Intrinsic Security in the SORCER Grid Abhijit Rai

Task Description A grid is a vast repository of virtual services. Grids are being built with systems that build up, rather than replace, legacy components. And that makes securing virtual services more difficult. 2. Get Proxy 1. Registration Lookup Service 3. Proxy Verification SORCER.grid 5. Secure service (Exertion). Browse 6. Authorization 7. Auditina Authentication SORCER service Service UI

Objective/Approach

Objective:

• Develop robust, scaleable and multi-layered security solutions for federated services including a generic secure wrapper for legacy code.

Approach:

- Deploying the following security requirements into the SORCER environment:
 - Requestor/Provider identification and authentication
 - Proxy verification
 - Authorization
 - Resource control and containment
 - Privacy and Integrity
 - Non-repudiation
 - Accountability

Benefits

- 1. Controls access to the federated services in the SORCR grid.
- 2. Provides multi-layered authorization with the help of policy objects, guarded objects, and JAAS.
- 3. Builds trust between client and the service by proxy verification.
- 4. Audits (Reporter provider) execution of federated providers.

Schedule

1. Background Research	09/01
2. Authentication and Identification	09/15
3. Proposal Presentation	09/30
4. Facilitate Authorization	10/15
5. Implement Proxy Verification	10/30
6. Enable Auditing Capabilities	11/15
8. Thesis Defense and Demo	12/10