

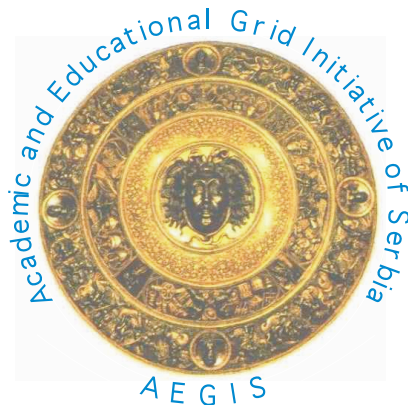


Enabling Grids for E-science

# gLite Middleware Usage



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SEE-GRID-SCI  
SEE-GRID infrastructure for regional eScience



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[www.eu-egee.org](http://www.eu-egee.org)



e-infrastructure



- **MDS Information**

- VO-specific information on existing Grid resources

```
lcg-infosites --vo <vo> <option> -v <verbosity> -f <site> --is <bdi>
```

- Other information on existing Grid resources

```
ldapsearch -x -h <hostname> -p 2170 -b "mds-vo-name=local, o=grid"
```

```
ldapsearch -x -H ldap://bdi.phy.bg.ac.yu:2170
```

```
-b mds-vo-name=AEGIS01-PHY-SCL, mds-vo-name=local, o=grid
```

```
ldapsearch -x -H ldap://ce64.phy.bg.ac.yu:2170
```

```
-b mds-vo-name=AEGIS01-PHY-SCL, o=grid
```

```
ldapsearch -x -H ldap://ce64.phy.bg.ac.yu:2170
```

```
-b mds-vo-name=resource, o=grid
```

```
ldapsearch -x -H ldap://bdi.phy.bg.ac.yu:2170
```

```
-b mds-vo-name=local, o=grid
```

```
-x "GlueSAAccessControlBaseRule=aegis" GlueChunkKey
```

- **RGMA Information service**

<https://lcgmon01.gridpp.rl.ac.uk:8443/R-GMA/index.html>

- **Command line interface**

```
rgma -c ''select Web from GlueSite where  
                UniqueId='ce64.phy.bg.ac.yu''''
```

- **Job Description Language**

- JDL file

```
attribute = expression;
```

- Simple example

```
[  
  Type = "Job";  
  Executable = "/bin/hostname";  
  Arguments = "";  
  StdOutput = "message.txt";  
  StdError = "stderr";  
  OutputSandbox = {"message.txt", "stderr"};  
]
```

## – Additional attributes

- `InputSandbox = {"test.sh", "fileA", "fileB", ...}`
- `InputSandbox = {`
- `"gsiftp://lxb0707.cern.ch/cms/doi/data/fileA", "fileB"};`
- `VirtualOrganisation = "cms";`
- `RetryCount = 0;`
- `MyProxyServer = "myproxy.phy.bg.ac.yu";`

## – Requirements

```
Requirements = RegExp("ce64.phy.bg.ac.yu*", other.GlueCEUniqueID);
```

```
Requirements = Member("VO-cms-CMSSW_2_0_0",  
    other.GlueHostApplicationSoftwareRunTimeEnvironment);
```

```
Requirements = (other.GlueHostArchitecturePlatformType == "x86_64");
```

## – Single Job Submission

```
glite-wms-job-list-match -a <jdl file>
```

```
glite-wms-job-delegate-proxy -d <delegID>
```

```
glite-wms-job-submit -a <jdl file>
```

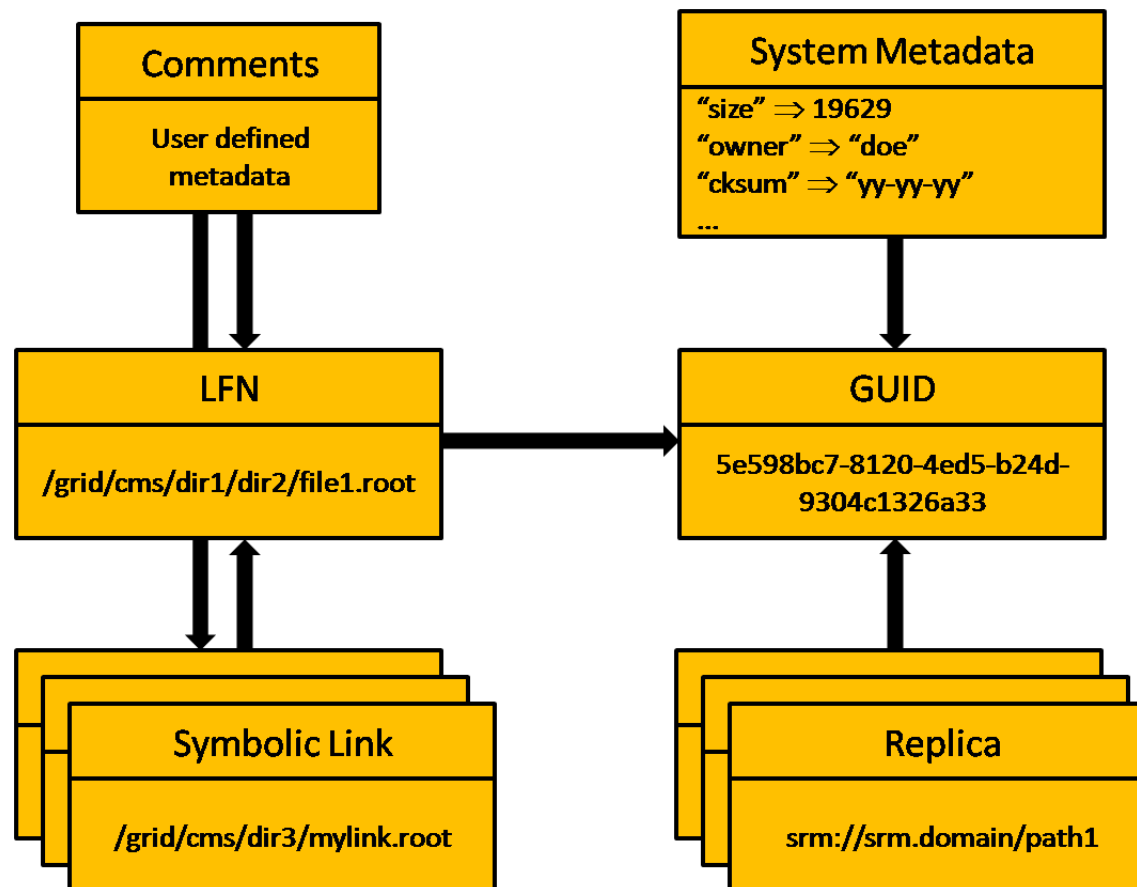
```
glite-wms-job-status <jobID>
```

```
glite-wms-job-cancel <jobID>
```

```
glite-wms-job-output <jobID>
```

```
glite-wms-job-logging-info <jobID>
```

- **GUID – Globally Unique Identifier**
- **LFN – Logical File Name**
- **SURL - SiteURL**



- **LCG Util**

- lcg-aa - add an alias in the RMC or the LFC for a given GUID
- lcg-cp - copy a Grid file to a local destination
- lcg-cr - copy and register a file
- lcg-del - delete one file (either one replica or all replicas)
- lcg-gt - get the TURL for a given SURL and transfer protocol
- lcg-la - list the aliases for a given LFN, GUID or SURL
- lcg-lg - get the GUID for a given LFN or SURL
- lcg-lr - list the replicas for a given LFN, GUID or SURL
- lcg-ra - remove an alias in the RMC or the LFC for a given GUID
- lcg-rep - copy a file from one SE to another SE and registers it in the LRC or the LFC
- lcg-rf - register in the LRC (and optionally in the RMC) or the LFC a file residing on an SE
- lcg-sd - set file status to "Done" for a given SURL in a specified request
- lcg-uf - unregister in the LRC or the LFC a file residing on an SE

- **LFC Util**
  - lfc-chmod - change access mode of a LFC directory/file in the name server
  - lfc-chown - change owner and group of a LFC directory/file in the name server
  - lfc-delcomment - delete the comment associated with a file/directory
  - lfc-entergrpmap - define a new group entry in Virtual Id table
  - lfc-enterusrmap - define a new user entry in Virtual Id table
  - lfc-getacl - get LFC directory/file access control lists
  - lfc-ln - make a symbolic link to a file or a directory in the LFC Name Server
  - lfc-ls - list LFC name server directory/file entries
  - lfc-mkdir - make LFC directory in the name server
  - lfc-modifygrpmap - modify group entry corresponding to a given virtual gid
  - lfc-modifyusrmap - modify user entry corresponding to a given virtual uid
  - lfc-rename - rename a LFC file or directory in the name server
  - lfc-rm - remove LFC files or directories in the name server
  - lfc-rmgrpmap - suppress group entry corresponding to a given virtual gid or group name