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Deliverable N°4.2
NRENum.net deployed in 3 new NRENs

Periodical Progress Report

MAGIC Deliverable: 4.2 NRENum.net deployed in 3 new NRENs

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Abstract: This document outlines the activities and efforts made by WP4 to achieve the objective to implement the NRENum.net service in three new NRENs.

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DELIVERABLE ROUTE

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1. INTRODUCTION

The goal of this document is to report the WP4 activities and their efforts to have NRENs adopting the NRENum.net service. The document describes the carried out activities and the process that they have been following to achieve it. Furthermore, the working group included the list of NRENs that have joined to the NRENum.NET service.

2. GLOSSARY

DNS	Domain Name System
EC	European Commission
EU	European Union
EU-LAC	Europe, Latin America and the Caribbean
E.164	ITU Recommendation for telephone numbering format
ENUM	E.164 number mapping using DNS service
NRENum.NET	ENUM service run by GÉANT
NREN	National Research and Education Network

3. EXECUTIVE SUMMARY

In the work package 4, there is a goal on NRENs implementing NRENum.NET service is 3 new NRENs in the first 6 months, and 3 additional NRENs by month 12. The MAGIC work package 4 team has achieved a total of 6 new NRENs that joined and implemented the NRENum.NET service. The 6 new NRENs correspond to 5 in Latin-America and 1 in Asia. NRENum.net in Latin America has a high level adoption for NRENs due to their commitment with the MAGIC Project. In Asia, the lack of information about what are the benefits about this service is what NRENs are experiencing and therefore end-users normally do not understand the difference between having this service and commonly IP dialling that they are used to. WP4 is still working in the promotion of benefits and improving the delegation process of the service to spread the adoption of the service in new regions.

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4. DOCUMENT AMENDMENT PROCEDURE

Requests for amendments to this document must be made to the author, Hernán García, WP4 – RENATA®, Noremberg Jaimes n.jaimes@renata.edu.co, and copied to the Management of the MAGIC project.

5. REFERENCES

[R1]   MAGIC Website   http://www.magic-project.eu

[R2]   NRENum.net Website   https://nrenum.net

[R3]   RedCLARA courses   http://cursos.reclara.net

6. WORK SCHEDULE TEMPLATE

In the efforts to foster the NRENum.net service implementation, the work package team has been working with NRENs from different regions. The work include guiding them to follow the steps to obtain the delegation of the NRENum.net zone according to their E.164 country codes.

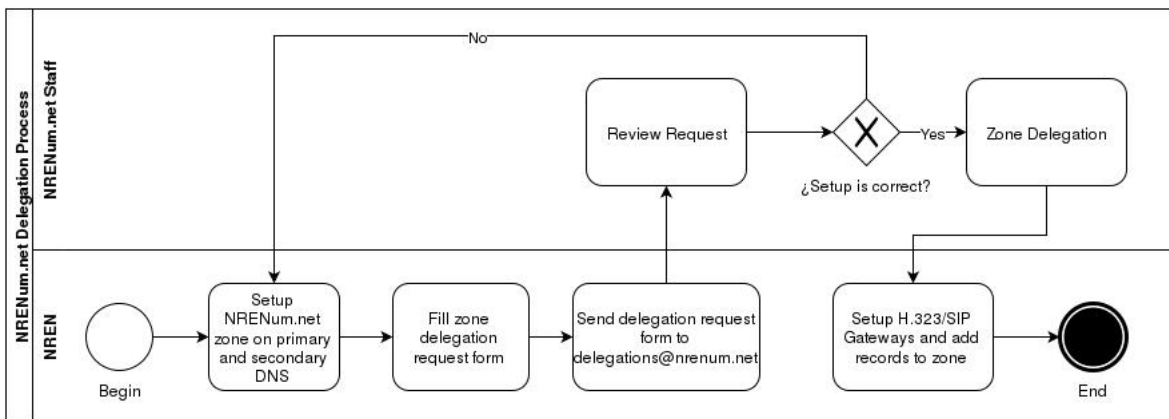The Figure 1 depicts the delegation process followed by an NREN.

Figure 1. NRENum.net Delegation Process

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In order to guide NRENs in the NRENum.net delegation process the WP4 established a work plan with the steps to follow and the approximated time consumed by each of them.

Work Schedule is defined as:

	Activity	Description	Time	Date	Status	Results
1.	Introduction to NRENum.net service	Informative presentation by RENATA about NRENum.net service	1 Hour			NREN understands what are the benefits, importance and next steps to implement this service.
2.	Setup of NRENum.net zone on primary and secondary DNS server	Few iterative practical sessions with RENATA tech support	8 Hours			Primary and secondary DNS servers configured to provide ENUM to NRENum.net tree
3.	DNS zone tests	Tech support on test the zone to be delegated	1 Hour			Configuration is correct of the zone to be delegated
4.	Prepare zone delegation request form NRENum.net	Fill the form with the support of RENATA	1 Hour			Delegation form is filled
5.	Send of delegation form	Send form to delegations@nrenum.net with RENATA support	1 Hour			Delegation request done
6.	Setting up H.323/SIP Gateways	Setup H.323/SIP Gateways to use ENUM as dialing mechanism	2 Hours			H.323/SIP Gateways are set to use NRENum.net service
7.	Test calls using ENUM with NRENum.net service	Test calls using telephone numbers between institutions.	2 Hours			Ready to use NRENum.net service
Process duration			**16 Hours**			

Table 1. Work Schedule Plan for NRENum.net zone delegation

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7. NRENUM.NET PROMOTION ACTIVITIES

Formal invitations were sent to the majority of APAN members in collaboration with TEIN*CC partner of MAGIC Project, we received a few answers showing their intentions to know a little bit more about the service and eventually make efforts to implement it.

In Collaboration with the WP6 of the MAGIC Project we have been spreading the information about the NRENum.net online course that the WP4 has made in order to catch the attention of the academic community. This course is publicly available for all users in RedCLARA's Moodle platform.

In January 2016, RedCLARA made a presentation in the APAN 41th Meeting in Manila, Philippines in order to spread information about the NRENum.net service such as requirements, delegation process, protocols involved, features and benefits in order to catch the APAN members attention. After this meeting, contacts with NRENs in Asia has been done.

8. NRENUM.NET DEPLOYED IN THREE NEW NRENS

After completing these steps and fulfilling the technical requirements established in the NRENum.net service policy (available at https://nrenum.net/policy) the following are the newly NRENs that implemented the NRENum.net service:

1. CEDIA the Ecuador's NREN
   Joined in July 25 of 2015
   Website: http://www.cedia.org.ec

2. RAICES NREN from El Salvador
   Joined in Sep 30 of 2015
   Website: http://www.raices.org.ec

3. CUDI the Mexican NREN
   Joined in October 15 of 2015
   Website: http://www.cudi.edu.mx

4. RAU (*Red Académica de Uruguay*) the Uruguayan NREN
   Member since November 27th, 2015.
   Website: http://www.rau.edu.uy/

5. LEARN (Lanka Education and Research Network) the NREN of Sri Lanka
   Member since December 14th, 2015

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Website: http://www.ac.lk/

6. REUNA (*Red Universitaria Nacional*) the Chilean NREN
   Member since January 7th, 2016
   Website: http://www.reuna.cl/

It is worth highlighting that the amount of NRENs implementing NRENum.NET in Latin-America has overcome the innitial goal of three. With 5 new NRENs that joined, the adoption of NRENum achieved a total of 10 NRENs that implemented the service (Argentina, Brazil, Chile, Colombia,Costa Rica, Ecuador, El Salvador, México, Perú, and Uruguay).

Results in Asia has not been as good as in Latin-America because only the NREN from Sri Lanka joined the service. The working group is in close contact with APAN leaders to try to pass this issue.

RAU the Uruguayan NREN was contacted by RENATA offering support to implement NRENum.net service and then a meeting was scheduled to explain the service definition, features and benefits. Afterwards, RAU showed interest to implement the service and taking advantage of their DNS expertise

LEARN The Sri Lanka NREN was directly contacted by RENATA after noticing that they have previously started the process before but then something happened and the contact with the NREN was lost. LEARN answered the call and after exchanging some emails they started to work again on the NRENum.net setup and finally after fulfilling technical requirements the zone was delegated.

REUNA was one of the first NRENs contacted by RENATA but after overcome some technical issues they had they started again the delegation process. A videoconference meeting with the REUNA technical team was made and after communications by email they accomplished the zone delegation.

According to the Milestone No.11 our main purpose was to deploy NRENum.net service in at least three (3) NRENs from Asia-Pacific region, since December 2015 works actually with this service is Sri Lanca (LEARN), but we still trying to spread this service across other regions, we had approachs with TEIN and Ubuntunet in May and June 2016, and we hope to has the other two (2) NRENs connected by September 2016.

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9. NRENUM.NET ADOPTION

The NRENum.net service has had a great adoption level in Latin America and the WP4 is still working on improving the delegation process and promotion of the service.

These are the reasons NRENs have difficulties in the NRENum.net adoption.

- Lack of information about features, benefits and how it works
- Technical issues
- Lack of example use cases

WP4 is now trying to create some promotion material, example use cases and encourage NRENs to use the service before implement it, this is because NRENum.net service is public to query.

10. CONCLUSION

NRENum.net service provides a better and easy way to connect real time communication services using traditional number dialling mechanism end-users are used to, WP4 identifies that there is a need to use NRENum.net before implementing it to better understand the benefits of the service itself. NRENum.NET adoption's goal has being achieved in the amount of 6 new NRENs connected to the service, and the goal in Latin-American region has been overcomed. Nevertheless, efforts shall be continued in Asia and other regions where it is expected to have new implementations.