

DRMAA Working Group

Cochairs

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GGF9

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First things first

- **DRMAA scope and purpose:**
 - Submit, control & monitor, and query status of jobs.
 - DRMAA concerned mainly with legacy environments and applications

- **Need two volunteers for taking this session minutes**

- **Sign-up sheet**

- **GGF IP policy**

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Agenda

- **DRMAA status**
- **C Bindings**
- **Java Bindings**
- **Compatibility test suite**
- **Where DRMAA fits**
- **Security section discussion**

DRMAA status

- **Final edit of DRMAA recommendation document**
- **Reference implementations**
 - C bindings
 - Java bindings
 - WS or WSDL bindings
- **Compatibility test specification**

DRMAA C Bindings

• **Andreas Hass**

DRMAA Java Bindings

•Daniel Templeton

Compatibility Test Suite

• **Andreas Hass**

How is Related to Other Groups

•OGSA

- DRMAA oriented to legacy applications/environments, complementary to OGSA
- Could be using OGSA interfaces as just another DRM system
- DRMAA could be used as RM adapter
- DRMAA enablement “warm-up” to OGSA enablement

•JSDL

- DRMAA job attribute list extensive and agreed upon
- JSDL adapter

•GRAAP

- DRMAA job attribute list extensive and agreed upon



DRMAA Job Attributes

Mandatory job attributes:

- Remote command to execute
- Remote command input parameters, a vector parameter
- Job state at submission
- Job environment, a vector parameter
- Job working directory
- Job category
- Native specification
- Standard input, output, and error streams
- E-mail distribution list to report the job completion and status, a vector parameter
- E-mail suppression
- Job start time
- Job name to be used for the job submission

Optional job attributes:

- transfer files
- absolute job termination time
- wall clock time limit
- soft wall clock time limit
- job run duration hlimit
- job run duration slimit

DRMAA & OGSA

**Integration
Proposition**

**Value
Proposition**

**Supporting
Deliverable**

**OGSI
Client**

**DRMAA Apps MAY
integrate with OGSA**

**Maximum app
portability across
various distributed
computing
architectures**

**DRMAA OGSI client
mapping document**

**Program
Execution**

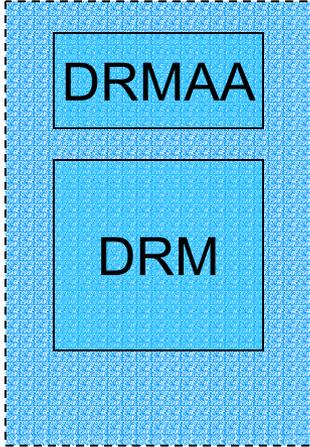
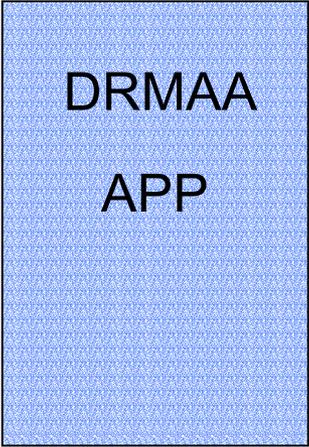
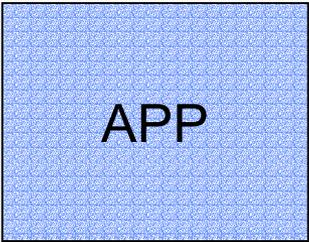
**DRMAA as an OGSA
RM Adapter**

**RM investment
leveraged for OGSA**

**DRMAA for OGSA
document**



DRMAA Application Portability



RM at
deployment

Single
Machine

Local Netw Sys's
Round Robin
Clusters
P2P

Service
Oriented
Grid



Security

- The scheduling scenario described herein presumes that security is handled at the point of job authorization/execution on a particular resource. It is assumed that credentials owned by the process using the API are used by the DRMAA implementation to prevent abuse of the interface. In order to not unnecessarily restrict the spectrum of usable credentials, no explicit interface is defined for passing credentials.

DRMAA Charter

- Develop an API specification for the submission and control of jobs to one or more Distributed Resource Management (DRM) systems.
- The scope of this specification is all the high level functionality which is necessary for an application to consign a job to a DRM system including common operations on jobs like termination or suspension.
- The objective is to facilitate the direct interfacing of applications to today's DRM systems by application's builders, portal builders, and Independent Software Vendors (ISVs).