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Deliverable D4.1

Demonstration of eduroam at TICAL 2012 Conference

A project of the Seventh Framework
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Periodical Progress Report

ELCIRA Deliverable: D4.1 – Demonstration of eduroam at TICAL2012

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Abstract: The eduroam wireless service was deployed at the TICAL 2012 conference to support seamless roaming for the 184 attendees. With 27 countries represented, 12 of which have national deployments of eduroam, the network was used by 10 (ten) user devices during the conference from 6 (six) different organisations. A total of 28 people from 13 eduroam enabled organisations attended the event and this was the maximum number of users that could have utilised the service. These statistics will be used to compare growth at TICAL 2013 and TICAL 2014 conferences.

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DELIVERABLE ROUTE

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1.- INTRODUCTION

The kick-off meeting for ELCIRA was aligned with TICAL 2012 to allow a demonstration of the eduroam wireless inter-federation service at this meeting both to assess current deployment and provide a baseline for adoption over the 24-month period of the project as it is anticipated that eduroam will be deployed at TICAL 2013 and TICAL 2014 conferences.

2.- TICAL 2012

The conference has grown significantly since TICAL 2011 with more than double the previous number of participants. TICAL 2012 had 184 attendees from 27 different countries, 12 countries currently have a national deployment of eduroam.

Countries with eduroam (12)	Brazil, Canada, Czech Republic, Greece, Italy, Japan, Netherlands, Peru, Spain, Sweden, United Kingdom, United States of America
Countries without eduroam (15)	Argentina, Bolivia, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, India, Malawi, Mexico, Nicaragua, Paraguay, Uruguay, Venezuela

Table 1 - Countries with/without eduroam

There were 75 attendees from the 12 countries were eduroam is available with 10 people from commercial organisations (not applicable for eduroam access) and 65 people from academic, research and education organisations. These attendees came from 8 geographic realms and 2 non-geographic realms (.edu and .net)

Realm (Geographic and Non-Geographic)	Number of People
br	11
ca	1
cz	1
edu	1
gr	1
it	4
net	2
nl	1
pe	42
se	1
Grand Total	**65**

Table 2 - Top-Level Realms Supporting eduroam and Potential Users

Of these 65 people from countries capable of supporting eduroam, 28 people from 13 organisational realms/domains, which support eduroam, were in attendance.

The network was used by 10 (ten) user devices during the conference from 6 (six) different organisations. Due to the privacy preserving nation of eduroam only "user devices" can be accurately identified for statistical purposes, while the identity of users can be revealed only in the case of security incidents.

3.- STATISTICS

REPORTE DEL RADIUS TICAL

FECHA: Lunes 2 de Julio del 2012

	ACCESOS EXITOSOS	ACCESOS FALLIDOS	Total
RADIUS TICAL	60	15	75

DETALLE DE USUARIOS

RADIUS TICAL Usuarios Aceptados	Cantidad de Accesos
anonymous@terena.nl	16
██████@ufrgs.br	14
██████@umu.se	8
█████@inictel-uni.edu.pe	8
█████@CT.INFN.IT	7
█████@rnp.br	7

RADIUS TICAL Usuarios Rechazados	Cantidad de Accesos
████@rnp.br	5
█████@ufrgs.br	4
█████@dante.net	3
█████@cenit.gob.ve	2
█████@ufrgs.br	1

Fig 1 – Report of people/country using eduroam on 2 july at TICAL2012. Source: Data obtained from the eduroam Radius server rsyslog TICAL2012

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REPORTE DEL RADIUS TICAL

FECHA: Martes 3 de Julio del 2012

	ACCESOS EXITOSOS	ACCESOS FALLIDOS	Total
RADIUS TICAL	199	84	283

DETALLE DE USUARIOS

RADIUS TICAL Usuarios Aceptados	Cantidad de Accesos
anonymous@terena.nl	59
██████@ufrgs.br	47
██████@umu.se	24
██████@rnp.br	16
██████@inictel-uni.edu.pe	16
██████@inictel-uni.edu.pe	10
██████@CT.INFN.IT	9
██████@reuna.cl	9
██████@ufrgs.br	5
██████@inictel-uni.edu.pe	4

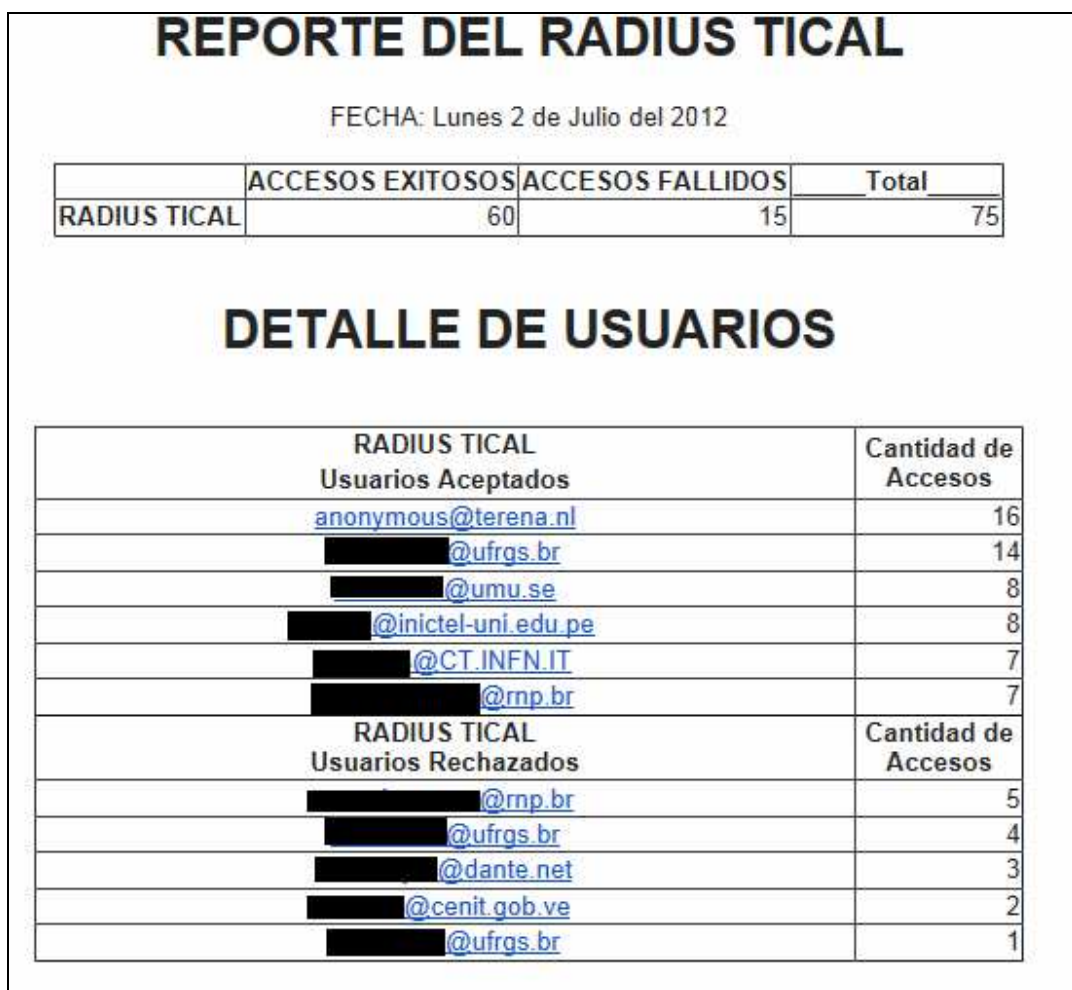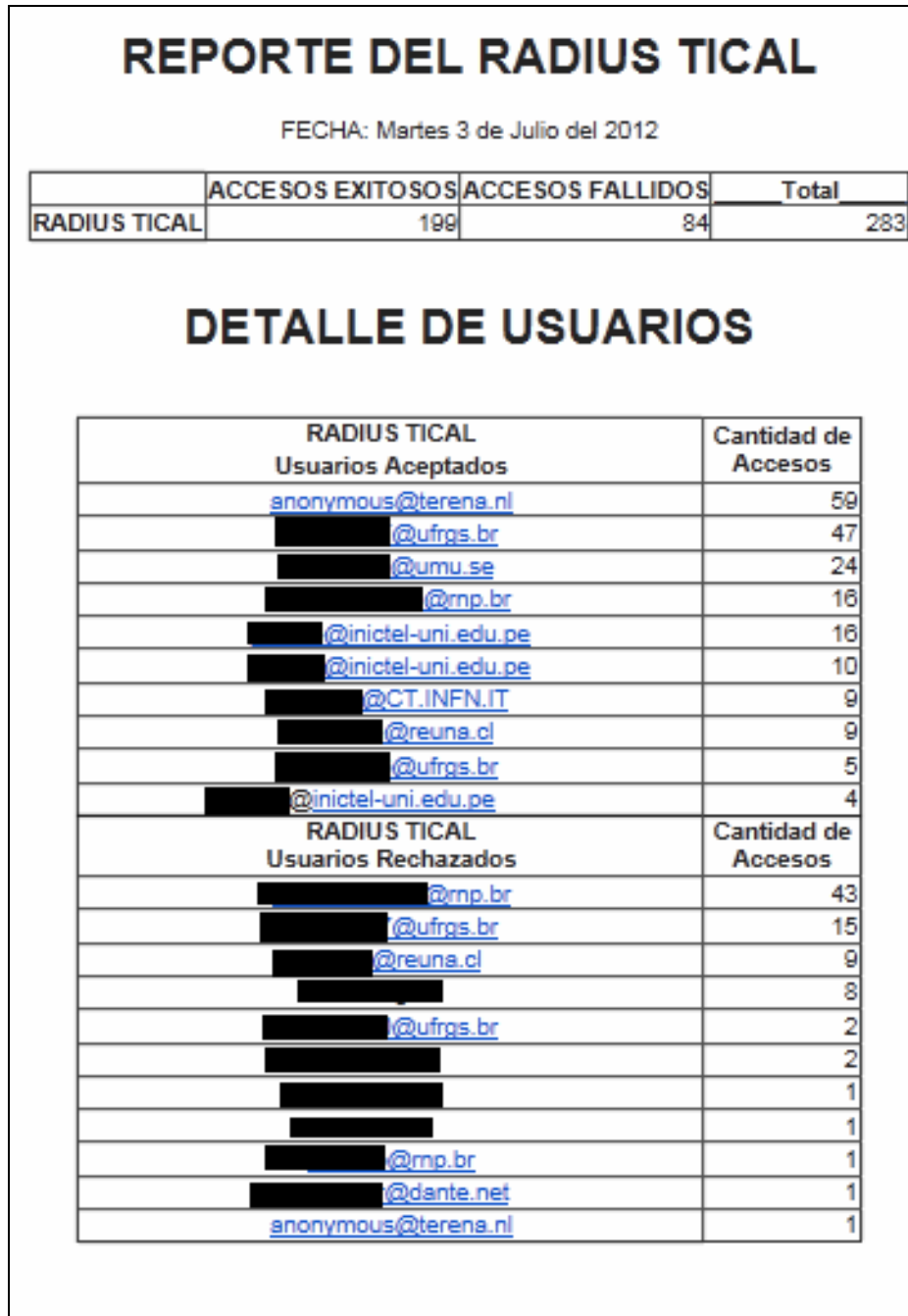| RADIUS TICAL Usuarios Rechazados	Cantidad de Accesos
██████@rnp.br	43
██████@ufrgs.br	15
██████@reuna.cl	9
██████	8
██████@ufrgs.br	2
██████	2
██████	1
██████	1
██████@rnp.br	1
██████@dante.net	1
anonymous@terena.nl	1

Fig 2 – Report of people/country using eduroam on 3 july at TICAL2012. Source: Data obtained from the eduroam Radius server rsyslog TICAL2012

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4.- NETWORK LAYOUT

For the conference two parallel networks were deployed by RAAP staff.

SSID	Security	Accounts	Total Unique Devices/Users
eduroam	TKIP, 802.1x	Institutionally Assigned	Ten (10)
TICAL2012	WEP	1 Shared Secret	unknown

Table 3 - Wireless Networks at TICAL 2012

TICAL2012 conferences were held in a hotel, which were distributed into four rooms, one on each floor, and to provide the eduroam service, extended connectivity Peruvian Academic Network (RAAP) to the hotel, making in a network node.

The routing devices, switching and Radius server were installed in the datacenter of the hotel, and the distribution of access points was performed installing additional network cabling in the four floors.

Each room had two networks: eduroam and TICAL2012

SSID: TICAL2012	SSID: eduroam
Security: WEP	Security: TKIP + 802.1X
Key: TICAL12345678	RADIUS: 200.37.45.194
Network: 192.168.10.0/24, VLAN 10	Network: 200.37.45.192/26, VLAN 20
DHCP: 192.168.10.2 (C3750X)	DHCP:200.37.45.194 (Radius Server)
NAT on Router	Floor 1: autonomous access point
Floor 3, 4 and 5: WLC	Florr 3, 4 and 5: WLC

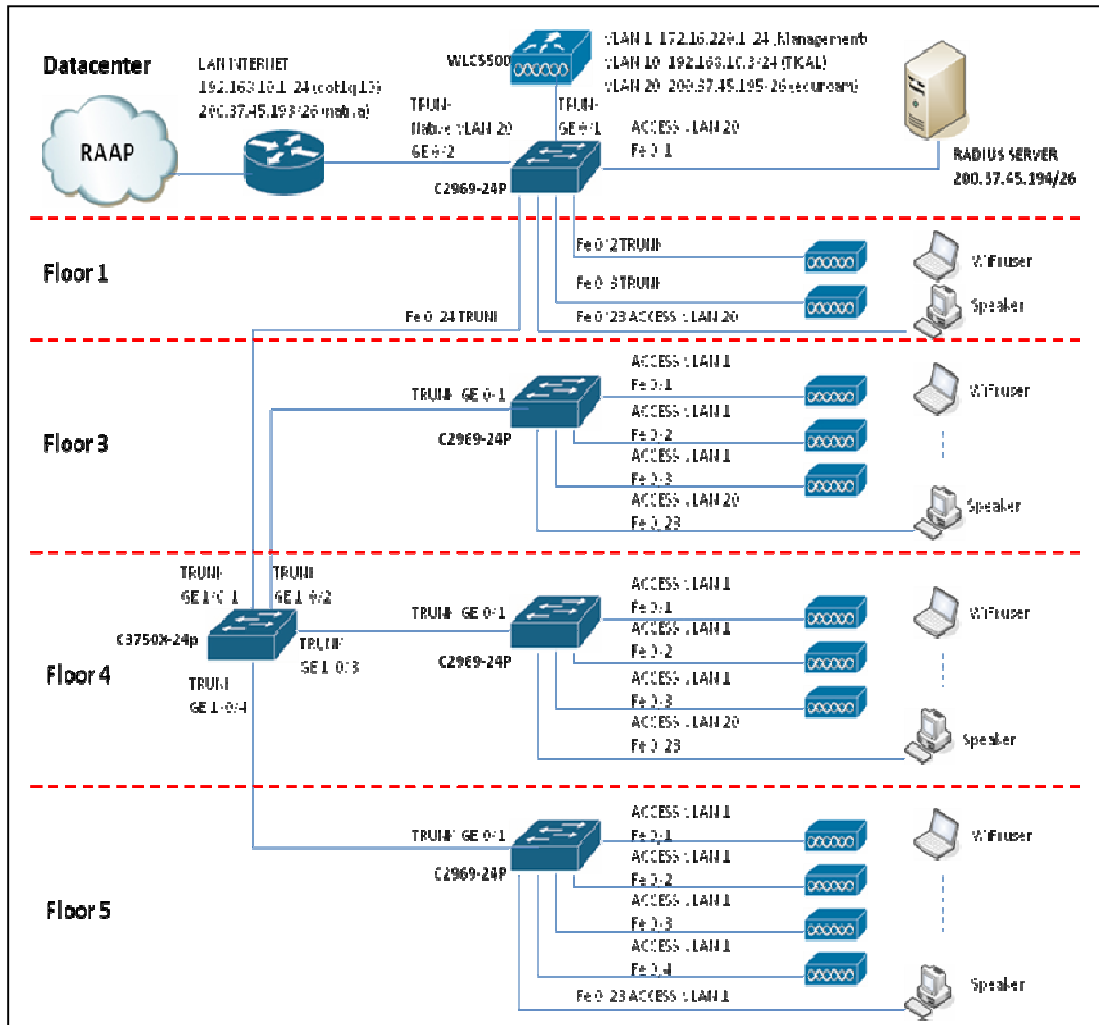**Table 4 - Wireless Networks Configuration at TICAL 2012**

Table 4 – Network Layout at TICAL 2012

5.- ISSUES ENCOUNTERED

No issues with the eduroam wireless network were encountered or reported during the conference.

An issue was identified between the regional proxy server for Latin America (RPS-LA-PERU) and its peering with the Top-Level RADIUS services (ETLR).

Some NREN offices (Chile and Venezuela) had directly connected to the RPS-LA-PERU to take advantage of eduroam at TICAL 2012. These organisational configurations were NOT reflected in the ETLRs and would result in these pilot users being unable to use eduroam in the rest of the world.

This misconfiguration was corrected by the ETLR administrators in preparation for country level deployment of eduroam.

6.- FUTURE DEVELOPMENTS

eduroam will be deployed at TICAL 2013 (location to be decided) and this report will be used as a baseline to assess the improved adoption of the service over the intervening 12 months.

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