



Update of e-Science Activities in Malaysia

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Agenda

1. Academic Grid Malaysia
2. Identity and Access Management
3. Other Activities
4. MYREN Update

** Only representative activities and non-exhaustive*

Academic Grid Malaysia

- ◆ ~1000+ Cores in total
- ◆ 5 Certified Sites all at universities connected to MYREN and GEANT via TEIN4 and others (Internet2 and APAN)
 - ◆ a few sites were de-certified due to delayed software upgrade (Big credit goes to Farhan singlehandedly!)
- ◆ National Centre for Particle Physics (NCPN) was established under Malaysian Science Academy located at University of Malaya
 - ◆ participating in CMS experiment - driving force towards big compute requirement
 - ◆ Added ~700 cores plus a few GPGPUs
 - ◆ Heavily used not just for physics/nuclear but also chemistry
 - ◆ Bandwidth to CERN only up to 622Mbps (shared)
- ◆ Nuclear Malaysia - No connection to MYREN (under different ministry; MYREN is under Ministry of Higher Education and each public university paid the connection fees)

Grid Trainings and Roadshows

- ◆ Our challenge is now the technical capabilities of the technical support staff as well as the application users
- ◆ Researchers/Application users are not "thinking big enough" in their research! Big Science is still far-fetch
- ◆ Nevertheless, Academic Grid Malaysia continues to carry out engagement and awareness with several trainings and roadshows
 - ◆ 25-26th of Feb, 2015 conducted CMS T2 Preparatory Training @NCP, University of Malaya
 - ◆ 18-21st of May, 2015 participated in EGI Conference 2015, Lisbon, Portugal
 - ◆ 24-28th August, 2015 conducted TEIN-NGS Training in Universitas Indonesia, Jakarta
 - ◆ 15-18 Feb, 2016 Grid Web Based Application Development Workshop (using gUSE/WS-PGRADE) at UNITEN, MY
 - ◆ Other engagement roadshows to several local universities

Identity and Access Management

- ◆ Pilot deployment of IAM under Secure Identity Federation on Unified Lightweight Access Management (SIFULAN) for over two years
- ◆ Taskforce Committee for Identity Federation and Access Management was recently approved by the Ministry of Higher Education, Malaysia and mandated to draft SIFULAN Federation Rules of Membership (modelled after UK Federation as the legal text language is identical to Malaysia :) !)
- ◆ Biggest challenge towards full National Federation is the readiness of universities to have campus AD/LDAP; only 2-3 universities have AD/LDAP ready
 - ◆ Cost is the main factor apart from the differing skill level of technical staff.
 - ◆ Unable to see to benefit of IAM eg towards library resources subscriptions and other cloud services
- ◆ Initiated Open Access and Institutional Repository collaboration with National Institute of Informatics, Japan for Asia region. Participated in Research Data Alliance 7th Plenary Meeting on 1-4th March, 2016

Other Activities

- ◆ Eduroam in Malaysia started over two years ago with service offering by several universities
 - ◆ Those with ready campus SSO were able to offer staff with Eduroam while a few others only deploy Eduroam service on campus for visiting users but not their own campus users!
- ◆ The TEIN's eXtending eduroam in the Asia Pacific (XeAP) Project has been initiated thorough EU funding to AARNET and MYREN has taken up the task to have several Malaysia Universities to have eduroam deployment
- ◆ Disaster Management Competency Centre (DMCC) of EU - working with ASGC and other ASEAN partners. Specifically on Flood. Engaging local researchers and Malaysian Meteorological Department to provide observational data to verify simulation results done by Taiwan research partner
- ◆ Big Data Initiative by Government of Malaysia - developing governance structure of data sharing as well as looking into the quality of the data both historical and born digital data

Malaysian Research and Education Network

- ◆ MYREN **core capacity** between regional PoP is between **10-40Gbps**
- ◆ Capacity of **connection to members** (Universities, Polytechniques, Community Colleges, Research Institutes, Ministry agencies, etc) is between **50-100Mbps**
- ◆ Next-Generation MYREN plan is now under requirement study;
 - ◆ Pushing for Dark Fibre
 - ◆ New management and governance approaches
- ◆ Expanding present cloud services towards "AWS-style" model to cater for HPC, VMs, Bare Metals, and enterprise hosted services