	RedIRIS
Person-months per participant	8			21		2	2

6.- ROADMAP

Month	Partner	Participant	Action
M1 Jun/12	RedCLARA	All	Kick-off Meeting
M3 Aug/12	RAAP	All	D.4.1 - Demonstration of eduroam at TICAL 2012 Conference
M4 Sep/12	RedCLARA	All	MS1. Initial stage complete
M7 Dec/12	RNP	All	D4.2 - Roadmap for the delivery and deployment of National eduroam (RO) in Latin America, and development of how-to documents to support implementation.
M9 Feb/13	RNP	RNP, INICTEL	D4.3 - Online training course on eduroam
	RNP	RNP, INICTEL	MS4. eduroam Stage I Completion
M11 Apr/13	RNP	All	D4.4 - Training technical staff.
M12 May/13	RNP	REUNA	D4.5 - eduroam Pilot in 1 NREN
	RNP	All	MS10. eduroam Implementation
M15 Aug/13	RNP	All	D4.6- eduroam preparation
M16 Set/13	RNP	All	D4.7- eduroam Implementation
M20 Jan/14	RNP	All	MS14. eduroam promotion and further agreements
	RNP	All	D4.8- final progress report

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[1] Please indicate <u>one</u> activity per work-package: COORD = Coordination activities; MGT = Management of the consortium

7.- DELIVERABLES

D4.1 - Demonstration of eduroam at TICAL 2012 Conference

Month 2 – RNP

This deliverable will provide best practice recommendations for the deployment of eduroam in Latin America. It will be based on existing documentation developed in Europe in the TERENA Task Forces and in the eduroam Cookbook of the GEANT project.

D4.2 – Roadmap for the delivery and deployment of National eduroam (RO) in Latin America

Month 7 – RNP

This deliverable will provide a roadmap for the deployment of eduroam in the countries concerned; it will also include input to future strategies and decision-making in Latin American countries regarding collaboration with other world regions. This deliverable will provide best practice recommendations for the deployment of eduroam in Latin America. It will be based on existing documentation developed in Europe in the TERENA Task Forces and in the eduroam Cookbook of the GEANT project.

D4.3 - Material of Virtual course for technical staff training on line.

Month 9 – RNP

An online course will be developed to train NREN technical teams an allow them to replicate the action in their NRENs and with their customers. Technical training will be provided to at least 2 people from NREN's that will join the project. This course will be online using an online training infrastructure (E.g.: Moodle).

D4.4 - Pilot eduroam Infrastructure for training purposes

Month 11 – RNP

During the training an eduroam infrastructure with a small user database will be implemented, in pilot basis. This pilot will run in one participating NREN.

D4.5 - Report on eduroam preparation

Month 12 – RNP

Install and configure all infrastructure used by eduroam (LDAP server, RadSec Proxy, RADIUS server, Access points and etc.). Report of technical and administrative agreements obtained through two NRENs of Latin America signing the eduroam Compliance Statement available by Global eduroam Governance Committee (GeGC) to guarantee eduroam interoperability and interoperation

D4.6 - eduroam Implementation.

Month 15 – RNP

Deploy eduroam in two RedCLARA NRENs and implement eduroam interoperability and interoperation with Latin America Confederation.

D4.7 - Follow up actions and perspectives.

Month 20 – RNP

This deliverable will describe the achievements of the project aligned to the roadmap developed. The managerial aspects of the activities performed and the foreseen follow-up actions will be discussed with specific regard to the Consortium status and perspectives.

8.- RISKS AND MITIGATIONS

It will include an assessment of the work plan for the entire project with identified risks and the mitigations to be applied
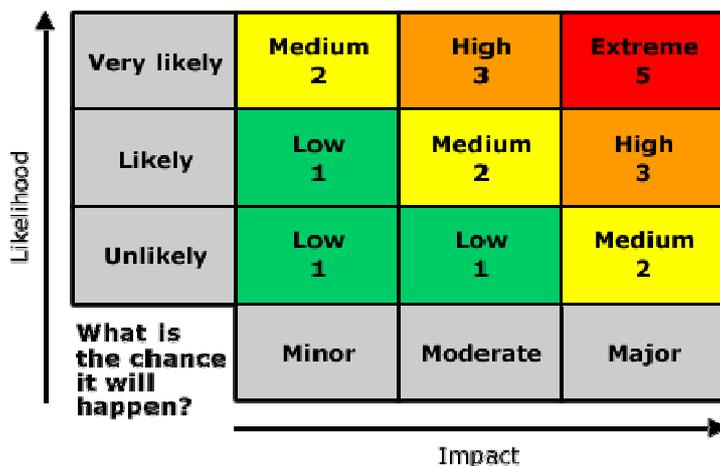
Risk Assessment	Risk level	Mitigation	Responsible
Withdraw of a pilot participant	1 - LOW	Large number of participants selected and involved.	RNP
Delay in NREN commitment in setting up eduroam infrastructure	2 - MEDIUM	Keep in touch with the responsible to check the work status	INICTEL
Reluctance in adopting eduroam global policy	2 - MEDIUM	Make a dissemination plan to explain the Global Policy.	RNP, INICTEL, REUNA
Force withdraw of a pilot participant due to policy violation or security incident	2 – MEDIUM	- Investigate (proactively) the incident origin and what are the corrections/impacts. - Create a guideline based on global policy.	LA Committee
New security incident appears on eduroam components	2 - MEDIUM	Create a security response workflow.	LA Committee
Delay with major deadlines	2 - MEDIUM	Strong follow-ups and monthly status meetings	RNP
Poor participation to eduroam course	1 - LOW	Strong dissemination action in RedCLARA and TERENA's website.	INICTEL
Single point of failure in the architecture	1 - LOW	Design and implement a no single point of failure architecture	INICTEL, RNP, RedCLARA

9.- BEST PRACTICES

During the project execution is expected a preparation of a document with best practices in eduroam implementation. This document will have a list of desirable requirements that should be follow to have an eduroam infrastructure working in a secure way. Besides infrastructure is expected also in this document, a list of documents to create a eduroam national federation.

10.- DEVELOPING COUNTRY CAPABILITY

10.9 TECHNICAL

A virtual course will be developed to build capacity within NREN technical teams in order to replicate the action in their NRENs and with their customers. The training courses will be based on a range of materials available from the community:

- http://www.terena.org/activities/training/eduroamadmin/
- http://confluence.terena.org/display/H2eduroam eduroam Wiki Material
- INICTEL eduroam Training
- RNP supplementary training on RadSec (RADIUS/TLS)

These materials have a range of resources including step-by-step guides, presentation slides, virtual machines and configuration guides. These resources will be combined to provide an up-to-date and unified training programme to ensure that deployments in Latin America follow the most update research within the Global eduroam community.

11.- POLICY

The development of a policy can often be an administrative stumbling block within the largely technical realm of eduroam deployment. To streamline this process a modular policy template will be borrowed from the eduGAIN Policy team of the GÉANT Project.

This policy template is based on the SWAMID (Swedish) identity federation policy. In October 2012 the first public release of this policy template was accompanied by training materials in which 13 European NRENs took part. Eleven of these NRENs will be using this policy template for their eduroam Policy which will pave the way for this to be used for their identity federation policy (important for WP2).

The presentation slides and policy template are available from the EuroCAMP training website (http://www.terena.org/activities/eurocamp/oct12/).

The template is designed to be modular and form a trust framework that can be used for additional technical profiles, of which eduroam is one such profile. This has been implemented in Sweden and Austria and four NRENs are actively writing federation policy based on this work.

A companion document (in Spanish) will be prepared by ELCIRA to accompany the policy template to explain the structure. To promote interoperability between SAML Identity Federations (from WP2) the participants of ELCIRA will be encouraged to keep the policy in English. If a Spanish policy is required it is hoped that the companion document will provide the necessary explanation.