

DRMAA: Distributed Resource Management Application API

WG co-chairs:

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www.mcs.anl.gov/~jms/ggf-sched

DRMAA WG at GGF4

Presentation Session	02/18/02	13:00-14:30
Working Session	02/18/02	15:00-16:30
Working Session	02/19/02	13:00-14:30

Location: Conference Room D

DRMAA WG Agenda -Presentation Session-

- Why DRMAA?
- The DRMAA Charter
- DRMAA WG Activity since GGF3
- Proposal overviews
 - Andreas Haas
 - Hrabri Rajic
- Q & A

DRMAA Activity

- **DRMAA BOF**
 - GGF3
- **Bi-weekly con calls**
 - Toll Free: (877)288-4427 Code: 691169
Next call: March 5, 9AM PST (Please email to j.t@sun.com)
- **Two proposals**
 - Andreas Haas, Fritz Ferstl
 - Hrabri Rajic
- **Comments received**
- **WG status granted by GGF Steering Committee**

DRMAA WG Agenda -Working Session-

Working Sessions

- Detailed Review of proposals and proposed enhancements
 - Andreas Haas
 - Hrabri Rajic
- Review of comments received
- Topics - Considerations
 - API Guidelines
 - Resource Options
 - Job Categories/Classes/Templates
 - Environment Handling
 - User/Installer/App Developer experience
 - Error Handling / System diagnosis
 - Performance Measurement
 - Language Binding
 - Licensing

Proposal discussion

- Unique naming scheme
- Include job dependencies
- What about data staging?
- Library version number - how to get?
- What does "all jobs" mean for job control functions?
- Specify job control semantics for bulk jobs
- Which information to return by monitoring function?

Proposal discussion

- Thread safe error handling
- Consider using IDL for standard definition or split definition in abstract document and language binding specs
- Attributes- core/base; native; prohibited
 - Best by email
- Data staging; shared file systems presumption; data grids: belong in DRMAA?
 - No explicit file transfer capability in 1.0 but consistent with job control
- Errors: categories/classes? DRM reported errors; DRMAA lib - DRM errors on the interface

Proposal discussion

- Job categories: site specific job execution rules; e/u passes through attributes
- Pass an environment array from the app?
Local environment setting by the e/u?

DRMAA WG going forward

- Proposal merge effort - continued
- Biweekly calls
- API defined by mid 2002
 - E.g., Jul'02: DRMAA v1.0 GWD submitted for review

Web Services DRMAA

Steven Newhouse & Nathalie Furmento

London e-Science Centre

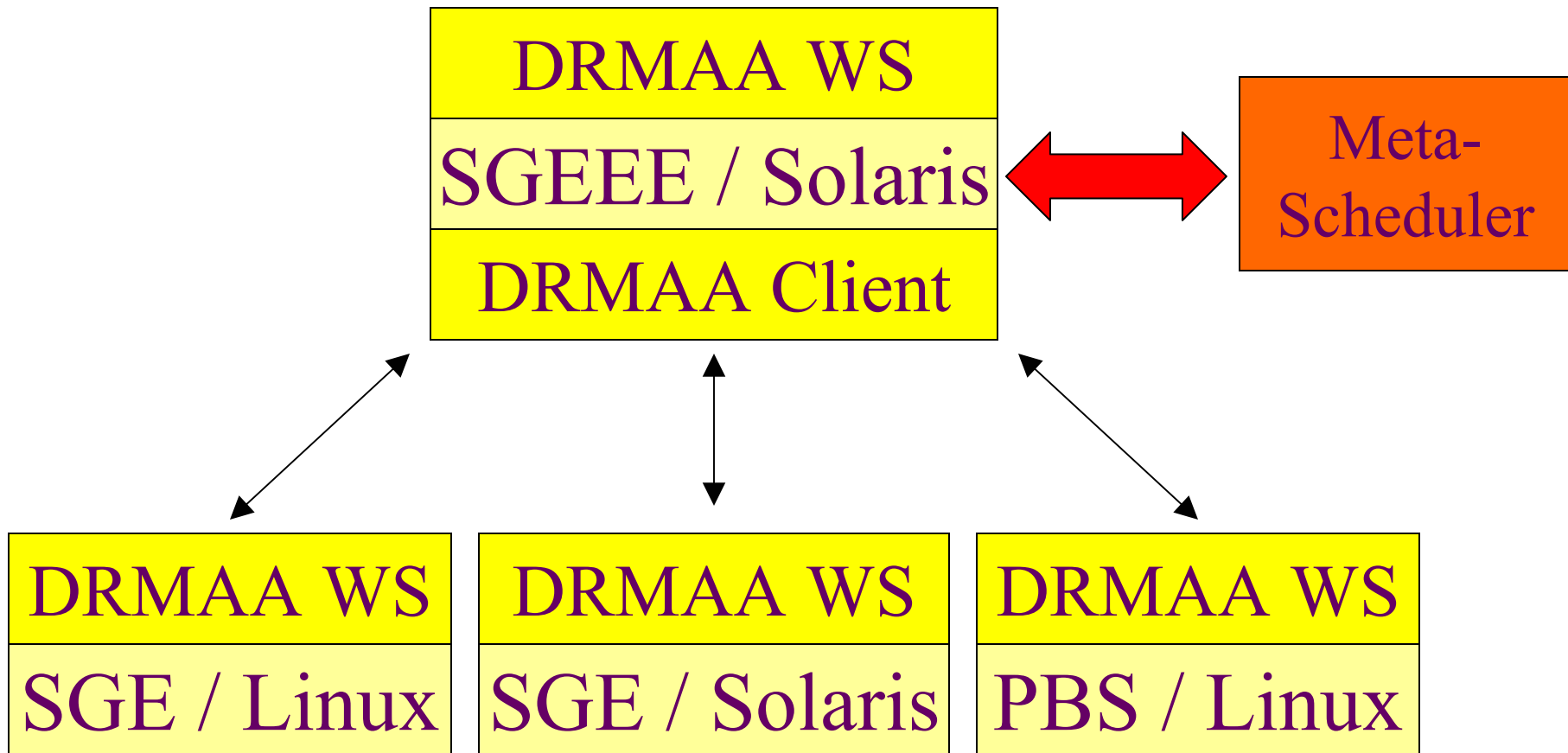
Imperial College, London UK

<http://www.lesc.ic.ac.uk>

DRMAA-WS

- Build on proposed interface and developments
- Use XML & SOAP encoded request & response
- Standardise low-level remote access to DRM
- Evolve to provide GRAM / RSL type mappings
 - Job definition ML
 - Resource ML
 - Policy ML
 - Direct OGSA service?

Motivation



Layered Architecture

Other
infrastructures

GRAM 2.0 + RSL
(SOAP & XML?)

e.g. XSLT transformation
(current mechanism:
globus-script-pbs-submit)

GSI

GSI

DRMAA – WS

Adv Res – WS

DRMAA

Adv Res API

Native DRM

What next...

- **Very** initial draft specification available
 - <http://www.doc.ic.ac.uk/~nfur/drmaa/>
- Implementation of interface within WS context:
 - Build basic WS interface with dummy DRM
 - Integrate with DRMAA as / when implemented
 - Link to higher-level schedulers
- Welcome comments, discussion & suggestions
 - s.newhouse@doc.ic.ac.uk
 - n.furmento@doc.ic.ac.uk