



e-Infrastructure in the Arab Region

Salem Al-Agtash, Ph.D.

ASREN/ German Jordanian University - Jordan

INDICATE International workshop – Paris, 7.6.2012

alagtash@ASRENOrg.net

Outline

- Overview
- Status
- Activities
- Involvement

Historical background

- EUMEDCONNECT, 2004 --> [1], [2], [3?]
- PAN Arab Network, 2005, CAMREN, 2006, NAP, 2007
- ASREN, 2010
 - EUMED - Brussels, March 30
 - League of Arab States – Cairo, December 8
- ASREN GmbH - Dusseldorf, June 2011
 - Abu-Ghazaleh & Consulting GmbH
 - Jordan University Network
 - Moroccan CNRST
 - **Sudan REN**
 - **Somal REN**
 - **Tunis**
 - **Palestine**

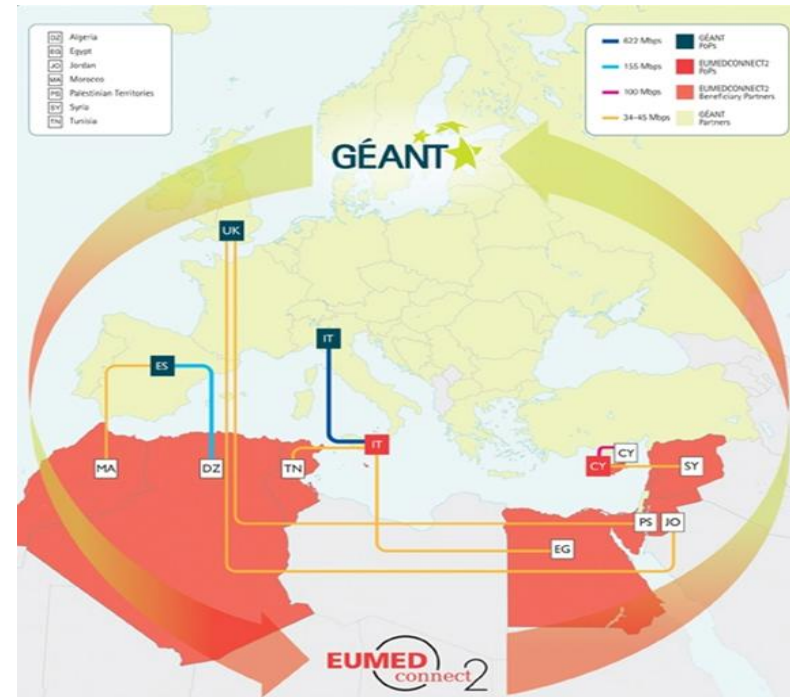


EUMEDCONNECT Programme

EUMEDCONNECT Research and Education network project 2004 -2014 (3 phases), 14M Euro of EC funding

The only regional Research and Educational Network in the Arab Region

National Research and Education Networks in Algeria (ARN), Egypt (EUN), Tunisia (CCK), Jordan (JUNET), Morocco (MARWAN), Palestine (PALNET) and Syria (HIAST) were connected to its European counterpart GÉANT



More 2 million users in
around 700 institutions

An Internetwork

EUMEDCONNECT3 helps researchers tackle problems the region is particularly vulnerable to, such as

Desertification



Thalassemia



*Water management
and sustainable
farming*



*Access to
education in
remote areas*



*Preservation
of cultural
heritage*

EUMEDCONNECT3's network connectivity can bring tangible benefits to society

Case studies

EUMED connect 2

opens classroom doors

EUMEDCONNECT2 is a gateway for students in the Mediterranean to learn with the world's most inspirational tutors in an interactive virtual environment.

EUMEDCONNECT2 provides a dedicated high-capacity Internet network for over 2 million researchers, academics and students in 7 countries across the southern and eastern Mediterranean.



DANTE  the research and education network for the mediterranean

EUMED connect 2

tackles global warming

EUMEDCONNECT2 helps save the Mediterranean by supporting cutting-edge climate research, combating desertification and improving water resource management.

EUMEDCONNECT2 provides a dedicated high-capacity Internet network for over 2 million researchers, academics and students in 7 countries across the southern and eastern Mediterranean.



DANTE  the research and education network for the mediterranean

EUMED connect 2

recreates the Big Bang

EUMEDCONNECT2 allows high-energy physicists in the Mediterranean to participate in groundbreaking experiments to discover the origins of the universe.

EUMEDCONNECT2 provides a dedicated high-capacity Internet network for over 2 million researchers, academics and students in 7 countries across the southern and eastern Mediterranean.



DANTE  the research and education network for the mediterranean

EUMED connect 2

saves lives

EUMEDCONNECT2 improves life chances of thalassaemia sufferers by speeding up the development of innovative drugs that reduce the dependency on expensive and frequently unsafe blood transfusions.

EUMEDCONNECT2 provides a dedicated high-capacity Internet network for over 2 million researchers, academics and students in 7 countries across the southern and eastern Mediterranean.



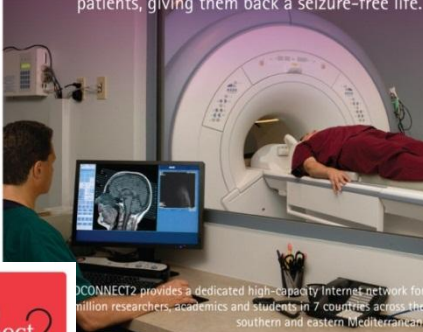
DANTE  the research and education network for the mediterranean


EUMED connect 2

stops seizures

EUMEDCONNECT2 allows neurosurgeons in Tunisia to collaborate remotely with their French colleagues on the diagnosis and surgical treatment of epilepsy patients, giving them back a seizure-free life.

EUMEDCONNECT2 provides a dedicated high-capacity Internet network for over 2 million researchers, academics and students in 7 countries across the southern and eastern Mediterranean.



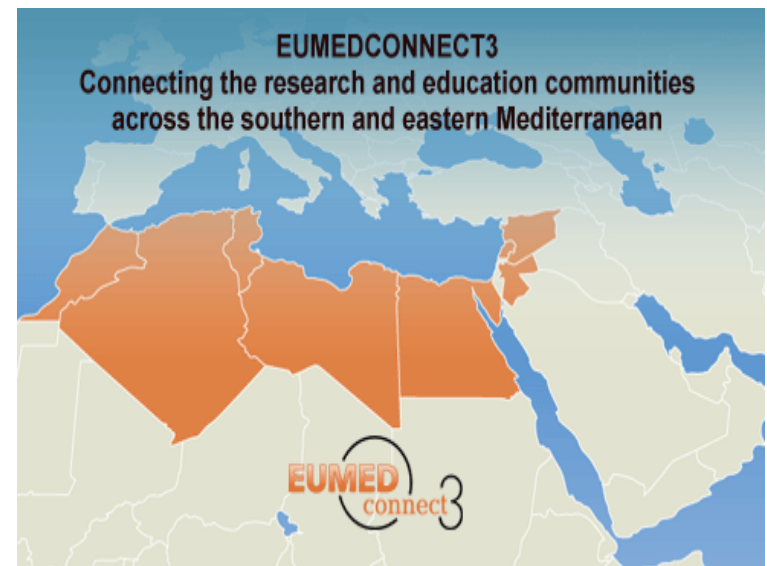
DANTE  the research and education network for the mediterranean

The EUMEDCONNECT3

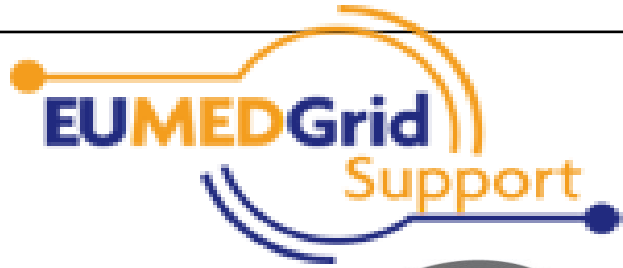
A new phase EUMEDCONNECT3 runs 2011 - 2014

Co-ordinating Partners: DANTE and ASREN

- So far Algeria & Palestine are connected using EUMEDCONNECT funding
- Scheme is open to: Egypt, Jordan, Lebanon, Libya, Morocco, Syria, Tunisia
- Opportunity to extend the network to other Arab countries
- A first step towards a Pan-Arab network for research and education



Supporting Projects



The EUMEDGRID Support Project



Coordination and Harmonization of Advanced e-INFRASTRUCTURES



Exchange Programme to advance e-Infrastructure Know-How



Linking Scientific Computing in Europe and the Eastern Mediterranean

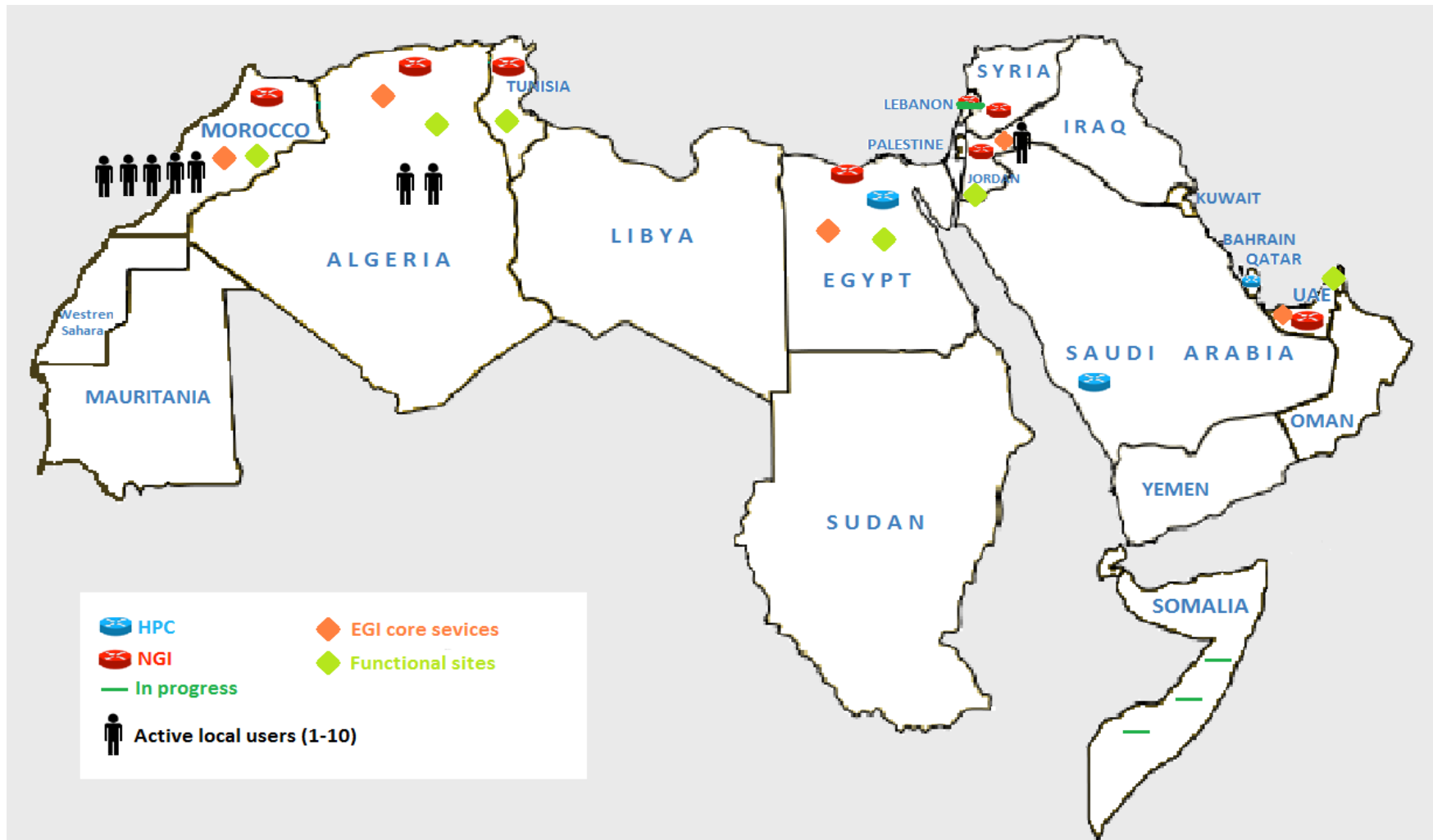
Progress

Coordinating with ARAB NREN partners for developing e-Infrastructures

Dissemination of regional efforts in the context of the underlying frameworks and software architectures towards interoperability and integration of regional e-Infrastructures

Continue to enhance e-Infrastructure and build on the success of the EUMEDGrid support project – Kuwait Grid Site

e-Infrastructure



Activities

Programs to enhance and accelerate research, enable collaboration, improve access to knowledge, and contribute to the development of e-infrastructure and e-research in the Arab region

Shared e-Infrastructure for needs of research communities

Applications and services

Active engagement in EU funded projects: EUMEDCONNECT, CHAIN, EUMEDGRID Support

International collaboration is key for success through sharing of experiences

Involvement

- Projects: EUMEDCONNECT3, CHAIN, EUMEDGrid Support, EPIKH
- Active Participation:
 - Lebanon NREN launch – October 2011, Beirut
 - Chain/ EUMEDGrid Support – Lyon September, Italy May Nairobi November 2011
 - Sharing Knowledge across the Mediterranean – Malta May/11, Tunis May/12
 - Spring Internet2 SIG Meeting – May, Dec. 2011
 - AfREN/ AfNIC/ AfNOG meetings – June 2011, Tanzania, May 2012 Gambia
 - TERENA Networking Conference TNC2011 – June 2011, Czech Republic
 - Workshop on Grids and Modeling: Application – June 2011, Lebanon
 - EUMEDCONNECT/ ASREN Shareholders meeting – July, Dec. 2011, Jordan
 - Networking meetings: Egypt, Bahrain, Lebanon, ..

Involvement– e-Infrastructure level

- Developing NRENs in countries where such a network does not exist, e.g. Lebanon, Kuwait, ..etc
- UAE installed a new highly sophisticated grid system that will join Africa & Arabia ROC
- Consolidation of cooperation between grids in the ASREN region and beyond through CHAIN, embedded within ASREN
- Plans for a consortium as a result of e-AGE to establish connectivity between neighboring countries in the Arab region

Involvement– Community level

- More contacts to existing VRCs, e.g.:
 - Digital cultural heritage
 - Genomics application
 - Mathematical modelling, with intensive numerical analysis
 - Emerging applications in software applications to environmental resources
 - Consolidating communities from EPIKH schools in Algeria, Egypt, Morocco, and Jordan, and the modelling grid applications in Lebanon
- Activities for federated identity and science gateway and building capacity through joint research projects – initial interests in Jordan, UAE

Partnerships

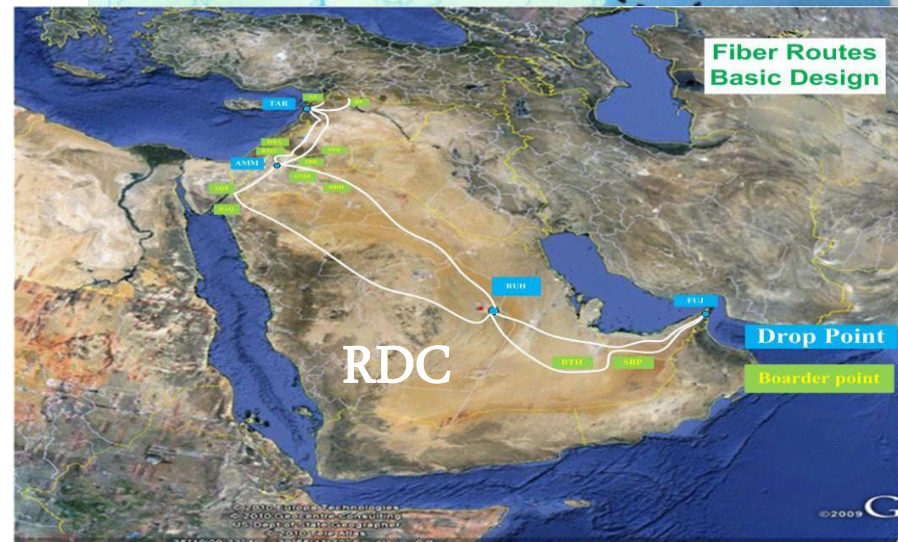
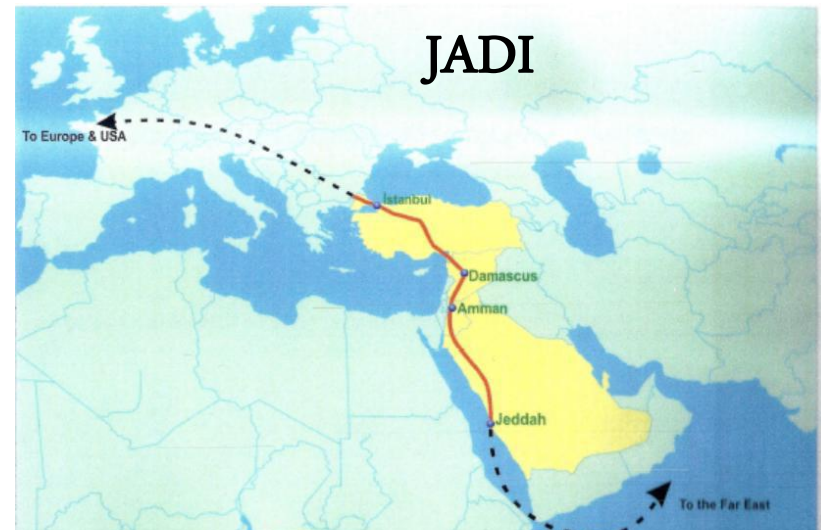
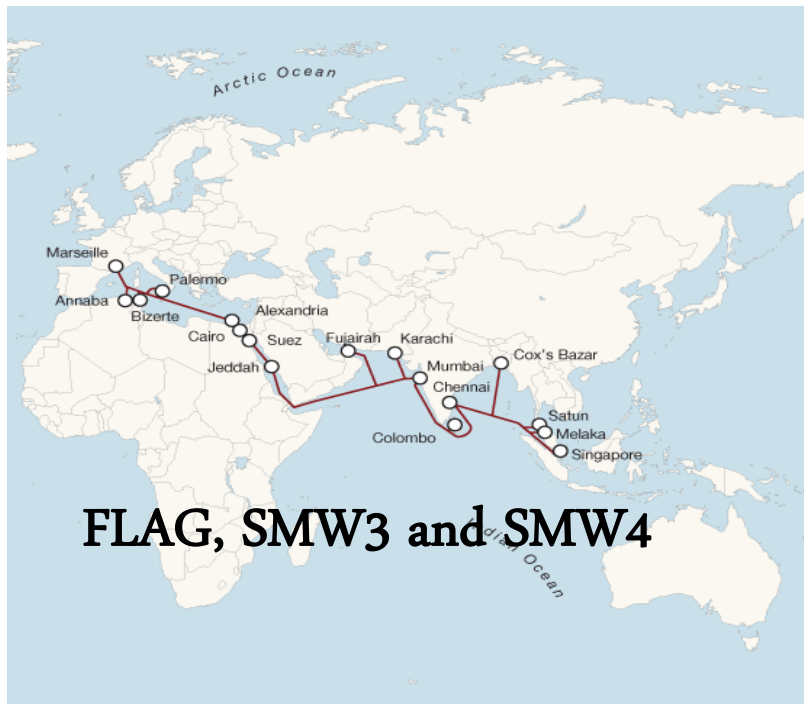
- With Arab NRENs as shareholders in ASREN and for NREN development
- Coalition
 - ASREN
 - League of Arab States
 - Arab ICT organization
 - Association of Arab Universities
 - Union of Arab Scientific Research Councils
- Regional R&E networks – GEANT, Internet2, UbuntuNet, WACREN...etc.
- Network operators
- Research communities

Sharing experiences and outreach

- Media: Web repository, Newsletters, Videos, Reports
- Workshops, Annual meetings – Please join
 - ASREN/ EUMEDCONNECT3 meeting during Ankabut User's meeting/ Internet2 SIG to take place in UAE September 16-18, 2012
 - e-AGE 2012 (Towards Integrating Arab e-Infrastructure in a Global Environment)
 - ASREN, GEANT, Internet2, UbuntuNet, WACREN, RedClara, APAN
 - December 12-13, 2012 in UAE

ASREN - Towards Building the Regional Backbone

- Build the major part of ASREN Backbone
- The Backbone will carry traffic to and from all connecting NRENs...



Digital Cultural Heritage - Case

- **high quality information technology management**, to ensure trust, availability, reliability, long term safety of content, security, preservation and sustainability
- **access facilities** e-Infrastructures to reach data resources and applications
- **interoperation** among existing cultural heritage repositories and of cultural heritage data

[Source: <http://www.digitalmeetsculture.net/article/digital-cultural-heritage-european-targets/>]



Latest News

- Bulletin CNRS: Minister Diab and Talal Abu ...**
Bulletin CNRS: Minister Diab and Talal Abu Ghazaleh launched "National Lebanese Network for Research and ...
- 1st International Platform on Integrating ...**
Under the patronage of His Majesty King Abdullah II ibn Al Hussein, ASREN will hold its 1st International Platform on ...
- 1st International Platform on Integrating ...**
Dr. Ruwaida Al Ma'aitah: There is a Need to Promote Scientific Research to Increase Competitiveness Eng. Rousan: We ...

About ASREN

Arab States Research and Education Network (ASREN) is the association of the Arab region National Research and Education Networks (NRENs) and strategic partners, that aim to implement, manage and extend sustainable Pan-Arab e-Infrastructures dedicated for the Research and Education communities and to boost scientific research and cooperation in member countries through the provision of world-class e-Infrastructures and E-services.

[Read More](#)

Publications

- Brochures**
 - Empowering Research & Education across the Mediterranean: the role of e-Infrastructure
- Newsletter**
- Annual Reports**
 - E-AGE 2011 Declaration
 - E-AGE 2011 Conference Booklet
- Documents**
 - ASREN Brochure

Polls

How do you see ASREN contributing to advance Arab e-infrastructure ?

Supporting Aran NRENs - 33.3%	<div style="width: 33.3%;"></div>
Investing in R&E links between Arab neighboring countries - 60%	<div style="width: 60%;"></div>
Building capacity in e-infrastructure services and applications - 6.7%	<div style="width: 6.7%;"></div>
Promoting research and establishing collaboration at Arab regional level - 0%	<div style="width: 0%;"></div>
Supporting applications and services to research communities - 0%	<div style="width: 0%;"></div>

Total votes: 15
The voting for this poll has ended on: 29 Mar 2012 - 00:00

E-AGE 2011 ASREN



Photo Gallery Video Gallery

