National Grid NG SINGAPORE

Meta-Scheduler

Project Introduction

Objectives
To ease the submission and scheduling of jobs to the National Grid Pilot Platform (NGPP) resources.

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Period of Project
Jan 2005 – Dec 2005

Website
http://www.ngpp.ngp.org.sg/ngppms.html

Abstract
Each of the NGPP resources has its own local workload schedulers (e.g. Sun's N1GE and Platform's LSF). The NGPP Meta-Scheduler interfaces with these local workload schedulers in order to schedule a job to the best available resources.

Project Details

Description
The deployment of the Meta-Scheduler arose from the need for a scheduler to ease the submission and scheduling of jobs to the NGPP resources. The NGPP Meta-Scheduler was deployed on August 2005 using the LSF Meta-Scheduler.

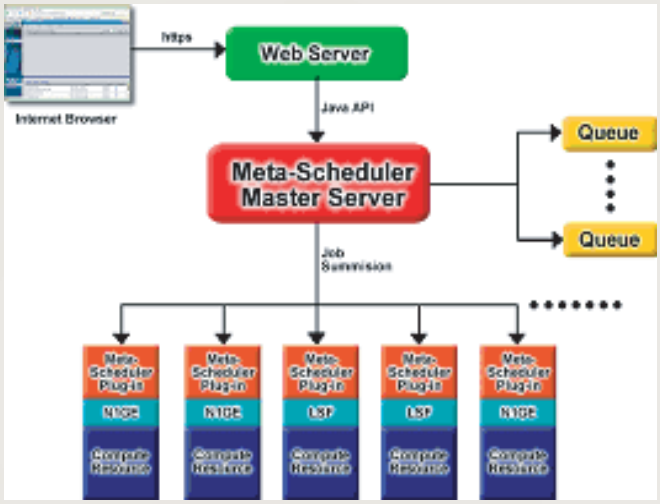

Figure 1. NGPP Meta-Scheduler Architecture

The Meta-Scheduler has a web interface to allow users to submit and monitor jobs sent to the compute resources on NGPP. This provides users an easy and more intuitive interface as compared to a command-line interface.

Virtual Grid Communities have their own grid portals e.g. Digital Media Grid (DMG) portal. These portals provide simple user interfaces to selected applications (e.g. Cel-Animation and POV-Ray for the DMG portal). Currently, one has to manually select the compute resource to run the application. With the NGPP Meta-Scheduler, a user can leave the complexity of scheduling the job to the meta-scheduler.

Based on the list of applications required by the VGC portals as well as applications which NGPP users have express interest in, the NGCC will enable these applications to be installed across all the NGPP resources. At present, the National Grid Competency Centre has made POV-Ray and GridBLAST available.

Collaborating Organizations:
- Platform Computing
- PTC Systems Pte Ltd