

## **Fostering E-Science application in campus grid infrastructure based on gLite middleware**

### **ABSTRACT**

Recently, Grid computing activities in Asia-Pacific have been drawn attention, includes in high learning education institutes in Malaysia. Many university and institute in Malaysia are started to build their campus grid infrastructure. One of the main problems that most institution faced when deploying campus grid is interconnectivity between cluster/grid sites. Thanks to EGEE gLite middleware project which break this barrier. The gLite distribution is an integrated set of components designed to enable resource sharing. The distribution model is to construct different services ('node-types') from these components and then ensure easy installation and configuration on the chosen platforms (currently Scientific Linux versions 4 and 5). It gives flexibility to the grid administrator on how they want to customize their cluster. We present a proposal of deploying a scalable campus grid infrastructure configuration based on gLite middleware concept, focused on typical Malaysian campus grid deployment and its challenges. The main goal of this proposal is to fostering the adoption of E-Science Application widely among Malaysian institute/university.

**Keyword:** Campus grid; E-Science; GENIUS; gLite middleware; Grid computing; Grid portal; WLCG