



Grant agreement for: Coordination and support action

<b>Annex I - "Description of Work"</b>
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Project acronym: ELCIRA

Project full title: " Europe Latin America Collaborative e-Infrastructure for Research Activities "

Grant agreement no: 313180

Version date: 2012-04-24

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# A1: Project summary

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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One form per project

## General information

Project title <sup>3</sup>	Europe Latin America Collaborative e-Infrastructure for Research Activities		
Starting date <sup>4</sup>	01/06/2012		
Duration in months <sup>5</sup>	24		
Call (part) identifier <sup>6</sup>	FP7-INFRASTRUCTURES-2012-1		
Activity code(s) most relevant to your topic <sup>7</sup>	:		
Free keywords <sup>8</sup>	AAI, Federations, EduRoam, Addressing, Directory Services, Webconference, Videoconference, Collaboration, Clouds		

## Abstract <sup>9</sup>

The ELCIRA Project aims to coordinate a series of collaboration tools and services that are being developed in Europe and Latin America in order to provide an interoperability framework that facilitates the work of European-Latin American research teams and to foster collaboration in joint research projects. In particular, the Project seeks:

- (i) To promote the trustworthy exchange of information between research groups in Latin America and Europe by fostering the creation of federations for authentication, authorisation and identity (AAI) mechanisms.
- (ii) To strengthen the collaboration in developing and deploying cooperation services and tools capable of better integrating the research communities of Europe and Latin America by:
  - a. Working towards the integration and operation of videoconference services for Latin America and Europe, by defining documentation and processes for agreeing on a set of standards such as addressing scheme and directory systems necessary for future interoperable services.
  - b. Enhancing and strengthening the collaboration of Europe and Latin America in service development activities through the integration of the existing RedCLARA Portal services with TERENA's tools. The future services will be analysed and piloted as cloud services developed by, deployed by or made available within the two research and education communities.
- (iii) To establish the necessary co-ordination and agreements to move towards better integrated mobility services for researchers by establishing the necessary agreements to deploy a federated eduroam service for Latin America and to establish an eduroam Exchange Point for Latin American NRENs as well as supporting the necessary dissemination activities with the NRENs in order to foster its deployment by RedCLARA's partner NRENs.
- (iv) To actively promote the participation of Latin American researchers in European Commission Calls and other international funding agencies with high impact in the region.

# A2: List of Beneficiaries

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## List of Beneficiaries

No	Name	Short name	Country	Project entry month <sup>10</sup>	Project exit month
1	COOPERACION LATINOAMERICANA DE REDES AVANZADAS	CLARA	Uruguay	1	24
2	DELIVERY OF ADVANCED NETWORK TECHNOLOGY TO EUROPE LIMITED	DANTE	United Kingdom	1	24
3	CONSORTIUM GARR	GARR	Italy	1	24
4	REDE NACIONAL DE ENSINO E PESQUISA	RNP	Brazil	1	24
5	CORPORACION RED NACIONAL ACADEMICA DE TECNOLOGIA AVANZADA	RENATA	Colombia	1	24
6	TRANS-EUROPEAN RESEARCH AND EDUCATION NETWORKING ASSOCIATION	TERENA	Netherlands	1	24
7	ENTIDAD PUBLICA EMPRESARIAL RED.ES	RedIRIS	Spain	1	24

# A3: Budget Breakdown

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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One Form per Project

Participant number in this project <sup>11</sup>	Participant short name	Ind. costs <sup>13</sup>	Estimated eligible costs (whole duration of the project)				Requested EU contribution
			Coordination / Support (A)	Management (B)	Other (C)	Total A+B+C	
1	CLARA	F	568,200.00	64,920.00	40,000.00	673,120.00	544,706.00
2	DANTE	A	0.00	14,825.00	0.00	14,825.00	10,860.00
3	GARR	A	270,825.00	20,625.00	0.00	291,450.00	115,024.00
4	RNP	A	180,400.00	11,900.00	0.00	192,300.00	180,853.00
5	RENATA	A	54,800.00	14,700.00	0.00	69,500.00	65,846.00
6	TERENA	A	52,220.00	20,480.00	0.00	72,700.00	45,796.00
7	RedIRIS	T	29,520.00	17,280.00	0.00	46,800.00	36,915.00
<b>Total</b>			<b>1,155,965.00</b>	<b>164,730.00</b>	<b>40,000.00</b>	<b>1,360,695.00</b>	<b>1,000,000.00</b>

Note that the budget mentioned in this table is the total budget requested by the Beneficiary and associated Third Parties.

**\* The following funding schemes are distinguished**

Collaborative Project (if a distinction is made in the call please state which type of Collaborative project is referred to: (i) Small of medium-scale focused research project, (ii) Large-scale integrating project, (iii) Project targeted to special groups such as SMEs and other smaller actors), Network of Excellence, Coordination Action, Support Action.

**1. Project number**

The project number has been assigned by the Commission as the unique identifier for your project, and it cannot be changed. The project number **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

**2. Project acronym**

Use the project acronym as indicated in the submitted proposal. It cannot be changed, unless agreed during the negotiations. The same acronym **should appear on each page of the grant agreement preparation documents** to prevent errors during its handling.

**3. Project title**

Use the title (preferably no longer than 200 characters) as indicated in the submitted proposal. Minor corrections are possible if agreed during the preparation of the grant agreement.

**4. Starting date**

Unless a specific (fixed) starting date is duly justified and agreed upon during the preparation of the Grant Agreement, the project will start on the first day of the month following the entry into force of the Grant Agreement (NB : entry into force = signature by the Commission). Please note that if a fixed starting date is used, you will be required to provide a detailed justification on a separate note.

**5. Duration**

Insert the duration of the project in full months.

**6. Call (part) identifier**

The Call (part) identifier is the reference number given in the call or part of the call you were addressing, as indicated in the publication of the call in the Official Journal of the European Union. You have to use the identifier given by the Commission in the letter inviting to prepare the grant agreement.

**7. Activity code**

Select the activity code from the drop-down menu.

**8. Free keywords**

Use the free keywords from your original proposal; changes and additions are possible.

**9. Abstract**

**10. The month at which the participant joined the consortium, month 1 marking the start date of the project, and all other start dates being relative to this start date.**

**11. The number allocated by the Consortium to the participant for this project.**

**12. Include the funding % for RTD/Innovation – either 50% or 75%**

**13. Indirect cost model**

**A: Actual Costs**

**S: Actual Costs Simplified Method**

**T: Transitional Flat rate**

**F :Flat Rate**

# Workplan Tables

Project number

313180

Project title

ELCIRA—Europe Latin America Collaborative e-Infrastructure for Research Activities

Call (part) identifier

FP7-INFRASTRUCTURES-2012-1

Funding scheme

Coordination and support action





# WT1

## List of work packages

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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### LIST OF WORK PACKAGES (WP)

WP Number <sup>53</sup>	WP Title	Type of activity <sup>54</sup>	Lead beneficiary number <sup>55</sup>	Person-months <sup>56</sup>	Start month <sup>57</sup>	End month <sup>58</sup>
WP 1	Project Management and Administration	MGT	1	16.00	1	24
WP 2	Coordinated Actions for AAI between EU and LA	COORD	4	47.50	1	16
WP 3	Standards for an Interregional Videoconference Service	COORD	5	18.00	1	22
WP 4	Promoting the deployment of eduroam services	COORD	4	33.50	1	20
WP 5	Extending and Strengthening the Collaboration Platform	COORD	1	64.50	1	24
WP 6	Fostering the Collaboration between EU and LA Researchers	COORD	1	42.00	1	24
WP 7	Dissemination	COORD	1	17.50	1	24
Total				239.00		

# WT2: List of Deliverables

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## List of Deliverables - to be submitted for review to EC

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D1.1	Interim Progress Report (M1-M6)	1	1	3.50	R	PU	6
D1.2	Progress Report (First Reporting Period)	1	1	4.00	R	PU	12
D1.3	Interim Progress Report (M13-M18)	1	1	4.00	R	PU	18
D1.4	Progress report (Second Reporting Period)	1	1	4.00	R	PU	24
D1.5	Final Report	1	1	0.50	R	PU	24
D2.1	Roadmap for the delivery and deployment of National AAI in Latin America	2	4	7.00	R	PU	3
D2.2	On line Training Material on AAI development for Staff training	2	4	8.75	O	PU	7
D2.3	AAI Pilot	2	4	6.50	P	PU	10
D2.4	AAI Preparation (Assess the Identity Management of participating institutions)	2	4	8.75	R	PU	12
D2.5	AAI Implementation	2	4	14.50	P	PU	12
D2.6	Follow up Recommendations and Final Progress Report	2	4	2.00	R	PU	16
D3.1	HQVCS scope agreement between Latin America and Europe	3	5	3.75	R	PU	7
D3.2	Latin-American gatekeeper and	3	5	1.50	P	PU	12

# WT2: List of Deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
	dialling pilot service						
D3.3	Guidelines for exchange points and GDS architectures for an integrated HQVCS between LA and EU	3	5	4.00	R	PU	17
D3.4	Pilot Test System of a GDS and integrated VC service with 3 institutions among LA and EU	3	5	7.25	P	PU	18
D3.5	EduCONF and SIVIC's public resources directories accessible from RedCLARA and ideally EduCONF Portal	3	5	1.50	P	PU	22
D4.1	Demonstration of eduroam at TICAL 2012 Conference	4	7	1.00	R	PU	2
D4.2	Roadmap for the delivery and deployment of National eduroam (RO) in Latin America	4	4	5.00	R	PU	7
D4.3	Material of Virtual course for technical staff training on line.	4	4	7.50	O	PU	9
D4.4	Pilot eduroam Infrastructure for training purposes	4	4	6.50	P	PU	11
D4.5	Report on eduroam preparation	4	4	8.00	R	PU	12
D4.6	eduroam Implementation	4	4	3.50	P	PU	15

# WT2: List of Deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D4.7	Follow up actions and perspectives	4	4	2.00	R	PU	20
D5.1	User needs Report	5	1	2.00	R	PU	6
D5.2	Service model definition for a community service framework between Latin America and Europe.	5	1	3.50	R	PU	6
D5.3	Prototype of the federated portal system for access to research communities tools and cloud services	5	1	12.00	P	PU	12
D5.4	Federated portal system beta version	5	1	15.00	P	PU	14
D5.5	Report on beta version users' feedback	5	1	1.00	R	PU	18
D5.6	Pilot Portal on line (Final Version)	5	1	31.00	P	PU	24
D6.1	Database of Identified LA-EU Research Groups	6	1	8.00	O	PU	5
D6.2	Training videos and support service on line	6	1	6.00	O	PU	6
D6.3	Testimonies of best practices regarding Case Studies	6	1	0.50	O	PU	7
D6.4	A Large Scale VC BluePrint	6	1	6.00	R	PU	12
D6.5	Testimonies of best practices	6	1	0.50	R	PU	14

# WT2: List of Deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	WP number <sup>53</sup>	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
	regarding Case Studies						
D6.6	Report on Big Instruments and Remote Instrumentation	6	1	6.00	R	PU	18
D6.7	Training videos for new services of the EU-LA Portal	6	1	6.00	O	PU	18
D6.8	Report on Case Studies	6	1	9.00	R	PU	20
D7.1	Dissemination Plan	7	1	1.00	R	PU	1
D7.2	Project Website	7	1	7.00	O	PU	4
D7.3	Updated Dissemination Plan	7	1	1.00	R	PU	12
D7.4	Impact Metrics Measurement First Period	7	1	0.50	R	PU	12
D7.5	Flyers and merchandising to disseminate the project results and services	7	1	4.00	R	PU	18
D7.6	Impact Metrics Measurement Second Period	7	1	0.50	R	PU	20
D7.7	Dissemination Actions Report	7	1	3.50	R	PU	24
<b>Total</b>				<b>239.00</b>			

# WT3: Work package description

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## One form per Work Package

Work package number <sup>53</sup>	WP1	Type of activity <sup>54</sup>	MGT
Work package title	Project Management and Administration		
Start month	1		
End month	24		
Lead beneficiary number <sup>55</sup>	1		

## Objectives

- To efficiently manage the project consortium by carrying out adequate planning, implementation and monitoring of the project tasks and activities as well as the timely delivery of reports.
- To technically coordinate the project activities;
- To monitor the results and implement corrective measures, if needed.

## Description of work and role of partners

To coordinate the work of the Consortium, there will be a "Steering Committee" composed of one representative of each Partner and coordinated by the Project Leader. This committee will be responsible for making high level decisions and solving differences that may arise among the work packages, such as different points of view in the implementation calendar of standards or other topics.

The Steering Committee will meet every two months in order to make a follow up of activities, approve changes and supervise the overall execution of the project.

The project will start with a Kick-off Meeting that will include the management authorities of the project as well as the WP leaders and participants (one participant per institution in the WP). This will allow for more detailed planning by each WP and the detailed planning of activities in order to ensure that the schedule is completely assumed by each team member.

Each Work Package will be coordinated by the WP Leader who will also be responsible for the appropriate execution of the activities, quality control and the timely delivery of reports. Any change in planning that may imply delays to other packages will have to be approved by the Steering Committee. The WP teams will hold bi-weekly meetings and use RedCLARA's Portal to coordinate their activities and maintain documentation of the project.

The Project Leader's Office will be in charge of administrative procedures, the control of expenses and the appropriate documentation to be submitted to the European Commission.

T1.1 – Administrative management  
Leader: RedCLARA

T1.1 will take care of the administrative, financial and overall management of the consortium.

- Organise project meetings
- Coordinate the delivery of reports
- Prepare the appropriate documentation to submit financial reports and maintain all necessary accounting records
- Coordinate the Steering Committee
- Ensure that collaborative tools work appropriately so that work can be carried out effectively

T1.2 – Technical management Leader: RedCLARA

T1.2. Coordinate the technical work ensuring quality control and ensure that milestones are reached both in purpose and on time:

- The monitoring of work package activities

# WT3: Work package description

- The overall supervision of day-to-day work
- Ensuring the quality and completeness of the technical reports and standards agreements

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	CLARA	11.00
2	DANTE	0.50
3	GARR	1.00
4	RNP	1.00
5	RENATA	1.00
6	TERENA	0.50
7	RedIRIS	1.00
Total		16.00

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D1.1	Interim Progress Report (M1-M6)	1	3.50	R	PU	6
D1.2	Progress Report (First Reporting Period)	1	4.00	R	PU	12
D1.3	Interim Progress Report (M13-M18)	1	4.00	R	PU	18
D1.4	Progress report (Second Reporting Period)	1	4.00	R	PU	24
D1.5	Final Report	1	0.50	R	PU	24
Total			16.00			

## Description of deliverables

D1.1) Interim Progress Report (M1-M6): This deliverable will describe the achievements of the project in the first 6 months. It will also include an assessment of the work plan for the remaining 6 months with an update of the risks faced and mitigations applied. [month 6]

D1.2) Progress Report (First Reporting Period): This deliverable will describe the achievements of the project between months 1 and 12. It will also include an assessment of the work plan for the remaining 12 months with an update of the risks faced and mitigations applied. [month 12]

D1.3) Interim Progress Report (M13-M18): This deliverable will describe the achievements of the project in months 13 through 18. It will also include an assessment of the work plan for the remaining 6 months with an update of the risks faced and mitigations applied. [month 18]

D1.4) Progress report (Second Reporting Period): This deliverable will describe the achievements of the project in the between months 13 and 24. [month 24]

D1.5) Final Report: This deliverable will describe the achievements of the whole project. [month 24]

# WT3: Work package description

Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial stage complete	1	4	Kick Off Meeting; Researchers consulting Group Formed ; Website with URL <a href="http://www.elcira.eu">www.elcira.eu</a> ; Software development personnel selected



# WT3: Work package description

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## One form per Work Package

Work package number <sup>53</sup>	WP2	Type of activity <sup>54</sup>	COORD
Work package title	Coordinated Actions for AAI between EU and LA		
Start month	1		
End month	16		
Lead beneficiary number <sup>55</sup>	4		

## Objectives

- To promote, coordinate and support the effort of a critical Latin American authorisation and authentication infrastructure (AAI) for academic services and processes;
- To create pilot identity federations in two countries as a basis for further extension to the rest of the members of RedCLARA.
- To create virtual courses to enable technical teams of Latin American NRENs to provide local training in their own constituency.
- To define the technical and policy requirements to integrate a federated AAI in Latin American and Europe.
- To implement AAI 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 identity authorisation and authentication processes.

## Description of work and role of partners

Taking advantage of Brazilian experience in the implementation of the identity federation CAFe (The Federated Academic Community) - service in operation since the second half of 2010, that gathers research and education institutions in Brazil - RNP will coordinate WP2, with the aim of promoting and consolidating the foundations for creating a framework for authentication and authorisation in Latin America, including academic services and processes. The WP will be structured with the scope of RedCLARA, allowing other NRENs to establish their own regional federations initiatives.

This Work Package will also facilitate the integration with the European initiatives under TERENA activities such as TF-EMC2 and REFEDS, and will make the necessary arrangements to join the GÉANT service eduGAIN.

T2.1 – Replication of the experience of the CAFe (Comunidade Acadêmica Federada) in other Latin American NRENs which are members of RedCLARA, using at least two countries for pilot experiences.

Leader: RNP

This task will present RNP's experience with the implementation of CAFe, the difficulties, the challenges, and the structure of the service. A meeting of technical and administrative leaders of two RedCLARA NRENs is planned.

T2.2 – Creation of a virtual course to train NREN technical teams in order to replicate the action in their NRENs and with their customers.

Leader: RNP

A virtual course will be developed by this Task to capacitate NREN technical teams in order to replicate the action in their NRENs and with their customers.

T2.3 – Action and Policy Coordination with other regional AAI organisations and federations.

Leader: RNP

This task will identify and articulate the action and policy coordination with other regional AAI organisations and federations. This Task will include liaison with the REFEDS group supported by TERENA as well as with the eduGAIN service.

T2.4 – Deployment of showcase examples with two RedCLARA NRENs or their institutions.

Leader: RNP

# WT3: Work package description

This task will deploy a concept test with two RedCLARA NRENs or their institutions, demonstrating the functionalities of an authorisation and authentication infrastructure (AAI).

T2.5 –Implementation of AAI interoperability and interoperation with Latin American federations and its European counterparts.

Leader: RNP

This task will promote a meeting of technical and administrative leaders among academic networks of Europa and Latin America to review the conditions and needs to implement AAI interoperability and interoperation, to enable pilot testing with at least two RedCLARA NRENs. The Task will also produce a roadmap report for future strategies and decision-making regarding collaboration with other world regions regarding identity authorisation and authentication processes. As part of this work, TERENA will facilitate the participation of Latin American engineers in the work of TF-EMC2, the Task Force on European Middleware Coordination and Collaboration

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	CLARA	13.00
3	GARR	5.00
4	RNP	27.00
6	TERENA	0.50
7	RedIRIS	2.00
Total		47.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D2.1	Roadmap for the delivery and deployment of National AAI in Latin America	4	7.00	R	PU	3
D2.2	On line Training Material on AAI development for Staff training	4	8.75	O	PU	7
D2.3	AAI Pilot	4	6.50	P	PU	10
D2.4	AAI Preparation (Assess the Identity Management of participating institutions)	4	8.75	R	PU	12
D2.5	AAI Implementation	4	14.50	P	PU	12
D2.6	Follow up Recommendations and Final Progress Report	4	2.00	R	PU	16
Total			47.50			

## Description of deliverables

D2.1) Roadmap for the delivery and deployment of National AAI in Latin America: This deliverable will provide a roadmap for the deployment of AAI in the countries concerned; it will also include the funding/business models for national identity federations and their interoperation with the eduGAIN interfederation service. It will include an assessment of the work plan for the entire project with identified risks and the mitigations to be applied. This deliverable will provide best practice recommendations for the deployment of eduroam in Latin America. It will

# WT3: Work package description

be based on existing documentation developed in Europe in the TERENA Task Forces. This deliverable will combine and adapt to the specific Latin American environment a number of best practice documents and how-to material from AAI developments in Europe. A virtual course will be developed to capacitate NREN technical teams in order to replicate the action in their NRENs and with their customers. [month 3]

D2.2) On line Training Material on AAI development for Staff training: Development of Training Material to be used on technical staff training. The material will be development to be used on line only; there will be no printed material. [month 7]

D2.3) AAI Pilot: During the training, an AAI infrastructure it will be implemented, in pilot basis, with a small user database. This pilot will run in one participating NREN. [month 10]

D2.4) AAI Preparation (Assess the Identity Management of participating institutions): Document containing all necessary information required for AAI Implementation at the two NRENs participating in the project. This document wil contain user information, schema adjustments, etc. [month 12]

D2.5) AAI Implementation: Pilot AAI Systems in at least two NRENS interoperating with EduGAIN [month 12]

D2.6) Follow up Recommendations and Final Progress Report: 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. [month 16]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial stage complete	1	4	Kick Off Meeting; Researchers consulting Group Formed ; Website with URL <a href="http://www.elcira.eu">www.elcira.eu</a> ; Software development personnel selected
MS2	AAI Stage I Completion	4	5	Agreement on the collaboration relationship between the European eduGAIN end ELCIRA; Agreements with two NRENs to work on Federation Implementation ; Wiki of the 2 new CAFÉ members
MS9	AAI Pilot	4	10	AAI Pilot Operational
MS12	CAFÉ - EDUGain Interoperation	4	13	AAI infrastructure implemented in two NRENs and inter-operating with eduGAIN AAI.

# WT3: Work package description

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## One form per Work Package

Work package number <sup>53</sup>	WP3	Type of activity <sup>54</sup>	COORD
Work package title	Standards for an Interregional Videoconference Service		
Start month	1		
End month	22		
Lead beneficiary number <sup>55</sup>	5		

## Objectives

- Determine the scope of a future High Quality Video Conference Service (HQVCS) between Europe and Latin America.
- Define standards and strategies to build a federated Directory Service for HQVCS resources and users.
- Define the technical requirements of an HQVCS exchange point between Latin America and Europe.
- Implement a pilot test for the integration of a Latin American and European HQVCS service

## Description of work and role of partners

Videoconference services are one of the most demanded services on academic networks. The benefits of videoconference services include, but are not limited to: a) saving travel costs for academic institutions; b) increasing knowledge-sharing by allowing more frequent meetings; c) empowering scientific areas such as telemedicine; d) improving cultural work and research by sharing musical events and developments; e) increasing the efficiency of management teams and teleworking, among many others.

Videoconferences have different qualities and uses. For instance, webconference services or desktop videoconferences, where a PC and a webcam provide the necessary video and sound systems, are very convenient for short working meetings. Instead, for long meetings, executive meetings or special applications such as the use of this tool in medicine, astronomy, arts or any discipline where high quality video images is necessary, i.e. HD TV type of resolution, require specialized equipment using H.323 protocol and a room setup where the sound and the lighting are carefully crafted to produce an immersive environment. This type of videoconferences, including, but not limited to Virtual Presence, will be referred to as HQVCS.

High-quality videoconferences are possible due to recent developments on video coding and the high speed of academic networks. Special end user equipment and rooms are required to produce the immersion effect. Moreover, when more than two rooms are required to be part of the same videoconference, a specialized equipment (Multipoint Control Unit, or MCU) is also necessary. The use of these equipments require scheduling, the adequate knowledge of the locations where the researcher can find them (Directories), a use policy, an operations scheme, a help desk service, and a costing agreement, a clear definition of the protocols and services that can provided when using several types of equipment among others. This is specially true when several MCUs are necessary to provide the service to a large audience.

Latin America and Europe have been working on similar projects to achieve a regional service across borders independently. For instance, RedCLARA has developed the Integrated Videoconference Services (SIVIC) project. The SIVIC project included the collaborative development of policies, operational procedures, certification procedures and a reservation system (SAR) to provide videoconference services. In Latin America the SIVIC project was developed by RedCLARA with the NRENs RNP (Brazil), RENATA (Colombia), REUNA (Chile), REACCIUN (Venezuela) and CEDIA (Ecuador). In Europe, the eduCONF project aims to deploy an integrated videoconference service across GÉANT. EduCONF is developing certification programs and the knowledge-sharing required to implement videoconference services in Europe.

This WP will focus on establishing agreements and a pilot system between Latin America and Europe that will make it possible to establish an interoperable High Quality Federated Videoconference Service working on H.323 and telepresence platforms including interfaces for user access to the service. Along the project development, RedCLARA will implement a gatekeeper system and a dialing scheme that will enable the

# WT3: Work package description

integration with its European counterparts. The resources directory, certification processes, dialling and usage documentation will be prepared in both sides of the Atlantic. The above will permit to provide a global vision of the service to end users.

## T3.1 – Determine the scope of a future High Quality Video Conference Service (HQVCS)

Leader: RENATA

This task is aimed at defining, in agreement with the EduCONF Project, the type of services that will be defined as Global, these services may include: Multipoint Video Conferences with users in both sides of the Atlantic, directories of rooms and MCU resources, a common reservation system, a user support scheme, a use policy and others. The project team will also define the type of services and their characteristics: Certified High Definition Multi Point, Virtual Rooms, Large Events, Streaming, Recording, etc.

This set of definitions and a calendar to implement it that will surely go beyond the scope of the Pilot Service will define the Future Integrated HQVCS between Latin America and Europe.

## T3.2 – Define agreements on standards for federated Directory Services for the HQVCS

Leader: RedCLARA

The definition of how directory services could work between Latin America and Europe. This includes protocols as well as the level of information that it will provide, its maintenance, its structure and other technical and operational issues. The agreement shall set up the basis to enable the integration of HQVCS in each region.

## T3.3 – Technical evaluations of HQVCS exchange point architecture for future service integration between LA and Europe

Leader: RENATA

The work of this task will seek an agreement to define the architecture of an exchange point for the HQVCS integration between Latin America and Europe. This document will setup the technical definitions on how the system will be build, its different components as well as a development calendar and goals in the short, middle and long term.

## T3.4 – To develop a Pilot test as proof of concept

Leader: RedCLARA

To develop a Pilot Service including an agreed numbering plan, a directory of resources service and a HQVC interconnection point following the architecture defined for the short term in Task 3.3. The development will be done iteratively using prototyping to allow an early implementation permitting the users to access the service as early as the end of year 1 of the project. The results of the trials will provide the feedback to improve the development to end with an operational Pilot that will setup the need for the development of a complete implementation.

### Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	CLARA	11.00
4	RNP	1.00
5	RENATA	6.00
	Total	18.00

### List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D3.1	HQVCS scope agreement between Latin America and Europe	5	3.75	R	PU	7

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## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D3.2	Latin-American gatekeeper and dialling pilot service	5	1.50	P	PU	12
D3.3	Guidelines for exchange points and GDS architectures for an integrated HQVCS between LA and EU	5	4.00	R	PU	17
D3.4	Pilot Test System of a GDS and integrated VC service with 3 institutions among LA and EU	5	7.25	P	PU	18
D3.5	EduCONF and SIVIC's public resources directories accessible from RedCLARA and ideally EduCONF Portal	5	1.50	P	PU	22
Total			18.00			

## Description of deliverables

D3.1) HQVCS scope agreement between Latin America and Europe: Report on the agreements reached on the scope of the High Quality Videoconference Service that should be deployed, including but not limited to: Users, Certification, Directories, Scheduling, QoS, etc. This will define the type of service to be implemented in the future and the pilot to be deployed. [month 7]

D3.2) Latin-American gatekeeper and dialling pilot service: Gatekeeper and ENUM type dialling scheme enabled at 2 LA institutions ready for integration with EU [month 12]

D3.3) Guidelines for exchange points and GDS architectures for an integrated HQVCS between LA and EU: Document on the technical architecture of the exchange point, including the technologies to be used, the standards for Directories and Gatekeepers, etc, [month 17]

D3.4) Pilot Test System of a GDS and integrated VC service with 3 institutions among LA and EU: Pilot Videoconference Service to showcase the service that could be fully deployed, its quality and the benefits of a Federated HQVCS System. The pilot should allow users of the chosen institutions to carry on VCs across the Atlantic in an automated and hassle free mode. [month 18]

D3.5) EduCONF and SIVIC's public resources directories accessible from RedCLARA and ideally EduCONF Portal: Dialing methods, certification mechanisms defined and directories implemented [month 22]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial stage complete	1	4	Kick Off Meeting; Researchers consulting Group Formed ; Website with URL <a href="http://www.elcira.eu">www.elcira.eu</a> ; Software development personnel selected

# WT3: Work package description

Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS5	VC Service Definitions and Agreements	5	7	Collaboration Agreement with EduCONF; Gatekeeper and Unified Dialing System deployed at 2 NRENs ; SIVIC System Opened to 3 Research Communities ; HQVCS Service definitions
MS7	HQVCS Design, Prototype and implementation Network architecture elements in LA	5	12	Design document defining architecture, numbering plan, GDS, reservations and all elements for an integrated HQVCS in LA and EU; Protoype of Integrated Dialing system and Directory installed in LA for
MS13	HQVCS Pilot implementation	5	18	Service Operational allowing to perform trans-regional VCs ; 4 LA NRENs Suscribed to Service ; EduCONF inter-operates with the Pilot

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Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## One form per Work Package

Work package number <sup>53</sup>	WP4	Type of activity <sup>54</sup>	COORD
Work package title	Promoting the deployment of eduroam services		
Start month	1		
End month	20		
Lead beneficiary number <sup>55</sup>	4		

## 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.

## Description of work and role of partners

eduroam is a wireless access service developed for the international education and research community and allows students, researchers and teams of participating institutions to provide wireless Internet connectivity on their campuses and when they visit partner institutions. eduroam started in Europe and is now available in several institutions worldwide. The main goal of this work package is to deploy the basis of an eduroam pilot to RedCLARA Latin American institutions.

Also found in the scope of this Work Package is the integration with the European eduroam initiative, with the necessary arrangements for joining the service offered. This includes liaison with GÉANT which owns the European eduroam confederation service. TERENA will also facilitate participation of Latin America in the Global eduroam Governance Committee.

T4.1 – Replication of the experience of the eduroam.br task force in the rest of the Latin American NRENs, members of RedCLARA, using at least 2 countries as pilot experiences.

Leader: RNP

This task will present RNP's experience with the implementation of the eduroam.br project, the difficulties and the challenges. A meeting of technical and administrative leaders of two RedCLARA NRENs is planned.

T4.2 – Creation of a virtual course to train NREN technical teams in order to replicate the action in their NRENs and with their customers.

Leader: RNP

A virtual course will be developed in this Task to train NREN technical teams in order to replicate the action in their NRENs and with their customers.

T4.3 – Action and Policy Coordination with other regional eduroam organisations, e.g. RAAP (Peruvian NREN).

Leader: RNP

This task will identify and articulate the action and policy coordination with other regional eduroam initiatives.

T4.4 – Deployment of showcase examples with two RedCLARA NRENs or their institutions.

Leader: RNP



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This Task will deploy a concept test with two RedCLARA NRENs or their institutions, demonstrating the functionalities of eduroam.

T4.5 –Implementation of eduroam interoperability and interoperation with Latin American federations and their European counterparts.

Leader: RNP

This task will promote a series of meetings of technical and administrative leaders among European and Latin American research and education networks to review the conditions for and need to implement eduroam, to enable a pilot test with at least two RedCLARA NRENs. A report will also be produced with a roadmap for future strategies and decision-making regarding collaboration with other world regions regarding eduroam.

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	CLARA	8.00
4	RNP	23.00
6	TERENA	0.50
7	RedIRIS	2.00
Total		33.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D4.1	Demonstration of eduroam at TICAL 2012 Conference	7	1.00	R	PU	2
D4.2	Roadmap for the delivery and deployment of National eduroam (RO) in Latin America	4	5.00	R	PU	7
D4.3	Material of Virtual course for technical staff training on line.	4	7.50	O	PU	9
D4.4	Pilot eduroam Infrastructure for training purposes	4	6.50	P	PU	11
D4.5	Report on eduroam preparation	4	8.00	R	PU	12
D4.6	eduroam Implementation	4	3.50	P	PU	15
D4.7	Follow up actions and perspectives	4	2.00	R	PU	20
Total			33.50			

## Description of deliverables

D4.1) Demonstration of eduroam at TICAL 2012 Conference: 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. [month 2]

D4.2) 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.

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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. [month 7]

D4.3) Material of Virtual course for technical staff training on line.: An online course will be developed to train NREN technical teams and 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). [month 9]

D4.4) Pilot eduroam Infrastructure for training purposes: 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. [month 11]

D4.5) Report on eduroam preparation: 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. [month 12]

D4.6) eduroam Implementation: Deploy eduroam in two RedCLARA NRENs and implement eduroam interoperability and interoperation with Latin America Confederation. [month 15]

D4.7) Follow up actions and perspectives: 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. [month 20]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial stage complete	1	4	Kick Off Meeting; Researchers consulting Group Formed ; Website with URL <a href="http://www.elcira.eu">www.elcira.eu</a> ; Software development personnel selected
MS4	eduroam Stage I Completion	4	9	Selection of Two NRENs to deploy eduroam in their institution ; eduroam Course on line
MS10	eduroam Implementation	4	12	eduroam course on line; Technicians of two NRENs trained ; Federative documents signed ; eduroam implemented in two NRENs
MS14	eduroam promotion and further agreements	4	20	7 additional NRENs signed agreement to deploy eduroam with two years from ELCIRA's end eduroam deployed at TICAL 2013

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Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## One form per Work Package

Work package number <sup>53</sup>	WP5	Type of activity <sup>54</sup>	COORD
Work package title	Extending and Strengthening the Collaboration Platform		
Start month	1		
End month	24		
Lead beneficiary number <sup>55</sup>	1		

## Objectives

The main goal of this activity is the exchange of service definitions and the harmonization of protocols, tools and services in order to promote the smooth operation and deployment of collaborative research environments for communities in both continents.

In particular this activity will involve the design of a pilot, integrated common platform involving authentication, authorization, information management and federated access to resources, ensuring seamless provisioning of collaborative services across the EU and LA.

The goal of the pilot platform is the actual demonstration of the possibility for e-Infrastructure providers in both continents to develop collaborative services for their users, providing them with the possibility to make use of single sign on to access federated services, building on top of a core set of interoperable components.

Irrespective of the specific underlying infrastructure (based on hardware or IaaS provided cloud resources) in both EU and LA,

Interoperability for the deployed services will be achieved by the common adoption of interoperable standards for interfacing the underlying infrastructural resources.

For example, this might imply the provisioning of wiki, web-conferencing, or a basic cloud storage service, all accessed through interoperable federations of identities (inter-federation of resources), so that users in LA and EU will be faced to the same functionality and interfaces to access these tools (wiki, web conferencing, working storage, etc), possibly making use of the same set of credentials through single sign on in both continents. Therefore the adoption and enforcement of emerging standards in both continents will be key to the activities carried out within this work package.

In particular the work package goals are:

- To agree on a strategy to integrate collaboration services in EU and LA. To agree on a set of collaboration tools based on Open Source components to which European and LA research institutions will have access in a transparent way
- To share a set of tools and ensure a long term agreement on continuous development of such tools in both side of the Atlantic
- To agree on a common platform including all those tools where researchers from both continents will find what they need for an adequate collaboration activity
- To study the possibility of providing this type of services integrated in a Cloud Computing Strategy by means of a demonstrative pilot project which will demonstrate federated, seamless access to services implemented on both sides of the atlantic.
- To provide a Pilot Service for Researchers of Europe and Latin America allowing them to collaborate by means of a unique platform through single sign on to access collaborative services.

## Description of work and role of partners

Collaboration Services based on web platforms are becoming popular tools for collaboration everywhere and academic networks are not the exception. Services like wikis, blogs, web-conferencing, etc. are common for regional networks, NRENs and their customers. For the most part, regional networks like these (RedCLARA, GÉANT, etc.), share goals and application needs. Nevertheless, currently there are no efforts to integrate these services across the regions. This WP will be focussed on defining the basic policies and procedures for the interoperability of these web-based collaboration platforms between GÉANT and RedCLARA. The main idea is

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to set the ground for international cooperation for end-user services. Through service cooperation, RedCLARA and GÉANT will be able to improve their offering of services, the efficiency, and visibility by taking advantage of deployments carried out in the other regions.

RedCLARA has been empowering research communities in Latin America by providing open-source custom applications for their activities. The RedCLARA Portal service offers to its communities an integrated set of tools: Wiki, Blogs, Webconference (BBB), Conference Management (Indico), Document Repositories (DSpace), Streaming Video (Red5) and soon other publishing tools. All of this with a single sign-on. Equally, a Large-file-transfer system has been developed in the TERENA context that overcomes the difficulty of using e-mail and simplifies the security problems of opening FTP servers.

On the RedCLARA Portal, users are authenticated as being part of an institution connected to a RedCLARA NREN by requesting that they register using an institutional e-mail. This is not a very secure way of authenticating users. The first part of the work will focus on defining a robust authentication system possibly based on eduGAIN to implement an interoperable and/or joint service deployment.

The work will then focus on defining the tools that will be supported on a common collaboration platform. The choice includes but is not limited to: Webconference (BBB), Conference Management (Indico), Document Repositories (DSpace), Streaming Video (Red5), Calendar, Large File Transfer, basic ubiquitous-access storage resources (DropBox-like tools like Syncany), etc. The agreement shall include definitions of implementation agreements, such as creating a large cloud-type service or not, licensing and branding.

Given that the RedCLARA Portal already includes several of these tools, we propose to extend the Portal to include the new services and implement a Pilot Portal for the services of communities on both sides of the Atlantic. The implementation of the Pilot should allow for a unified access with single sign-on and a white branding that permits the creation of NREN-controlled portals with separate user databases. Nevertheless, the application should behave for the users as a single service allowing them to create cross-domain user communities that may use the services in a seamless way.

Future implementation should permit scalability of this type of portal by creating a Cloud Service where the users may be the NRENs or other large user groups, such as the FP7's Network of Excellence.

T.5.1 –Definitions of a communities services' space between Latin-America and Europe  
Leader: RedCLARA

Through this activity, RedCLARA and GÉANT will work on the definition of a set of tools and services that encourage the functioning and deployment of education research communities. For instance, the Web-conferencing tool allows communities to have meetings more frequently, improving their knowledge-sharing. By agreeing on these elements, RedCLARA and the GÉANT community would be able to design an interregional collaboration framework.

The definition of the communities services space will be carried out by performing the following activities:

- a) Creation of a Researchers Consulting Group (RCG) formed by leaders of 7 EU-LA Collaboration Projects funded by either FP6 or FP7. These leaders will contribute through periodic meetings (quarterly) where they will be able to contribute their knowledge of the scientific community of both continents as well as their experience in user needs. The choice will include projects from several disciplines, not only information technology groups.
- b) Interviews with leaders of e-infrastructures projects who have been strongly related to the development of applications (and usage policies) for science and research such as GISELA, EVALSO, AugerAccess, GLOBAL, CHAIN, OpenBio, etc,
- c) To perform a user needs survey to be applied to during the first semester of the project to the scientific and research communities identified by WP6.

T.5.2 Agreement for Information Technology infrastructure standards, tools and integration protocols for a Community Services Framework between Latin America and Europe  
Leader: GARR

The planned communities' services require a complete information technology design that includes elements like:

- a) How authentication and authorization shall work
- b) How to federate resources

- c) Base hardware and software infrastructure to support the services (cloud, grid, shared resources),
- d) Services location and functioning
- e) Provided functionality by the services
- f) Design guidelines for new service's implementations.

Both networks, RedCLARA and GEANT, already make use of information technology resources and have defined strategies.

The idea behind this task is to identify how infrastructure could be shared and/or used between the organizations in order to accomplish the common goal, taking into account emerging standards for the provisioning of community services and current related developments (i.e. availability of cloud platforms and supported hardware, user-friendly developments in the provisioning of cloud services, recommendations and trends on cloud platforms related to the possible integration with public IaaS providers and interoperability at the infrastructural level (eg. EGI Federated Clouds Task Force, Helix Nebula) ).

#### T.5.3. Service models definitions for communities services between Latin-America and Europe

Leader: RedCLARA

RedCLARA and GÉANT have similar organisational structures to serve their regions. Both organisations have different NRENs per country. In this task, the plan is to develop a service model scheme for this structure. When each service arrives, there are common questions such as: whether the service will be deployed by the NREN or by the regional network; who will provide support; how NREN visibility can be improved through this work. The service model shall answer these questions by defining the main guidelines for how a service shall be presented, promoted, supported and what the relation between the regional networks and their respective NRENs will be like.

#### T.5.4 – Implementing a Pilot EU-LA collaboration service

Leader: RedCLARA

The work on this task would be to develop a demonstrative Pilot to actually demonstrate the provisioning of a common service in both EU and LA through single sign on ( i.e. on demand storage, wiki, web conferencing, etc.) by means of resources spanning both continents. The main idea behind the pilot is to test service implementation with different databases, and authentication parties. The pilot will serve also to show a how a common production implementation would work.

Key elements for the demonstrative pilot are :

1. Federated access to a gateway portal to access relevant services which will be implemented by means of resources based in both the EU and LA,
2. The adoption of agreed, common workflows, platforms and protocols for instantiating services and resources in both EU and LA (along the guidelines drawn by Task T5.2)
3. An Integrated cloud environment to instantiate on demand resources ( which might include Storage Space, Computing Resources, Software-as-a-Service )

The pilot will summarize and demonstrate the activities carried out within WP5 to extend the EU-LA collaborative platform by implementing and actually demonstrating at least two among the following services, all possibly falling in the domain of infrastructural collaboration between EU and LA:

- a) Federated Cloud Storage provisioning service
- b) Federated Provisioning of Computing resources (IaaS)
- c) The provisioning of general purposes Scientific Gateways embedding relevant applications and tools for the user communities, with emphasis on the very large Virtual Research Communities spanning both EU and LA
- d) The provisioning of a Software-as-a-Service service, providing access to specific applications or tools in a Cloud based approach by means of a specific cloud platform
- e) Web Conferencing service
- f) Federated INDICO service for event agenda and management
- g) Federated Wiki provisioning for both EU and LA researchers
- h) Large File Transfer spanning EU and LA resources

In order to include effective service validation by end users in the overall development process, to improve the quality of the results, this work package will make use of the following strategy:

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- a) A prototype portal will be deployed and evaluated with a closed group of expert users. After implementing the users' feedback and corrections, the portal will begin a beta test phase.
- b) The work group will carry out a research for users and communities with projects in LA and EU that could use the services offered.
- c) Invite the above users to use the service in the beta environment. The ideal candidates will be a person that uses a similar service in local way or it is requiring it.
- d) To contact the above users and invite them to use the service in beta phase. In order to receive comments from these users, one of the following alternatives will be implemented:
- Each service will redirect to a small survey when the user is logging out. The above will allow to get a continuous feedback with most of the test users. Users' feedback reports will be done on months 18 and 22.
  - Send an online survey to the testing users

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	CLARA	42.00
3	GARR	22.00
6	TERENA	0.50
Total		64.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D5.1	User needs Report	1	2.00	R	PU	6
D5.2	Service model definition for a community service framework between Latin America and Europe.	1	3.50	R	PU	6
D5.3	Prototype of the federated portal system for access to research communities tools and cloud services	1	12.00	P	PU	12
D5.4	Federated portal system beta version	1	15.00	P	PU	14
D5.5	Report on beta version users' feedback	1	1.00	R	PU	18
D5.6	Pilot Portal on line (Final Version)	1	31.00	P	PU	24
Total			64.50			

## Description of deliverables

D5.1) User needs Report: User requirements identification as identified by the Researchers Consulting Group (RCG), the User Communities survey and the interview with FP6/FP7 Collaboration Projects. [month 6]

D5.2) Service model definition for a community service framework between Latin America and Europe.: In this report, RedCLARA and GÉANT will define a community service model between both regions. This model will help to deploy a clear method of work and relationship with NRENs to improve the overall work. [month 6]

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D5.3) Prototype of the federated portal system for access to research communities tools and cloud services: The prototype is a functional demonstrative version of the system for close users' group validation. The prototype allows getting feedback and ideas for the design. [month 12]

D5.4) Federated portal system beta version: The beta version of the system is the first version of the system that the end users will see. This version will provide the services and request a wider group of users' feedback for improvements and bug fixing. [month 14]

D5.5) Report on beta version users' feedback: The end users' qualification of the system will be reported. The deliverable shall reflect users' perception of the quality and usefulness of the system. [month 18]

D5.6) Pilot Portal on line (Final Version): Final version of the Pilot portal system for the communities use. This pilot will include user feedback on beta version collected in Month 18. [month 24]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial stage complete	1	4	Kick Off Meeting; Researchers consulting Group Formed ; Website with URL <a href="http://www.elcira.eu">www.elcira.eu</a> ; Software development personnel selected
MS3	Portal Services Phase I	1	6	RedCLARA Portal Opened for 3 Research Communities ;Service definition of the "Communities space between LA and EU"
MS11	Portal Services Pilots	1	12	Service model architecture document ; Prototype of Service Portal
MS16	Portal Services appropriation by user groups	1	22	User communities feedback on beta portal service.; Refined version of the Portal Prototype ; Online portal for the final version of the Pilot services (Community services portal online)

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## One form per Work Package

Work package number <sup>53</sup>	WP6	Type of activity <sup>54</sup>	COORD
Work package title	Fostering the Collaboration between EU and LA Researchers		
Start month	1		
End month	24		
Lead beneficiary number <sup>55</sup>	1		

## Objectives

- To identify, create and/or empower joint LA-EU research groups /communities that work or could work together on projects of benefit for both regions
- To promote the use of electronic collaboration tools to facilitate and enhance the joint work of EU-LA Research Groups/Communities
- To foster capacity-building in organising and managing virtual research communities within the Latin American region and with their EU counterparts.
- To promote all European and other international funding agency calls through the active dissemination of information and videoconference contacts with the Latin American academic community, fostering in this way the use of HQVCS between LA and EU

## Description of work and role of partners

This WP is aimed at improving collaboration between Latin American and European researchers through the use of access to information, dissemination of funding opportunities, training and supporting the use of electronic collaboration tools and other activities. The idea is to become a driving force to identify, empower and promote cooperation and the reciprocal interchange of ideas and the submission of joint research proposals by research groups in both regions.

T6.1 – To foster the development of joint research communities between LA and EU

Leader: RedCLARA

In this task we will build upon the LA Research Communities identified during the ALICE2 Project, identify their possible EU counterparts and foster the establishment of research collaborations. A database will be build with the identified user communities which will also include, but will not be limited to the ALFA Projects, the FP7 Projects and the CYTED Research Groups. VC Meetings will be promoted to create trust among the user groups. This will also serve as an excellent promotion mechanism for the service being developed by WPs 3 and 5.

T6.2 – To disseminate funding opportunities for joint LA-EU collaboration through the extensive use of the electronic tools provided by WPs 3 and 5.

Leader: RedCLARA

This task will organise and advertise, on a six month base, regional videoconferences (EU-LA), for each funding programme, e.g. FP7, ALFA and CYTED. These activities will enhance direct contacts between the EU Project Officers and EU National Contact Points (NCP) of each EU country on the one hand and Latin American researchers and personnel of the national Science and Technology funding agencies (ONCyTs) on the other.

T6.3 – To elaborate a BluePrint to implement Large Scale inter-continental Videoconferences.

Leader: RedCLARA

The successful experience of organising and implementing 2010 and 2011 InfoDays between Europe and Latin America has to be systematised and disseminated as a BluePrint Document. This step-by-step guide will provide a protocol to efficiently organise and implement Large Scale Videoconferences for a large region with a wide distribution of research groups. The idea is to reuse the protocol to reproduce the experience in other world regions and for other events, such as the ones that will be carried on to disseminate the Horizon 2020 Program.

T6.4 – To foster the use of electronic collaboration tools for research communities collaboration activities



# WT3: Work package description

Leader: RedCLARA

This task will devise and implement a plan to closely follow-up on activities of the RedCLARA registered communities and EU-LA identified communities, in order promote the appropriation by these groups of the collaboration environments and tools that will be made available by WPs 3 and 5. The initial step will be that they use current RedCLARA Portal and adopt the Pilot Portal as it becomes available. This will be done by:

- Implementing a series of video tutorials for environments and tools available at the RedCLARA Portal.
- Implementing an online first level user support for the environments and tools
- Developing three videoconference workshops to discuss the specificities for environments and tools for advanced users

T6.5 –To foster best practices to organise, develop and promote cooperation among RedCLARA-registered Virtual Research Communities

Leader: RedCLARA

Firstly this task will continue to promote the successful RedCLARA Case Studies Contest, now associating it with an annual prize for the best community. This is an open competition for all communities in Latin America that rewards a VRC that uses the RedCLARA network effectively for its research processes and developments. In addition to the award, RedCLARA will advertise and share their successful practices with other regional communities highlighting how RedCLARA is helping them to enhance their research capabilities and, by extension, the development of science, academy, technology and innovation in the Latin American region. The idea will be to award the three best experiences with communities having Latin American and European Union partners. Secondly, we will also disseminate the catalogue of best practice on a quarterly base Research Virtual Days: a videoconference meeting where RedCLARA communities will present their achievements and plans to consolidate and promote the communities. Finally reinforcing and advertising the “looking for partners” facility available on the RedCLARA Portal.

T6.6 – To identify real and potential facilities (Instruments, Database, Computational Resources) that produce or/and will produce significant amounts of data

Leader: RedCLARA

The idea will be to use these facilities and the groups/centres/institutes that operate them in order to build case studies to disseminate these experiences that can help new uses and users of these datasets and/or build communities around these instruments that can be remotely operated (partially or fully) via the e-infrastructure deployed by the successful EU-LA implementation of the RedCLARA network and its associated tools and services.

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	CLARA	34.00
5	RENATA	8.00
Total		42.00

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D6.1	Database of Identified LA-EU Research Groups	1	8.00	O	PU	5
D6.2	Training videos and support service on line	1	6.00	O	PU	6
D6.3	Testimonies of best practices regarding Case Studies	1	0.50	O	PU	7

# WT3: Work package description

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D6.4	A Large Scale VC BluePrint	1	6.00	R	PU	12
D6.5	Testimonies of best practices regarding Case Studies	1	0.50	R	PU	14
D6.6	Report on Big Instruments and Remote Instrumentation	1	6.00	R	PU	18
D6.7	Training videos for new services of the EU-LA Portal	1	6.00	O	PU	18
D6.8	Report on Case Studies	1	9.00	R	PU	20
Total			42.00			

## Description of deliverables

D6.1) Database of Identified LA-EU Research Groups: Database of research groups identified. The database shall contain description of the activity, the projects where the group is involved and a contact mechanism [month 5]

D6.2) Training videos and support service on line: Set of four short videos demonstrating the proper use of RedCLARA's Services Portal on line. An on line help desk (through chat and e-mail) available on line. [month 6]

D6.3) Testimonies of best practices regarding Case Studies: The recordings of two virtual days with selected groups of virtual research communities available at the project website. [month 7]

D6.4) A Large Scale VC BluePrint: A step-by-step guide with a protocol to efficiently organise and implement Large Scale Videoconferences for a large region with a wide distribution of research groups which will other regional organisations to reproduce the experience in other world regions. [month 12]

D6.5) Testimonies of best practices regarding Case Studies: The recordings of four virtual days with selected groups of virtual research communities available at the project website. . [month 14]

D6.6) Report on Big Instruments and Remote Instrumentation: This report will list the most significant facilities (instruments, databases, and computing resources) in Latin America that generate large amounts of data and could promote communities and cooperation between Europe and Latin America. [month 18]

D6.7) Training videos for new services of the EU-LA Portal: Set of short videos demonstrating the proper use of the services contained ion the Pilot Portal on line. [month 18]

D6.8) Report on Case Studies: Generating and advertising case studies of the practices of the most successful communities is a useful method for disseminating the best practices in managing and organising them. This deliverable will describe these success stories. [month 20]

## Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial stage complete	1	4	Kick Off Meeting; Researchers consulting Group Formed ; Website with URL <a href="http://www.elcira.eu">www.elcira.eu</a>

# WT3: Work package description

Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
				; Software development personnel selected
MS6	Research Groups Identification	1	8	Database with Research Groups updated with current FP7 EU-LA Projects communities ; Selection of volunteer test communities ; User Communities Support on line
MS8	Large Scale VideoConference Service between Europe Latin América	1	12	Protocol for large VC tested by two regional VCs: two research virtual days ; Protocol to organize large videoconferences across the Atlantic documented ; Agenda of Large Scale Events
MS15	Resources of the Continent	1	19	On Line database on Big Instruments and Scientific Facilities in the LA Continent and EU facilities of interest to LA ; Best practices and agreements to support Big Instruments

# WT3: Work package description

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## One form per Work Package

Work package number <sup>53</sup>	WP7	Type of activity <sup>54</sup>	COORD
Work package title	Dissemination		
Start month	1		
End month	24		
Lead beneficiary number <sup>55</sup>	1		

## Objectives

- To enhance the use of RedCLARA services among project members to facilitate the access and consultation of generated material (meeting agendas, reports, deliverables).
- To coordinate and promote the training process on the use of the services agreed by ELCIRA.
- To develop informative material for the participation in specific events related to advanced networks.
- To efficiently promote and disseminate the project to the scientific, academic and industrial communities as well as among decision-makers.

## Description of work and role of partners

### Description of work

This WP will carry out all the activities that will generate relevant informative products for the project members in order to support the work of the participants. Additionally, this WP will develop a visibility work among academic and research communities in Latin America of the most relevant milestones achieved during the project and during the development of the pilot service.

#### T7.1 – Coordination and management

Leader: RedCLARA

This task will deal with the overall coordination of WP7 as well as the measurement of the advances of the metrics proposed in B.1.1.

#### T7.2 – Website and materials

Leader: RedCLARA

Creation and management of an informative website that contains information related to the development of the project for the participants and with achievements and progress for the general public.

Production of online and physical dissemination material tailored to different audiences/users and project needs;

#### T7.3 – Support to Training Activities

Leader: RedCLARA

This task will deal with the organization and support of induction tutorials directed to the technicians to implement the agreed services.

#### T7.4 – Update, Inform, Disseminate

Leader: RedCLARA

This task is permanent during the whole project. It consists on permanently providing information and update that information on the website, the dissemination tools and the materials. It also requires to participate in conferences and other events to disseminate the services and results of the project. For example: participation in specific international events in order to promote the advances and success of the project. Key events will be the TERENA Networking Conference (TNC2012 and 2013) and regional CLARA conferences (TICAL2012 and 2013), eChallenges 2012, ICT 2012, RNP Workshop 2013 and CUDI meeting in October 2013.

# WT3: Work package description

## Person-Months per Participant

Participant number <sup>10</sup>	Participant short name <sup>11</sup>	Person-months per participant
1	CLARA	12.00
4	RNP	3.00
5	RENATA	2.00
6	TERENA	0.50
Total		17.50

## List of deliverables

Deliverable Number <sup>61</sup>	Deliverable Title	Lead beneficiary number	Estimated indicative person-months	Nature <sup>62</sup>	Dissemination level <sup>63</sup>	Delivery date <sup>64</sup>
D7.1	Dissemination Plan	1	1.00	R	PU	1
D7.2	Project Website	1	7.00	O	PU	4
D7.3	Updated Dissemination Plan	1	1.00	R	PU	12
D7.4	Impact Metrics Measurement First Period	1	0.50	R	PU	12
D7.5	Flyers and merchandising to disseminate the project results and services	1	4.00	R	PU	18
D7.6	Impact Metrics Measurement Second Period	1	0.50	R	PU	20
D7.7	Dissemination Actions Report	1	3.50	R	PU	24
Total			17.50			

## Description of deliverables

D7.1) Dissemination Plan: This deliverable will set the plan for the dissemination and training promotion activities of all WPs. [month 1]

D7.2) Project Website: Website with the project information designed for visibility and dissemination [month 4]

D7.3) Updated Dissemination Plan: The dissemination plan will be updated taking into consideration the changes courred during the first year of the project in order to adapt to those changes. [month 12]

D7.4) Impact Metrics Measurement First Period: RedCLARA will measure and report the impact metrics advancement proposed in B.1.1. This will be done twice during the project. This deliverable will report on the advancements reached up to month 11. [month 12]

D7.5) Flyers and merchandising to disseminate the project results and services: The results emerging from ELCIRA achievements will be disseminated through the distribution of flyers and other means of publication. [month 18]

D7.6) Impact Metrics Measurement Second Period: RedCLARA will measure and report the impact metrics advancement proposed in B.1.1. This will be done twice during the project. This deliverable will report on the advancements reached up to month 19. [month 20]

D7.7) Dissemination Actions Report: This report will detail all dissemination actions, including news, participation in conferences and other activities [month 24]

# WT3: Work package description

Schedule of relevant Milestones

Milestone number <sup>59</sup>	Milestone name	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial stage complete	1	4	Kick Off Meeting; Researchers consulting Group Formed ; Website with URL <a href="http://www.elcira.eu">www.elcira.eu</a> ; Software development personnel selected

# WT4: List of Milestones

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## List and Schedule of Milestones

Milestone number <sup>59</sup>	Milestone name	WP number <sup>53</sup>	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
MS1	Initial stage complete	WP1, WP2, WP3, WP4, WP5, WP6, WP7	1	4	Kick Off Meeting; Researchers consulting Group Formed ; Website with URL www.elcira.eu ; Software development personnel selected
MS2	AAI Stage I Completion	WP2	4	5	Agreement on the collaboration relationship between the European eduGAIN end ELCIRA; Agreements with two NRENs to work on Federation Implementation ; Wiki of the 2 new CAFÉ members
MS3	Portal Services Phase I	WP5	1	6	RedCLARA Portal Opened for 3 Research Communities ;Service definition of the "Communities space between LA and EU"
MS4	eduroam Stage I Completion	WP4	4	9	Selection of Two NRENs to deploy eduroam in their institution ; eduroam Course on line
MS5	VC Service Definitions and Agreements	WP3	5	7	Collaboration Agreement with EduCONF; Gatekeeper and Unified Dialing System deployed at 2 NRENs ; SIVIC System Opened to 3 Research Communities ; HQVCS Service definitions
MS6	Research Groups Identification	WP6	1	8	Database with Research Groups updated with current FP7 EU-LA Projects communities ; Selection of volunteer test communities ; User Communities Support on line
MS7	HQVCS Design, Prototype and implementation Network architecture elements in LA	WP3	5	12	Design document defining architecture, numbering plan, GDS, reservations and all elements for an integrated HQVCS in LA and EU; Protoype of Integrated Dialing system

# WT4: List of Milestones

Milestone number <sup>59</sup>	Milestone name	WP number <sup>53</sup>	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
					and Directory installed in LA for
MS8	Large Scale VideoConference Service between Europe Latin América	WP6	1	12	Protocol for large VC tested by two regional VCs: two research virtual days ; Protocol to organize large videoconferences across the Atlantic documented ; Agenda of Large Scale Events
MS9	AAI Pilot	WP2	4	10	AAI Pilot Operational
MS10	eduroam Implementation	WP4	4	12	eduroam course on line; Technicians of two NRENs trained ; Federative documents signed ; eduroam implemented in two NRENs
MS11	Portal Services Pilots	WP5	1	12	Service model architecture document ; Prototype of Service Portal
MS12	CAFÉ - EDUGain Interoperation	WP2	4	13	AAI infrastructure implemented in two NRENs and inter-operating with eduGAIN AAI.
MS13	HQVCS Pilot implementation	WP3	5	18	Service Operational allowing to perform trans-regional VCs ; 4 LA NRENs Suscribed to Service ; EduCONF inter-operates with the Pilot
MS14	eduroam promotion and further agreements	WP4	4	20	7 additional NRENs signed agreement to deploy eduroam with two years from ELCIRA's end eduroam deployed at TICAL 2013
MS15	Resources of the Continent	WP6	1	19	On Line database on Big Instruments and Scientific Facilities in the LA Continent and EU facilities of interest to LA ; Best practices and agreements to support Big Instruments
MS16	Portal Services appropriation by user groups	WP5	1	22	User communities feedback on beta portal service.; Refined version of the Portal Prototype



# WT4: List of Milestones

Milestone number <sup>59</sup>	Milestone name	WP number <sup>53</sup>	Lead beneficiary number	Delivery date from Annex I <sup>60</sup>	Comments
					; Online portal for the final version of the Pilot services (Community services portal online)

# WT5: Tentative schedule of Project Reviews

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## Tentative schedule of Project Reviews

Review number <sup>65</sup>	Tentative timing	Planned venue of review	Comments, if any
RV 1	12	Rio de Janeiro	Rio de Janeiro is a convenient place for traveling from Europe and LA
RV 2	24	Brussels	Since it is the end of the project we think it is better to hold it in Brussels

## Project Effort by Beneficiary and Work Package

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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### Indicative efforts (man-months) per Beneficiary per Work Package

Beneficiary number and short-name	WP 1	WP 2	WP 3	WP 4	WP 5	WP 6	WP 7	Total per Beneficiary
1 - CLARA	11.00	13.00	11.00	8.00	42.00	34.00	12.00	131.00
2 - DANTE	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.50
3 - GARR	1.00	5.00	0.00	0.00	22.00	0.00	0.00	28.00
4 - RNP	1.00	27.00	1.00	23.00	0.00	0.00	3.00	55.00
5 - RENATA	1.00	0.00	6.00	0.00	0.00	8.00	2.00	17.00
6 - TERENA	0.50	0.50	0.00	0.50	0.50	0.00	0.50	2.50
7 - RedIRIS	1.00	2.00	0.00	2.00	0.00	0.00	0.00	5.00
<b>Total</b>	<b>16.00</b>	<b>47.50</b>	<b>18.00</b>	<b>33.50</b>	<b>64.50</b>	<b>42.00</b>	<b>17.50</b>	<b>239.00</b>

## Project Effort by Activity type per Beneficiary

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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### Indicative efforts per Activity Type per Beneficiary

Activity type	Part. 1 CLARA	Part. 2 DANTE	Part. 3 GARR	Part. 4 RNP	Part. 5 RENATA	Part. 6 TERENA	Part. 7 RedIRIS	Total
<b>3. Consortium Management activities</b>								
WP 1	11.00	0.50	1.00	1.00	1.00	0.50	1.00	16.00
<b>Total Management</b>	<b>11.00</b>	<b>0.50</b>	<b>1.00</b>	<b>1.00</b>	<b>1.00</b>	<b>0.50</b>	<b>1.00</b>	<b>16.00</b>
<b>Work Packages for Coordination activities</b>								
WP 2	13.00	0.00	5.00	27.00	0.00	0.50	2.00	47.50
WP 3	11.00	0.00	0.00	1.00	6.00	0.00	0.00	18.00
WP 4	8.00	0.00	0.00	23.00	0.00	0.50	2.00	33.50
WP 5	42.00	0.00	22.00	0.00	0.00	0.50	0.00	64.50
WP 6	34.00	0.00	0.00	0.00	8.00	0.00	0.00	42.00
WP 7	12.00	0.00	0.00	3.00	2.00	0.50	0.00	17.50
<b>Total Coordination</b>	<b>120.00</b>	<b>0.00</b>	<b>27.00</b>	<b>54.00</b>	<b>16.00</b>	<b>2.00</b>	<b>4.00</b>	<b>223.00</b>
<b>4. Other activities</b>								
<b>Total other</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total</b>	<b>131.00</b>	<b>0.50</b>	<b>28.00</b>	<b>55.00</b>	<b>17.00</b>	<b>2.50</b>	<b>5.00</b>	<b>239.00</b>

# WT8: Project Effort and costs

Project Number <sup>1</sup>	313180	Project Acronym <sup>2</sup>	ELCIRA
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## Project efforts and costs

Beneficiary number	Beneficiary short name	Estimated eligible costs (whole duration of the project)						Requested EU contribution (€)
		Effort (PM)	Personnel costs (€)	Subcontracting (€)	Other Direct costs (€)	Indirect costs OR lump sum, flat-rate or scale-of-unit (€)	Total costs	
1	CLARA	131.00	458,500.00	40,000.00	69,100.00	105,520.00	673,120.00	544,706.00
2	DANTE	0.50	2,750.00	0.00	7,400.00	4,675.00	14,825.00	10,860.00
3	GARR	28.00	182,000.00	0.00	16,500.00	92,950.00	291,450.00	115,024.00
4	RNP	55.00	137,500.00	0.00	31,800.00	23,000.00	192,300.00	180,853.00
5	RENATA	17.00	42,500.00	0.00	19,500.00	7,500.00	69,500.00	65,846.00
6	TERENA	2.50	23,000.00	0.00	19,800.00	29,900.00	72,700.00	45,796.00
7	RedIRIS	5.00	22,500.00	0.00	16,500.00	7,800.00	46,800.00	36,915.00
Total		239.00	868,750.00	40,000.00	180,600.00	271,345.00	1,360,695.00	1,000,000.00

### **1. Project number**

The project number has been assigned by the Commission as the unique identifier for your project. It cannot be changed. The project number **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

### **2. Project acronym**

Use the project acronym as given in the submitted proposal. It cannot be changed unless agreed so during the negotiations. The same acronym **should appear on each page of the grant agreement preparation documents (part A and part B)** to prevent errors during its handling.

### **53. Work Package number**

Work package number: WP1, WP2, WP3, ..., WPn

### **54. Type of activity**

For all FP7 projects each work package must relate to one (and only one) of the following possible types of activity (only if applicable for the chosen funding scheme – must correspond to the GPF Form Ax.v):

- **RTD/INNO** = Research and technological development including scientific coordination - applicable for Collaborative Projects and Networks of Excellence
- **DEM** = Demonstration - applicable for collaborative projects and Research for the Benefit of Specific Groups
- **MGT** = Management of the consortium - applicable for all funding schemes
- **OTHER** = Other specific activities, applicable for all funding schemes
- **COORD** = Coordination activities – applicable only for CAs
- **SUPP** = Support activities – applicable only for SAs

### **55. Lead beneficiary number**

Number of the beneficiary leading the work in this work package.

### **56. Person-months per work package**

The total number of person-months allocated to each work package.

### **57. Start month**

Relative start date for the work in the specific work packages, month 1 marking the start date of the project, and all other start dates being relative to this start date.

### **58. End month**

Relative end date, month 1 marking the start date of the project, and all end dates being relative to this start date.

### **59. Milestone number**

Milestone number: MS1, MS2, ..., MSn

### **60. Delivery date for Milestone**

Month in which the milestone will be achieved. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

### **61. Deliverable number**

Deliverable numbers in order of delivery dates: D1 – Dn

### **62. Nature**

Please indicate the nature of the deliverable using one of the following codes

**R** = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other

### **63. Dissemination level**

Please indicate the dissemination level using one of the following codes:

- **PU** = Public
- **PP** = Restricted to other programme participants (including the Commission Services)
- **RE** = Restricted to a group specified by the consortium (including the Commission Services)
- **CO** = Confidential, only for members of the consortium (including the Commission Services)

- **Restreint UE** = Classified with the classification level "Restreint UE" according to Commission Decision 2001/844 and amendments
- **Confidentiel UE** = Classified with the mention of the classification level "Confidentiel UE" according to Commission Decision 2001/844 and amendments
- **Secret UE** = Classified with the mention of the classification level "Secret UE" according to Commission Decision 2001/844 and amendments

**64. Delivery date for Deliverable**

Month in which the deliverables will be available. Month 1 marking the start date of the project, and all delivery dates being relative to this start date

**65. Review number**

Review number: RV1, RV2, ..., RVn

**66. Tentative timing of reviews**

Month after which the review will take place. Month 1 marking the start date of the project, and all delivery dates being relative to this start date.

**67. Person-months per Deliverable**

The total number of person-month allocated to each deliverable.



EUROPEAN  
COMMISSION

Community Research



# **Europe Latin America Collaborative e- Infrastructure for Research Activities: ELCIRA**

## **Part B**



## 2. PART B

### Introduction

The ELCIRA Project aims to coordinate a series of collaboration tools and services that are being developed in Europe and Latin America in order to provide an interoperability framework that facilitates the work of European-Latin American research teams and to foster collaboration in joint research projects. In particular, the Project seeks:

- (i) To promote the trustworthy exchange of information between research groups in Latin America and Europe by fostering the creation of federations for authentication, authorisation and identity (AAI) mechanisms.
- (ii) To strengthen the collaboration in developing and deploying cooperation services and tools capable of better integrating the research communities of Europe and Latin America by:
  - a. Working towards the integration and operation of videoconference services for Latin America and Europe, by defining documentation and processes for agreeing on a set of standards such as addressing scheme and directory systems necessary for future interoperable services.
  - b. Enhancing and strengthening the collaboration of Europe and Latin America in service development activities through the integration of the existing RedCLARA Portal services with TERENA's tools. The future services will be analysed and piloted as cloud services developed by, deployed by or made available within the two research and education communities.
- (iii) To establish the necessary co-ordination and agreements to move towards better integrated mobility services for researchers by establishing the necessary agreements to deploy a federated eduroam service for Latin America and to establish an eduroam Exchange Point for Latin American NRENs as well as supporting the necessary dissemination activities with the NRENs in order to foster its deployment by RedCLARA's partner NRENs.
- (iv) To actively promote the participation of Latin American researchers in European Commission Calls and other international funding agencies with high impact in the region.

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## **B.1. CONCEPT AND OBJECTIVES, PROGRESS BEYOND STATE-OF-THE-ART, S/T METHODOLOGY AND WORK PLAN**

### **B.1.1. CONCEPT AND PROJECT OBJECTIVE(S)**

The Latin American Cooperation of Advanced Networks (RedCLARA), is a not-for-profit organisation created in 2003 as a result of the ALICE (Latin America Interconnected with Europe) funding from the European Commission. RedCLARA brings together academic networks in the region promoting collaboration among researchers in order to enable higher levels of research and visibility by connecting the scientific community within the region and with their peers in Europe, Asia-Pacific and North America. However, the use of the e-infrastructure by several research groups is far from optimal, due to a lack of awareness, a lack of articulation between researchers and academics and the still limited capacities of the region to formulate competitive projects.

Under this framework, RedCLARA started a roadmap to directly promote collaboration among Latin American scientists. This was done with the E-CienciAL Project: “Programme for the Promotion of the Use of Advanced Networks in Latin America for the development of Science, Technology and Innovation”, which was funded by the OAS/FEMCIDI (SEDI/AICD/AE/319/07) <sup>1</sup>. The project aimed to contribute towards the articulation of the region’s scientific community in relation to a Strategic Agenda for e-Science in Latin America. This project helped to validate the necessity of the concept of e-science in the region, identifying research groups and centres that were willing to use e-infrastructure resources in their day-to-day activities. One of the most important outcomes of e-CienciAL is a knowledge database of the research capability of Latin America. More than 800 scientists are registered in this database.

Some of these groups with research topics aligned with FP7 and MDG priorities served as a starting point for the ComCLARA Calls within the EUROPEAID-funded ALICE2 Project. ComCLARA 2010 received 32 proposals and nine of these were awarded and have successfully completed their period of activity. Recently ComCLARA 2011 received 37 proposals and nine new communities were approved, joining the renewal of the four most successful ComCLARA2010 communities.

Supported by ALICE2 Project and driven by the interest to support ComCLARA communities, RedCLARA has developed a set of collaboration tools and services for their users in Latin America. In order to tackle the needs of the Latin American scientific and research communities, during 2009 and 2010 several actions were taken to gather information regarding the most relevant needs of those communities (visit to S&T bodies, a Delphi Survey to identify priorities and strategic axes to develop e-Science in Latin America, the information collected served to build a service plan tailored to the identified as the most relevant needs of the LA research and scientific communities, and served as the roadmap for the creation of the RedCLARA Portal and services: Webconferencing, Event Management, Web 2.0 Tools, Video-streaming, Content Management System and a Federated Videoconference Scheduling and Coordination System called SIVIC.

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<sup>1</sup> [http://www.redclara.net/index.php?option=com\\_content&task=view&id=128&Itemid=188](http://www.redclara.net/index.php?option=com_content&task=view&id=128&Itemid=188)

In Europe the GÉANT Community is developing a set of tools under the eduCONF concept involving a Directory Service, a Certification Service and a European Videoconference Service. These services all require European Identity management services that are provided by the federated eduGAIN service.

Also of great interest to the LA Research Community is the eduroam service that has been developed and promoted by TERENA for a long time. In the ALICE2 Project, the Working Group on eduroam has been conducting a series of activities among technicians of the NRENs in order to train them in the deployment of eduroam and has also deployed a basic pilot. It is now time to foster the full deployment in Latin America for the benefit of both sides of the Atlantic.

Finally, tools such as the Large File Transfer application developed in the context of the TERENA TF-Storage Task Force are of great interest to Latin American researchers. RedCLARA would like to work on the agreements and protocols that may allow it to integrate that tool and other European tools to the service of Latin American Researchers.

Building on these advances, the ELCIRA Project aims to coordinate a series of collaboration tools and services that are being developed in Europe and Latin America in order to provide an interoperability framework that facilitates the work of European-Latin American research teams and to foster collaboration in joint research projects.

The objectives of the Project are:

- I. To promote the trustworthy exchange of information between research groups in Latin America and Europe by fostering the creation of federations for authentication, authorisation and identity (AAI) mechanisms.
- II. To strengthen the collaboration in developing and deploying cooperation services and tools capable of better integrating the research communities of Europe and Latin America by:
  - a. Working towards the integration and operation of videoconference services for Latin America and Europe, by defining documentation and processes for agreeing on a set of standards to establish a common addressing scheme and directory systems necessary for future interoperable services.
  - b. Enhancing and strengthening the collaboration of Europe and Latin America in service development activities, through the integration of the existing RedCLARA Portal services (Indico, Web-conference and several Web 2.0 tools) carried out within the ALICE2 project framework, with TERENA's tools such as Large File Transfer tools and related applications to facilitate the collaboration of European and Latin American researchers. The future services will be analysed and piloted as cloud services developed by, deployed by or made available within the two research communities.
- III. To establish the necessary co-ordination and agreements to move towards better integrated mobility services for researchers, thereby providing researchers with access to services and information when travelling abroad by establishing the necessary agreements to deploy a federated eduroam service for Latin America and to establish an eduroam Exchange Point for Latin American NRENs as well as supporting the necessary dissemination activities with the NRENs in order to foster the deployment of an eduroam service in the Latin American countries served by RedCLARA's partner NRENs.
- IV. To actively promote collaboration of Latin American and European researchers through This will be accomplished through the adequate of access to information, dissemination of funding opportunities, training and supporting the use of electronic collaboration tools and other activities. The idea is to become a driving force to identify,

empower and promote cooperation and the reciprocal interchange of ideas and the submission of joint research proposals by research groups in both regions.

The following are metrics associated to the Specific Work Packages that can be measured at the end of the project.

WP2: will impact on the adoption of the standards defined by the EduGAIN Federation and will integrate it with the Brazilian promoted café Federation. The following will be measured at the end of the Project.

- Two new federations created and operating in LA
- AAI interoperability and interoperation implemented in a pilot form
- The Number of services consumed by LA AAI from eduGAIN will grow from 0 to at least 2

WP3: will allow the research users of both continents to easily schedule a HQ Video Conference without passing through a manual process involving resources from top management at NREN or GEANT level to schedule a work meeting or large event. The following metrics will measure the impact

- At least 4 NRENs will integrate their VC system with the SIVIC Scheduling system
- SIVIC will interoperate with EduCONF
- The number of inter-regional VCs will increase from a low unknown number to at least 10 per month and beyond

WP4 will spread the use of the eduroam standard to interoperate a Global Roaming WiFi Service for academic users. The following results can be ensured:

- At least two (2) and ideally Four (4) NRENs with have eduroam implemented and interoperating with the federations for internal use and replication
- Seven (7) NRENs should sign an agreement to implement eduroam internally within 2 years from the project end.

WP5 will provide tools for researchers to improve their interaction on both continents. This will also avoid unnecessary development of similar tools by different projects by providing them with a tool that should become a standard for EU-LA collaboration. The following are the metrics to measure this impact:

- (4) Four new user research and education's communities created each year (a total of 8 research communities during the project lifetime)
- (3) Three services approved and implemented in a pilot fashion at M15 at a scale of 60 users and of 3000 users in M22.

In WP6 we will foster collaboration and provide training, tools and support to ensure that end users adopt the technologies developed or integrated in this project. The following are the impact metrics proposed:

- At least 6 User Communities become users of the Portal Services each year (this includes the 4 new communities)
- Training Workshops for the use of Portal Tools provided at least 6 times during the project for over 8 communities each one.
- A total of at least 9 Case Studies on Projects using the e-Infrastructure in a meaningful way
- At least 6 Large Scale Events, including the event for the promotion of RU Research Programmes and calls.

### B.1.2. PROGRESS BEYOND THE STATE OF THE ART

The main contribution of ELCIRA stands from the fact that this project will provide a common ground to exchange experiences and develop joint capabilities in order to extend present collaborative ICT environments. ELCIRA will also establish common agreements and policies to enhance scientific cooperation between European and Latin American research communities.

ELCIRA will consider the implementation of diverse actions from different operational and conceptual planes, i.e.: technical, communicational and strategic:

- Concerning a possible future Latin American Authorization and Authentication Infrastructure (AAI), ELCIRA will transfer the technical and organisational experiences from Brazil and Europe to other countries within the region. This effort will generate definitions, standards, methodologies, and the required agreement frameworks to promote national AAI for academic services and processes. The effort will be oriented to create a common baseline of agreements and standards in order to build several services that require AAI facilities and support the global authentication infrastructure services for interederation.
- In order to promote the collaboration between the research groups of Europe and Latin America, ELCIRA will drive specific actions to determine the scope of a future High Quality Video Conference Service (HQVCS) between Europe and Latin America. The integration of these videoconference services will be accomplished through the definition and agreement of service requirements, including operation and user support (Help Desks) as well as to determine the service architecture delivery, including web interfaces.
- Since ELCIRA puts particular attention on extending and strengthening the collaboration between Latin America and Europe, we will implement technical guidelines to deploy a common platform for both continents. As a showcase to validate the experience, ELCIRA will also implement a Pilot Service for Researchers of Europe and Latin America that allows them to collaborate within a unique platform having a single-sign-on facility instead of the actual use of ad-hoc tools to solve different problems.
- Another important aspect that will be considered within this project will be the creation of agreements to promote, coordinate and support a Latin American infrastructure for an educational roaming service (eduroam), creating this facility in two countries, establishing the bases to expand the pilot experiences to the other members of RedCLARA.

- ELCIRA contemplates, on one hand, a systematic promotion of European and other international funding agency calls in order to increase the participation of Latin American researchers. This will be achieved by reinforcing the RedCLARA Funding Alert System, and by organising InfoDays to exchange information about cooperation opportunities between Europe and Latin America. ELCIRA will also empower and promote capacity building for organising and managing virtual research communities within the Latin American region. Finally, this project will disseminate and share best practices in managing and consolidating virtual research communities by organising Thematic Days and advertising case studies of successful communities.

### B.1.3. S/T METHODOLOGY AND ASSOCIATED WORK PLAN

#### B.1.3.1. OVERALL STRATEGY AND GENERAL DESCRIPTION:

It has been identified that one of the most urgent problems for the promotion of collaboration and collaborative research in Latin America is the lack of technological environments and tools that could be easily used to promote interaction among researchers in the region and with their peers in Europe. From this perspective, the integrated framework proposed by ELCIRA (communications & information) emerges as a very practical solution to deal with the deficiency that at the moment is only partially covered (only for Latin America) by the services and applications developed by RedCLARA ([www.redclara.net](http://www.redclara.net)) within the framework of the ALICE2 Project.

The project will allow LA NRENs to exchange experiences and visions with the GÉANT Community, TERENA, GARR and other European initiatives to develop shared knowledge and agreements on interoperability standards, norms and protocols that will help develop common tools and environments to foster the cooperation among research groups of Europe and Latin America. ELCIRA is organised around six work packages that combine the best expertise and working knowledge from both continents.

ELCIRA will promote the development of an e-Infrastructures Policy development in Latin America and Europe and will participate in e-Infrastructure promotion events organized either by the European Commission or FP7 Funded projects like the AMERICAS project and others. These activities will be an integral part of the Dissemination Plan to be issued at the beginning of the Project.

ELCIRA will also seek to be present, through its members, in different political fora, with the aim of influencing the public policies regarding e-Infrastructures being developed in Europe, Latin America and Worldwide. In particular through RedCLARA, it will seek participation in the Europe Latin America Summit of Heads of State and other high level events where ICT policies may be of interest.

#### **WP1. Project Management and Administration – (RedCLARA).**

With the formation of a “Steering Committee” composed by one representative of each partner and coordinated by the Project Leader, this work package will coordinate the work of the Consortium. This committee will be responsible for high level decisions that may arise in agreements reached by the partners. The committee will meet every two months in order to monitor activities, approve changes and supervise the overall execution of the project. Each work package will be coordinated by a leader who will also be responsible for the appropriate execution of the activities, quality control and the timely delivery of reports. Any change in



planning that may imply delays to other packages will have to be approved by the Steering Committee.

## **WP2. Coordinated Actions for AAI between EU and LA (RNP)**

This package is aimed at coordinating and supporting efforts for the creation of a Latin American Authorisation and Authentication Infrastructure (AAI) and to replicate the Brazilian and European experiences in other countries of the region. The tasks to be completed by this work package will be assumed by three working groups. The first one will be responsible for generating the Action and Policy roadmap to establish national AAI organisation and federation. The second working group will be responsible for the technical deployment of showcase examples with selected institutions from two NRENs, and of their interoperability and interoperation with other Latin American federations and their European counterparts via a common interfederation service (eduGAIN). Finally, there will be the training workgroup responsible to replicate the know-how in other countries of the region.

## **WP3. Standards for an Interregional Videoconference Service (RENATA)**

Videoconferences have different qualities and uses. For instance, webconference services or desktop videoconferences, where a PC and a webcam provide the necessary video and sound systems, are very convenient for short working meetings. Instead, for long meetings, executive meetings or special applications such as the use of this tool in medicine, astronomy, arts or any discipline where high quality video images is necessary, i.e. HD TV type of resolution, require specialized equipment using H.323 protocol and a room setup where the sound and the lighting are carefully crafted to produce an immersive environment. This type of videoconferences, including, but not limited to Virtual Presence, will be referred to as HQVCS.

This Work Package will generate a definition and agreements in order to determine the scope of a future High Quality Video Conference Service (HQVCS) between Europe and Latin America. Lead by RENATA, this WP will organise a VideoConference Technical Task Force (VCT2F) with the participation of technical staff from RENATA, RedCLARA, the GÉANT Community and GARR. This technical team will be responsible for producing all deliverables for this WP, i.e.:

- Standards for Videoconference Dialling Systems.
- Design for digital dialling and register of gatekeepers using the Global Dialling Scheme (GDS).
- Best load distribution videoconference between Latin America and Europe.
- Service requirements, including operation, user support and web interfaces.
- Standards and strategies to deploy HQVCS,
- Technical Requirements of an exchange point HQVCS

The idea is that the VCT2F could remain after ELCIRA and continue to generate documents that can be used as a reference by all countries in Latin America.

## **WP4. Promoting the deployment of eduroam services (RNP)**

This Work Package is also organised into three working groups in order to establish the necessary agreements to implement a federated eduroam service in Latin America, establishing eduroam exchange points in each Latin American NREN. The first working group 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.

#### **WP5. Extending and Strengthening the Collaboration Platform (RedCLARA)**

This work package involves the definition of policies and procedures as the basis for the interoperability of Web collaboration platforms between GEANT and CLARA. The main idea is that, through cooperation between CLARA and the GÉANT Community, this WP can build improved services, leveraging the implementations already made by both parties. The Work Package will look at exchanging definitions and standardising protocols, tools and services in order to promote the smooth operation and deployment of collaborative research environments for communities on both continents. This includes the generation of a model to identify research service communities which will be applicable both in Latin America and Europe and the realization of a demonstrative pilot project by means of which selected identified services (provided by resources both in EU and LA) will be made available to users through single sign on. Starting from the fact that most of the services have already been identified as useful by FP7 Research Projects and different communities, the project will create a Researchers Consulting Group formed by researchers of both continents who will participate in the design of the Pilots. These researchers will come from selected projects funded by FP7's e-Infrastructures calls.

Furthermore, in order to include end users' validation and feedback, the development process of the pilot service will be based on the provisioning of a prototype (prototype phase), a service improvement/refinement phase, a beta testing phase, followed by a final services refinement phase, i.e. a four phases based approach as follows:

1. First, a prototype of the pilot services will be made available, to be assessed by a closed group of experienced users.
2. After the collection of their feedback, the services will be further improved.
3. Then, the beta testing phase will start just after the first round of further developments/improvements will be finished.
4. Finally, the final service improvements/adjustments will be carried out, based on the feedback provided by the previous phase.

The beta phase will be implemented by means of a wider group of users in the research communities identified and supported by WP6.

In addition, we plan to make use of a quick, basic survey on user's satisfaction for all provided applications just after user's logout. The above will facilitate a continuous evaluation process and obtaining end users opinion from each user-application interaction. (Similar to Skype's scoring of voice calls).

#### **WP6. Fostering the Collaboration between EU and LA Researchers (RedCLARA)**

This WP is aimed at improving collaboration between Latin American and European researchers through the use of access to information, dissemination of funding opportunities, training and supporting the use of electronic collaboration tools and other activities. The idea is to become a driving force to identify, empower and promote cooperation and the reciprocal interchange of ideas and the submission of joint research proposals by research groups in both regions. Its objectives are:

- To identify, create and/or empower joint LA-EU research groups /communities that work or could work together on projects of benefit for both regions
- To promote the use of electronic collaboration tools to facilitate and enhance the joint work of EU-LA Research Groups/Communities
- To foster capacity-building in organising and managing virtual research communities within the Latin American region and with their EU counterparts.
- To promote all European and other international funding agency calls through the active dissemination of information and videoconference contacts with the Latin American academic community, fostering in this way the use of HQVCS between LA and EU

Finally, it is considered of great importance to identify facilities (instruments, databases, computing resources, etc.) that generate large amounts of data, which expects to generate study cases of these experiences and to promote new uses and users of these data, building communities of research around these facilities

### **WP7. Dissemination (RedCLARA)**

The last work package involves the development of all activities to ensure both the high visibility of the project and the proper use of the services by the research communities. The first activity considered will be to advertise and disseminate the impact of each stage of the project. One of the first actions will be to organise a launch event followed by several outreach activities as well as the production of digital and printed material. Finally, this package will include the organisation of induction mentoring for users of the services generated by the project.

The work of the different Work Packages will be coordinated by a Steering Committee and a Technical Committee as fully described in §B2.1.2. The Work Packages have been built in such a way that they are individually focused on a particular Project Objective and have selected the most suitable partners for the task by taking into account their experience in coordinating similar (or the same) activities in Latin America and Europe.

### B.1.3.2. TIMING OF WORK PACKAGES AND THEIR COMPONENTS:

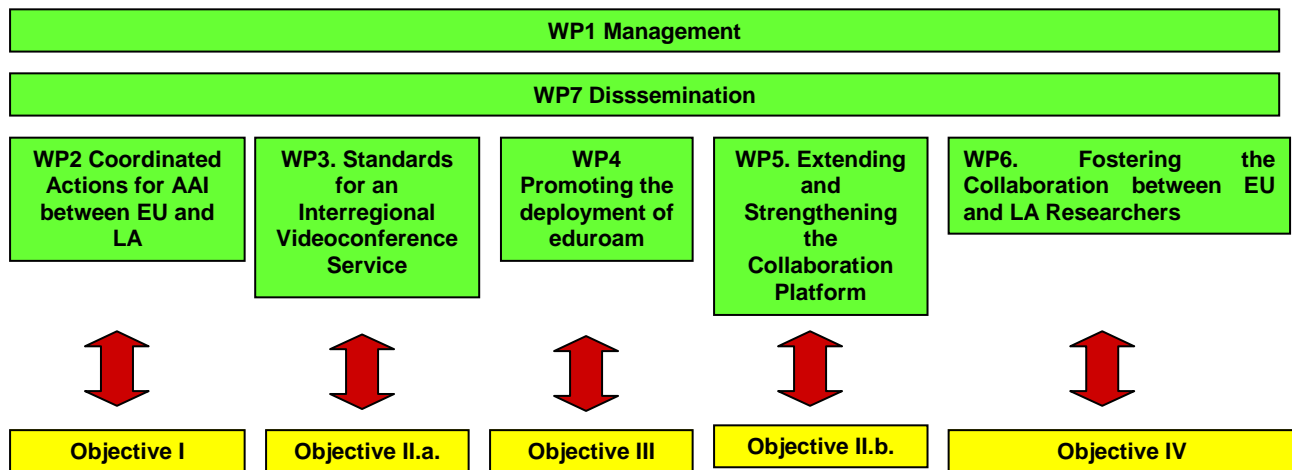
Nombre	Q2 2012		Q3 2012		Q4 2012		Q1 2013		Q2 2013		Q3 2013		Q4 2013		Q1 2014		Q2 2014	
	May	Jun	Jul	Ago	Sep	Oct	Nov	Dic	Ene	Feb	Mar	Abr	May	Jun	Jul	Ago	Sep	Oct
<ul style="list-style-type: none"> <li>▼ ELCIRA           <ul style="list-style-type: none"> <li>▼ WP1 Project Management and Administration               <ul style="list-style-type: none"> <li>▶ 1.1 Administrative management</li> <li>▶ 1.2 Technical management</li> </ul> </li> <li>▼ WP2 Coordinated Actions for AAI between EU and LA               <ul style="list-style-type: none"> <li>2.1 Replications of the experience of the CAFe (Comunidade Académica Federada) in the rest of the Latin American</li> <li>2.2 Creation of virtual course to capacitate IREN's technical team in order to replicate the action in their IREN's and</li> <li>2.3 Action and Policy Coordination with other regional IAAI organization and federation</li> <li>2.4 Deployment of showcases examples with selected institutions of two IRENs.</li> <li>2.5 Implementation of AAI interoperability and interoperation with Latin American Federations and its European counterparts</li> </ul> </li> <li>▼ WP3 Standards for an Interregional Videoconference Service               <ul style="list-style-type: none"> <li>3.1 Determine the scope of a future High Quality Video Conference Service (HOVCS)</li> <li>3.2 Define agreements on standards for federated Directory Services for the HOVCS</li> <li>3.3 Technical evaluations of HOVCS exchange point architecture for future service integration between LA and Europe</li> <li>3.4 To develop a Pilot test as proof of concept</li> </ul> </li> <li>▼ WP4 Promoting the deployment of EduRoam services               <ul style="list-style-type: none"> <li>4.1 Replications of the experience of EduRoam task force in the rest of the Latin American IRENs, members of R</li> <li>4.2 Creation of virtual course to capacitate IREN's technical team in order to replicate the action in their IREN's and</li> <li>4.3 Action and Policy Coordination with other regional EduRoam organization i.e. R4P (Peruvian IREN)</li> <li>4.4 Deployment of showcases examples with selected institutions of two IRENs.</li> <li>4.5 Implementation of EduRoam interoperability and interoperation with Latin American Federations and its European counterparts</li> </ul> </li> <li>▼ WPS Extending and Strengthening the Collaboration Platform               <ul style="list-style-type: none"> <li>5.1 Definitions of a communities' services space between LA and EU</li> <li>5.2 Agreement on IT architecture (infrastructure standards, tools and integration protocols) for communities services</li> <li>5.3 Service models definitions for communities services between Latin-America and Europe</li> <li>5.4 Pilot service test deployment</li> </ul> </li> <li>▼ WP6 Fostering the Collaboration between EU and LA Researchers               <ul style="list-style-type: none"> <li>T6.1 – To foster the development of joint research communities between LA and EU of identified LA-EU Research Gr</li> <li>T6.2 – To disseminate funding opportunities for joint LA-EU collaboration through the extensive use of the electronic</li> <li>T6.3 – To elaborate a BluePrint to implement Large Scale inter-continental Videoconferences</li> <li>T6.4 – To foster the use of electronic collaboration tools for research communities collaboration activities</li> <li>T6.5 –To foster best practices to organise, develop and promote cooperation among RedCLARA-registered Virtual R</li> <li>T6.6 – To identify real and potential facilities (To identify real and potential facilities (Instruments, Database, Computa</li> </ul> </li> <li>▼ WP7 Dissemination               <ul style="list-style-type: none"> <li>7.1 Coordination and Management</li> <li>7.2 Website and materials</li> <li>7.3 Support to Training Activities</li> <li>7.4 Update, Inform, Disseminate</li> </ul> </li> </ul> </li> </ul>																		

## B.2. IMPLEMENTATION

### B.2.1. MANAGEMENT STRUCTURE AND PROCEDURES

#### B.2.1.1. MANAGEMENT STRUCTURE

Project tasks and activities are organised into seven Work Packages. Two of these Work Packages are designed to carry out general tasks encompassing all of the objectives, and the other five will address specific objectives as shown in the diagram below. Management of the whole project will be carried out by RedCLARA, which will monitor the execution of the different tasks and make sure all the deliverables are submitted on time.



The management of the Project will be carried out by a Steering Committee on which each Partner will be represented. This Committee, chaired by RedCLARA, will meet by Video/Web-conference every two months and will have the overall responsibility of the execution of the Tasks, the on-time issuing of the deliverables and the verification of the Milestones. CLARA will work through a Project Manager and the support of the Technical Manager, the Marketing Manager and the Academic Relations Manager. The financial management will be carried out by the Chief Financial Officer. This staff will provide all the support for the activities of the Working Groups.

The leading persons of the technical Work Packages (WP2-WP5) will form a Technical Committee that will ensure appropriate coordination of the activities. This is necessary, since their activities and agreements reached are not fully independent, In particular WPs 3, 4 and 5 will use the authentication procedures agreed in WP2. The Technical Committee will meet every two months or even more frequently when needed using RedCLARA's Portal Tools.

The European and Latin American members of the technical Work Packages will physically meet 3 times in Europe and 3 times in LA during the execution of the project, possibly back-to-back with TERENA, eduroam and/or eduCONF group meetings to take advantage of

interaction with all partners of those initiatives which are tightly connected with the project goals.

All Project Partners will physically meet at the Kick-off Meeting which will be held in Lima, Perú, in order to agree on working procedures and strengthen working ties. This meeting will take place in the first month of the execution of the project.

All technical working groups (2-5) will meet physically in month 18 in order to check the appropriate implementation of the pilots and plan the final work and the future full-scale implementation of the services. This meeting will be hosted by RENATA and will take place in Bogotá, Colombia.

#### **B.2.1.2. DECISION PROCESS**

The Steering Committee is the maximum decision body of the Project. Its aim is to reach consensus on all major decisions but in the event of discrepancy, decisions will be taken by majority making sure that strategic decisions are taken at least by five (5) of the seven partners. In case that this number is not met, but the simple majority is reached and the Project Coordinator's vote is among the majority, the decision is taken for that option. Otherwise a second round of negotiations will be carried on. If the number of 5 is not met again, but a majority (4) is reached, the decision will be taken by the Project Coordinator. In case of a tie or a simple majority not reaching 4 votes, the decision will be taken by the Project Coordinator.

The Working Groups will internally take all project execution decisions, but will have to request the Steering Committee's approval for agreements that go beyond the Group's influence and or have impact on the other groups.

The Project Manager will be responsible for the appropriate coordination of the work and will make sure that decisions are taken at the appropriate level.

#### **B.2.1.3. INTERNAL INFORMATION EXCHANGE**

Internal information of the work will be available to all project members without exception. To ensure this, all documents will be shared through the Project Intranet which will be hosted by the RedCLARA Communities Portal.

#### **B.2.1.4. EXTERNAL INFORMATION FLOW**

External publication, be this reports or dissemination material of any sort, will be first approved by the Project Manager with the support of the Steering Committee when the material has strategic importance. The external exchange of information will be supported by WP7.

### **B.2.1.5. QUALITY ASSURANCE**

In order to ensure quality, all deliverables will be reviewed and edited by all corresponding Work Package members and will have to be approved by the Technical Committee in WPs 2-5 while reviewing for WP6 will depend upon the Project Manager. The ultimate responsibility for the quality of the work is in the hands of the Steering Committee which may recall a deliverable if need be and request revisions and/or editions before submitting it to the appropriate bodies.

### **B.2.1.6. RISKS AND CONTINGENCY PLAN**

The major risks in the project are 2:

Risk 1. Disagreements between the two regional blocks on protocols to be adopted. This risk is minor since for most protocols a consensus already exists in the global community of research and education networks, and major RedCLARA Partners have already been active participants in meetings and projects where these standards are already in production. Nevertheless, if a disagreement appears and remains after meetings of the Steering Committee, the possibility of establishing “gateways” and interoperability agreements will solve the problem.

Risk 2. Disagreement in working speeds on the Videoconference scope and service characteristics. Even though this disagreement may arise, it should not affect the project, since only a limited pilot is sought and some NRENs members of the GÉANT Community are already interested in pilot deployments. The project will identify, at an early stage those NRENs and confirm that the possibility of a pilot is ensured by including them in the corresponding WGs.

## **B.2.2. BENEFICIARIES**

### **B.2.2.1. COOPERACIÓN LATINO AMERICANA DE REDES AVANZADAS**

CLARA, the Cooperación Latino Americana de Redes Avanzadas (Latin American Cooperation of Advanced Networks) is a consortium of the National Research and Education Networks (NRENs) of the Latin American Region. Legally established in Uruguay, CLARA is formed by the NRENs of Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panamá, Paraguay, Peru, Uruguay and Venezuela.

The Mission of CLARA is to foster collaboration between the different countries in the LA Region by providing a world-class research networking infrastructure for the use of researchers, educators, students and innovators allowing to connect them among themselves and with the other regions of the World. CLARA was created as part of the ALICE Project (America Latina Inter Conectada Con Europa), a €12.5-million project funded by the European Commission under the umbrella of the @LIS Programme.

CLARA operates RedCLARA, the Research and Education Network of Latin America which connects 13 of the aforementioned countries by a high-speed network which is in its turn connected to GÉANT via a link from São Paulo, Brazil, to Madrid, Spain. Also, thanks to the partial support of the American NSF, RedCLARA is linked to the US networks through connections in São Paulo (Brazil) and Tijuana (Mexico).

CLARA operates as very decentralised organisation, having its legal office in Uruguay, but spreading its operation over the whole of Latin America, in particular with its Network Operation Centre (NOC) located in Chile, its Network Engineering Group (NEG) located in Brazil, its Project Management Office in Mexico, its Academic Relations Management in Colombia and Chile and its General management located in Chile. In this way CLARA has permanent contact with its member NRENs, and ensures that appropriate feedback is obtained from them, while also ensuring that they collaborate in the overall functioning of the organisation.

CLARA, together with its European counterparts, is currently executing the ALICE2 project which aims at leapfrogging in terms of network bandwidth so as to be able to serve demanding applications such as High Energy Physics, Earthquake Simulations, Biodiversity Databases, VLBI and Astronomy, among others.

#### **Key personnel:**

Florencio Utreras (Executive Director)

Luis Núñez (Academic Relations Manager) (Resource made available by Universidad Industrial de Santander, See Section B.2.3.9)

Gustavo García (Technical Manager)

Ana Cecilia Osorio (User Communities Coordinator)

**Dr. Florencio I. Utreras** is the Executive Director of CLARA, the Latin American Cooperation of Research Networks. Dr. Utreras graduated in Mathematical Engineering from the University of Chile in 1975 and received a Doctor of Engineering degree from the Université de Grenoble, France, in 1979. He is a former Full Professor of the University of Chile. Before joining CLARA, Dr. Utreras was the Executive Director of REUNA (the Chilean Research Network which he contributed to create) from 1992 and previously he had been full professor of Applied Mathematics at the University of Chile in Santiago and Visiting Professor at several universities and research centres in Europe (France, Italy) and the United States. Dr. Utreras has been involved in Research Networking since 1987 and has been awarded several national and international prizes for his contribution to the dissemination of Internet technology and research networking. He has been the Director of the EuropeAid-funded ALICE2 Project since 2008 and has participated in several FP7 Projects, including EVALSO and ELLA.

**Gustavo Garcia** is a Colombian Electronic Engineer with a post-degree in Technological Management. Gustavo has extensive experience in the telecommunications field through a 15-year career in Telephony, Cable and Telecommunications' companies. Gustavo's engineering had an emphasis on informatics. The above allowed him to work on telecommunications and Information technology management with achievements in service deployment through open-source technologies. Gustavo has worked as Internet Manager (2.5 years), Telecommunications and Internet planning leader (4 years), IT manager (8



years) and Technical Manager (2 years). As RedCLARA's technical manager for the last two-and-a-half years, Gustavo has worked directly on the ALICE2 project.

**Ana Cecilia Osorio**, Chilean, Bachelor in Arts and Humanities (Linguistics) Pontificia Universidad Católica de Chile (20xx), Specialization Degrees in: Journalism and Literature, Instituto Tecnológico de Estudios Superiores de Monterrey, ITEMS, México (1995) and Distant Learning at Télé-Université de Québec (1997-2000). Master in Competence Based Education at Universidad de Talca (2007). Pedagogic Coordinator and Instruction Designer for learning process mediated by ICT at 2007. Working for RedCLARA since 2008. Project Leader of the Programme for Fostering the Use of the Advanced Networks in Latin America for the Development of Science, Technology and Innovation, e-CiencIAL (project FEMCIDI CLARA – OAS) (2008-2010). Academic Coordinator for Virtual Research Communities ALICE2 program (2010- today).

**Dr. Luis A. Núñez** (Resource made available by Universidad Industrial de Santander. See Section B.2.3.9) Doctor Degree in Physics from the Universidad Central de Venezuela ( Caracas-Venezuela 1989 ) Full Professor of Physics at the Universidad de Los Andes, Mérida-Venezuela. Director of Information and Communication Technologies, Universidad de Los Andes (1995-2009), Director of the Centro Nacional de Cálculo Científico Universidad de Los Andes (1997-2009). Member of the Board of Directors Centro Nacional de Tecnologías de Información, CNTI, (2003-2006) Full Professor of Physics at the Universidad Industrial de Santander, Bucaramanga Colombia. He has also been involved in several European, Regional and National Projects on ICT and e-research: Bioinformatics network for Latin America and the Caribbean, (LACBioNet), Iberoamerican Bioinformatics Network, Alfa Program High Energy Physics Latin American-European Network (HELEN), E-Infrastructure shared between Europe and Latin America (EELA), E-Science Grid Facility for Europe and Latin America (EELA2), Grid Initiatives for e-Science virtual communities in Europe and Latin America (GISELA), Virtual Atomic and Molecular Data Center (VAMDC), Large Aperture Gamma Ray Burst Observatory (LAGO) , Centro Virtual de Altos Estudios en Altas Energías (CeVALE2), Programa de Fomento al Uso de Redes Avanzadas en Latinoamérica para el Desarrollo de la Ciencia, la Tecnología y la Innovación CLARA, e-CiencIAL, (OEA – CLARA FEMCIDI) ). He is author/co-author of 53 scientific articles in the areas of Physics and ICT published in international referenced journals and more than 60 proceedings of international conferences.

### **Role in project**

Project Co-ordinator

### B.2.2.2. DANTE

DANTE (Delivery of Advanced Network Technology to Europe) was established in 1993 in Cambridge, UK. It is a limited liability company and a “Not-for-Profit” organisation. The company is owned by fifteen shareholding organisations, which are either NRENs or government funding bodies that finance the NREN of their country. DANTE's purpose is to plan, build and operate pan-European research and education networks on behalf of the European NRENs. It has played a pivotal role in consecutive generations of pan-European networks since 1993: EuropaNET, TEN- 34, TEN-155, GÉANT, GÉANT2 and now the third generation of the GÉANT network.

In addition to GÉANT, DANTE is also the managing partner in other successful regional networking projects with European and local partners: EUMEDCONNECT2 (North Africa and the Middle East network since 2004), TEIN3 (North, East and South Asia network since 2006), and CAREN (Central Asia network since 2010); was lead partner in ALICE (Latin America, now successfully spun off) and continues as a partner in ALICE2; DANTE managed the ORIENT project linking GÉANT and China and is the co-ordinating partner of the successor ORIENTplus Project.

DANTE has a proven record of success in delivering and operating these networks in complex and challenging environments. As a result of this experience, DANTE has developed considerable knowledge and expertise in the technical and commercial disciplines required to provide high-speed international networks ahead of the market.

Based in Cambridge, UK, with around 50 employees, DANTE currently manages an annual turnover of approximately €50m. DANTE's focus on providing advanced pan-European research and education networking services makes the company unique and is key to its success.

#### **Key personnel:**

**Thomas Fryer:** Thomas Fryer joined DANTE as a member of the International Relations Team in November 2008. His work involves supporting international dialogue between the GÉANT community and GÉANT's global R&E networking partners. Thomas has worked closely with CLARA, acting as a liaison point between the GÉANT community and its Latin American partners. In addition, he has assisted in the implementation of the ALICE2 project since its inception in December 2008, including participation in ALICE2 connectivity procurements. He has also supported dialogue between the CLARA Measurements Working Group and the GÉANT networking monitoring perfSONAR MDM service to enable CLARA to understand and move toward testing of the European version of perfSONAR. In collaborations with other world regions, Thomas has provided logistical support for the technical collaboration between the GÉANT community and its North American networks, and now also supports the collaboration work with the UbuntuNet Alliance in Sub-Saharan Africa. Thomas has a degree in modern languages and linguistics from the University of Essex in the United Kingdom.

## Role in project

Dialogue and collaboration with the eduGAIN and eduCONF Services developed by the GÉANT Community will be an important part of this project, specifically for Work Packages 2 and 3 respectively. In order to assist this interregional collaboration in reaching the objectives set out by the ELCIRA Project, and in agreeing on the interregional collaboration work to be carried out, DANTE will provide a liaison function between the eduGAIN and eduCONF services on the one hand and the respective Work Packages of the ELCIRA Project on the other hand.

### B.2.2.3. CONSORTIUM GARR

Consortium GARR (<http://www.garr.it/>) is an Association under Italian law. It was established by the national Academic and Research Community. Its member institutions are the Italian Universities and the main governmental Research organizations as CNR (the Italian National Research Council), ENEA (Italian National Agency for New technologies, Energy and Environment) and INFN (Italian National Institute of Nuclear Physics).

The aim of Consortium GARR is to plan, manage, and operate the Italian National Research and Education Network, implementing the most advanced technical solutions and services. It supplies the Italian Academic and Research Community with connectivity to the GARR backbone, interconnecting over 300 universities, laboratories, libraries, observatories and other research facilities. Also, Consortium GARR provides its member institutions with the main Operational and Application Networking Services.

Today, the GARR network covers the whole Italian territory; its backbone, organized around 40 PoPs, is based on a mesh of 10 Gbps lambdas and guarantees high reliability, security and error resilience. Technologies such as IPv6, QoS, multicast and VPN on GARR allows to supply new advanced services and to fully support innovative applications such as Grids, telemedicine, eLearning, Multimedia, High Energy Physics, Radio Astronomy, Earth Observation and Supercomputing.

### Key personnel

**Fernando Liello** is the ELLA project coordinator and has been actively involved in the last 10 years in EU-LA coordination and cooperation.

**Mario Reale** holds a degree in Physics from University of Rome "Tor Vergata" (1992) and a Ph.D in High Energy Physics from the University of Wuppertal (1997), Germany. He started working on Grids in 2001 in the European DataGrid project, as experiment-independent tester for WP8 (HEP Applications). He joined the EGEE project in 2004, working for CERN as middleware tester in 2004-2006. In 2006 he joined GARR, the Italian Academic and Research Network, where he worked on the IPv6 compliance of the middleware. Since 2010 he is both Technical Manager and WP4 (infrastructure) manager of the EU-Med collaboration project EUMEDGRID-Support, to support e-Science in the Mediterranean region.

**Fulvio Galeazzi** has a degree in Physics from University of Rome "La Sapienza", and a Ph.D. in Physics from University of Padova. He has a multi-year experience with managing

computing farms for High Energy Physics experiments, ranging from system procurement setup and configuration to users support. Since 2005 he has been involved in Grid computing, acting as Grid site administrator and porting applications to work in the Grid environment. He currently is, and has been, involved in several other EC-cofunded projects like EUMEDGRID, EUChinaGRID, EUMEDGRID-Support, GEANT3. Since September 2011 he is the Project Manager of the DECIDE project on e-Health.

**Fabio Farina** received a PhD in Computer Science at the University of Milano-Bicocca in 2008 working on the Grid infrastructure of the LHC experiment at CERN. He is involved in different EC project related to the provisioning of virtual infrastructures: FEDERICA, NOVI, GN3-JRA1-T4 "Virtualization" and GN3-JRA2-T5 "Network Factory". His research interests cover IaaS and PaaS enabling-technologies.

## **Role in project**

**Task leader for T 5.2** (Agreement for IT infrastructure standards, tools and integration protocols for a Communities services framework between LA and EU)

GARR has long term experience in e-Infrastructure and their requirements, both from the service providers and the users' perspectives, being involved in many e-Infrastructural projects in the last years. In particular GARR has been involved in international projects aiming at fostering collaboration among the EU and several regions of the World, focused on both networking and e-Infrastructures.

GARR is currently involved in pilot activities for the exploitation of Cloud Computing within the Federation of Identity model based AAI, and is closely following the developments within the available platforms for Cloud provisioning of Storage and Computing Resources, the corresponding standards and their evolution. Furthermore, GARR manages the Italian Federation of Identity IDEM, which currently involves 33 members and 9 partners in Italy (providing overall 38 federated Identity Providers and 35 Service Providers).

GARR will thus make use of his experience in Cloud Computing to support the creation of a scalable model for a Collaboration Portal Service between EU and LA.

### **B.2.2.4. RNP**

RNP (<http://www.rnp.br>) is a non-profit company supported by the Brazilian government and dedicated to promoting the development of technologies in the field of networks and innovative applications in Brazil. RNP operates the national advanced networking infrastructure for cooperation and communication in education and research. Besides interconnecting all the federal government institutions of higher education and research, this network provides a laboratory for the experimental development of new applications and network services for the benefit of the organisations using it. This Brazilian national research and education network (NREN) enables interaction and cooperation between people and resources in the country and abroad.

The network reaches all 27 states in the country, with speeds of up to 10 Gbps, and interconnects more than 600 campuses of more than 300 education and research institutions, serving around 800,000 users. By the end of 2010, local access to the points of presence (PoPs) of the national backbone for more than 200 RNP clients will be available

through RNP-built optical metro networks operating at gigabit speeds. RNP maintains direct international research networking connections to Europe through RedCLARA and also to the USA.

RNP is also involved in the prospection and development of new networking applications and in the qualification of human resources for research and education networking throughout the country. Some pilot and production services include Internet telephony, video distribution and identity management infrastructure.

RNP has participated in a number of projects in partnership with European institutions, such as ALICE, Mercosur Digital, EELA, EELA-2 and RINGrid, and actively participates in ALICE2.

## **Key Personnel**

**Antônio Carlos Fernandes Nunes (RNP)** MSc in Electrical Engineering in Computer Networks and Automation Group of COPPE / UFRJ and graduated in Systems Engineering and Computer in UERJ. Works in RNP (Brazilian NREN) since 1998, where he worked in operations, administration and systems development. As Special Projects Manager of the General Directory led and worked on several projects, interministerial, and has driven the emergence and growth of the Federal Point of Interconnection Networks (FIX), and Coordinator of the Brasilia PTT Metro project in CGI.br, Supervisor of Midwest Community Networks for Education and Research project (Redecomep) and project manager responsible for RNP's Internet Data Center. Since 2009 is Service Management Director of RNP being in charge for communication and collaboration services, digital content delivery services, identity management services, strategic hosting services and academic network support services. CCNA certificate, has published articles in the areas of networks, technological innovation, and science and technology policies.

**Leandro Marcos de Oliveira Guimarães (RNP)** Leandro is Service Manager of RNP since may, 2010 and has worked for over fifteen years in Information Technology areas, focusing on projects, planning and operation. He is MBA in Project Management in IBMEC and another MBA in Information Security by IBPINET - RJ-FUNCEFET. He certificated as PMP by PMI, COBIT Foundation by ISACA, the EXIN ITIL v3 and the MCSO (Modulo Certified Security Officer) by Modulo. Degree in Computer Networks from University Estacio de Sa. He has worked in large companies such as Petrobras, TIM, Claro and Xerox Brazil.

## **Role in project**

Co-ordinator of WP2 and WP4

### **B.2.2.5. RENATA**

RENATA, Colombia's National Research and Education Network is the result of the union of efforts of the Colombian 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 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. RENATA has been directly involved in the development of the Latin-American integrated Video-conference service (SIVIC), reason why they would be able to provide all the Latin-American experience to the work package.

#### **Key Personnel**

**Andrés Salinas** Electronic Engineer, MBA Student at European School of Management and Business, Specialist in Management and Telecommunications With An emphasis on areas of high speed networks, Project Management Systems and Telecommunications, ICT Project Management, IT Security, Certificate and Certificate ITIL V3.0 Microsoft, Linux Security. Administrative and technical profile with experience in Implementation and management of technology projects high availability architectures That Involve, Telecommunications, advanced routing solutions to information systems and Interconnections Between servers. This Has Been Combined with experience in administration and configuration of servers and network solutions company Focus on. Both the Security Management Server Infrastructure at s, such as database and network. Experience and training are the foundation for the work Carried out in national company in Which They Have met all the Objectives of engineering.

#### **Role in project**

Co-ordinator of WP3

### **B.2.2.6. TERENA**

TERENA is the association of National Research and Education Networks in Europe and this year celebrates its 25th year of existence. In 2010 the organisation represented 39 national members, two international members – CERN and ESA - and a number of associate members, including, DANTE, NORDUnet, and a few industrial organisations, which are normally highly involved in cooperation activities and projects with the research and education Community. The mission of TERENA is to promote and participate in the development of high-quality international information and telecommunications infrastructure and services for the benefit of research and education. The activities of TERENA fall into four categories, which are the pillars of the organisation, and which are all ideally relevant to the ELCIRA project.

- Fostering new activities: TERENA provides an environment for fostering new initiatives of the European research networking community.
- Technical Programme: TERENA supports joint European work in developing, evaluating, testing, integrating and promoting new networking, middleware and application technologies. TERENA brings together technical specialists from TERENA member organisations and the wider European research networking community in task forces and innovative collaborative projects. TERENA organises topical workshops and ad-hoc meetings to exchange experiences and information, and to plan for joint activities. The TERENA Technical Programme liaises with similar activities in other continents.
- Knowledge transfer: TERENA organises conferences, workshops and seminars for the exchange of information between TERENA member organisations and in the wider research networking community, and to make them and the Internet community at large aware of relevant developments. TERENA also pursues the transfer of technical and managerial knowledge to less advanced networking organisations in the countries represented by the TERENA membership, both on a bilateral and on a multilateral basis.
- Promoting members' interests: TERENA represents the common interests and opinions of its member organisations in contacts with governments, funding bodies, industry and other organisations.

### **Key personnel**

**Licia Florio** (Project Development Officer). Licia Florio joined TERENA in 2001. She is currently leading the GÉANT Joint Research Activity (JRA3) “Multi-domain User Application Research” which aims to enhance the federated AAA framework to enable users to access different type of applications; she is also leading the eduPKI service (GÉANT3 SA3-T1) that coordinate trust mainly established via the usage of X.509 certificates throughout the project. Together with Nicole Harris, she leads the REFEDS group (<https://refeds.org/>) and is the liaison contact for Grid activities, representing TACAR (the trust repository operated by TERENA) in the EuGridPMA.

**Brook Schofield** (Project Development Officer). Brook Schofield joined TERENA in May 2009. Brook supports TERENA's task forces and contributes to technical projects. He is currently responsible for a portfolio of middleware activities within TERENA, including acting as secretary for the Task Force on Mobility and Network Middleware and the Task Force on European Middleware Coordination and Collaboration. Brook acts as secretary of the Global eduroam Governance Committee as well as of ECAM, the European Committee for Academic Middleware. Brook organises EuroCAMP (European Campus Architecture and Middleware Planning) events in Europe, to promote the use of middleware technologies at the campus organisational level.

### **Role in project**

The successful eduroam service was first piloted in the TERENA task force TF-Mobility several years ago. Since then TERENA has been involved to various extent in the development of eduroam as a service and thanks to its participation in the eduroam Operational Team of GEANT, in the project's partner service promotion task and in the support to the Global eduroam Governance Committee, TERENA is on top of European and global eduroam deployment efforts. TERENA's largest contribution in ELCIRA will be in WP4 'Promoting the deployment of eduroam services'. TERENA's contribution will be two-fold:

- bringing to the Latin American organisations the experiences, lessons learnt etc. in the rollout of eduroam in Europe and in other continents, in order for them to use those experiences when deploying eduroam in Latin America;



- providing the liaison with eduroam in Europe (specifically, the Operational Team of the European eduroam confederation) and worldwide (specifically, the Global eduroam Governance Committee), in order to secure interoperability.

eduroam is one of the elements of the AAI for research and education in Europe. Similarly, many of the building blocks that make part of the eduGAIN service stem from developments taking place in the TERENA task forces, specifically, TF-EMC2, TF-Mobility and REFEDS. TERENA will contribute its knowledge and expertise in the rollout of AAIs and federations to WP2 'Coordinated Action for AAI between EU and LA'. In addition, TERENA's will provide the liaison with AAI in Europe (including eduGAIN) and worldwide (for example, REFEDS), in order to promote interoperability.

Finally, TERENA will provide a small contribution to WP5 'Extending and Strengthening the Collaboration Platform' to assist in the definition of a future joint or interoperable collaboration platform.

#### **B.2.2.7. REDIRIS (RED.ES)**

red.es (<http://www.red.es>) is a public entity which belongs to the Spanish Ministry for Industry, Trade and Tourism (<http://www.mityc.es>) through its State Department for Telecommunications and Information Society (<http://www.setsi.mityc.es>).

The main duty of red.es is to promote the development of Information Society.

For this purpose, red.es:

- manages the Registry for domain names under ".es" (<http://www.dominios.es>);
- has put in place a "Telecom and Information Society Observatory" (<http://www.observatorio.es>);
- manages several programs related to the promotion of the Information Society, in, e.g., the health, education or justice sectors
- provides several e-government services to public administrations;
- owns INTECO (<http://www.inteco.es>), an entity based in León which, among other tasks, that of managing a national CERT for individuals and SMEs and
- manages the Spanish National Research and Education Network, RedIRIS (<http://www.rediris.es>)

Red.es (staff: approx. 200 people) will participate in this project through its Department RedIRIS, which manages the Spanish National Research and Academic Network. RedIRIS (staff of approx. 25 people). RedIRIS has over 400 institutions currently connected (mainly, universities, technological centres, research centres and units of biomedical investigation).

RedIRIS provides advanced communications services to these affiliated institutions. In order to provide this service, RedIRIS manages a national dark-fibre backbone (RedIRIS-NOVA), with a core backbone of 10 Gbps, and a dark fibre connection to the Pan-European Research and Education Network GÉANT.

RedIRIS' infrastructures allow the support of research projects that require advanced connectivity services, such as collaborative work, libraries, remote education, virtual tele-immersion, the management of remote telescopes, real-time applications, remote access to supercomputers or the use of GRID technology.

RedIRIS also provides middleware, applications and services to the affiliated institutions: it provides a federated digital identity service, SIR (<http://www.rediris.es/servicios/sir>); it



promotes a mobility project (<http://www.eduroam.es>), it manages a security team (<http://www.rediris.es/cert>); it provides distribution lists to researchers (<http://www.rediris.es/servicios/listserv/>), etc.

RedIRIS participates or has participated in several research and development projects funded by the EU: GN2, GN3, MUPBED, FEDERICA, ALICE, ALICE2, EUMEDCONNECT, EUMEDCONNECT2, EUMEDCONNECT3, EGEE, EGEE-II, EGEE-III, EGI-InSPIRE, EUMEDGRID, EELA, ELLA, EUDAT.

### **Key Personnel**

**Dr. Tomás de Miguel** is the Director of RedIRIS, the Spanish Research and Academic Network, that provides advanced communication services to the scientific community and national universities (at the moment more than 400 affiliated institutions) since 1988. It is funded by the Ministry of Science and Innovation. It is managed by the Public Corporate Entity red.es, which is assigned to the Ministry of Industry, Tourism and Commerce through the Office of the State Department for Telecommunications and the Information Society (SETSI).

Tomás de Miguel is Doctor in Telecommunications Engineering and assistant professor at the E.T.S.I. Telecommunications of the Technical University of Madrid (1998), where he has given courses on computing and communications and he has developed its research in the Department of Telematic Systems Engineering (DIT), working on techniques for formal specification of protocols and technologies for next-generation Internet protocol IPv6 in particular and advanced technologies for collaboration, participation and conducting research projects of national and international (TECODIS, LONG, MIND or Euro6IX), and participating en national and international technical committees.

Until joining RedIRIS, he was responsible for information technology services and communications of the E.T.S.I. Telecommunications and he was Sub-director of Infrastructure and Human Resources. With his work he contributed to the deployment of high-speed network and to facilitate the development of new services for the university.

**Ms. Esther Robles** is Head of Network Department at RedIRIS, the Department of red.es which manages RedIRIS, the Spanish Research and Academic Network. She is responsible for the network engineering planning and coordinates the network operational centre. She joined RedIRIS ten years ago. She is responsible for the designing and implementation of the new advanced RedIRIS network infrastructure and the implementation of new services. She follows new network technologies and protocols and participates in several EC projects as GN2, GN3, FEDERICA, EGEE-III, EUMEDGRID and EELA from FP6/FP7, as well as EUMEDCONNECT, EUMEDCONNECT2, ALICE and ALICE2.

**Mr. Ajay Daryanani** is a senior middleware engineer in the Middleware Area of RedIRIS. He joined RedIRIS five year ago. During his career, he has worked mainly in authentication and authorization infrastructures, developing AAI software like PAPI or eduGAIN, where he also participated in the analysis and design phases. In the GÉANT project he was responsible for implementing and operating the connection between the RedIRIS federation (SIR) and eduGAIN, and developed the eduGAIN filter. He has also participated in other European projects like OSIRIS, STORK and FEDERICA.

### **Role in the Project**

**WP2 (Coordinated Actions for AAI between EU and LA)** - RedIRIS will support the efforts for the creation of Latin American Authorization and Authentication Infrastructure (AAI). Taking advantage of its extensive experience in this field, RedIRIS will contribute to generate

the Action and Policy roadmap to establish the regional AAI organization and federation, will help to identify showcases examples, and will provide training to replicate its knowhow at the Latin-American region.

**WP4. Promoting the deployment of eduroam services.** RedIRIS pioneered the cooperation between Latin-American and European NRENs to implement a federated system eduroam service in Latin America. RedIRIS will keep on contributing to this goal, by contributing to policy coordination with other regional eduroam organizations, to set up pilot experiences, and to design and implement courses to capacitate NREN's technical teams in order to widespread eduroam expertise into the whole region.

### B.2.3. CONSORTIUM AS A WHOLE

#### B.2.3.1. REDCLARA

RedCLARA has already 7 years of experience in collaborating work between the LA NRENs among themselves and with Europe. Created by the EuropeAid funded ALICE Project, RedCLARA has successfully carried over the work done by DANTE as coordinator of the ALICE Project and since 2008 is managing the ALICE2 Project which is creating a state of the art self-sustainable research network in all the Latin American region. RedCLARA started to create its own management structure in 2005 and developed its first Strategic Plan in April of that year. That plan defined that to be sustainable, an organization like RedCLARA had to, among other things, foster the development of collaboration projects that ensure a strong demand for regional e-infrastructures inside the LA region and at the same time strengthen the collaboration with Europe, As a result of this strategy, RedCLARA and its partners has been part of several EU funded projects like:

EELA, EELA.2 and GISELA for the development of a Grid infrastructure

GLOBAL for a globalised Virtual conference system based on ISABEL Technology

EVALSO for the deployment of new ways of using the astronomical observatories and deploying advanced networking for ESO's Cerro Paranal Observatory

AugerAccess for the connectivity to the Pierre Auger Observatory

ELLA to study the possibility of deploying a new submarine cable infrastructure between South America and Europe.

RedCLARA's experience is not limited to EU funded projects, other agencies have funded proposals where RedCLARA and its partners have worked in different content topics:

Telemedicine Public Policies, funded by IDB and coordinated by RNP with RedCLARA's support

e-Science Policies, funded by OAS and coordinated by RedCLARA

Open Access Repositories, funded by IDB and coordinated by RedCLARA

In order to deepen the work initiated during the ALICE Project, a second Strategic Project developed in 2008 lead to the proposal of ALICE2 which is currently being managed by

RedCLARA and funded by EuropeAid. In this project a besides the deployment of the physical infrastructure RedCLARA is actively promoting the construction of User Communities by supporting interested research groups by providing them with information, training, management and the development of a set of collaboration tools integrated in RedCLARA's Portal. In this proposal, WP5 intends to set the basis to extend those services in a federated service involving LA and EU researchers.

The support to the dissemination of information has led to the creation of the Virtual Information Days, where the classical FP7 Virtual Days in Brussels have been extended by VC to all of Latin America connecting over 45 VC rooms in all the region, extending in this way the coverage of InfoDays and increasing LA Participation in FP7 proposals. This work will be extended in WP6.

The work on the Services Portal has been intense in the last year. RedCLARA has integrated open source tools for collaboration, like wikis, Conference Management tools, like Indico (CERN) and Webconference tools /BBB) in a tool for collaboration where today over 70 LA groups are working together in their research.

The work in the Portal is not the only activity in application development, RedCLARA's Working Groups created under the image of **TERENA's** WGs have been creating critical mass in topics like: Ipv6, Videoconferencing, Streaming, eduroam, Security, etc. This groups are going to be the basis for the work in WPs 2 and 4.

Finally, RedCLARA has created SIVIC, a regional scheduling system for videoconferences which seems to be unique as a regional service crossing the domains of the NRENs. In WP3 we propose to set the basis for a future EU-LA interoperable VC service.

#### **B.2.3.2. DANTE**

lis the managing partner of the GN3 Project, and also manages other successful regional networking projects with European and local partners: EUMEDCONNECT2 (North Africa and the Middle East network since 2004), TEIN3 (North, East and South Asia network since 2006), and CAREN (Central Asia network since 2010); DANTE managed the ORIENT project linking GÉANT and China and is the co-ordinating partner of the successor ORIENTplus Project.

DANTE was the was lead partner in ALICE (Interconnecting Latin America with Europe), the EC-funded project which led to the creation of the CLARA organisation and the establishment of the Latin American Research and Education Network, RedCLARA. DANTE maintains its close involvement with Latin American as a Partner of the ALICE2 project and provides support in the management of the project and connectivity procurement, as well as providing a liaison function between the two communities..

DANTE's knowledge of the Latin American Research and Education Community and experience in Europe with the GÉANT projects will be used to support dialogue between the GÉANT eduGAIN and eduCONF services and WPs 2 & 3. This support and liaison function will be provided through WP1.

#### **B.2.3.3. GARR**

The Italian NREN, is currently working in cloud computing in order to develop a cloud service for the research community in Italy, with emphasis on cloud storage resources, and, more specifically, is currently developing and experimental cloud service for the provisioning of

Cloud resources within the model of Federated AAI (Identity Federations, namely the Italian federation IDEM). Its experience in this subject will be used in WP5 in order to study the requirements and recommended standards adoption for the design and implementation of Portal Collaboration services enabling seamless integration of user communities of LA and Europe. WP5 activities will be carried out to identify all required functional elements to be able to provide a service taking into account the main relevant aspects related to clouds, including usability, scalability, reliability, privacy and other legal issues.

GARR has an extensive experience in working in EU funded projects, being the coordinator or relevant EU projects like ELLA (EU-LA networking) and DECIDE (e-Health infrastructure for clinical and medical services provisioning in the domain of neurodegenerative diseases), and being (or having recently been) involved in many EU funded projects (FEDERICA, EUMEDGRID-Support, EUIndiaGrid, EUMEDCONNECT, etc.).

#### **B.2.3.4. RNP**

The Brazilian NREN is the most advanced NREN in Latin America. Its work in security and authentication issues has led to the creation of the Brazilian Federation of Certification and Authentication Federation (CAFe), the first working federation in Latin America. RNP has been extremely generous by sharing its experience with LA NRENs, training the NREN technicians and sharing its dissemination material and experience. In WP2 RNP will lead the creation of Federations in other LA countries creating a systematic methodology to support such endeavour, coordinating with the European federations and defining models for interoperation with eduGAIN services. This will be done in tight coordination with TERENA and European initiatives.

RNP is at present deploying eduroam in Brazil and integrating it into worldwide eduroam service. Its experience will be crucial to support the spread of this service across all the region. Present laboratory of eduroam run by RedCLARA's WG will be a basis to work that has been created with the strong support of RNP and Peruvian RAAP. In this project, with the support of TERENA, RNP will again lead the way for a sustained increase in the development of this service across all LA region.

RNP has an extensive experience in collaboration with their peers in LA. It has been a key player in the training being provided to LA NREN technicians, in the coordination of the WGs of RedCLARA and numerous projects, like: EELA, EELA-2, RINGRID, etc.

#### **B.2.3.5. RENATA**

The combination of administrative and technical staff at RENATA do a great compliment when Developing high-demand projects. Leader in the Development of IPv6 in ACIS-REDIS Colombia. Technical Committee member of RedCLARA. Dialling System Development and distribution of videoconference for RENATA network, support the project design and VNOG and SIVIC for RedCLARA Strong interest in research and Professional Development, part of select group Telecommunications Research Participate in national conferences have international and Technological Appropriation, Telecommunications and security systems. High level analytical skills in Structuring, Implementation and leadership of technology projects, and information security, teamwork and interpersonal relationship management. Hold office AIMS to enable Developing professional interest in research and growth, requiring staff and Enable Technically Demanding growth RENATA leads WP3.

### **B.2.3.6. TERENA**

TERENA's main strengths are the extensive and consolidated experience in leading/participating in pan-European initiatives and large-scale studies such as:

- (i) the SERENATE project (completed in 2003) the EARNEST foresight study (2007) and the most recent ASPIRE foresight study update (on-going).
- (ii) the TERENA Compendium of National Research and Education Networks in Europe; since 2001 the TERENA Compendium provides an authoritative reference source for anyone with an interest in the development of research and education networking in Europe and beyond.

TERENA also participate in the GÉANT project in different capacities. The most relevant to the ELCIRA work are:

- a) the "Multi-domain User Application Research" (JRA3) activity which aims to enable federated access to infrastructures and services for end-users.;
- b) the "Service Partner Promotion" (NA-T2) task which aims to promote the deployment and uptake of GÉANT services at a local level (i.e. through national promotion actions) by providing information on existing or newly developed services;
- c) the "Status and Trend Activity" (NA3) monitor the status and trends of various developments in and around the research networking environment that are directly relevant to the GN3 project.
- d) the task "NRENs Development" (NA4-T5) which aims to contribute to diminishing the divide in the level of research and education networking facilities and services that exists between different countries and regions.

Furthermore TERENA runs several task forces in technical management/business and communication areas.

### **B.2.3.7. REDIRIS**

Participates or has participated in several research and development projects funded by the EU: GN2, GN3, MUPBED, FEDERICA, ALICE, ALICE2, EUMEDCONNECT, EUMEDCONNECT2, EUMEDCONNECT3, EGEE, EGEE-II, EGEE-III, EGI-InSPIRE, EUMEDGRID, EELA, ELLA and EUDAT.

RedIRIS has led the AAI work item in GN2 and has been very involved in that area in GN3, playing a key role in developing and deploying eduGAIN, and providing AA services to the perfSONAR and AutoBAHN initiatives. RedIRIS also collaborated with the European industry through the ITEA OSIRIS project. At national level, RedIRIS provides an AA service called SIR, with more than 100 service providers, and many identity providers, including most Spanish universities and research centres.

RedIRIS has also contributed significantly to eduroam, both in GN2 and GN3, and has deployed this service in more than 100 connected centres. RedIRIS has already collaborated with Latin-American NRENs to promote the deployment of eduroam in the region.

The combination of the abilities of the partners and the previous experience of joint work in projects like ALICE and ALICE2 (DANTE, RedCLARA, GARR, RENATER, RedIRIS, FCCN),

EVALSO (GARR, RedCLARA, REUNA, etc.) ensures the success of this collaboration project.

#### **B.2.3.8. SUBCONTRACTING**

The following activities will be subcontracted as they correspond to Minor Tasks:

**Material Printing:** It corresponds to the printing of Brochures, Flyers, Posters and other material needed for service and project promotion. We have allocated a total of € 25,000 for this item.

**Conference Organization:** It corresponds to conference expenses such as Catering, Room and Audiovisual support, plus the payment of Booth Space to participate in selected conferences where the services will be promoted, such as e-Challenges and other conferences. We have allocated a total of € 15,000 for this item.

The providers will be selected according to the needs of the project and respecting the dispositions of the EC grant agreement, basing the selection on best quality/price ratio.

#### **B.2.3.9. THIRD PARTIES**

##### ***UNIVERSIDAD INDUSTRIAL DE SANTANDER***

For the Work in WP6 and User Communities Coordination, RedCLARA counts on the Work of Professor Luis Núñez, a full time Professor of **Universidad Industrial de Santander (UIS)**, a prestigious University of Colombia. By means of an agreement with CLARA, Professor Núñez' working time is reimbursed to the University. This human resource is very important for the project, since tight coordination with user groups requires the skills of a peer scientist for coordination and Professor Núñez has the credibility required to work with the community. He brings in the project the experience of work in several FP7 Project, among which: EELA, EELA-2, GISELA and CHAIN.

This resource falls in the case of third party making some of its resources available to the beneficiary. The beneficiary will reimburse UIS following FP7's Financial Guidelines. Resources necessary to reimburse Universidad Industrial de Santander (UIS) for the work of Professor Núñez in the ELCIRA Project are being requested by RedCLARA who will reimburse UIS according to the time devoted by Professor Núñez to the project. The amount of resources allocated to this item is an estimated of 12 PMs with a budget of € 72,000 in the 2 years project, plus 7% of indirect costs.

The Project will also cover Professor Núñez's travel expenses for the WP6 Meetings (2) and the Steering Committee meeting (1). This amounts to and estimated of € 6,400 plus indirect costs (7%).



## B.2.4. RESOURCES TO BE COMMITTED

The personnel involved in the project amount to a total effort of 239 PMs distributed as 16 PMs for Project Management and 223 PMs for the Coordination Activities. The following is the distribution of PMs by WP and by Partner, separating funded from unfunded resources:

Partner	CLARA		DANTE		GARR		RNP		RENATA		TERENA		RedIRIS		Total	
	F	U	F	U	F	U	F	U	F	U	F	U	F	U	F	U
<b>PMs per WP</b>																
WP1	6.5	4.5	0.5		0	1	1		1		0.5		1		10.5	5.5
WP2	13				3	2	27				0.5		2		45.5	2
WP3	11						1		6						18	0
WP4	8						23				0.5		1	1	33.5	0
WP5	31	11			11	11					0.5				41.5	23
WP6	34								8						42	0
WP7	12						3		2		0.5				17.5	0
<b>Total PMs for Consortium Management</b>	<b>6.5</b>	<b>4.5</b>	<b>0.5</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0.5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>10.5</b>	<b>5.5</b>
<b>Total PMs for the Coordination Activities (Category "COORD")</b>	<b>109</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>13</b>	<b>54</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>198</b>	<b>25</b>
<b>Total PMs</b>	<b>115.5</b>	<b>15.5</b>	<b>0.5</b>	<b>0</b>	<b>14</b>	<b>14</b>	<b>55</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>2.5</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>208.5</b>	<b>30.5</b>

As it is seen from the table, the total number of PMs to be funded by the EC is 208.5 while the PMs funded by the partners are 30.5.

The total funds requested from the EC for this proposal amounts to € 1,000,000 out of a total cost of € 1,360,695.

The total of man power resources amounts to € 868.750 while the Travel expenses are € 180.600 and the Material, Conference Organization and other visibility actions are set to € 40,000. These latter costs correspond to Subcontracting. The indirect costs capped at 7% amount to € 76,255. The following table summarizes the resources requested by partner:

	CLARA	DANTE	GARR	RNP	RENATA	TERENA	RedIRIS	
<b>Manpower</b>	€ 458,500	€ 2,750	€ 182,000	€ 137,500	€ 42,500	€ 2,300	€ 22,500	<b>€ 868,750</b>
<b>Travel</b>	€ 69,100	€ 7,400	€ 16,500	€ 31,800	€ 19,500	€ 19,800	€ 16,500	<b>€ 180,600</b>
<b>Material, Conference Organization and other</b>	€ 40,000	€ 0	€ 0	€ 0	€ 0	€ 0	€ 0	<b>€ 40,000</b>
<b>Indirect Costs</b>	€ 105,520	€ 4,675	€ 92,950	€ 23,000	€ 7,500	€ 29,900	€ 7,800	<b>€ 271,345</b>
<b>Total Costs</b>	€ 673,120	€ 14,825	€ 291,450	€ 192,300	€ 69,500	€ 2,700	€ 46,800	<b>€ 1,360,695</b>
<b>Indirect Costs capped at 7%</b>	€ 36,932	€ 711	€ 13,895	€ 11,851	€ 4,340	€ 2,996	€ 730	<b>€ 73,455</b>
<b>Total Project Costs with Indirect Costs capped at 7%</b>	€ 604,532	€ 10,861	€ 212,395	€ 181,151	€ 66,340	€ 8,796	€ 41,730	<b>€ 1,162,805</b>
<b>Requested EC Contribution</b>	€ 544,706	€ 10,860	€ 115,024	€ 180,853	€ 65,846	€ 8,796	€ 36,915	<b>€ 1,000,000</b>

The travels are limited to 41 Transatlantic trips, 26 trips inside LA and 19 trips inside Europe for a total of 101 trips. The trips are necessary for the following scheduled meetings/events:

<b>Management Meetings</b>	<b># Meetings</b>
Kick Off Meeting	1
1rst Review	1
2nd Review	1
Steering Committee Meeting	1
Technical Committee Meeting	1

<b>Technical Meetings</b>	<b># Meetings</b>
WP2 Meetings	2
WP3 Meetings	2
WP4 Meetings	2
WP5 Meetings	2
WP6 Meetings	2
Dissemination in Conferences	7
Travel for eduroam Training	1
Travel for AAI Training	1
EU Projects Meetings	2

The minimum number of face to face meetings established is considered necessary to ensure the proper development of the project, since working teams have to build a unified working team between LA and EU. This implies building trust and ensuring the appropriate communication between technical teams that have not worked together previously in a joint technical project. We have limited those meetings to a minimum of one per year. The management meetings on the other side are required for the appropriate coordination and team building too, as well as the dissemination activities and participation in EU organized conferences.



Finally, the Funds requested for Dissemination, Conference participation and Materials are essential to ensure visibility and to reach the collaborating projects between LA and EU which attend the selected conferences.

Besides these costs, the eduCONF and eduGAIN services of the GÉANT Community will collaborate with the Latin American Partners for the corresponding work in WPs 2 and 3.

The RedCLARA Portal and SIVIC System developed within the framework of the ALICE2 Project will be made available to the project partners for coordination and also as a basis for a future Collaboration Partner to be deployed in the agreed forms on both sides of the Atlantic. Additionally,

Throughout the remainder of the ALICE2 Project (end of 2012), the ALICE2 Technical Meetings will also allow for training activities to be delivered in a face-to-face setting, thereby enriching the on-line experience of training proposed by this project.

### **B.3. IMPACT**

#### **B.3.1. STRATEGIC IMPACT**

##### **B.3.1.1. SUPPORTING THE IDENTIFICATION AND SYNERGY BETWEEN PROJECTS RELATED TO ICT INFRASTRUCTURES AND E-INFRASTRUCTURES-BASED RESEARCH, FUNDED BY INTERNATIONAL DEVELOPMENT AID AGENCIES IN ONE OR MORE DEVELOPING REGIONS**

The project is completely aimed at coordinating activities between Latin America and EC-funded e-infrastructure activities:

WP2 refers to extending the AAI infrastructure developed by several EU funded projects, such as EGI, EELA and the eduGAIN service developed by the GÉANT Community.

WP4 aims at creating the conditions for the inclusion of Latin America in the global eduroam service, a major achievement of EU e-Infrastructure projects.

WP3 seeks to establish the basis for an interoperable VC System between Latin America and Europe. This action seeks to extend to Europe the work being done in Latin America with the support of the EC (SIVIC service developed by ALICE2) and to coordinate it with the work being done by the GÉANT Community for the future development of the eduCONF service.

WP5 seeks to create the basis for a future interoperable collaboration support system, be this in the form of a Portal working as a cloud service (using principles such as Google Apps) or a set of federated interoperable applications where researchers of Latin America can share a collaboration space that will serve the needs of EU-LA collaboration projects and may also be extended to other regions in the future.

### **B.3.1.2. PROMOTING THE IDENTIFICATION, DEVELOPMENT, INTEGRATION AND EXPLOITATION OF E-INFRASTRUCTURES OF COMMON INTEREST TO EUROPE AND TO DEVELOPING REGIONS, (E.G., CONNECTIVITY WITH LATIN AMERICA)**

In WP6 the project will build a report on large infrastructures of interest to both Latin America and Europe that could become big users of e-Infrastructures, such as the Astronomical Observatories in Chile, the Cosmic Ray observatories in Argentina, the CERN LHC, the Geodesic Observatories in Brazil and Chile, and so forth. A complete report on such large users will help to increase the use of the RedCLARA-GÉANT interconnection and will raise the importance of Research and Education Networks among Latin American and European decision-makers.

Also in WP6 the project will identify case studies that will serve as powerful demonstrators of the importance of e-Infrastructures for research and innovation. In this way we intend to prove to the decision-makers the importance of their support for increased collaboration that will benefit both regions (Latin America and Europe).

### **B.3.1.3. HIGH QUALITY VIDEO-CONFERENCE SERVICES INTEGRATION FOR ADVANCE RESEARCH GROUPS INTEGRATION**

In order to promote the collaboration between the research groups of Europe and Latin America, ELCIRA will drive specific actions to determine the scope of a future High Quality Video Conference Service (HQVCS) between Europe and Latin America. This type of service could be very useful for Telehealth communities favouring diagnosis and/or clinical meetings across the two continents. It could also be a key tool for research groups that need to collaborate analysing high resolution images. The idea is to focus on the impact of this service on research collaborations that demand this high end tools. The integration of these videoconference services will be accomplished through the definition and agreement of service requirements, including operation and user support (Help Desks) as well as to determine the service architecture delivery, including web interfaces.

### **B.3.2. PLAN FOR THE USE AND DISSEMINATION OF FOREGROUND**

The aim of WP6 is to increase participation of Latin American researchers in EC-funded Programmes by means of a series of actions supporting the creation and maintenance of communities of researchers and by promoting funding opportunities among Latin American researchers, facilitating the partner search and training Latin American researchers to prepare more effective proposals, hence increasing real participation and quality.

WP7 will be responsible for visibility actions that will spread the use of e-Infrastructures: eduroam, eduGAIN, the RedCLARA-GÉANT interconnection, etc., raising visibility of the e-Infrastructures and the services to be provided among Latin American researchers and their base institutions, as well as creating a community of users that will demand these services and help spread the importance of their use. This WP will also be responsible for collecting and reporting the impact metrics committed in B.1.1.

The global interoperability of services such as eduroam, eduGAIN and VC services is the ultimate goal of the project. WPs 2-5 will create the basis for European-Latin American interoperability as well as creating the momentum for NRENs around the world to move into this arena and following the example of eduroam and eduGAIN to provide a unified set of services in benefit of collaboration at a global scale.

#### **B.4. ETHICS ISSUES (IF APPLICABLE)**

No ethic issues involved.