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Magic

Middleware for collaborative Applications
and Global virtual Communities

Deliverable N°2.6
eduroam pilot

Periodical Progress Report

MAGIC Deliverable: D2.6-eduroam pilot

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Abstract: After the online training, it is expected that NRENs Focal points provide technical follow-ups in order to create an eduroam infrastructure, in pilot basis, using the same AAI user database. This document describes this task among all institutions.



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DELIVERABLE ROUTE

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1. INTRODUCTION

Operating a federation involves managing and supervising eduroam Identity Providers, eduroam Service Providers, as well as keeping authentication logs, fulfilling uptime requirements, etc. A prospect National Roaming Operator (NRO) also needs to commit to the eduroam policy.

The Roaming Operator (RO) may outsource the operation of its technical infrastructure (particularly, the Federation Level RADIUS servers) to a third party, but will remain responsible for eduroam within its service area. Eduroam is always easier to “sell” to organizations because it propose mobility to the institutions users, what is quite challenging comparing with another commercial solution. Although all difficulties, WP2 members are moving forward with eduroam implementation all over the world, averagely.

In the other hand, unfortunately, MAGIC project manager, Florencio Utreras, has reported that he has received a letter from CKLN’s Director, Ken Sylvester informing that CKLN closed down at the end of September 2016. The European Commission has been informed of the situation and consultations are underway to decide on the avenues to take as what regards the contract with the EC and the work that CKLN had committed. Because of this, Caribbean region is not reported in this deliverable.

1.1. PURPOSE OF THE DOCUMENT

This document has the purpose of describe all initiatives of implementation eduroam as a pilot. Generally the pilot phase is needed to test the project deliverables “in the field” so that when the eduroam artefacts are released to production, many or all issues have been found and added to the issues log so that they may be rectified by the project’s technical working group. Regarding eduroam pilot phase, technical team start of eduroam implementation, when all policies are written down and all infrastructure to support a limited number of participant, is installed and configured. There is also the added bonus that, when the artefacts are released to production, the pilot phase participants will have already had experience in using eduroam and implementing the data flows.



2. STATUS OF PILOTS

2.1. ARAB COUNTRIES REGION



ASREN, the Arab States Research and education Network is the Arab regional organization that works on developing the Pan Arab e-Infrastructures to contribute and to support the developments of research and education activities in the Arab region and to provide mean of collaboration with researchers and academics around the world.

Under the MAGIC Project, ASREN conducted many activities towards developing AAI, eduroam, NRENum.net and Colaboratorio in the region. ASREN conducted training workshops, face-to-face meetings and virtual conference call meetings to spread the awareness to its members on how to deploy such services.

Since MAGIC started, there have been some pilots in the region on implementing eduroam. Some of these pilots have been successfully operational; others are progressing while some others are still the same. Here is a summary of the pilots:

2.1.1. Successful implementation:

- Algerian;
- Morocco;
- Lebanon.

All are extending the service to more universities.

2.1.2. Progressing implementation:

- Jordan: implemented eduroam at one university with five campuses;
- Egypt: had some technical difficulties awaiting for the training workshop.

2.1.3. Other pilots to start:

- Tunisia: awaiting for the training workshop;
- Oman: awaiting for the training workshop.

2.1.4. Another Workshop on AAI and eduroam

Based on the request of ASREN's NRENs, was decided to conduct another technical workshop on IdP and eduroam to take place 3-4 December 2016 at the American University at Beirut, Lebanon in cooperation and support of MAGIC Project, AfricaConenct2 and EUMEDCONNECT3 Projects in addition to CESNET. NRENs of Jordan, Palestine, Algeria, Morocco, Tunisia, Egypt, Oman and Lebanon are attending



Participating NRENs in this workshop have officially committed to work on deploying AAI and eduroam after getting this training. At the end of the workshop, we will have a roundtable and planning discussion with all participants.

2.2. ASIA REGION (CENTRAL ASIA)



2.2.1. Countries committed in the project

The CAREN project was resumed in July 2016:

http://caren.geant.org/Media_Centre/News/Pages/research-and-education-connectivity-project-in-Central-Asia-rebooted.aspx

The 3rd phase of CAREN project is planned to develop services and applications in order to reach sustainability of NRENs. Establishment and setup of eduroam and Identity Federation services will allow CAREN NRENs to participate and collaborate with other world regional networks in the area of Authorization and Authentication and academic collaboration.

NRENs and Universities in Kyrgyzstan (Kyrgyz Research and Education Network Association (KRENA)) and Tajikistan (Tajik Research and Education Network Association (TARENA)) were interested.

2.2.2. Activities in AAI and eduroam

I. Initial analysis of the project

Currently only CAREN NOC offers, eduroam service for local users and there is no AAI presence in Central Asia region. It was very important for the NRENs to get education on eduroam and AAI and how to implement this service. Therefore, the first step to conduct awareness and training sessions for the NRENs, support the development of eduroam and AAI infrastructure in a pilot universities.

II. Development of the base platform

At this stage, introduction and development of a platform that supports the deployment of the Federation of Identities in KRENA and TARENA institutions participating in the project is planned. CAREN NOC with the support of MAGIC partners provides a technical support and training to NREN's Higher Education Institutions (HEI).



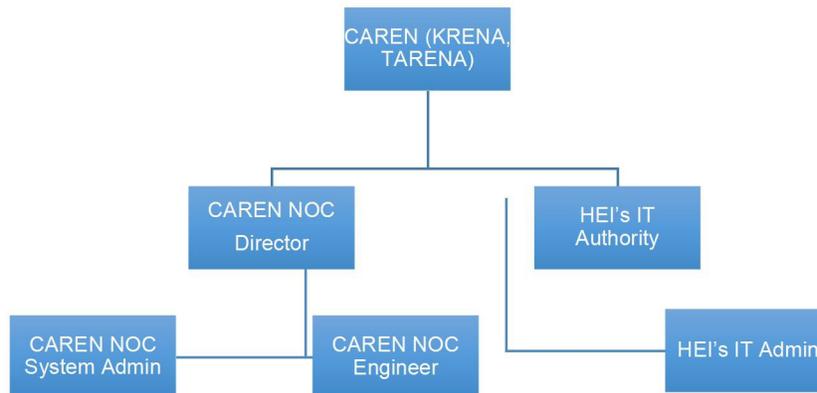


Figure 1: CAREN organizational structure.

There are following activities performed and planned:

- June 2016: there is an agreement on the collaboration between CAREN and MAGIC.;
- 27-28 October 2016: the 1st TEIN-CAREN joint workshop was held in Bishkek, Kyrgyzstan. On October 28 there was the 3rd session completely devoted to eduroam topic. Prof. Deokjai Choi from Chonnam National University presented “Intro to Eduroam” and Almaz Bakenov from NITC made a presentation “Roaming for Education and Research”;
- 16-20 January 2017: Training conducted by Magic partners, Bishkek, Kyrgyz Republic, and Dushanbe, Tajikistan;
- February 2017: eduroam and AAI Pilot at Kyrgyz Turkish Manas University and Kyrgyz State Technical University (2 universities);
- February-March 2017: eduroam/AAI preparation (access to the Identity Management) and implementation;
- February-March 2017: Dissemination of training materials to technical staff of universities;
- End of March 2017: Demo session at CAREN Regional Networking Conference, Bishkek, Kyrgyz Republic;
- April 2017: Follow up support and final progress report.



III. Training

For both areas, Identity Federation and eduroam will be held a classroom workshop to academic institutions, which will take place during the 2nd CAREN Conference 2017. This training workshop will be further complemented with an online course.

2.2.3. Schedule of implementation

CAREN, with the support of experienced project partners from MAGIC starts to promote the eduroam and AAI to its member NRENs and will provide necessary help and technical support. More NRENs are expected to join both eduroam and eduGAIN in the second year of the project.

2.3. AFRICA REGION (MOZAMBIQUE)



Since 2013, MoRENet has been working with the Brazilian NREN (RNP) within an international cooperation framework, which comprises training activities, exchanging good management and governance practices of networks, technical visits and, more recently, information exchange under technical and operational management.

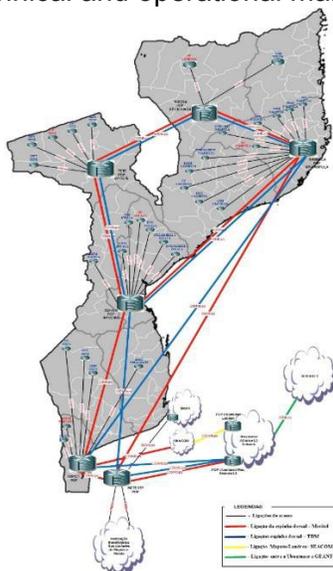


Figure 2: MoRENet architecture.



This last exchanging activity, which initiated in September 2016, RNP collaborated with MoRENet in order to assist it in implementing an authentication and authorization federation and one eduroam-roaming operator. This activity occurred due to the following factors:

- The previous existence of collaboration among both NREN's;
- The willingness of MoRENet to widen the offer of services to its institutions;
- The RNP experience with modeling, creation and offer of services and in projects of international cooperation devoted to the development of new federations and eduroam-roaming operator in different countries.

Because of this collaboration activity, a work plan comprising four phases was developed.

- **Preparation:** refers to the elaboration of an implementation plan of the Project, which indicates the staff in charge of the activities of both sides, the name of the institutions that will be part of the pilot and the scope of the network infrastructure of each institution. This phase also comprises the elaboration of structural documents required to implement the federation and the eduroam-roaming operator, which also includes the signature of adhesion term to eduroam international and the MAGIC project;
- **Federation Implementation:** corresponds to the implementation of the federation of authenticity and authorization in Mozambique, which comprises an one-week-online-training as well as an assisted support performed through webconference;
- **eduroam implementation:** as previously exemplified , this phase corresponds to the implementation of the eduroam-roaming operator in Mozambique, which includes an one-week-online-training as well as an assisted support performed through web conference;
- **Conclusion:** corresponds to the elaboration of an implementation report, which must refer to the implementation plan elaborated in the beginning of the Project, pointing out results, contingencies plan, lessons acquired, results accomplished and an eventual justification for extending the initial deadline.

The accomplishment of all these phases included a weekly-based follow-up during web meetings attended by the analyst staffs in charge of both the implementation of the MoRENet and the analysts responsible for information exchange regarding technical and operational management from RNP.





Figure 3: first meeting of project.

The first formal meeting regarding this cooperation activity took place in September 16, 2016, during which a series of elements were set up, such as: the scope of the activity, the initial chronogram of the project and respective phases and deliverables, as well as MoRENet and RNP staff, and the dates of two web seminars comprising the introduction to the federation concept and eduroam based on the offer provided by RNP and its clients. During this meeting the template for the Implementation Plan was also presented, whose content corresponds to one of the first deliverables of the first phase of the project that included the following aspects that will be defined by MoRENet:

- **Objectives:** a clear definition of general and specific objectives of the project;
- **Justification:** the main justifications to the accomplishment of the Project with respect to its conditions;
- **Preconditions:** the main preconditions for the accomplishment of the Project in terms of availability of human and technological resources.
- **Structure:** the indication of names of MoRENet client institutions that will be part of the pilot of the new federation and the eduroam-roaming operator and of the staff that will technically lead the project;
- **Documentation:** the list of documents to be provided in order to carry out the implantation within the expectations both the participants and the international institutions related to the new services herein addressed;
- **Schedule:** an initial schedule was divided in phases with the indication of the main tasks and deliverables and deadlines.

The first phase of the Project was concluded six weeks after the first formal meeting of the project. More specifically on October 28th, 2016, with the conclusion of the following tasks:

- Web seminars about federation and eduroam;





- Elaboration of the Project implementation;
- Infrastructure availability in the MoRENet client institution;
- Term of adhesion signed by MoRENet;
- Elaboration of structural documents.

The elaboration of structural documents has proved to be an essential activity that assists both the communication among the new service, MoRENet clients as well as the international eduroam and eduGAIN service, to which the federation and Mozambique roaming operator had the intention to integrate because of a RNP suggestion. Due to this directive, the following documents were elaborated:

- Agreement-signing-memo among MAGIC and MoRENet;
- Elaboration of the Use Policy of the eduroam-roaming operator;
- Web Page for the eduroam-roaming operator in Mozambique;
- Elaboration of the document with eduroam technical specification;
- Elaboration of adhesion term for eduroam client institutions;
- eduroam statement signature.

During this meeting 10/28/2016, one of the most significant activities of the second phase of the project, which corresponded to the implementation of the federation: one-week-online-training. Thus, the project point out the following scenario for the next twomonths:

- Implementation of eduroam-roaming operator and report of the Project implementation.

2.4. LATIN AMERICA REGION (MEXICO)



Currently, work continues with the institutions participating in the MAGIC project for the implementation of an eduroam pilot and finally on to production, as well as work with other institutions that are interested in implementing the service on their campus.

Work is also being done on an active dissemination of the benefits of eduroam throughout the academic community in Mexico with the purpose of getting more institutions to join the project.



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2.4.2. Implementation of eduroam

In the third and fourth quarters of 2016, eduroam in Mexico has continued to advance, the National Autonomous University of Mexico (UNAM) and the Center for Mathematical Research (CIMAT) have incorporated into production, throughout its institutional network, the eduroam service.



Figure 4: eduroam at UNAM.

2.4.3. Training

A workshop was held in the City of Mérida, where the participating institutions were trained in the required infrastructure and in the implementation of eduroam.

A discussion forum was held with the participants, having as main theme "eduroam and its integration with different databases".

2.5. REFERENCES

[R1 MAGIC Website
]

<http://www.magic-project.eu>



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3. DOCUMENT AMENDMENT PROCEDURE

All changes should be sent to the author, with a copy to WP2 mailing list. The revisions shall be sent to WP2 and MAGIC ALL mailing list, in order to allow to all members review the entire document, mainly their region chapter.

4. GLOSSARY

EC	European Commission
EU	European Union
EU-LAC	Europe, Latin America and the Caribbean

5. EXECUTIVE SUMMARY

This document reviews the eduroam implementation in all MAGIC project regions.

6. CONCLUSION

In this document, it is possible to analyse that project has been moving forward in Arab region with three new countries (Algerian, Morocco and Lebanon), Africa is moving forward with Mozambique and there is an important evolution in the Central Asia region, with training and bootcamps happening about identity management, in 2016 and 2017.



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