ASREN

Arab States Research and Education Network

ASREN *Newsletter*

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*"**ASREN** is a non-profit company with limited liability (GmbH) and is officially registered in Germany, under the umbrella of the League of Arab States. The main goal is to connect Arab institutions among themselves and to the globe through high-speed data-communications networks. Such networks will enable sharing and access to a variety of R&E services and applications in addition to utilization of highly sophisticated and technologically advanced computing resources available only at very few institutions in the world."*

In this issue

Ankabut overcoming the Covid-19 challenge in supporting remote delivery of education

The Covid-19 outbreak brought an unprecedented crisis on all sectors and especially to the education sector in the UAE. The preventive and precautionary measures issued by the Ministry of Education to contain the spread of the coronavirus included shutting schools and higher education institutions across the UAE, starting 8 March 2020 until the end of the academic year, and converting to distance learning.

Ankabut – the Emirates Advanced National Research and Education Network – jointly funded by Khalifa University (KU) and the Telecommunications Regulatory Authority (TRA) through the ICT Fund, sought to ensure continuity of distant learning capabilities and smooth running of all network services related to education at KU and member universities and institutions.

Online learning ecosystem at Khalifa University

Ankabut Swung into action to develop a hosted solution for meeting the requirements of delivering virtual classes online. The Ankabut IT team created an online learning ecosystem, comprised of four interconnecting layers. These layers included of the Community of users, the Learning Management System (LMS), the Virtual Classrooms and the tools for Content Development and Management.

Recognizing that the University faculty have different needs and preferences according to required learning outcomes, the Ankabut team set up three different virtual classroom platforms, including Big Blue Button, Microsoft Teams and Black Board Collaborate which the Faculty could use as per their preference.

The BigBlueButton, which is an open source solution for teleconferencing, was installed with four redundant servers to make sure that high availability was maintained. Features like load balancing and TURN were implemented to make sure that the solution was reliable. This solution was integrated with the LMS. Ample storage was provisioned to make sure that the virtual classes could be recorded and linked to the LMS.

Ankabut also negotiated a contract with Blackboard LMS. Blackboard Collaborate was integrated with the LMS and launched quickly to offer a third choice for delivery of virtual classes.

The core of the solution still remained the LMS, which needed to be resized to cater for the increased load. The system was transformed with load balanced front end servers and a clustered database to meet the new demands.

Ankabut also had to ensure that the systems would not throttle due to bandwidth limitations. The local service providers responded quickly to Ankabut's request and 2 GB of internet bandwidth was provisioned within a few days.

Another aspect to managing the solutions was the ability to measure and report. Ankabut's SOC was utilized to make sure that the solutions and the network was monitored round-the-clock to monitor, report and take corrective actions.

Faculty training was also an integral part of the preparations. In collaboration with the CTL, extensive training sessions were arranged for all the platforms offered.

Other members subscribing to Ankabut services

The primary focus was to achieve reliability of services and quick resolution of any issue. External identified solutions were quickly integrated with the AD and solutions to provide seamless access for member users.

Clients that used Ankabut's co-location services had to have complete visibility on the status of their systems and the availability of dashboards helped enhance the user confidence.

Securing access to enterpriser applications hosted within the datacenter was another important aspect that needed to be set up. VPN accounts for all faculty and staff were setup with role based access. In order to ensure security, Azure MFA was setup and rolled out to users accessing VPN.

Support levels were maintained despite the higher number of cases during the initial rollout. Although, in many cases the support involved isolating issues at the user network, the team was able to resolve cases and ensure that learning was not hindered.

Extending Support to Faculty, Staff and Students
The Ankabut Reach platform is being used by all member institutions to raise support tickets and track progress. The support staff was trained quickly on the new solutions which ensured handling the tickets in a timely manner. Overall, Ankabut was able make sure that there were very few SLA violations and the Mean Time for resolution was within the acceptable limits.

How NRENs support the COVID-19 Research Platform

As the world reels from the effects of the COVID-19 pandemic, thousands of researchers in hundreds of institutions across the world are focusing their knowledge and resources on understanding the virus and discovering a vaccine to fight it. Sharing knowledge, results and data is fundamental to this

Open science relies on research data being findable, accessible, interoperable, and re-useable (known as the FAIR data principles) and involves the close collaboration of many stakeholders.

With new projects and initiatives forming overnight to combat the pandemic it's reassuring that high-speed, reliable, secure connectivity and AAI services are already in place, always ready to support science. It's why research and education networks exist and what they are designed for.

Why are research and education networks so important?

National research and education networks (NRENs) and their regional counterparts (RRENs) exist to serve research and education, together providing a global, interconnected web of high-bandwidth and low-latency networks designed, engineered and funded to stay way ahead of capacity requirements. What might appear in normal times as over-engineered capacity quickly becomes a vital lifeline for society when traffic spikes simply cannot be allowed to slow the delivery of huge datasets, one of which may contain that elusive answer to a vaccine. And when thousands of scientists from hundreds of organisations are working remotely, accessing and sharing data, so a highly developed Authorisation and Authentication Infrastructure (AAI) that enables that access quickly becomes invaluable.

Source: https://impact.geant.org/portfolio/covid19/

NRF South Africa to host the AOSP Project Office

The National Research Foundation (NRF) of South Africa will host the African Open Science Platform (AOSP) Project Office for the next 3 to 5 years. Supported by South Africa's Department of Science and Innovation (DSI), key institutions in Africa, and the International Science Council (ISC), the AOSP (Science for the Future, the Future of Science) makes the case for bold action to mobilise the scientific community in Africa in responding to the challenges of the digital revolution. The new paradigm of Open Science is a powerful driver for scientific research and scholarship and its application to social, economic and global environmental priorities.

The AOSP Advisory Council, following a competitive process, awarded the NRF this significant opportunity to further establish and formalise a Continental platform. With a strong emphasis on African unity as a nuanced and dedicated focus, the NRF and the DSI recognise the significant potential of the AOSP as a means to create an inclusive and integrated culture of collaboration on the Continent in the service of democratising information and knowledge across social boundaries for the achievement of common goals and objectives.

The AOSP was initiated through a pilot phase supported by the DSI, and managed by the NRF and the Academy of Science of South Africa (ASSAf) during 2017-2019, with partners including the International Science Council (ISC), and its Committee on Data (CODATA). Outputs included the collective development of a draft roadmap for Open Science on the Continent, and four open science frameworks that informed the first consultative stakeholder meeting, held during 2-3 September 2019 in Alexandria, Egypt, to design the implementation phase of the AOSP. Coordinated by the Chairperson of the AOSP Advisory Council, Dr Khotso Mokhele, the Strategic Plan for the AOSP was launched during South Africa's Science Forum in December 2018. The AOSP aims to build a critical mass of high-calibre open science research on the Continent, and will ensure that its projects are aligned with existing programmes and opportunities within regional and national research systems.

In collaboration with numerous key institutional and national initiatives, including Governments, Science Granting Councils, research infrastructure platforms, universities, and public and private research institutions, workstreams of the formalised platform will include the development of a legislatively compliant governance framework; the co-creation of a sustainable long-term funding model; and formalisation of the AOSP Operating Model.

The CEO of the NRF, Dr Molapo Qhobela, stated that: "The NRF is delighted to contribute to and support this strategic endeavour with a number of national and international partners. To excel in the new data dispensation, commitment and investment are required for Open Data policies, enabling Information and Communications Technology (ICT) infrastructure, and commitment to the necessary human capacity development".

The AOSP Project Office, based at the NRF in Pretoria, South Africa, with selected staff appointments, will be launched during 2020.

Source: https://www.nrf.ac.za/media-room/news/nrf-south-africa-host-aosp-project-office

Call for Proposals - APAN 50 Virtual Meeting and Conference
The Future of Networked Research and Education
3-7 August 2020

APAN will have its 50th bi-annual meeting this year, alongside a full conference and celebration, together with recognition of the 50th anniversary of the event host, the Hong Kong Joint Universities Computing Centre (JUCC).

This conference and meeting will be run online, with a range of innovative interaction models across all session-types, and demonstrating the abilities of modern collaboration technologies to deliver an engaging experience regardless of location.

As part of fostering global participation in this event, there will be no registration fee, it is free to attend and participate for everyone, from anywhere, with a relevant interest in networking and IT in the support of research and education.

Registration will give you access to a very wide range of session topics and session types, and exciting keynote presentations.

Target audience:
• 	Researchers, Educators and Students
• 	Network Managers and Engineers
• 	Computing and storage service providers
• 	University administrators and leaders
• 	NREN leaders and builders
• 	Software developers and engineers

- Trainers and Workforce developers
- Librarians and data managers
- Industry suppliers of R&E capabilities

Submissions are sought on anything related to the use of networks in research and education in any discipline or domain.

The call for all submissions is open now. Submissions can be made through the meeting website: www.apan50.hk

Registration will open soon on the same website, and announced widely. Participants are encouraged to register early to ensure sufficient capacity on the systems, and to attract relevant sponsors.

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Arab States Research and Education Network
TAGUCI Building
104 Mecca Street, Um-Uthaina, Amman, Jordan
P.O. Box: 921100 Amman 11192, Jordan

Email: info@asrenorg.net | f ASREN | ASREN

asrenorg.net