

Grid topology repository for WLCG Monitoring Infrastructure

Thursday 26 March 2009 08:00 (20 minutes)

The Worldwide LHC Computing Grid (WLCG) is based on a four-tiered model that comprises collaborating resources from different grid infrastructures such as EGEE and OSG. While grid middleware provides core services on variety of platforms, monitoring tools like Gridview, SAM, Dashboards and GStat are being used for monitoring, visualization and evaluation of the WLCG infrastructure.

The topology of the WLCG comprises a set of resources and administrative domains such as sites/services, VOs and their associations. Presently, topology related information is coming from various information providers like GOCDB, CIC, BDII and OSG resources'list and it needs to be aggregated at the application level. The absence of a single authoritative information provider is hampering the effectiveness of aggregation and consumption of data by the applications. Also, it is becoming difficult to pin-point the operational problems as the information is aggregated from various data providers. The end result is that WLCG monitoring tools' reliability is adversely affected. To resolve this issue, it is envisaged to have a single WLCG grid topology repository for aggregating and distributing topology related information. This repository will be extremely useful for tracking the historical information of grid resources and will greatly improve the reliability of monitoring tools. It will become much easier to consume and process data in applications as they will refer to a single source of information. The paper outlined below describes the present state of WLCG topology information resources, their existing functional and implementation issues together with a list of desired future enhancements.

Authors: Mr CASEY, James (CERN); Mr KALMADY, Rajesh (BARC)

Co-authors: Mr COLLADOS POLIDURA, David (CERN); Mr SONVANE, Digamber (BARC); Mr BHATT, Kislay (BARC); Mr CHAND, Phool (BARC); Mr JOSHI, Pradyumna (BARC); Mr KUMAR, Vaibhav (BARC); Mr BOPPANNA, Vinod (BARC)

Presenter: Mr COLLADOS POLIDURA, David (CERN)

Session Classification: Poster session

Track Classification: Grid Middleware and Networking Technologies