Problem Set 3
Grid Computing Module
January 2006

Issued: Friday 27th January 2006
Submission deadline: 11am Friday 3rd February 2006

This is the final problem set you will be asked to undertake before the large programming exercise. As noted previously, the exercise will be marked as either 0 or 1. Your overall coursework mark for this module is the product (not the sum) of the marks from the three warm-up assessed exercises and the main assessed exercise, so it is important that you get a mark of 1 for this exercise. Any reasonable attempt at this exercise will gain 1 mark; non-attempts or extremely poor attempts may score 0 or trigger additional coursework to again be marked from 0 or 1 in lieu of this exercise.

Problem Statement

You will follow the recipe for building and deploying a very basic calculator service as described in http://gdp.globus.org/gt3-tutorial/singlehtml/progtutorial_0.4.3.html#core_first using the Globus toolkit. You may access and download the files provided there. It is important to note the complete process by which one creates a Grid service and associated client hence you are strongly advised to go through the development yourself. Knowledge of the Globus development environment will be needed for your main programming assignment, i.e. this problem is specifically set for your own benefit to allow you to familiarize yourselves with the technologies you will be dealing with later on.

What to Submit

Your submission should consist of a mini-report (no more than 2 pages) containing information on how the client and calculator service can be run (it will be tested!) along with a brief summary of the experiences developing this Grid service. This might include the process by which Globus-based Grid services are created, the technologies and their limitations/nuances (if any!) and how easy they were to pick-up and use. These sheets of paper should be stapled together, along with a "pink plagiarism sheet" (available from the Teaching Office) and submitted in the appropriately labeled locked box on the ground floor of house 16 in Lilybank Gardens. Do not use plastic covers or other binders, just staple the papers together.