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Magic

Middleware for collaborative Applications
and Global virtual Communities

Deliverable D2.5
AAI Pilot

Periodical Progress Report

MAGIC Deliverable: D2.5 – AAI Pilot

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Abstract: This deliverables describes all AAI implementation that are in pilot phase. MAGIC project is a global project, so, it is expected that all regions that are participants of this work package report its progress.



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For more information on MAGIC, its partners and contributors please see <http://www.magic-project.eu>.

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DELIVERABLE ROUTE

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1. INTRODUCTION

It is challenging implement identity federation in a worldwide scale, as MAGIC is doing during this two-year project, but although all difficulties, WP2 members are moving forward in a very good speed, averagely.

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 an AAI infrastructure as a pilot. Generally the pilot phase is needed to test the project deliverables "in the field" so that when the AAI 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 AAI pilot phase, technical team start of AAI 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 the Identity Federation 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.

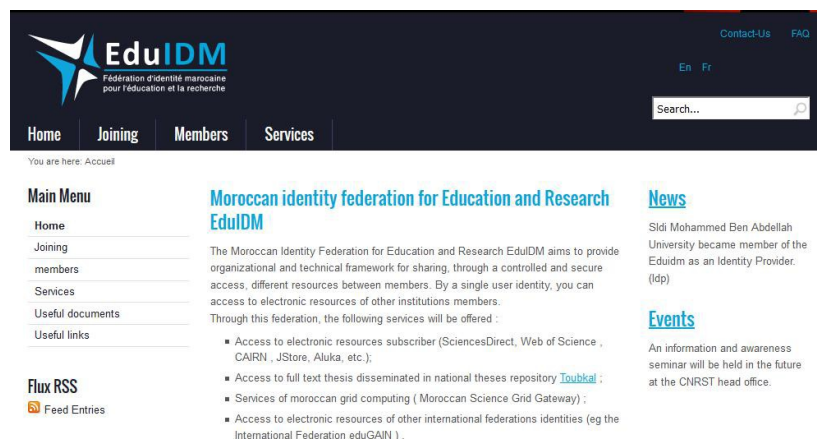
Since MAGIC started, there have been some pilots in the region on implementing AAI. Some of these pilots have been successfully operational; others are progressing while some others are still the same. Here is a summary of the pilots:

2.1.1. Successful implementation:

- Algerian AAI <https://www.aai.arn.dz>.



- MARWAN, Morocco: <http://www.eduidm.ma>.



2.1.2. Progressing implementation:

- Lebanon AUB: American University of Beirut is doing successful activities to deploy AAI at the university level and now discussing with other universities to join.
- Jordan: Balqa Applied University started working on AAI with some concrete steps but things are now freezing due to the lack of staff and some management changes. Recently, Jordan University of Science and Technology decided to take the lead on behalf of JUNet (the Jordanian NREN).

2.1.3. Other pilots to start:

- Tunisia, Egypt and Palestine committed to start working on AAI after receiving the necessary training.

2.1.4. Another Workshop on AAI and eduroam

Based on the request of the NRENs region, were 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, AfircaConenct2 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

2.2.2.1. 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.

2.2.2.2. 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).



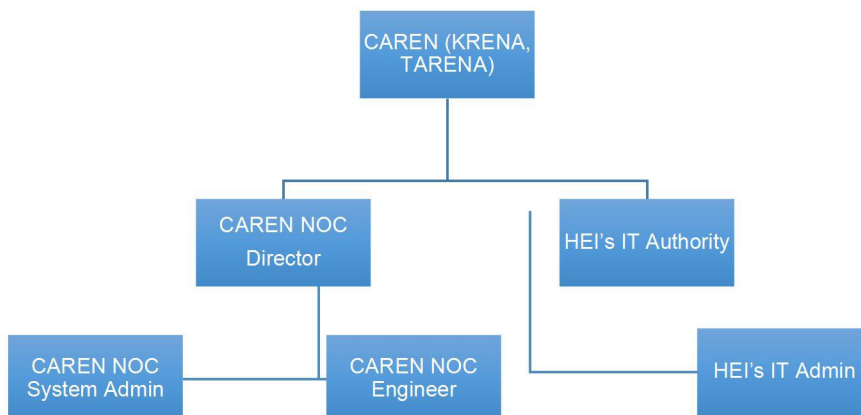


Figure 1: CAREN organizational structure.

The following activities are performed and planned:

- June 2016: Signature of agreement of 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.



2.2.2.3. 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.

The CAREN countries meet once a year in the CAREN regional conferences while other special events are organised for special purposes.

In March 27-28 2017, a dissemination and training activity will be organized during the 2nd Regional CAREN Conference. During this event, a booth containing information material on the objectives of MAGIC will be displayed and an invitation to NRENs to deploy the services (eduroam and AAI) and participate in the pilot implementation will be presented.

2.2.4. Deployment of services

For the services deployment, CAREN promotes among its partner NRENs, the adoption of the different standards and services developed by MAGIC Project. As a result, several NRENs are in different stages of deployment as can be seen from the list below:

Country	NREN	AAI status
Kazakhstan	KazRENA	planned
Kyrgyzstan	KRENA	planned
Tajikistan	TARENA	planned
Turkmenistan	TURENA	

Work is currently under way in order to implement the Colaboratorio pilot services in Russian in the CAREN Region, which has been revealed as a killer app to potencialize AAI implementation, due the need of authentication to use it.





Internal implementation for NREN partner institutions, such as AAI deployments and eduroam points of presence is the responsibility of the institutions with the support from their NREN.

Finally, the deployment of a testbed for the groupware and collaboration tools services will also be promoted among the CAREN Members.



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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.

This last exchanging activity, which started 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 web conference;
- **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 include a weekly-based follow-up web meetings attended by technical staffs in charge of both implementation (AAI and eduroam) of the MoRENet and the analysts responsible for information exchange regarding technical and operational management from RNP.

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 isclients.

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;
- **Chronogram:** an initial chronogram 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 the 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

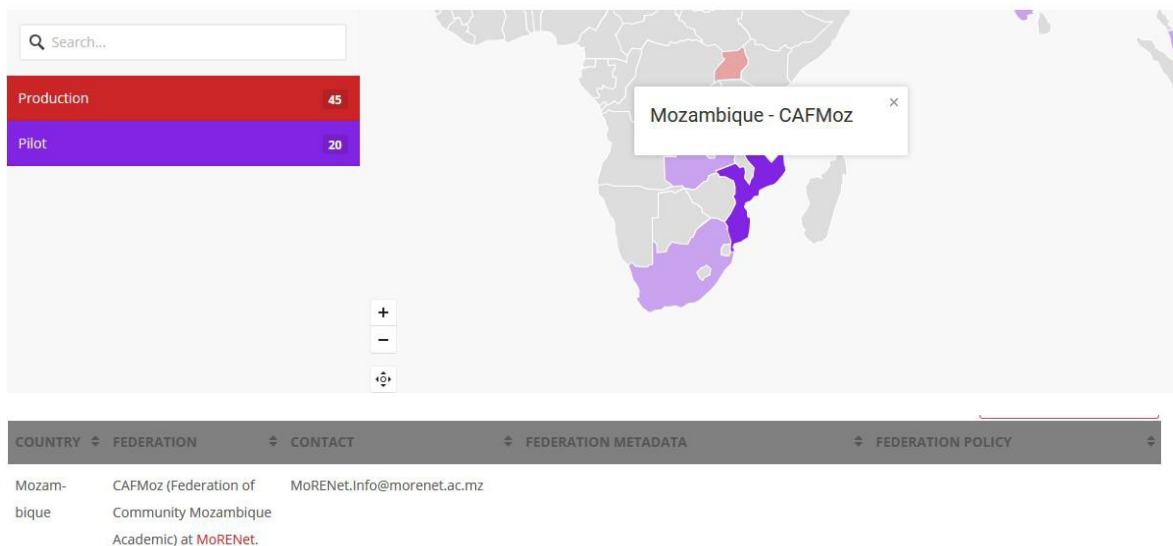


international eduroam and eduGAIN service, to which the federation and Mozambique roaming operator had the intention to integrate because of a RNP suggestion. Due to this directive, the following documents were elaborated:

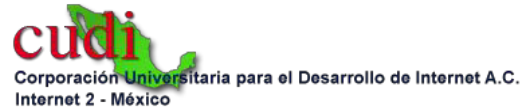
- Use policy for the new generation of IdPs and SPs;
- Agreement-signing-memo among MAGIC and MoRENet;
- Name for Mozambique federation (CAF-Moz);
- Web Page for the federation;
- Definition of adhesion term for the federation costumer institutions;
- Elaboration of the document with the federal technical specifications;
- Elaboration of the “MetadataRegistrationPracticeStatement” file;
- Elaboration of the Use Policy of the eduroam-roaming operator;
- Web Page for the eduroam-roaming operator in Mozambique;
- Elaboration of the focument with eduroam technical specification;
- Elaboration of adhesion term for eduroam client institutions;
- Eduroam statement signature.

During the meeting in October 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 two months:

- Implementation of Mozambique federation and eduroam online training,



2.4. LATIN AMERICA REGION (MEXICO)



In the third and fourth quarter of 2016, CUDI has developed the following activities:

2.4.1. Implementation of the Identity Provider

Currently the Mexican Identity Federation has three identity providers:

- Ø **CUDI Identity Provider:** Cudi implemented an IdP for users working at CUDI, the URL is <http://idp.cudi.edu.mx>;
- Ø **Provider of Institutional Identity of the University of Colima (UCOL):** UCOL implemented an IdP for the entire educational community of the university (teachers, researchers, students, etc.);
- Ø **Provider of Visitor Identity of the University of Colima (UCOL):** UCOL implemented an identity provider for all those people who are visitors and who want to access some federated service, with which the university has.

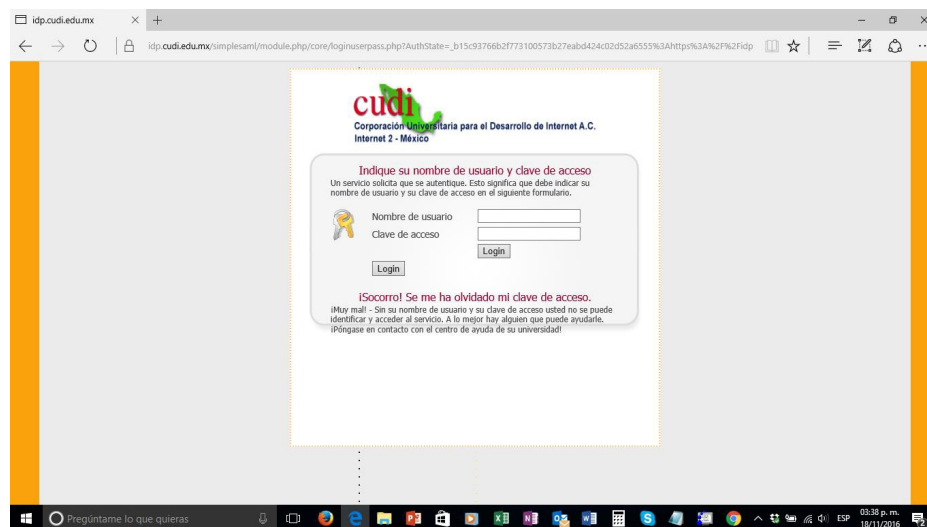


Figure 2: CUDI Identity Provider.

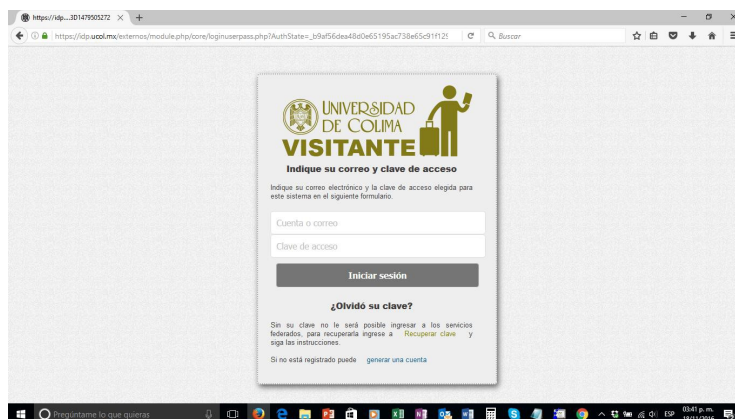


Figure 3: UCOL Identity Provider.

2.4.2. Implementation of Service Providers

Currently the Mexican Identity Federation has a federated service implemented by CUDI, this service is at the following URL <https://sp.cudi.edu.mx>.

Work is also under way on the implementation of a service at the University of Colima, which is expected to be available by the end of December 2016.

CUDI is also working on federating some of the applications found on its collaboration platform, which is also expected to be available by the end of 2016.

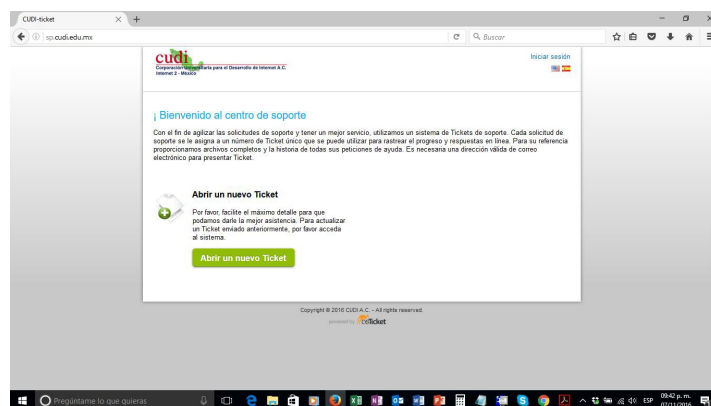


Figure 4: CUDI Service Provider.

2.4.3. Implementation of a Discovery Service (DS)

CUDI implemented a discovery service (DS) for the Mexican Federation of Identities, in which are added the CUDI's IdP and the University of Colima.

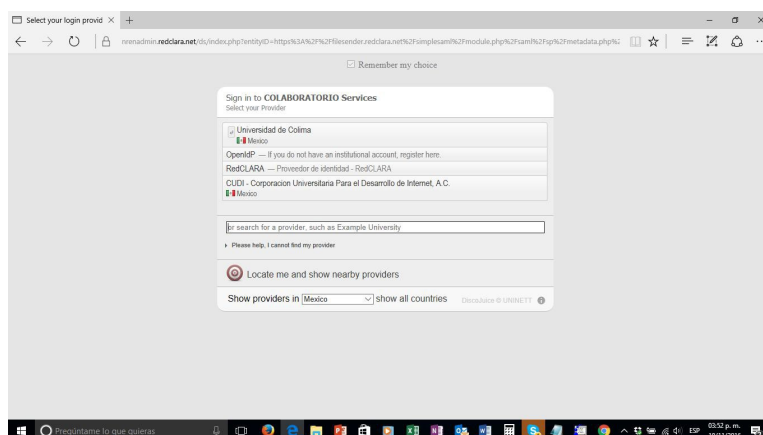
This service is located at URL <https://wayf.fenix.org.mx>.



Figure 5: FENIX Discovery Service (DS).

2.4.4. Connection with CLARA

The Mexican Identity Federation is already connected to the CLARA collaboration; the metadata exchange was carried out and the identity providers are working.



2.4.5. Training

An online AAI course was developed in which participants will create an identity and service provider and understand how they can join the federation.

In November 14, 2016, the first online course was officially started, with the enrollment of 23 participants from 8 educational institutions in Mexico. The duration of the course will be 3 weeks and it is expected that at the end of the course, several of the Participating institutions begin their process of joining the federation.

This course is on the CUDI collaboration platform (<http://virtual.cudi.edu.mx>) and is only available to institutions participating in the MAGIC - WP2 project in Mexico.

2.4.6. Policies

Currently the policies of the Mexican Federation of Identities already exist, as well as the policies to join as IdP and as SP.

2.4.7. Web Portal FENIX

The development and implementation of the web portal of the federation are been doing; and that it will be ready at the end of November with all the contents.

2.4.8. eduGAIN

A checklist to join the Mexican Identity Federation to eduGAIN is been deployment, and by the end of November the procedures will be started, once it has also been concluded with the development of the web portal.



3. REFERENCES

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

4. DOCUMENT AMENDMENT PROCEDURE

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

5. GLOSSARY

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

6. EXECUTIVE SUMMARY

This document reviews the identity federation implementation in all MAGIC project regions.

7. CONCLUSION

In this document, it is possible to analyse that project has been moving forward in Arab region with two new identity federations, Africa with CAF-Moz (Mozambican Identity Federation), important evolution in the Central Asia region, with training and bootcamps happening about identity management, in 2016 and 2017.

