

Global Research and Education service sharing: MAGIC and VI-SEEM projects

We present a use-case study for facilitating access to advanced research and education services in a global environment of interconnected NRENs. Today's advanced research relies on the ability to communicate efficiently and share storage and computational resources, as well as algorithms and data, between research groups on national, regional and global levels. Two European Commission projects which will be presented here and which have inter-continental coverage, MAGIC and VI-SEEM, both adopt a service-based approach where the online research services are advertised through an open service catalogue. Specifically the MAGIC cloud service catalogue can become a relevant deployment for WACREN, enabling the inclusion of the upcoming test installations in West Africa to be deployed through WACREN Cloud Pilot Open Call.

The VI-SEEM consortium brings together partners from 16 countries, the majority of which are the NRENs also providing cloud Infrastructure-as-a-Service storage / Virtual Machines, Grid Computing and High-Performance Computing research services. The partners join their forces to provide a large regional unified Virtual Research Environment open to the scientific user communities in Climatology, Life Sciences, and Cultural Heritage for the South East European and Eastern Mediterranean regions. The platform links networking, compute, data, and visualization resources, as well as services, software and tools. The Virtual Research Environment provides the scientists and researchers with the support in the full lifecycle of scientific research: accessing relevant data necessary for their research, using it with provided codes and tools to carry out new experiments and simulations on large-scale e-Infrastructures, and producing and integrating new knowledge and data - which is stored and shared within the same VRE. All project services are provided through a service catalogue.

Similarly the MAGIC project, involving all continents/regions including West Africa through WACREN, will advertise specifically the NREN cloud services, and this approach is being implemented via a compatible service catalogue. The catalogue, currently in test version, will be based on the GEANT Cloud Service Catalogue, which provides the Cloud Service Registration: a point through which the cloud providers can list their services - thus service operators will be able to register their services, and end-users will be able to find the offerings. The implementation provides view of Service providers, Services and Criteria per service, and edugain or local account based authorization model is used for access. Examples of NREN services in MAGIC catalogue include Colaboratorio, VCEspresso, SIVIC, FileSender, MediaWiki, LAreferencia, etc.

We hope that the MAGIC cloud catalogue will include the upcoming test installations in West Africa to be deployed through WACREN Cloud Pilot Open Call.

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