ASREN

Arab States Research and Education Network

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Abu-Ghazaleh Announces ASREN's First 155 Megabit per Second Dedicated Link

DUBAI ---- March 24, 2013 ---- HE Dr. Talal Abu-Ghazaleh, chairman of Talal Abu-Ghazaleh Organization (TAG-Org) & chairman of ASREN delivered a keynote speech at the opening high level roundtable of the Multi-stakeholder Internet Governance in the Arab World meeting in Dubai.

The meeting was hosted by the Telecom Regulatory Authority of UAE, as part of the Arab IGF Open Consultations, and in partnership with RIPE NCC, the Regional Internet Registry for Europe and the Middle East.

In his speech, HE Abu-Ghazaleh urged the Internet Corporation for Assigned Names and Numbers (ICANN) to speed up the process of Multi-lingualization of the Internet in order to hedge against fragmentation.

"In my capacity then as Co-chair of the UNICTTF, I organized and chaired the first IGF forum and called on the UN Secretary General to establish an IGF Committee and started the IFG Forum process. My objective then was the "What" more than the "Who" in that process. I urge that we call for focus on what governance should accomplish rather than by who. I am now involved, on the part of private sector, in the "Post 2015 Consultations" i.e. after the sunset on the MDGs. ICANN needs to play a role in that future agenda."

Meanwhile, Dr. Abu-Ghazaleh made three significant announcements of pioneering initiatives. One of these initiatives to be implemented by the Arab States Research and Education Network (ASREN), a non-profit, GmbH, formed under the honorary chairmanship of the Secretary General of the League of Arab States (LAS) and chaired by HE Abu-Ghazaleh jointly with the EU, and in collaboration with a number of Arab national research and education networks (NRENs), including UAE, Egypt, Jordan, Morocco, Algeria, Tunis, and Sudan.

"As the world is investing in cross-border 10-100 gigabits per second dedicated links to connect universities, research centers, and hospitals at the regional and international levels,

ASREN is to establish a pan-Arab e-Infrastructure dedicated to research and education, provide networking services and applications, support the advancement of inter-Arab research and education, and promote cooperation with the world at large."

According to HE Abu-Ghazaleh, ASREN will establish its first 155 megabit per second dedicated link, provide EU termination and peering at its router in the UK to Arab NREN international links, facilitate access to world-class scientific resources, and support the development of advanced networks and services across the Arab region. ASREN is also maintaining close relations with the US Internet 2 to help facilitate links and access to variety of advanced US scientific resources and services.

The Multi-stakeholder Internet Governance in the Arab World meeting attracted the participation of leaders, senior executives, and Board members of international Internet bodies. The meeting's aim was to foster engagement between Internet organizations and all stakeholder groups in the Arab world. It offered the opportunity to share best practices of successful multi-stakeholder models and discussed the means to enhance effective participation in global Internet Governance forums.

HE Dr. Talal Abu-Ghazaleh during the opening of the Multi-stakeholder Internet Governance in the Arab World meeting held in Dubai.

The International Exhibition and Forum for Education 2013 (IEFE 2013) in Riyadh

Abu-Ghazaleh Tackles Transformative Education and Rejuvenation in the Arab World The International Exhibition and Forum for Education 2013 (IEFE 2013), the official annual event of the Saudi Ministry of Education concluded at Riyadh International Convention & Exhibition Center with the participation of senior level decision makers, key industry education providers and stakeholders from around the world.

HE Dr. Talal Abu-Ghazaleh, Chairman of the Arab Organization for quality assurance in Education and President of Talal Abu-Ghazaleh University (TAGIUNI), the gateway to world-class education tackled Transformative Education and Rejuvenation in the Arab World during his keynote speech saying:"I am speaking to you today not only as a dreamer for the future of the Arab world, but also as a realist. And the reality is we must acknowledge our shortcomings to once again become thought leaders."

"In a critical 2009 study, UNESCO reported that higher education in the Arab world continually fails to meet the needs of students, employers, and society at large. Institutions in our region are overcrowded, understaffed, and produce graduates with qualifications that are not in sync with the labor market," he added.

According to Dr. Abu-Ghazaleh education must be an ongoing life experience.

"One is generally not afforded the luxury to simply stop learning, and stagnation of skills is no longer acceptable in the workplace. Technology is advancing so rapidly that even the most skilled professionals must be trained in emerging software, hardware, methodologies, and approaches," he said.

He added:" Education, at its core, is an investment in human potential. Students want to see their investment in education translate into opportunity. If, when they graduate, the positions offered to them are beneath their skill set, their response will undoubtedly be negative.

This is why we see a lack of productivity or engagement. It is not a lack of will; it is a lack of opportunity. Regrettably this can become a self-fulfilling and self-perpetuating scenario."

According to Dr. Abu-Ghazaleh who is also Chairman of the Arab States Research and Education Network, the average government expenditure is much less than 1% of the total GDP on research and development compared to 3-4% in the industrialized countries.

He said: "Four decades ago, I built Talal Abu-Ghazaleh Organization with the aspiration to promote intellectual property rights and contribute to the development of a knowledge society in the Arab world.

Our Organization has successfully done brick and mortar education: Talal Abu-Ghazaleh Graduate School of Business (TAGSB) in Jordan was the first FIBAA-accredited MBA in the Arab world.

On September 25, 2011, TAGSB was named "Best Educational Institute in Management in Asia" by the World Education Congress Asia Awards.

and now, with Talal Abu-Ghazaleh University, we are intensifying the paradigm shift from bricks to clicks."

"Talal Abu-Ghazaleh University is our endeavor to democratize education, promote global citizenship, and empower citizens who have been disenfranchised by the technological revolution.

The first university to join our alliance was Canisius College, the premier private university in Western New York," he added.

He concluded by inviting attendees to the fifth annual conference on "Quality Frameworks in Education" (www.aroqa.org), to be held in September 2013.

The **International Exhibition and Forum for Education 2013 (IEFE 2013)** is the 3rd in a series of events focused on providing substantial opportunities for international businesses in the education sector to create partnerships and connect with decision makers from Saudi Arabian and GCC government bodies overseeing educational developments and also senior representatives from Universities, Colleges, Training Institutions, secondary education institutions and public and private schools in the region but particularly from Saudi Arabia.

ASREN, a step closer to setting up a pan-Arab R&E network

As a first concrete step towards the Pan-Arab R&E network, ASREN is proud to announce its first R&E PoPs to serve the Arab NRENs get connected to the global R&E networks. ASREN will complete the installations of its own rack space in London Telecity (Europe's industry-leading provider of premium carrier-neutral data centers). This space will be equipped with high end state-of-the-art routing systems to be connected to the GEANT network via DANTE by which it will be connected to the rest of the R&E networks in the world.

- Another PoP will be established in Amman to be then connected to the PoP of London via a dedicated circuit at STM1 (155Mbps) as a startup. By this, ASREN will be able now to provide connectivity to the Arab NRENs either to London or to Amman. Connected NRENs can benefit from the following services and more:

- Connection to the Regional research and education networks in the world including GEANT2, Internet2, RedCLARA, CANARIE, TEIN, AfricaConnect, and others. By this connectivity, researchers can access services and data repositories provided in these networks. They can conduct joint research and education activities and utilize the shared resources.

- Public Internet. As an extra added value, and at a very low price, institutions can have direct access to the worldwide Internet sites and resources around the world, keeping in mind that this PoP is connected to the largest and fastest Internet Exchanges in Europe.

- Euro-Med Grid Infrastructure network, providing high-performance scientific computing infrastructure that can be used through ASREN.

- Access to the world wide Science Gateway services, providing several services, tools, applications and data integrated via a portal dedicated scientific communities and research groups

- High- performance computing services at the Cyprus Institute under the project: Linking Scientific Computing in Europe and the Eastern Mediterranean LinkSCEEM2 which can provide these services to the scientists in Jordan and the region. Negotiations are going on with other HPC providers around the world.

- Federation of Identities to allow economies of scale and single sign-on services to digital repositories and highly sophisticated services and applications.

ASREN is investigating the possibility and feasibility of adding new hubs in the Arab Region, mainly, UAE and Alexandria. Now, with its technical planning underway, ASREN has acquired its first IPv4/IPv6 address space and its Autonomous System number for its pan-Arab regional network. This marks the first concrete step of securing long-term sustainability of e-Infrastructures in the region.

ASREN Issues Arab E-Infrastructure Status Report

The importance of this report comes from the fact that Arab e-Infrastructures need to be developed to reach global benchmarks.

The Arab States Research and Education Network (ASREN) launched a comprehensive report on the status of Arab e-Infrastructure during the 2nd Platform for Integrating Arab e-Infrastructure in a Global Environment (http://eage2012.asrenorg.net) held under the patronage of His Highness Sheikh Nahayan Mabarak Al Nahayan, UAE Minister of Higher Education and Scientific Research.

The report contributes to analyzing the status of Arab e-Infrastructure in support of regional research and educational societies as well as to shedding light on the importance of broadband communication networks dedicated for research and education. The report outlines the concept of Education and Scientific Research networks and presents a vision for a Pan-Arab e-Infrastructure. It also presents a summary on the status of Arab national research and education networks and cross boarder connectivity. The importance of this report comes from the fact that Arab e-Infrastructures need to be developed to reach a global benchmark. While research and education connectivity in Europe and the US reaches tens of Gigabits per second, cross boarder or international connectivity either does not exist or barely reaches tens of Megabits per second. As a result, Arab research and educational communities are left behind the global technology development as well as the outreach to scientific and educational resources, applications, and services. This calls for an urgent need to develop dedicated Pan-Arab e-Infrastructures.

The development of the report has received funding from the European Commission's

Seventh Framework Program – FP7, relating to the project 'Coordination and Harmonization of Advanced e-Infrastructure' and the European Commission's European Neighborhood Policy (ENP) South Regional Program, relating to the project 'EUMEDCONNECT3'. The report includes contributions from DANTE (Delivery of Advanced Network Technology to Europe), Arab NRENs, as well as the Coordination and Harmonization of Advanced e-Infrastructure (CHAIN) partners.

http://www.asrenorg.net/images/stories/Arab_e-Infrastructure_Status_Report_En.pdf

ASREN participates in Hawaii in the TIP2013 meeting

ASREN has participated in the Global Compendium consultation meeting attended by regional partners in e-Infrastructures. The goal is to produce a global publication on the basis of the information collected using the common model. It was concluded that:

- The networking organizations committed themselves to working together to develop a common information model in 2013, for documenting the work of National Research and Education Networks around the world. Such a model can also be used by NRENs themselves, as a guide e.g. for information NRENs publish on their websites, etc.

- A global panel will be formed for developing this common model, with participation from all world regions. For the time being, the coordination of this work will be facilitated by TERENA. The data collection tool that will be developed by TERENA will, if at all possible, be designed in such a way that it can be used for this common model and so that others could use or adapt it as well.

- One of the elements of the common model might be a database of international and possibly also of national links. Shankar Karuppayah of APAN and the Malaysian National Advanced IPv6 Centre presented a visualization of such links, using Google maps API. Based on his ideas, it might be feasible to look for forms of automated data collection, yielding snapshots from time to time.

- TERENA will lead a preparation of the first draft outlining the case for a common information model and a global publication.

ASREN's science gateway

n support and coordination with Catania Science Gateway team lead by Professor Roberto; ASREN has been implementing a complete science gateway infrastructure to allow a federated access to variety of scientific resources, applications and services at the regional level. The infrastructure is composed of:

- Identity federation Provider, setup on a hierarchical approach to allow a hybrid authentication at the University level, NREN level, and regional level, to be connected to access federation using a discovery server.

- LDAP server to install user credentials and support the authentication and authorization of users.

- Liferay server to enable a science gateway access to applications and services for the scientific communities.

ASREN to hold a technical workshop on Building Federated Identity Infrastructure

In coordination EUMEDCONECT3, CHAIN-REDS and TERENA, ASREN will hold a technical workshop on Building Federated Identity Infrastructure to be held in Amman 17-19 June 2013. This hands-on course is aimed at enabling NRENs and Campuses to setup Federated Identity Infrastructure in their own environment, and how to best pass that knowledge to their broader constituencies in their own language.

Historically, IP-based authentication has been a common mechanism for accessing external resources but denies a user access when working off campus. Shared accounts have solved the off campus issue but don't allow personalization of a resource.

These approaches are simplistic and fail when staff, students and researchers are off-campus, need to access collaborative resources intended for an individual user or want to use a resource intended for a specific group of users.

Federated Identity Infrastructure allows campus authentication systems to integrate with a wide variety of services on campus, within your country and beyond.

This technical training event will be of interest to:

- Campus IT and Library Resource teams looking for solutions to effectively manage and scale their identity providing and consuming services,

- NRENs (National Research and Education Networks) exploring identity federation infrastructure for their country and wanting to promote identity federation to their connected campuses.

The desired outcomes include:

- Recognize the pros and cons of different federated infrastructure, such as mesh, hub & spoke and centralized login.

- Practical skills in deploying federated identity and service provider services using simple SAMLphp and Shibboleth.

- Understanding of the operation hub & spoke identity infrastructure at the campus level.

- Experience the benefits of federated identity infrastructure by accessing and sharing resources beyond your administrative domain.

- Knowledge to set the direction for library, campus and country identity federation activities.

- Skills to write a federation policy that will allow inter federation with the global research and education community.

For more details and registration, please visit:

http://www.asrenorg.net/events/workshops/upcoming-workshops/identity-federation-workshop.html

The CHAIN-REDS project is on the move

The CHAIN-REDS project, launched four months ago and gathering the main regional e-Infrastructure stakeholders, has already implemented a significant number of activities to support and promote the definition of a path towards a global e-Infrastructure ecosystem.

The newly launched CHAIN-REDS website (www.chain-project.eu) contains detailed and updated information on the project activities, as well as the beta version of the "CHAIN-REDS semantic search tool on linked data", allowing to search among the semantically-enriched metadata coming from the Open Access Document Repositories (OADRs) and Data Repositories (DRs).

With a view to creating synergies and optimizing efforts to achieve common goals, the CHAIN-REDS project has already signed three Memoranda of Understanding (MoU), with related projects, namely EarthServer (www.earthserver.eu), ELCIRA (www.elcira.eu) and ENGAGE (www.engage-project.eu). Each MoU details a specific and concrete set of cooperative actions to promote standards and best practices in e-Infrastructures in Europe and beyond.

As part of the program of the International Symposium on Grids and Clouds (ISGC) 2013, which took place in Taipei, Taiwan, in March 2013, the CHAIN-REDS Partnership organized a workshop to explore the state-of-the-art and future developments of e-Infrastructures in the Asia Pacific region and to identify common and additional priorities between the CHAIN-REDS community and key scientific communities in the region.

The following day the CHAIN-REDS project reached one of its first milestones, holding a successful brainstorming meeting on interoperability and interoperation of Distributed Computing Infrastructures (DCIs) in co-location with ISGC 2013, during which the status of interoperation of intercontinental Grids solutions in all regions addressed by CHAIN-REDS (namely Sub-Saharan Africa, Middle East, India, China and Latin America) was introduced. During the meeting the Science Gateway was also identified as a tool facilitating interoperability between different middlewares (UMD, Garuda, CNGrid) and catering for job submissions on cloud and HPC resources, thus facilitating to some extent cross-technology interoperability. A draft version of the CHAIN-REDS vision on cloud interoperability was presented and a CHAIN-REDS task force on interoperability of clouds was set up with the short-term objective of organizing a demo at the next EGI Technical Forum in September 2013 in Madrid.

Upcoming events include the "All-Hands Technical Training and Development Meeting" co-organized by CHAIN-REDS and SAGrid in Pretoria (South Africa) on March 25-28, 2013, the CHAIN-REDS Birds of a Feather (BoF) session at the TERENA conference in Maastricht (The Netherlands) on June 4, 2013, as well as the CHAIN-REDS Science Gateway session at the Technical Workshop on Building Federated Identity Infrastructure, Amman (Jordan), June 17-19, 2013.

For further information and to stay tuned on CHAIN-REDS activities,

please visit

www.chain-project.eu

- follow @ChainREDS on Twitter
- subscribe to the CHAIN Science Gateway Community on Facebook

el4Africa and CHAIN-REDS debated on 'Promoting Research Infrastructure Partnerships'

el4Africa and CHAIN-REDS held a dialogue at the High-level Conference on 'Promoting Africa-EU Research Infrastructure Partnerships' (March 7-8, 2013 - Belgium).

A high-level conference on "Promoting Africa-EU Research Infrastructure Partnerships" took place on March 7-8, 2013 at the Thon EU Hotel in Brussels, Belgium. This conference presented the outcomes of the PAERIP project, funded under the EU's Seventh Framework Programme (FP7).

Over the past two years PAERIP undertook an extensive analysis of Africa-EU research infrastructure partnerships, including best practices which could be identified from current cooperation and the formulation of recommendations to enhance collaboration. In this context PAERIP considered cooperation activities such as how to enhance transnational access to research infrastructures for African and European researchers, and the promotion of networks integrating African and European research infrastructures.

The conference took place at a crucial time for the development of new cooperation instruments for Africa-EU cooperation including for collaboration in science, technology and innovation. These instruments include, for example, the new EU Horizon 2020 Framework

Programme for Research and Innovation, the EU Development Cooperation Instrument (DCI) and the European Development Fund (EDF).

Within this context, one of the highlights of the conference was the presentation of PAERIP's recommendations on how research infrastructure partnerships could best be promoted as part of the Joint Africa-EU Strategy (JAES). eI4Africa and CHAIN-REDS were also formally presented to the audience by Kostas Glinos (Head of Unit, GEANT and e-Infrastructures, DG CONNECT, European Commission) in the framework of an overview presentation introducing the role of e-Infrastructures and 4 specific support actions: AfricaConnect, eI4Africa, CHAIN-REDS and iMentors.

The conference concluded with a specific session on the way forward for Africa-EU research infrastructure partnerships, including a discussion on policy recommendations with regard to the Joint Africa-EU Strategy, and a presentation on how ensuring the sustainability of the PAERIP initiative.

Organized by Sigma Orionis (France) with the support of DST (South Africa), ISC (Belgium) and all project partners, this conference was a side event to the "EU Science: Global Challenges, Global Collaboration" (EU CG3) conference, that took place in Brussels on March 4-8. Hosted by the Irish Presidency of the Council of the European Union and the European Parliament, the event placed the EU research at the center of the scientific response to global challenges, bringing together scientists and science policymakers from 100 countries.

Medea University first to introduce high performance computing (HPC) service in Algerian University

Medea University « Yahia Fares » has acquired powerful supercomputers as the first of 19 Algerian academic institutions in Algeria's quest to boost scientific research. A national programme, overseen by the Directorate of Research and Technological Development, under the Ministry of Higher Education and Scientific Research, will provide several universities with high-performance computing (HPC) service which will allow researchers to carry out their work in the most advanced areas. Today, HPC has become essential in most fields of science and research.

Dr. Abdelhak Fareh from the Department of Computer Science at University of Medea does not hide his enthusiasm. "This is the first supercomputer that the University of Medea

receives and it will be very beneficial in our research projects, both in terms of compute-intensive, simulation and modelling," he says. It is a comprehensive programme that is "currently at a regional level but a list of other universities that receive the same equipment is developed," he continued. You should know that supercomputers are used for all tasks that require very high computing power such as weather forecasting, climate research, molecular modelling and calculation of structures and properties of chemical compounds, as well as physical simulations such as aerodynamic simulations, calculations of strength of materials, etc. Among the projects that have already begun to use the HPC, researchers work on the optimization of photovoltaic cells for solar power.*

Aouaouche El-Maouhab, General Manager of DZ e-Science GRID and ARN at CERIST who attended the launch of HPC at University of Medea on 11 February 2013, announced the plan to extend the DZ e-Science GRID infrastructure to all HPC infrastructures and encouraged researchers with similar research interests to work together to establish scientific communities with common requirements and objectives.

Algeria has recently upgraded the international connectivity available for its scientists and academicians to 622 Mbps through its participation in EUMEDCONNECT3, the regional high-capacity Internet network serving the research and education (R&E) communities across Northern Africa and the Middle East.

Algeria is a long-term partner in the EC-funded EUMEDCONNECT project and has seen its research network ARN capacity increase by a factor of 15 - from an initial 45 Mbps in 2004 to the current 622 Mbps to meet researchers' growing demands for high-speed international connectivity, including geographically distributed HPC activities.

About DZ e-Science GRID

TThe DZ e-Science GRID is an initiative funded by the Algerian Ministry for Higher Education and Scientific Research and has been operated since 2006 by the Networks Division at the Research Centre on Scientific and Technical Information (CERIST).

The main objective is to set up a Grid infrastructure and Grid computing services for scientific communities with high computing and storage requirements.

The certification authority DZ e-Science CA was launched in 2011 and is fully operational with accreditation from the European organisation EugridPMA which coordinates the trust fabric for e-Science authentication in Europe and collaborates with the regional peers APGridPMA for the Asia-Pacific and the Americas GRID PMA in the International Grid Trust Federation.

The DZ e-Science GRID is part of the Algerian Research Network ARN services and participated in EUMEDGRID and EPIKH EC/FP7 projects. **For more information, visit www.grid.arn.dz**

About ARN

ARN is the Algerian NREN (National Research & Education Network) funded by the Algerian Ministry for Higher Education and Scientific Research. Operated since 1994 by the Networks Division at the Research Centre on Scientific and Technical Information (CERIST), ARN is connecting 110 institutions: all universities, research centers, high schools.

ARN is built on a national backbone with 10 PoPs and is using two international links with 1.4 Gbps: one to the GEANT Pan-European Research and Education Network (622 Mbps) through the EUMEDCONNECT3 project and another link for commodity Internet with commercial providers (777 Mbps).

For more information, visit **www.arn.dz.**

eFADA to stimulate the UAE's knowledge economy

Abu Dhabi: At the click of a button, over 500,000 information sources will be available for students, teachers and researchers in order to create and provide access to a shared knowledge environment. eFada project — which means 'benefit' in Arabic — will enhance the education and research resources available to stimulate the UAE's knowledge economy and harness the power of information and knowledge to contribute to the continued development of the UAE society. Ankabut, the UAE's advanced national research and education network, is the project manager of the newly born eFada initiative to support research and academic innovation by elevating education standards. "Ankabut is an excellent hub as it enables us to discover the realm of human experience as the network spreads out to intellectual and creative centers in the UAE and extends to similar points around the world," said Shaikh Nahyan Bin Mubarak Al Nahyan, Minister of Higher Education and Scientific Research at Paris Sorbonne University yesterday.

"I am quite excited by the great potential by Ankabut network and its centrality in building of our national capacity in education and research," Shaikh Nahyan added. The mission of the consortium of academic and research libraries is to create and provide access to a shared knowledge environment that supports the teaching, learning and research goals of its member "eFada is a very simple page which will help in increasing the power of information and knowledge by providing at least one terabyte (1,000 gigabytes) of electronic or hard copy resources," Dr Ahmad Dabbagh, eFada project manager, told Gulf News. "Students will no longer suffer from spending hours on researching. Through eFada, any member related to the academic and education field will be able to view several options including how many researchers have worked on a certain topic or how many research papers have been done by others within the UAE or outside," Dabbagh explained. eFada, which started almost a year ago, will work extensively with nine universities and institutions within the UAE in a period of six months to one year. UAE University, Zayed University, Khalifa University, Abu Dhabi University, Higher Colleges of Technology, Petroleum Institute and Masdar are the participating parties in the eFada project and other universities are welcome to join, Dabbagh pointed out.

LinkSCEEM-2: A computational resource for the Eastern Mediterranean

The LinkSCEEM-2 project aims at the establishment of a high performance computing (HPC) eco-system in the Eastern Mediterranean region by interlinking and coordinating regional computer, storage and visualization resources to form an integrated e-infrastructure. The main project objective is to enable scientific research in the region by engaging and supporting research communities with an initial emphasis in the fields of climate research, digital cultural heritage and synchrotron applications.

Over the past 2 years, LinkSCEEM partners have developed and implemented a joint call for proposals that would enable regional users to apply for resources on two large regional HPC systems, Cy-Tera at CaSToRC at The Cyprus Institute and a Sun cluster at Bibliotheca Alexandrina in Alexandria, Egypt. The application procedures implemented in LinkSCEEM follow international practice, which includes a peer review. This will prepare regional users to also apply to larger international Tier-0 centers once research activity has outgrown regional resources.

The use of the resources offered for research projects by LinkSCEEM is entirely free of charge. Two calls for proposals have been successfully allocated, while a 3rd call is currently being evaluated. Access has already been given to a total of 25 projects from Egypt, Jordan, Greece, Israel and Cyprus. While providing computational resources to regional users, LinkSCEEM also actively engages with regional user communities to provide training opportunities and to support regional education institution to build courses in computational science.

The project has already organized 20 regional workshops and user meetings since the project start in September 2010. Beyond training workshops, LinkSCEEM also provides educational access to some resources. These can be used by academics for courses or by individuals to improve their skills in HPC.LinkSCEEM-2 is engaging in two categories of research activities: cross-disciplinary, and thematic. The general goal of cross-disciplinary research is the development of software to support the optimization of parallel applications on large-scale systems.

The cross-disciplinary research activities will focus on performance analysis and best implementation, mathematical analysis and algorithms, data management and scientific workflow software optimization and visualization research in the deployment of visualization

software for enabling collaborative virtual spaces. Thematic research activities include research in climate modeling with an emphasis on scientific code porting and optimization for regional HPC infrastructure , the use of scientific computing and visualization as a research framework in Cultural Heritage and synchrotron data analysis and modeling aimed a porting existing and new algorithms to GPUs.

The LinkSCEEM-2 consortium combines regional Institutions (The Cyprus Institute as coordinator, the National Authority for Remote Sensing and Space Science in Egypt, Bibliotheca Alexandrina in Egypt, SESAME in Jordan, CYNET in Cyprus, JUNET in Jordan and IUCC in Israel) with internationally leading research organizations in Europe and the US (Juelich Supercomputing Centre in Germany, National Centre for Supercomputing applications in the USA, Max Planck Gesellschaft in Germany and the European Synchrotron Radiation Facility in France).

For more information, please visit the project webpage under www.linksceem.eu. LinkSCEEM-2 is funded by the European Commission's FP7 framework program under grant agreement RI-261600
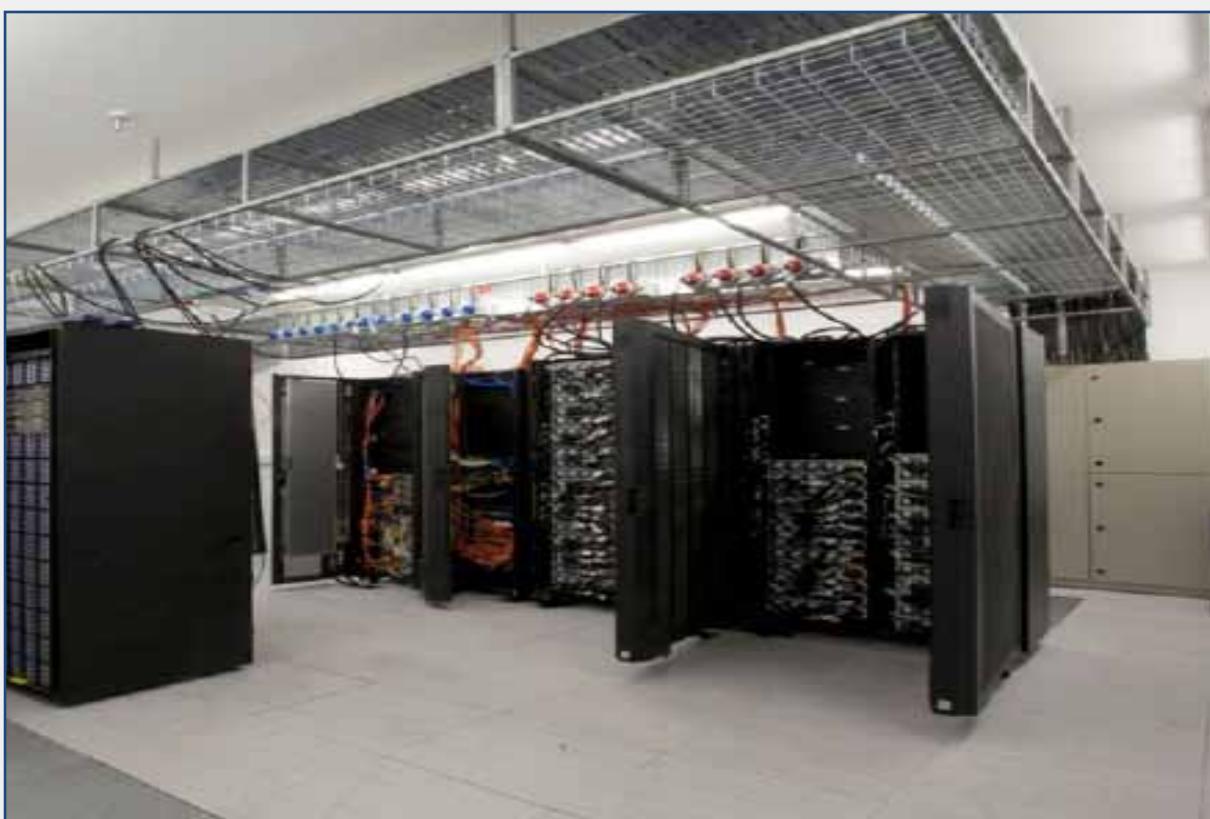
Cy-Tera at the Cyprus Institute: A hybrid machine of peak performance of 30 Tflops

Dr. Saleem Al-Ashhab from Al Bait University in Jordan submitted over 410000 jobs to the GRID network and used around 3 TB of Disk Space.

Dr. Saleem Al-Ashhab said: "As a GRID user since 2012. I submitted so far over 41000 jobs to GRID. A job has five values as input. The first three values (a, b, e) represent the center of a magic square. We have 3429 possible centers. The other two values (integers from 0 to 36) are determined by the user. The input runs a C code, which produces two output files: one containing the number of squares and one containing the squares. For example, the table for center a=1, b= 35 and e=8:

t0	t1	number
0	4	18731726
4	6	11497986
6	8	2888428
8	12	21562055
12	15	14509637
15	18	14827209
18	22	20480154

e	number
2	80012582
4	172963666
5	161824291
6	147899103
7	125385153
8	154427653

This will be number summarized in a new table according to the center. For example, the beginning of the table a=1, b= 35

I splitted the work of counting the squares into 4 stages according to the center: symmetric centers (153 ones), semi symmetric centers (total 306 ones), positive centers (228 ones) and the rest.

The first two stages were finished and described in two published papers. I used GRID in the third stage, which is now complete (paper in preparation).

I finished in the fourth stage all centers such that a = 1, 2, 13, 14, 15, 16, 17. They represent about 30% of the work. Regarding the other values I finished partially the jobs (in total about 60%).

The GRID is a powerful tool. It enables the user to split the work in parallel running processes.

The run time for a single process is the same as a usual pc. This enables me to solve the problem in several months instead of years. But, the major problem is "vanishing of submitted jobs".

Sometimes they just disappear. The system does not execute all submitted jobs, which means that some jobs are resubmitted many times. Since there are no direct relations between the jobs, this problem is not an obstacle.

Besides, the administrator R. Bruno is offering assistance. The system recently allows me rarely to download the output file containing the squares directly. It is a file of average 400MB. The system stores these files. The download process is not each time successful. At least in my case the other file (average size 2KB) contains the summary. Hence, the data transfer is not an essential obstacle."

First-ever backup agreement for R&E traffic around the globe

Vital research collaborations involving China, Europe and the United States will be safeguarded through the first major agreement among partners running the two main high-speed R&E Internet routes across Asia, Europe and North America. By agreeing to provide reciprocal backup services via a ring of 10 Gbps connections around the globe, the organizations involved will maximize connectivity and provide a stronger, more resilient service to researchers as they work together on major projects and share growing volumes of data. ORIENTplus, Internet2, TransPAC3 and CERNET signed the agreement last

month at the TIP2013 Conference in Hawaii, which involved more than 450 international technology leaders. This partnership reflects the recognition among national and regional R&E networking organizations that a collaborative approach is the most effective way to meet the needs of an increasingly global user base.

To read more about this great example of collaboration between network providers, please visit **http://www.orientplus.eu/node/38**

Egypt's EUN is now connected to GLORIAD and EUMEDCONENCT3 through ENSTINET

After almost two years of intense planning for new advanced science communication services for Egypt-U.S.

collaboration, the new high-speed GLORIAD network connecting scientists, educators and students across the US and Egypt was switched on.

Immediately, Egyptian universities, researchers and students gained access to a vastly increased speed of data transfer with thousands of universities and science facilities across the U.S., Europe, Asia and the rest of the world.

The new world class high-speed connection to the GLORIAD enables Egyptian researchers and students to participate in the most advanced research programs around the world – in high energy physics, astronomy, remote sensing, weather and climate science – and hundreds of others – by connecting universities, research facilities and schools throughout the U.S. with their peer institutions across Egypt.

Egypt now joins the efforts of the Global Lambda Integrated Facility (GLIF) via GLORIAD and begins to participate in several global scientific research projects, such as the Large Hadron Collider (LHC) particle accelerator. Dr. Harvey Newman, Professor of Physics at Caltech and Chair of the US LHC Users Organization said: "The impressive US-Egypt GLORIAD network infrastructure opens a new era enabling scientific cooperation among scientists and engineers in Egypt and their colleagues throughout the world.

This includes physicists working on experiments at the Large Hadron Collider exploring the nature of matter and space-time at the highest energies, notably the group at Academy of Scientific Research and Technology (ASRT) in Cairo.

Egypt is connected to the GLORIAD through the Egyptian National Science and Technology Information Network (ENSTINET) which connects the research organization in Egypt forming the National Research Network of Egypt.

The Egyptian Universities Network (EUN) which connects the Egyptian Universities forming a national education network is also connected to ENSTINET and uses the GLORIAD connection.

Further to this, ENSTINET is now connected to GEANT at 622-Mbps link to via Alexandria – Amsterdam. This also enables the EUN and ENSTINET users to make use and connect to the GEANT R&E communities including the EUMEDCONNECT3 Project

Arab Multi-stakeholder Internet Governance Meeting Wraps Up in Dubai

Dubai 3-5 March 2013

Arab Internet community came together to discuss Internet governance issues and priorities related to the region. The Arab Multi-stakeholder Internet Governance meeting took place in Dubai as part of the Arab IGF open consultations.

The meeting, hosted by the Telecom Regulatory Authority (TRA) of the United Arab Emirates brought together over 100 participants representing different stakeholders, including high-level participation by heads of telecom regulators, CEO's of telecom operators, ISPs, ccTLD operators, ICANN accredited registrars, ISOC Chapters, as well we leaders of Internet organizations.

Over the course of a day and a half the meeting discussed issues of interest to the region, and came up with a number of action items to be undertaken by various related parties.

Participants engaged in constructive and open discussions around a range of issues including Internet governance multi-stakeholder model, DNS industry development, ICANN Middle East engagement strategy, and capacity building in related Internet governance areas.

Participants shared views on fostering multi-stakeholder Internet governance mechanisms in the region, and agreed that all stakeholders should be involved. It was noted that stakeholders' roles should be complementary rather than competitive.

Leaders of Internet organizations who were present at the meeting talked to the distinctive roles of their organizations in the global governance ecosystem, and highlighted the community bottom-up participation in the relevant processes.

Participants noted that engagement in global policy fora should be two-way as community members have a role to play, and so are the relevant global and regional bodies such as ICANN, ISOC, IETF and the RIRs.

Participants also emphasized the importance of capacity building in stimulating engagement and talked to several different activities in that regard.

Regarding the Arab IGF, it was agreed that the Arab IGF should play a key role in stimulating multi-stakeholder Internet governance mechanisms at national and regional levels, through working with various stakeholders from governments, business, academia, as well as ISOC chapters. Participants noted that the Arab IGF should have a sustainable funding mechanism to ensure stability and continuity. Internet organizations together with UN ESCWA reiterated their commitment to support the Arab IGF.

ISOC, RIPE NCC and AfriNIC reiterated that they would continue to promote capacity building in the region through workshops and support of activities such as MENOG and the building of IXPs.Participants welcomed the creation of the Arab States Research and education Network – ASREN as an entity which will be responsible for networking the R&E organizations in the Arab Region and committed to support it..

SESAME a regional research Opportunity in Jordan

SESAME
(Synchrotron-light for Experimental Science and Applications in the Middle East) is a major scientific facility under construction near Amman (Jordan), which is expected to begin operation in 2015.

SESAME will foster scientific and technological excellence in the Middle East and the Mediterranean region, build scientific bridges between neighboring countries, and foster mutual understanding through international cooperation.
The Members of SESAME are currently Bahrain, Cyprus, Egypt, Iran, Israel, Jordan, Pakistan,

the Palestinian Authority and Turkey.As in everyday life, in advanced scientific research we learn by 'seeing' things using light – except that scientists use light that ranges beyond the visible, in the infrared and the ultraviolet, to X-rays and beyond. Advanced sources of light (like lasers and synchrotrons) have become prime factors in promoting scientific and technological progress.In recent decades, the extraordinary power of synchrotron light has made it an essential tool for studying matter on scales ranging from biological cells to atoms, using radiation from the infrared to X-rays. It has had an immense impact in fields that include archaeology, biology, chemistry, environmental science, geology, medicine and physics.

SESAME USERS

The users of SESAME will mostly be based in universities and research institutes in the Middle East and neighboring region. They will visit the laboratory periodically to carry out experiments, often in collaboration with scientists from other countries, where they will be exposed to the highest scientific standards in a stimulating environment for international collaboration. SESAME's well-equipped beamlines, experimental end stations, laboratories, and other support facilities will be available to users, and a highly trained scientific, technical and administrative staff will ensure that both experienced and inexperienced users of the Centre are successful in their experiments.Several hundred scientists, working in disciplines ranging from the biological and medical sciences to archaeology, are expected to use SESAME from day-one. This will make SESAME a unique multidisciplinary center in the region. As more beamlines are built, the number of users is expected to grow to 1000 or more.

More information on how SESAME works, what it will do and how it will be used and a detailed description of the status and aims of SESAME can be found
at **http://www.sesame.org.jo/brochure.pdf**

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Arab States Research and Education Network