

Problem Set 2

Grid Computing Module

October 2004

Problem

The purpose of this assignment is to develop a role based access control policy in XML for use by the PERMIS infrastructure within the Grid Computing programming assignment. The PERMIS Policy Editor should be used for this purpose. Remembering that a policy in PERMIS is given by a collection of rules of the form: role x target x action, the information needed to produce this policy is:

- Role: “*studentteam1*”, “*studentteam2*”, “*lecturer*”
- Target (service name): “*searchSortGridService*”
- Action (method name): “*searchMethod*”, “*sortMethod*”

It should be the case, i.e. the policy should ensure that method *sortMethod* can **only** be invoked by members of your given student group and the lecturing staff, and that method *searchMethod* can be invoked by everyone. The student groups are:

Student Group 1:

Alexandros Koliouris
Sakshi Anand
Christopher Bayliss
Gary Fleming
Jiyu Jiang
Omar Kooheji
Ross McIlroy
Derek Murray

Student Group 2:

Kenchangouda Patil
Yong Que
Arun Kumar Sathyanarayan
Vikas Shas
Stuart MacDonald
Krunal Thakkar
Kashif Saleem
Vinit Shah

For the XML policy

- The Policy Domain to use is: “O=University of Glasgow, C=GB”
- The Source of Authority to use is: “CN=Administrator, O=University of Glasgow, C=GB”
- The Policy Object Identifier should be 1.0.0.1 (for student group 1) and 1.0.0.2 for student group 2.
- To make methods publicly accessible requires the SubjectDomainSpec ID=“publicDomain” within the SubjectPolicy tags. The methods under TargetAccess ID=“public” are available to run by any user. In this case (public method case), the RoleList should be empty.

The generated XML policy, along with comments on the XML and usability of the Policy Editor must be submitted by 5pm on Thursday 4th November 2004. A secure drop box is available for submissions in the ground floor of house 16 Lilybank Gardens. This problem set is worth 5% of the mark for the module. The usual rules apply for late submissions: 20% of the mark will be deducted for each day late.