

## PROJECT INTRODUCTION

### Objectives

To implement a Grid accounting system that supports a multi-organizational Grid.

### Project Investigator / Manager

A/Prof. Lee Bu-Sung, Francis  
Nanyang Technological University  
ebslee@ntu.edu.sg

### Website

<http://ntu-cg.ntu.edu.sg/mogas/>

### Abstract

To develop a tool that enables managers to monitor and eventually meter, charge, and account for the compute resource sharing across multiple organizations. Additional features such as reporting and visualization are included in the implementation.

## PROJECT DETAILS

### Description

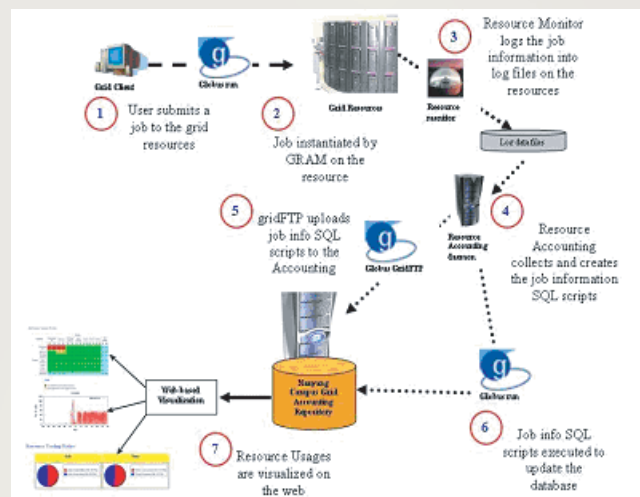
In the Grid environment where resources are been shared among collaborating organizations, it is essential that we are able to log and capture the level of usage across multi organizations. This forms the motivation for the development of a monitoring and accounting tool, Multi-Organization Grid Accounting System (MOGAS).

MOGAS was built on top of the Globus core: Grid File Transfer Protocol (GridFTP), Grid Resource Allocation Manager (GRAM) and Grid Security Infrastructure (GSI). At each of the compute resource, Globus core calls are used where possible and wrappers were developed where necessary.

MOGAS tasks are broken into several functions:

- Identification of user, organization, virtual organization.
- Monitor and update resource usage. MOGAS records the resources used by each job.
- Organization of resource usage database.
- User Web access and visualization. A portal was developed for user access to the job information. The information include: overall consumer/provider usage; specific Grid organization consumer/provider usage view; resource workload view; and accounting report view.

MOGAS has been successfully deployed across several site on National Grid Pilot Platform and Pacific Rim Application and Grid Middleware Assembly (PRAGMA) test-bed.



### Collaborating Organization:

National Grid Office