

Greater networking collaboration between Asia-Pacific and Europe with renewal of AER agreement

Renewal of MoU expands collaboration between Europe and Asia-Pacific regions,
new members added

7 March 2022, Bangladesh. After three years of successful collaboration on the Asia-Pacific-Europe Ring (AER), the underlying Memorandum of Understanding (MoU) is today extended and expanded in a virtual signing ceremony at the APAN53 conference held in Bangladesh.

The initial AER MoU, signed in July 2019, set up a co-operative arrangement for leading-edge Research and Education Networks (RENS) with 100G connectivity between Europe and Asia to provide back up for each other in the event of any link failure, thereby creating an extremely robust and resilient 100G network ring.

Today's news will see the original members (AARNet, GÉANT, NICT, NII, NORDUnet, SingAREN, SURF, and TEIN*CC) joined by HARNET (Hong Kong) and KAUST (Saudi Arabia) to not only create an extended membership but to add significant further resilience to the global research and education network system.

The new MoU potentially doubles the bandwidth of the Asia-Pacific Europe ring and expands the scope of collaboration. In addition to enabling multiple network paths and providing backup connectivity in case of network outages, the agreement includes the coordination of engineering and management activities, cooperation on deployment of emerging network technologies and services, and the development of applications with high bandwidth demands. It will also facilitate shared routing practices, and the sharing of measurement data.

By agreeing to work jointly towards the development and ongoing delivery of a highly resilient, high-speed network services delivery system for research and education, the extended and expanded agreement showcases the benefits of collaboration not only for researchers and academics in these regions, but worldwide.

Quotes:

"It's exciting to see this partnership grow and continue for a further three years. Diversity and resilience in our global network of research and education networks is vital for enabling life-changing research and education globally," said *Steve Maddocks, Director International, AARNet*.

"At GÉANT we see an increase in collaborative research between Europe and the Asia-Pacific region. To facilitate this, we are pleased that we are now increasing the 100G paths between Europe and Asia-Pacific from two to four through the extension of this collaborative back-up agreement," said *Erik Huizer, CEO, GÉANT*.

"HARNET is pleased to join this partnership and be part of the robust and resilient network across Europe and Asia. We are sure this collaboration will further contribute to the academic and research advancement and excellence," said *John Hui, Director, JUCC*.

"Global collaborative research is at the heart of the KAUST mission and the exponential growth in scientific data means that reliable and resilient high-capacity connectivity is a fundamental requirement for leading-edge research in today's world. With the Arabian Peninsula being well-positioned geographically between the Asia-Pacific region and Europe, we are well placed to contribute to the AER, and we are excited to be part of the global community of high-performance networks enabling science and education at global scale," said *Jason Roos, CIO, KAUST*.

"NICT has been enhancing its high-speed network testbed for research and development on advanced information and communication technology towards the Beyond 5G era. As we expand and enrich our collaboration across ten networks in the Asia-Pacific and Europe, we look forward to conducting further collaborative experiments and research activities with the partner institutions around the world," said *IBARAKI Hisashi, Vice President, Member of the Board of Directors, NICT*.

"I expect that this enhanced partnership for a highly robust and resilient network ring will foster more collaboration in various research and education activities, as well as in advanced networking technologies among the regions," said *Shigeo Urushidani, Deputy Director General, NII*.

"The expanded collaboration, building on the previous work of the AER partners, is proof that collaboration in the Global R&E Network brings benefits. I welcome our new partners KAUST and HARNET to AER. This next step in AER's development will strengthen the network interconnect with the Asia-Pacific region and the Arabian Peninsula from Europe, for the joint benefit of users in science, research, and higher education," said *Valter Nordh, CEO, NORDUnet*.

"The continuation and expansion of the AER arrangement underscores the strong cooperation among the MOU partners in fostering cutting-edge research and education collaboration made possible with a highly resilient network coupled with cooperative network performance management," said *Lawrence Wong, President, SingAREN*.

"Working with institutes in the Asia-Pacific region is extremely important for SURF's members. We are excited that this group of world leading R&E network organisations is showing the power of collaboration by making another step in bringing the two continents digitally closer" said *Jet de Ranitz, CEO, SURF*.

"This MOU contains a lot of efforts and will of the partners. We sincerely welcome our new partners, JUCC and KAUST. I'm confident that this Asia-Pacific Ring will ensure the R&E Networks' sustainability and tie-up the R&E communities more closely," said *Louis Hyunho Choi, Executive Officer of TEIN*CC*.

About the partners:

AARNet is Australia's National Research and Education Network. AARNet is a licensed telecommunications carrier, owned by the Australian Universities and CSIRO. The AARNet network connects more than two million users: researchers, faculty, staff and students, to the commercial internet and to their peers around the world through its own extensive national and international network. For more information, visit aarnet.edu.au or follow @aarnet on twitter.

GÉANT is Europe's leading collaboration on network and related infrastructure and services for the benefit of research and education, contributing to Europe's economic growth and competitiveness. The organisation develops, delivers and promotes advanced network and associated e-infrastructure services, and supports innovation and knowledge-sharing amongst its members, partners and the wider research and education networking community. For more information, visit www.geant.org

HARNET (the Hong Kong Academic and Research NETwork) is operated by Joint Universities Computer Centre (JUCC), which is a wide area network that links up the campus networks of the eight tertiary institutions in Hong Kong and connects them to the global Research and Education community. JUCC is a non-profit making organization founded in 1970 to promote the development, deployment, operation and technology transfer of advance network infrastructure for innovation, research and education excellence in Hong Kong. Please visit <https://www.jucc.edu.hk/> for more information.

KAUST, King Abdullah University of Science and Technology advances science and technology through distinctive and collaborative research integrated with graduate education. Located on the Red Sea coast in Saudi Arabia, KAUST conducts curiosity-driven and goal-oriented research to address global challenges related to food, water, energy, and the environment. Established in 2009, KAUST is a catalyst for innovation, economic development and social prosperity in Saudi Arabia and the world. The University currently educates and trains master's and doctoral students, supported by an academic community of faculty members, postdoctoral fellows and research scientists. With over 100 nationalities working and living at KAUST, the University brings together people and ideas from all over the world.

NICT is Japan's sole National Research and Development Agency specializing in the field of information and communications technology (ICT). NICT is charged with promoting ICT sector as well as research and development in ICT, which drives economic growth and creates an affluent, safe and secure society.

NII, National Institute of Informatics (NII) operates the Science Information Network (SINET), that connects about 1,000 universities and research institutions throughout Japan via nationwide access points. SINET also has international lines to Europe, Asia, and USA to facilitate global collaboration in research and education.

NORDUnet is the Nordic Gateway for Research and Education, a joint collaboration by the 5 Nordic National Research & Education Networks in Denmark (DeiC), Finland (Funet), Iceland (RHnet), Norway (Sikt), and Sweden (SUNET).

SingAREN is Singapore's National Research and Education (R&E) Network and the sole provider of local and international networks dedicated to serving the R&E community in Singapore. SingAREN facilitates high-speed transfers of large datasets, both domestically and across international boundaries, for scientific research and enables advanced network technology demonstrations through its resilient links and high-speed fibre network. The SingAREN Open Exchange (SOE) interconnects Singapore's R&E community to the R&E networks in other countries, including Asia, Australia, Europe and the US. For more information, please visit singaren.net.sg

SURF is a cooperative association of Dutch educational and research institutions in which the members combine their strengths to enable reliable and innovative ICT facilities. SURF encourages the formation of the ecosystems in which members and their stakeholders collaborate, innovate and share knowledge, based on shared values and agreements. SURF forges strong coalitions for procurement and service development. SURF provides infrastructure, services, and expertise that are essential to the sovereignty and international standards of education and research.

TEIN*CC is a non-profit foundation for managing Asi@Connect, a co-funded project of the EU and Asia-Pacific Partners. Asi@Connect provides a dedicated regional high capacity and high-quality internet network, Trans-Eurasia Information Network (TEIN), for research and education (R&E)

communities across Asia-Pacific and Europe, and leverages e-infrastructures developed for public service projects. TEIN*CC actively collaborates with other regional R&E network organisations around the world to provide better opportunities for research and education to the TEIN community.