

D-Grid resource and user registration and the interface for a monitoring infrastructure

Mathilde Romberg

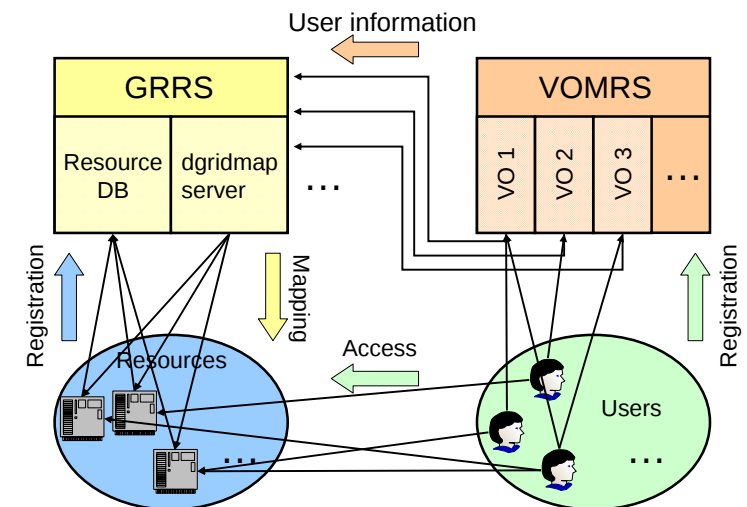
Thomas Fieseler (t.fieseler@fz-juelich.de)

Christa Dohmen (ch.dohmen@fz-juelich.de)

Forschungszentrum Jülich (FZJ)
Jülich Supercomputing Centre (JSC)

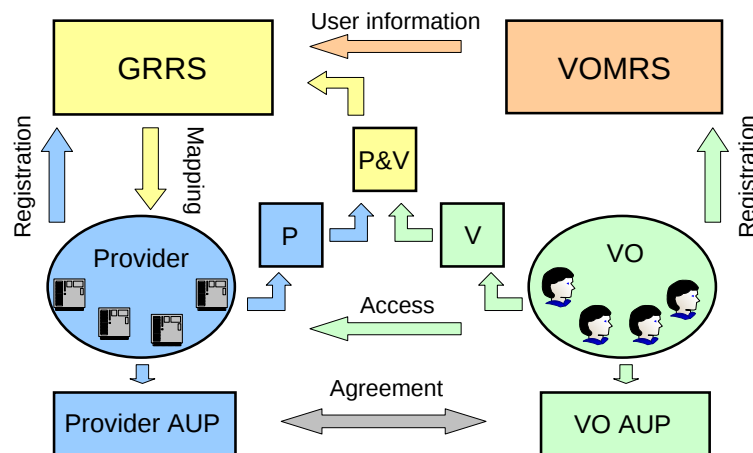
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VOMRS / GRRS



Improved mapping resource - VO

Requirement of a more flexible mapping resource - VO



Web interfaces

List of virtual organizations (user registration for a VO, resource list per VO):
<https://dispatch.fz-juelich.de:8814/D-Grid-VO-Member>

VOMRS of VO <vo-name> (user registration service):
<https://vomrs.zam.kfa-juelich.de:8443/vo/<vo-name>/vomrs>

List of D-Grid resources
<https://dispatch.fz-juelich.de:8814/D-Grid-Resource-List>

Registration of a new resource:
<https://dispatch.fz-juelich.de:8814/D-Grid-Resource>

Modification of a resource (add new middleware, update resource description):
<https://dispatch.fz-juelich.de:8814/D-Grid-ResourceChg>

Dgridmap (perl script for download):
<https://dispatch.fz-juelich.de:8814/dgridmap>



Data Bases for D-Grid Operation

- GRRS / dgridmap
 - server behind firewall
 - Oracle database
 - contains internal information
 - production server for GRRS / dgridmap – no access by other processes
- VOMRS
 - MySQL database for each VO



Addition for D-MON

- Separate database server for D-MON support
 - server in DMZ
 - MySQL database
 - synchronized by GRRS server
 - simpler database structure
 - relevant information from GRRS-DB and VOMRS-DB for monitoring



MySQL database tables

- DGRID_RESSOURCEN
 - resource data
- DGRID_RESS_VO
 - mapping resource / VO
- DGRID_DN_VO
 - mapping DN of user certificate / VO



Table DGRID_RESSOURCEN – resource data 1

- | | |
|-----------------|---|
| • RESS_KEY | unique key (integer) |
| • DR_KIND | kind of resource (Compute/dCache/OGSA-DAI) |
| • DR_SHORTY | <site-token>-<provider-token> |
| • DR_SCUNICORE | DN of server certificate of UNICORE frontend |
| • DR_SCGLOBUS | DN of server certificate of Globus frontend |
| • DR_SCGLOBUS2 | DN of server certificate of 2 nd Globus frontend |
| • DR_SCGLITE | DN of server certificate of gLite frontend |
| • DR_SCDCACHE | DN of server certificate of dCache frontend |
| • DR_SCOGSA | DN of server certificate of OGSA-DAI frontend |
| • DR_SCINTERACT | DN of server certificate of interactive node |
| • DR_SCADMIN | DN of server certificate of administration node |





- DR_GRAM_NODE hostname of GRAM server
- DR_GRAM_NODE2 hostname of 2nd GRAM server
- DR_GLITE_NODE hostname of gLite UI
- DR_INTERACT_NODE hostname of interactive node
- DR_SOINVEST flag: part of extra investment 2006 (y)
part of extra investment 2007 (7)
no extra investment 2006 (n)
- DR_UNICORE_VERS UNICORE version (5 / 6)



- DRV_RESS_KEY key of the resource which can be accessed by VO XX
- DRV_VO shortcut XX of the VO

DRV_RESS_KEY is the same key as in DGRID_RESSOURCEN.RESS_KEY

- new tables for new mapping mechanism:
 - dgrid_ress_matrix
 - dgrid_vo_matrix



- | | |
|-----------------|---|
| • MEMBER_ID | member ID from VOMRS server of VO XX |
| • VORNAME | first name of member from VOMRS |
| • NACHNAME | second name of member from VOMRS |
| • MEMBER_DN | DN of member's user certificate from VOMRS |
| • MEMBER_STATUS | member's status in VO XX from VOMRS
(New, Approved, Denied, Suspended) |
| • VO_LONG | name of VO |
| • VO_SHORT | shortcut XX of VO |



Collect and provide additional static resource information e.g.:

- # Nodes (over-all)
- # Cores (over-all)
- RAM (over-all)
- batch System (LSF, Torque, PBSPro, LoadLeveler, etc.)
- interconnect (free-text)
- architecture (free-text)
- OS (free-text)
- URL of provider site containing additional information
- bandwidth to external networks
- owner / person in charge of the resource
- theoretical peak performance



Todo in GRRS: - relation to monitoring

- Include D-GRDL into GRRS
- Use XML database in GRRS for information in D-GRDL
- Provide add. information for monitoring, accounting, etc.
- Use of monitoring infrastructure information as additional input for the resource DB?
- Use of static and / or dynamic information for which records?
- Static or dynamic registration of resources or a mixed type?