

Introduction

This document is addressed to site administrators responsible for middleware installation and configuration. Goal of this wiki page is to provide some hints and examples about how to install and configure a IG Disk Pool Manager (SPM) based on gLite middleware.

Repository settings for x86_64

```
$ cd /etc/yum/repos.d/

$ wget http://repo-pd.italiangrid.it/mrepo/repos/glite/sl5/x86_64/dag.repo
$ wget http://repo-pd.italiangrid.it/mrepo/repos/glite/sl5/x86_64/ig.repo
$ wget http://repository.egi.eu/sw/production/cas/1/current/repo-files/egi-trustanchors.repo
$ wget http://repo-pd.italiangrid.it/mrepo/repos/glite/sl5/x86_64/glite-se_dpm_mysql.repo
```

Update host and perform the installation of package(s)

```
$ yum clean all

$ yum install java-1.6.0-sun-compat
Loaded plugins: kernel-module
Setting up Install Process
Resolving Dependencies
There are unfinished transactions remaining. You might consider running yum-complete-transaction
The program yum-complete-transaction is found in the yum-utils package.
--> Running transaction check
---> Package java-1.6.0-sun-compat.i586 0:1.6.0.22-3.sl5.jpp set to be updated
--> Processing Dependency: jdk = 2000:1.6.0_22-fcs for package: java-1.6.0-sun-compat
--> Processing Dependency: /usr/bin/xsltproc for package: java-1.6.0-sun-compat
--> Processing Dependency: /usr/bin/xsltproc for package: java-1.6.0-sun-compat
---> Package java-1.6.0-sun-compat.x86_64 0:1.6.0.22-3.sl5.jpp set to be updated
--> Running transaction check
---> Package jdk.x86_64 2000:1.6.0_22-fcs set to be updated
---> Package libxslt.x86_64 0:1.1.17-2.el5_2.2 set to be updated
--> Finished Dependency Resolution
Beginning Kernel Module Plugin
Finished Kernel Module Plugin
```

Dependencies Resolved

```
=====
Package                               Arch                               Version
=====
Installing:
java-1.6.0-sun-compat                 i586                               1.6.0.22-3.sl5.jpp
java-1.6.0-sun-compat                 x86_64                             1.6.0.22-3.sl5.jpp
Installing for dependencies:
jdk                                    x86_64                             2000:1.6.0_22-fcs
libxslt                                x86_64                             1.1.17-2.el5_2.2
=====
```

Transaction Summary

```
=====
Install      4 Package(s)
Upgrade      0 Package(s)
=====
```

Total download size: 67 M

Is this ok [y/N]: y

Downloading Packages:

```
(1/4): java-1.6.0-sun-compat-1.6.0.22-3.sl5.jpp.x86_64.rpm
(2/4): java-1.6.0-sun-compat-1.6.0.22-3.sl5.jpp.i586.rpm
(3/4): libxslt-1.1.17-2.el5_2.2.x86_64.rpm
```

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(4/4): jdk-1.6.0_22-fcs.x86_64.rpm

Total

```
Running rpm_check_debug
Running Transaction Test
Finished Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing      : libxslt
  Installing      : jdk
Unpacking JAR files...
  rt.jar...
  jsse.jar...
  charsets.jar...
  tools.jar...
  localedata.jar...
  plugin.jar...
  javaws.jar...
  deploy.jar...
  Installing      : java-1.6.0-sun-compat
  Installing      : java-1.6.0-sun-compat
```

Installed:

java-1.6.0-sun-compat.i586 0:1.6.0.22-3.sl5.jp

java-1.6.0-sun-com

Dependency Installed:

jdk.x86_64 2000:1.6.0_22-fcs

libxslt.x86_64 0:1.1

Complete!

```
$ yum install ig_SE_dpm_mysql mysql-server ig-vomscerts-all
```

```
Loaded plugins: kernel-module
```

```
CAs
```

```
CAs/primary
```

```
CAs
```

```
dag
```

```
dag/primary
```

```
dag
```

```
glite-SE_dpm_mysql_sl5_x86_64_externals
```

```
glite-SE_dpm_mysql_sl5_x86_64_externals/primary
```

```
glite-SE_dpm_mysql_sl5_x86_64_externals
```

```
glite-SE_dpm_mysql_sl5_x86_64_release
```

```
glite-SE_dpm_mysql_sl5_x86_64_release/primary
```

```
glite-SE_dpm_mysql_sl5_x86_64_release
```

```
glite-SE_dpm_mysql_sl5_x86_64_updates
```

```
glite-SE_dpm_mysql_sl5_x86_64_updates/primary
```

```
glite-SE_dpm_mysql_sl5_x86_64_updates
```

```
ig_sl5_x86_64
```

```
ig_sl5_x86_64/primary
```

```
ig_sl5_x86_64
```

```
ig_sl5_x86_64_externals
```

```
ig_sl5_x86_64_externals/primary
```

```
ig_sl5_x86_64_externals
```

```
sl-base
```

```
sl-base/primary_db
```

```
sl-security
```

```
sl-security/primary_db
```

```
Setting up Install Process
```

```
Resolving Dependencies
```

```
There are unfinished transactions remaining. You might consider running yum-complete-transaction
```

```
The program yum-complete-transaction is found in the yum-utils package.
```

```
--> Running transaction check
```

```
---> Package ig_SE_dpm_mysql.x86_64 0:3.2.7-2_ig15_sl5 set to be updated
```

```
--> Processing Dependency: lcg-expiregridmapdir >= 2.1.0-1 for package: ig_SE_dpm_mysql
```

```
--> Processing Dependency: glite-info-generic >= 2.0.2-5 for package: ig_SE_dpm_mysql
```

```
--> Processing Dependency: dpm-libs >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
```

Update host and perform the installation of package(s)

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```
--> Processing Dependency: DPM-name-server-mysql >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: glite-version >= 3.2.2-1 for package: ig_SE_dpm_mysql
--> Processing Dependency: gridsite-shared >= 1.5.10.5-3.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: DPM-httpd >= 1.2.2-2sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: glite-security-voms-api-cpp >= 1.9.17-1.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: dpm >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: glue-schema >= 2.0.3-1 for package: ig_SE_dpm_mysql
--> Processing Dependency: CGSI_gSOAP_2.7-voms >= 1.3.3-2.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: glite-yaim-core >= 4.0.12-1 for package: ig_SE_dpm_mysql
--> Processing Dependency: gridsite-apache >= 1.5.10.5-3.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: lcgdm-devel >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: glite-info-templates >= 1.0.0-11 for package: ig_SE_dpm_mysql
--> Processing Dependency: lcg-service-proxy >= 1.0.3-2 for package: ig_SE_dpm_mysql
--> Processing Dependency: DPM-httpd-client >= 1.2.1-3sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: DPM-rfio-server >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: DPM-srm-server-mysql >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: DPM-copy-server-mysql >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: glite-security-voms-api >= 1.9.17-1.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: vdt_globus_data_server >= VDT1.10.1x86_64_rhap_5-4 for package: ig_SE_dpm_mysql
--> Processing Dependency: DPM-httpd-cgi >= 1.3.2-3sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: glite-info-provider-service >= 1.4.1-1 for package: ig_SE_dpm_mysql
--> Processing Dependency: glite-yaim-dpm >= 4.0.9-3 for package: ig_SE_dpm_mysql
--> Processing Dependency: glite-SE_dpm_mysql >= 3.2.7-2.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: DPM-DSI >= 1.7.4-4sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: ig-yaim >= 4.0.12-5 for package: ig_SE_dpm_mysql
--> Processing Dependency: DPM-xrootd >= 2.1.4-1sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: fetch-curl >= 2.7.0-2 for package: ig_SE_dpm_mysql
--> Processing Dependency: lcgdm-libs >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: edg-mkgridmap >= 3.0.0-1 for package: ig_SE_dpm_mysql
--> Processing Dependency: python-dpm >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: mod_keyauth >= 1.2.1-2sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: mod_dpmpu >= 1.2.1-3sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: perl-dpm >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: bdii >= 5.0.8-1 for package: ig_SE_dpm_mysql
--> Processing Dependency: dpm-devel >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: gpt >= 3.2autotools2004_NMI_9.0_x86_64_rhap_5-1 for package: ig_SE_dpm_mysql
--> Processing Dependency: vdt_globus_essentials >= VDT1.10.1x86_64_rhap_5-4 for package: ig_SE_dpm_mysql
--> Processing Dependency: CGSI_gSOAP_2.7 >= 1.3.3-2.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: DPM-server-mysql >= 1.7.4-7sec.sl5 for package: ig_SE_dpm_mysql
--> Processing Dependency: glite-info-provider-release >= 1.0.1-1 for package: ig_SE_dpm_mysql
--> Running transaction check
---> Package CGSI_gSOAP_2.7.x86_64 0:1.3.3-2.sl5 set to be updated
---> Package CGSI_gSOAP_2.7-voms.x86_64 0:1.3.3-2.sl5 set to be updated
---> Package DPM-DSI.x86_64 0:1.7.4-4sec.sl5 set to be updated
---> Package DPM-copy-server-mysql.x86_64 0:1.7.4-7sec.sl5 set to be updated
--> Processing Dependency: mysql >= 5.0.22 for package: DPM-copy-server-mysql
---> Package DPM-httpd.noarch 0:1.2.2-2sec.sl5 set to be updated
--> Processing Dependency: httpd >= 2.0 for package: DPM-httpd
---> Package DPM-httpd-cgi.x86_64 0:1.3.2-3sec.sl5 set to be updated
--> Processing Dependency: mod_ssl >= 2.0 for package: DPM-httpd-cgi
---> Package DPM-httpd-client.noarch 0:1.2.1-3sec.sl5 set to be updated
---> Package DPM-name-server-mysql.x86_64 0:1.7.4-7sec.sl5 set to be updated
--> Processing Dependency: perl-DBD-MySQL >= 2.9 for package: DPM-name-server-mysql
---> Package DPM-rfio-server.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package DPM-server-mysql.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package DPM-srm-server-mysql.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package DPM-xrootd.x86_64 0:2.1.4-1sec.sl5 set to be updated
---> Package bdii.noarch 0:5.0.8-1 set to be updated
--> Processing Dependency: expect for package: bdii
--> Processing Dependency: openldap-servers for package: bdii
--> Processing Dependency: openldap-clients for package: bdii
---> Package dpm.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package dpm-devel.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package dpm-libs.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package edg-mkgridmap.noarch 0:3.0.0-1 set to be updated
--> Processing Dependency: perl(IO::Socket::SSL) >= 0.90 for package: edg-mkgridmap
--> Processing Dependency: perl(Net::SSLeay) >= 1.16 for package: edg-mkgridmap
```

Update host and perform the installation of package(s)

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```
--> Processing Dependency: perl(Net::LDAPS) for package: edg-mkgridmap
--> Processing Dependency: perl(URI::http) for package: edg-mkgridmap
--> Processing Dependency: perl(XML::Parser) for package: edg-mkgridmap
--> Processing Dependency: perl(URI) for package: edg-mkgridmap
--> Processing Dependency: perl(URI::ldap) for package: edg-mkgridmap
--> Processing Dependency: perl(Crypt::SSLeay) for package: edg-mkgridmap
--> Processing Dependency: perl(LWP) for package: edg-mkgridmap
--> Processing Dependency: perl(XML::DOM) for package: edg-mkgridmap
--> Processing Dependency: perl(Net::LDAP::Util) for package: edg-mkgridmap
--> Processing Dependency: perl(Net::LDAP) for package: edg-mkgridmap
--> Processing Dependency: perl(Date::Manip) for package: edg-mkgridmap
--> Processing Dependency: perl(Term::ReadKey) for package: edg-mkgridmap
--> Processing Dependency: perl(LWP::UserAgent) for package: edg-mkgridmap
---> Package fetch-crl.noarch 0:2.7.0-2 set to be updated
---> Package glite-SE_dpm_mysql.x86_64 0:3.2.7-2.sl5 set to be updated
---> Package glite-info-generic.noarch 0:2.0.2-5 set to be updated
---> Package glite-info-provider-release.noarch 0:1.0.1-1 set to be updated
---> Package glite-info-provider-service.noarch 0:1.4.1-1 set to be updated
---> Package glite-info-templates.noarch 0:1.0.0-11 set to be updated
---> Package glite-security-voms-api.x86_64 0:1.9.17-1.sl5 set to be updated
---> Package glite-security-voms-api-cpp.x86_64 0:1.9.17-1.sl5 set to be updated
---> Package glite-version.noarch 0:3.2.2-1 set to be updated
---> Package glite-yaim-core.noarch 0:4.0.12-1 set to be updated
---> Package glite-yaim-dpm.noarch 0:4.0.9-3 set to be updated
---> Package glue-schema.noarch 0:2.0.3-1 set to be updated
---> Package gpt.x86_64 0:3.2autotools2004_NMI_9.0_x86_64_rhap_5-1 set to be updated
---> Package gridsite-apache.x86_64 0:1.5.10.5-3.sl5 set to be updated
---> Package gridsite-shared.x86_64 0:1.5.10.5-3.sl5 set to be updated
---> Package ig-yaim.noarch 0:4.0.13-2_7 set to be updated
---> Package lcg-expiregridmapdir.noarch 0:2.1.0-1 set to be updated
---> Package lcg-service-proxy.noarch 0:1.0.3-2 set to be updated
---> Package lcgdm-devel.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package lcgdm-libs.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package mod_dpmput.x86_64 0:1.2.1-3sec.sl5 set to be updated
---> Package mod_keyauth.x86_64 0:1.2.1-2sec.sl5 set to be updated
---> Package perl-dpm.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package python-dpm.x86_64 0:1.7.4-7sec.sl5 set to be updated
---> Package vdt_globus_data_server.x86_64 0:VDT1.10.1x86_64_rhap_5-4 set to be updated
---> Package vdt_globus_essentials.x86_64 0:VDT1.10.1x86_64_rhap_5-4 set to be updated
--> Running transaction check
---> Package expect.x86_64 0:5.43.0-5.1 set to be updated
---> Package httpd.x86_64 0:2.2.3-43.sl5.3 set to be updated
CAs/filelists
dag/filelists
glite-SE_dpm_mysql_sl5_x86_64 externals/filelists
glite-SE_dpm_mysql_sl5_x86_64 release/filelists
glite-SE_dpm_mysql_sl5_x86_64 updates/filelists
ig_sl5_x86_64/filelists
ig_sl5_x86_64 externals/filelists
sl-base/filelists_db
sl-security/filelists_db
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd
---> Package mod_ssl.x86_64 1:2.2.3-43.sl5.3 set to be updated
--> Processing Dependency: libdistcache.so.1()(64bit) for package: mod_ssl
--> Processing Dependency: libnal.so.1()(64bit) for package: mod_ssl
---> Package mysql.x86_64 0:5.0.77-4.el5_5.4 set to be updated
--> Processing Dependency: perl(DBI) for package: mysql
---> Package openldap-clients.x86_64 0:2.3.43-12.el5_5.1 set to be updated
---> Package openldap-servers.x86_64 0:2.3.43-12.el5_5.1 set to be updated
--> Processing Dependency: libltdl.so.3()(64bit) for package: openldap-servers
---> Package perl-Crypt-SSLeay.x86_64 0:0.51-11.el5 set to be updated
---> Package perl-DBD-MySQL.x86_64 0:3.0007-2.el5 set to be updated
---> Package perl-Date-Manip.noarch 0:5.56-1.el5.rf set to be updated
---> Package perl-IO-Socket-SSL.noarch 0:1.01-1.fc6 set to be updated
---> Package perl-LDAP.noarch 1:0.33-3.fc6 set to be updated
--> Processing Dependency: perl(Convert::ASN1) for package: perl-LDAP
```

Update host and perform the installation of package(s)

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```
--> Processing Dependency: perl(XML::SAX::Base) for package: perl-LDAP
---> Package perl-Net-SSLeay.x86_64 0:1.30-4.fc6 set to be updated
---> Package perl-TermReadKey.x86_64 0:2.30-5.el5 set to be updated
---> Package perl-URI.noarch 0:1.35-3 set to be updated
---> Package perl-XML-DOM.noarch 0:1.44-2.el5.rf set to be updated
--> Processing Dependency: perl(XML::RegExp) for package: perl-XML-DOM
---> Package perl-XML-Parser.x86_64 0:2.34-6.1.2.2.1 set to be updated
---> Package perl-libwww-perl.noarch 0:5.805-1.1.1 set to be updated
--> Processing Dependency: perl-HTML-Parser >= 3.33 for package: perl-libwww-perl
--> Processing Dependency: perl(HTML::Entities) for package: perl-libwww-perl
--> Processing Dependency: perl(Compress::Zlib) for package: perl-libwww-perl
--> Running transaction check
---> Package apr.x86_64 0:1.2.7-11.el5_3.1 set to be updated
---> Package apr-util.x86_64 0:1.2.7-11.el5_5.2 set to be updated
--> Processing Dependency: libpq.so.4() (64bit) for package: apr-util
---> Package distcache.x86_64 0:1.4.5-14.1 set to be updated
---> Package libtool-ltdl.x86_64 0:1.5.22-7.el5_4 set to be updated
---> Package perl-Compress-Zlib.x86_64 0:1.42-1.fc6 set to be updated
---> Package perl-Convert-ASN1.noarch 0:0.20-1.1 set to be updated
---> Package perl-DBI.x86_64 0:1.52-2.el5 set to be updated
---> Package perl-HTML-Parser.x86_64 0:3.55-1.fc6 set to be updated
--> Processing Dependency: perl-HTML-Tagset >= 3.03 for package: perl-HTML-Parser
--> Processing Dependency: perl(HTML::Tagset) for package: perl-HTML-Parser
---> Package perl-XML-RegExp.noarch 0:0.03-1.2.el5.rf set to be updated
---> Package perl-XML-SAX.noarch 0:0.14-8 set to be updated
--> Processing Dependency: perl(XML::NamespaceSupport) for package: perl-XML-SAX
--> Running transaction check
---> Package perl-HTML-Tagset.noarch 0:3.10-2.1.1 set to be updated
---> Package perl-XML-NamespaceSupport.noarch 0:1.09-1.2.1 set to be updated
---> Package postgresql-libs.x86_64 0:8.1.22-1.el5_5.1 set to be updated
--> Finished Dependency Resolution
Beginning Kernel Module Plugin
Finished Kernel Module Plugin
```

Dependencies Resolved

```
=====
```

Package	Arch	Version
Installing:		
ig_SE_dpm_mysql	x86_64	3.2.7-2_ig15_s15
Installing for dependencies:		
CGSI_gSOAP_2.7	x86_64	1.3.3-2.s15
CGSI_gSOAP_2.7-voms	x86_64	1.3.3-2.s15
DPM-DSI	x86_64	1.7.4-4sec.s15
DPM-copy-server-mysql	x86_64	1.7.4-7sec.s15
DPM-httpd	noarch	1.2.2-2sec.s15
DPM-httpd-cgi	x86_64	1.3.2-3sec.s15
DPM-httpd-client	noarch	1.2.1-3sec.s15
DPM-name-server-mysql	x86_64	1.7.4-7sec.s15
DPM-rfio-server	x86_64	1.7.4-7sec.s15
DPM-server-mysql	x86_64	1.7.4-7sec.s15
DPM-srm-server-mysql	x86_64	1.7.4-7sec.s15
DPM-xrootd	x86_64	2.1.4-1sec.s15
apr	x86_64	1.2.7-11.el5_3.1
apr-util	x86_64	1.2.7-11.el5_5.2
bdii	noarch	5.0.8-1
distcache	x86_64	1.4.5-14.1
dpm	x86_64	1.7.4-7sec.s15
dpm-devel	x86_64	1.7.4-7sec.s15
dpm-libs	x86_64	1.7.4-7sec.s15
edg-mkgridmap	noarch	3.0.0-1
expect	x86_64	5.43.0-5.1
fetch-crl	noarch	2.7.0-2
glite-SE_dpm_mysql	x86_64	3.2.7-2.s15
glite-info-generic	noarch	2.0.2-5
glite-info-provider-release	noarch	1.0.1-1

Update host and perform the installation of package(s)

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glite-info-provider-service	noarch	1.4.1-1
glite-info-templates	noarch	1.0.0-11
glite-security-voms-api	x86_64	1.9.17-1.s15
glite-security-voms-api-cpp	x86_64	1.9.17-1.s15
glite-version	noarch	3.2.2-1
glite-yaim-core	noarch	4.0.12-1
glite-yaim-dpm	noarch	4.0.9-3
glue-schema	noarch	2.0.3-1
gpt	x86_64	3.2autotools2004_NMI_9.0_x86_64_rhap_5-1
gridsite-apache	x86_64	1.5.10.5-3.s15
gridsite-shared	x86_64	1.5.10.5-3.s15
httpd	x86_64	2.2.3-43.s15.3
ig-yaim	noarch	4.0.13-2_7
lcg-expiregridmapdir	noarch	2.1.0-1
lcg-service-proxy	noarch	1.0.3-2
lcgdm-devel	x86_64	1.7.4-7sec.s15
lcgdm-libs	x86_64	1.7.4-7sec.s15
libtool-ltdl	x86_64	1.5.22-7.e15_4
mod_dpmput	x86_64	1.2.1-3sec.s15
mod_keyauth	x86_64	1.2.1-2sec.s15
mod_ssl	x86_64	1:2.2.3-43.s15.3
mysql	x86_64	5.0.77-4.e15_5.4
openldap-clients	x86_64	2.3.43-12.e15_5.1
openldap-servers	x86_64	2.3.43-12.e15_5.1
perl-Compress-Zlib	x86_64	1.42-1.fc6
perl-Convert-ASN1	noarch	0.20-1.1
perl-Crypt-SSLeay	x86_64	0.51-11.e15
perl-DBD-MySQL	x86_64	3.0007-2.e15
perl-DBI	x86_64	1.52-2.e15
perl-Date-Manip	noarch	5.56-1.e15.rf
perl-HTML-Parser	x86_64	3.55-1.fc6
perl-HTML-Tagset	noarch	3.10-2.1.1
perl-IO-Socket-SSL	noarch	1.01-1.fc6
perl-LDAP	noarch	1:0.33-3.fc6
perl-Net-SSLeay	x86_64	1.30-4.fc6
perl-TermReadKey	x86_64	2.30-5.e15
perl-URI	noarch	1.35-3
perl-XML-DOM	noarch	1.44-2.e15.rf
perl-XML-NamespaceSupport	noarch	1.09-1.2.1
perl-XML-Parser	x86_64	2.34-6.1.2.2.1
perl-XML-RegExp	noarch	0.03-1.2.e15.rf
perl-XML-SAX	noarch	0.14-8
perl-dpm	x86_64	1.7.4-7sec.s15
perl-libwww-perl	noarch	5.805-1.1.1
postgresql-libs	x86_64	8.1.22-1.e15_5.1
python-dpm	x86_64	1.7.4-7sec.s15
vdt_globus_data_server	x86_64	VDT1.10.1x86_64_rhap_5-4
vdt_globus_essentials	x86_64	VDT1.10.1x86_64_rhap_5-4
mysql-server	x86_64	5.0.77-4.e15_5.4
ig-vomscerts-all	noarch	1.1-12

Transaction Summary

```
=====
Install       76 Package(s)
Upgrade       0 Package(s)
```

Total download size: 43 M

Is this ok [y/N]: y

Downloading Packages:

```
(1/76): lcg-service-proxy-1.0.3-2.noarch.rpm
(2/76): glite-info-provider-release-1.0.1-1.noarch.rpm
(3/76): glite-SE_dpm_mysql-3.2.7-2.s15.x86_64.rpm
(4/76): ig_SE_dpm_mysql-3.2.7-2_ig15_s15.x86_64.rpm
(5/76): glite-version-3.2.2-1.noarch.rpm
(6/76): DPM-httpd-client-1.2.1-3sec.s15.noarch.rpm
(7/76): glite-info-generic-2.0.2-5.noarch.rpm
```

Update host and perform the installation of package(s)

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(8/76): lcg-expiregridmapdir-2.1.0-1.noarch.rpm
(9/76): perl-XML-RegExp-0.03-1.2.el5.rf.noarch.rpm
(10/76): glite-info-templates-1.0.0-11.noarch.rpm
(11/76): DPM-httpd-1.2.2-2sec.sl5.noarch.rpm
(12/76): perl-HTML-Tagset-3.10-2.1.1.noarch.rpm
(13/76): glite-security-voms-api-1.9.17-1.sl5.x86_64.rpm
(14/76): perl-XML-NamespaceSupport-1.09-1.2.1.noarch.rpm
(15/76): bdii-5.0.8-1.noarch.rpm
(16/76): mod_dpmpu-1.2.1-3sec.sl5.x86_64.rpm
(17/76): DPM-httpd-cgi-1.3.2-3sec.sl5.x86_64.rpm
(18/76): fetch-crl-2.7.0-2.noarch.rpm
(19/76): glite-yaim-dpm-4.0.9-3.noarch.rpm
(20/76): mod_keyauth-1.2.1-2sec.sl5.x86_64.rpm
(21/76): glue-schema-2.0.3-1.noarch.rpm
(22/76): perl-TermReadKey-2.30-5.el5.x86_64.rpm
(23/76): edg-mkgridmap-3.0.0-1.noarch.rpm
(24/76): libtool-ltdl-1.5.22-7.el5_4.x86_64.rpm
(25/76): perl-Convert-ASN1-0.20-1.1.noarch.rpm
(26/76): perl-Crypt-SSLeay-0.51-11.el5.x86_64.rpm
(27/76): glite-info-provider-service-1.4.1-1.noarch.rpm
(28/76): DPM-DSI-1.7.4-4sec.sl5.x86_64.rpm
(29/76): perl-IO-Socket-SSL-1.01-1.fc6.noarch.rpm
(30/76): perl-Compress-Zlib-1.42-1.fc6.x86_64.rpm
(31/76): CGSI_gSOAP_2.7-1.3.3-2.sl5.x86_64.rpm
(32/76): gridsite-apache-1.5.10.5-3.sl5.x86_64.rpm
(33/76): perl-XML-SAX-0.14-8.noarch.rpm
(34/76): apr-util-1.2.7-11.el5_5.2.x86_64.rpm
(35/76): perl-HTML-Parser-3.55-1.fc6.x86_64.rpm
(36/76): mod_ssl-2.2.3-43.sl5.3.x86_64.rpm
(37/76): gridsite-shared-1.5.10.5-3.sl5.x86_64.rpm
(38/76): perl-URI-1.35-3.noarch.rpm
(39/76): apr-1.2.7-11.el5_3.1.x86_64.rpm
(40/76): distcache-1.4.5-14.1.x86_64.rpm
(41/76): glite-yaim-core-4.0.12-1.noarch.rpm
(42/76): DPM-xrootd-2.1.4-1sec.sl5.x86_64.rpm
(43/76): perl-DBD-MySQL-3.0007-2.el5.x86_64.rpm
(44/76): expect-5.43.0-5.1.x86_64.rpm
(45/76): ig-yaim-4.0.13-2_7.noarch.rpm
(46/76): CGSI_gSOAP_2.7-voms-1.3.3-2.sl5.x86_64.rpm
(47/76): lcgdm-libs-1.7.4-7sec.sl5.x86_64.rpm
(48/76): perl-XML-DOM-1.44-2.el5.rf.noarch.rpm
(49/76): perl-Net-SSLeay-1.30-4.fc6.x86_64.rpm
(50/76): lcgdm-devel-1.7.4-7sec.sl5.x86_64.rpm
(51/76): postgresql-libs-8.1.22-1.el5_5.1.x86_64.rpm
(52/76): perl-XML-Parser-2.34-6.1.2.2.1.x86_64.rpm
(53/76): perl-Date-Manip-5.56-1.el5.rf.noarch.rpm
(54/76): DPM-rfio-server-1.7.4-7sec.sl5.x86_64.rpm
(55/76): openldap-clients-2.3.43-12.el5_5.1.x86_64.rpm
(56/76): dpm-libs-1.7.4-7sec.sl5.x86_64.rpm
(57/76): perl-LDAP-0.33-3.fc6.noarch.rpm
(58/76): DPM-name-server-mysql-1.7.4-7sec.sl5.x86_64.rpm
(59/76): perl-libwww-perl-5.805-1.1.1.noarch.rpm
(60/76): perl-dpm-1.7.4-7sec.sl5.x86_64.rpm
(61/76): DPM-server-mysql-1.7.4-7sec.sl5.x86_64.rpm
(62/76): vdt_globus_data_server-VDT1.10.1x86_64_rhap_5-4.x86_64.rpm
(63/76): DPM-copy-server-mysql-1.7.4-7sec.sl5.x86_64.rpm
(64/76): perl-DBI-1.52-2.el5.x86_64.rpm
(65/76): python-dpm-1.7.4-7sec.sl5.x86_64.rpm
(66/76): dpm-devel-1.7.4-7sec.sl5.x86_64.rpm
(67/76): gpt-3.2autotools2004_NMI_9.0_x86_64_rhap_5-1.x86_64.rpm
(68/76): httpd-2.2.3-43.sl5.3.x86_64.rpm
(69/76): DPM-srm-server-mysql-1.7.4-7sec.sl5.x86_64.rpm
(70/76): openldap-servers-2.3.43-12.el5_5.1.x86_64.rpm
(71/76): dpm-1.7.4-7sec.sl5.x86_64.rpm
(72/76): glite-security-voms-api-cpp-1.9.17-1.sl5.x86_64.rpm
(73/76): mysql-5.0.77-4.el5_5.4.x86_64.rpm
(74/76): vdt_globus_essentials-VDT1.10.1x86_64_rhap_5-4.x86_64.rpm

Update host and perform the installation of package(s)

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(75/76): mysql-server-5.0.77-4.el5_5.4.x86_64.rpm

(76/76): ig-vomscerts-all.noarch.0:1.1-12

Total

warning: rpmts_HdrFromFdno: Header V3 DSA signature: NOKEY, key ID 6b8d79e6

dag/gpgkey

Importing GPG key 0x6B8D79E6 "Dag Wieers (Dag Apt Repository v1.0) " from http://linuxsoft.cern.c

Is this ok [y/N]: y

Running rpm_check_debug

Running Transaction Test

Finished Transaction Test

Transaction Test Succeeded

Running Transaction

Installing : glite-security-voms-api-cpp

Installing : gridsite-shared

Installing : gridsite-apache

Installing : perl-DBI

Installing : mysql

Installing : perl-Net-SSLeay

Installing : apr

Installing : glite-version

Installing : glite-security-voms-api

Installing : lcgdm-libs

Installing : dpm-libs

Installing : lcgdm-devel

Installing : dpm-devel

Installing : glue-schema

Installing : perl-URI

Installing : glite-yaim-core

Installing : glite-yaim-dpm

Installing : DPM-xrootd

Installing : python-dpm

Installing : DPM-rfio-server

The DPM RFIO server is now installed.

Before running the DPM RFIO server, use /etc/sysconfig/rfiod to create the /etc/sysconfig/rfiod f

To start/stop the DPM RFIO server, use the following command :

> service rfiod start|stop

Installing : perl-dpm

Installing : dpm

Installing : DPM-server-mysql

The DPM is now installed.

Please use the /etc/DPMCONFIG.templ template to create your own configuration file with the appro

Before running the DPM daemon, use /etc/sysconfig/dpm.templ to create the /etc/sysconfig/dpm file

Then, to start/stop the DPM server, use the following command :

> service dpm start|stop

#####

#

#

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#

#

Before running the SRM servers, use /etc/sysconfig/srmv1.templ, /etc/sysconfig/srmv2.templ and /e
to create the /etc/sysconfig/srmv1, /etc/sysconfig/srmv2 and /etc/sysconfig/srmv2.2 files and mod

To start/stop the SRM servers, use the following commands :

Update host and perform the installation of package(s)

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```
> service srmv1 start|stop
> service srmv2 start|stop
> service srmv2.2 start|stop
```

Installing : DPM-copy-server-mysql
The DPM COPY backend server is now installed.
Please use the /etc/DPMCONFIG.templ template to create your own configuration file with the appro

Before running the DPMCOPYD daemon, use /etc/sysconfig/dpmcopyd.templ to create the /etc/sysconfig/dpmcopyd file and modify it where needed.

To start/stop the DPMCOPYD daemon, use the following command :

```
> service dpmcopyd start|stop
```

```
Installing : lcg-service-proxy
Installing : fetch-crl
Installing : DPM-httpd-client
Installing : lcg-expiregridmapdir
Installing : perl-DBD-MySQL
Installing : perl-Compress-Zlib
Installing : postgresql-libs
Installing : apr-util
Installing : httpd
Installing : perl-Crypt-SSLeay
Installing : distcache
Installing : mod_ssl
Installing : libtool-ltdl
Installing : openldap-servers
Installing : expect
Installing : perl-TermReadKey
Installing : openldap-clients
Installing : bdi
Installing : DPM-httpd-cgi
Installing : mod_dpmpu
Installing : DPM-httpd
```

The DPM HTTPD server is now installed.

Before running the DPM HTTPD server daemon, have a look at the /etc/dpm/https/conf/dpm-httpd-*.conf files and modify it if necessary.

Then, to start/stop the DPM HTTPD server, use the following command :

```
service dpm-httpd start|stop
```

```
Installing : mod_keyauth
Installing : DPM-name-server-mysql
```

The DPM Name Server is now installed.
Please use the /etc/NSCONFIG.templ template to create your own configuration file with the appro

Before running the DPM Name Server daemon, use /etc/sysconfig/dpnsdaemon.templ to create the /etc

Then, to start/stop the DPM Name Server, use the following command :

```
> service dpnsdaemon start|stop
```

```
Installing : perl-XML-Namespacesupport
Installing : perl-XML-SAX
Installing : perl-XML-RegExp
Installing : perl-HTML-Tagset
Installing : perl-HTML-Parser
Installing : perl-libwww-perl
Installing : perl-XML-Parser
Installing : perl-XML-DOM
Installing : ig-yaim
Installing : perl-Convert-ASN1
Installing : perl-LDAP
Installing : glite-info-generic
Installing : glite-info-templates
Installing : glite-info-provider-release
```

```
Installing      : perl-Date-Manip
Installing      : edg-mkgridmap
Installing      : glite-SE_dpm_mysql
Installing      : ig_SE_dpm_mysql
Installing      : mysql-server
Installing      : ig-vomscerts-all
```

Installed:

```
ig_SE_dpm_mysql.x86_64 0:3.2.7-2_ig15_sl5
```

Dependency Installed:

```
CGSI_gSOAP_2.7.x86_64 0:1.3.3-2.sl5
DPM-DSI.x86_64 0:1.7.4-4sec.sl5
DPM-httpd.noarch 0:1.2.2-2sec.sl5
DPM-httpd-client.noarch 0:1.2.1-3sec.sl5
DPM-rfio-server.x86_64 0:1.7.4-7sec.sl5
DPM-srm-server-mysql.x86_64 0:1.7.4-7sec.sl5
apr.x86_64 0:1.2.7-11.el5_3.1
bdii.noarch 0:5.0.8-1
dpm.x86_64 0:1.7.4-7sec.sl5
dpm-libs.x86_64 0:1.7.4-7sec.sl5
expect.x86_64 0:5.43.0-5.1
glite-SE_dpm_mysql.x86_64 0:3.2.7-2.sl5
glite-info-provider-release.noarch 0:1.0.1-1
glite-info-templates.noarch 0:1.0.0-11
glite-security-voms-api-cpp.x86_64 0:1.9.17-1.sl5
glite-yaim-core.noarch 0:4.0.12-1
glue-schema.noarch 0:2.0.3-1
gridsite-apache.x86_64 0:1.5.10.5-3.sl5
httpd.x86_64 0:2.2.3-43.sl5.3
lcg-expiregridmapdir.noarch 0:2.1.0-1
lcgdm-devel.x86_64 0:1.7.4-7sec.sl5
libtool-ltdl.x86_64 0:1.5.22-7.el5_4
mod_keyauth.x86_64 0:1.2.1-2sec.sl5
mysql.x86_64 0:5.0.77-4.el5_5.4
openldap-servers.x86_64 0:2.3.43-12.el5_5.1
perl-Convert-ASN1.noarch 0:0.20-1.1
perl-DBD-MySQL.x86_64 0:3.0007-2.el5
perl-Date-Manip.noarch 0:5.56-1.el5.rf
perl-HTML-Tagset.noarch 0:3.10-2.1.1
perl-LDAP.noarch 1:0.33-3.fc6
perl-TermReadKey.x86_64 0:2.30-5.el5
perl-XML-DOM.noarch 0:1.44-2.el5.rf
perl-XML-Parser.x86_64 0:2.34-6.1.2.2.1
perl-XML-SAX.noarch 0:0.14-8
perl-libwww-perl.noarch 0:5.805-1.1.1
python-dpm.x86_64 0:1.7.4-7sec.sl5
vdt_globus_essentials.x86_64 0:VDT1.10.1x86_64_rhap_5-4
```

```
CGSI_gSOAP_2.7-vom
DPM-copy-server-my
DPM-httpd-cgi.x86_
DPM-name-server-my
DPM-server-mysql.x
DPM-xrootd.x86_64
apr-util.x86_64 0:
distcache.x86_64 0
dpm-devel.x86_64 0
edg-mkgridmap.noar
fetch-crl.noarch 0
glite-info-generic
glite-info-provide
glite-security-vom
glite-version.noar
glite-yaim-dpm.noa
gpt.x86_64 0:3.2au
gridsite-shared.x8
ig-yaim.noarch 0:4
lcg-service-proxy.
lcgdm-libs.x86_64
mod_dpmpu.x86_64
mod_ssl.x86_64 1:2
openldap-clients.x
perl-Compress-Zlib
perl-Crypt-SSLeay.
perl-DBI.x86_64 0:
perl-HTML-Parser.x
perl-IO-Socket-SSL
perl-Net-SSLeay.x8
perl-URI.noarch 0:
perl-XML-Namespac
perl-XML-RegExp.no
perl-dpm.x86_64 0:
postgresql-libs.x8
vdt_globus_data_se
mysql-server-5.0.7
```

Complete!

Install CAs

```
$ yum install -y lcg-CA
```

CERTIFICATES

```
Installing certificate
```

```
$ cd /etc/grid-security/
```

```
drwxr-xr-x 2 root root 20480 Jun 30 16:36 certificates
-rw-r--r-- 1 root root 1062 Jun 30 16:42 hostcert.pem
-r----- 1 root root 887 Jun 30 16:42 hostkey.pem
drwxr-xr-x 2 root root 4096 Jun 30 16:40 vommdir
```

Partitioning

```
$ mkdir /root/storage
```

CONFIGURING

```
Edit the /opt/glite/yaim/examples/siteinfo/ig-site-info.def file
```

```
# Hostname of the top level BDII
# INFN-GRID: Default BDII Top for Italy (if you do not have your own)
BDII_HOST=egee-bdii.cnaf.infn.it

# Hostname of the DPM head node
DPM_HOST="vm01.ct.infn.it"

# Uncomment this variable if you are installing a mysql server
# It is the MySQL admin password.
MYSQL_PASSWORD=KualaLumpur

# Space separated list of SEs hostnames
SE_LIST="vm01.ct.infn.it"

# Human-readable name of your site
SITE_NAME=GRID-TEST-VM01

# The contact e-mail of your site.
# A coma separated list of email addresses.
SITE_EMAIL="giuseppe.larocca@ct.infn.it"

# Variable necessary to configure Gridview service client on the SEs.
# It sets the location and filename of the gridftp server logfile on
# different types of SEs. Needed gridftp logfile for gridview is the
# netlogger file which contain info for each transfer (created with
# -Z/-log-transfer option for globus-gridftp-server).
# Ex: DATE=20071206082249.108921 HOST=hostname.cern.ch PROG=globus-gridftp-server
# NL.EVT=FTP_INFO START=20071206082248.831173 USER=atlas102 FILE=/storage/atlas/
# BUFFER=0 BLOCK=262144 NBYTES=330 VOLUME=/ STREAMS=1 STRIPES=1 DEST=[127.0.0.1]
# TYPE=LIST CODE=226
# Default locations for DPM: /var/log/dpm-gsift/dpm-gsift.log
# and SE_classic: /var/log/globus-gridftp.log
SE_GRIDFTP_LOGFILE=/var/log/dpm-gsift/dpm-gsift.log

#####
# VO configuration variables #
#####
VOS="dteam ops eumed infngrid"

#####
# eumed #
#####
VO_EUMED_SW_DIR=$VO_SW_DIR/eumed
VO_EUMED_DEFAULT_SE=$SE_HOST
VO_EUMED_STORAGE_DIR=$CLASSIC_STORAGE_DIR/eumed
VO_EUMED_VOMS_SERVERS="'vomss://voms2.cnaf.infn.it:8443/voms/eumed?/eumed' 'vomss://voms-02.pd.infn.it:8443/voms/eumed?/eumed'"
VO_EUMED_VOMSES="'eumed voms2.cnaf.infn.it 15016 /C=IT/O=INFN/OU=Host/L=CNAF/CN=voms2.cnaf.infn.it'"
VO_EUMED_VOMS_CA_DN="'/C=IT/O=INFN/CN=INFN CA' '/C=IT/O=INFN/CN=INFN CA'"
VO_EUMED_WMS_HOSTS="wms-01.eumedgrid.eu"

#####
# infngrid #
#####
VO_INFNGRID_SW_DIR=$VO_SW_DIR/infngrid
VO_INFNGRID_DEFAULT_SE=$SE_HOST
VO_INFNGRID_STORAGE_DIR=$CLASSIC_STORAGE_DIR/infngrid
VO_INFNGRID_VOMS_SERVERS="'vomss://voms.cnaf.infn.it:8443/voms/infngrid?/infngrid' 'vomss://voms-
```

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```
VO_INFNGRID_VOMSES="'infngRID voms.cnaf.infn.it 15000 /C=IT/O=INFN/OU=Host/L=CNAF/CN=voms.cnaf.infn.it'
VO_INFNGRID_VOMS_CA_DN="'/C=IT/O=INFN/CN=INFN CA' '/C=IT/O=INFN/CN=INFN CA'"
```

```
#####
# dteam #
#####
```

```
VO_DTEAM_SW_DIR=$VO_SW_DIR/dteam
VO_DTEAM_DEFAULT_SE=$SE_HOST
VO_DTEAM_STORAGE_DIR=$CLASSIC_STORAGE_DIR/dteam
VO_DTEAM_VOMS_SERVERS='vomss://voms.hellasgrid.gr:8443/voms/dteam?/dteam/'
VO_DTEAM_VOMSES="'dteam lcg-voms.cern.ch 15004 /DC=ch/DC=cern/OU=computers/CN=lcg-voms.cern.ch dn=lcg-voms.cern.ch'
VO_DTEAM_VOMS_CA_DN="'/DC=ch/DC=cern/CN=CERN Trusted Certification Authority' '/DC=ch/DC=cern/CN=CERN Trusted Certification Authority'"
```

```
#####
# ops #
#####
```

```
VO_OPS_SW_DIR=$VO_SW_DIR/ops
VO_OPS_DEFAULT_SE=$SE_HOST
VO_OPS_STORAGE_DIR=$CLASSIC_STORAGE_DIR/ops
VO_OPS_VOMS_SERVERS="vomss://voms.cern.ch:8443/voms/ops?/ops/"
VO_OPS_VOMSES="'ops lcg-voms.cern.ch 15009 /DC=ch/DC=cern/OU=computers/CN=lcg-voms.cern.ch ops dn=lcg-voms.cern.ch'
VO_OPS_VOMS_CA_DN="'/DC=ch/DC=cern/CN=CERN Trusted Certification Authority' '/DC=ch/DC=cern/CN=CERN Trusted Certification Authority'"
```

Add the unix users in the /opt/glite/yaim/examples/ig-users.conf file

```
70001:eumed001:48000:eumed:eumed::
70002:eumed002:48000:eumed:eumed::
70003:eumed003:48000:eumed:eumed::
70004:eumed004:48000:eumed:eumed::
70005:eumed005:48000:eumed:eumed::
70006:eumed006:48000:eumed:eumed::
70007:eumed007:48000:eumed:eumed::
70008:eumed008:48000:eumed:eumed::
70009:eumed009:48000:eumed:eumed::
70010:eumed010:48000:eumed:eumed::
70011:eumed011:48000:eumed:eumed::
[... ]
70090:eumed090:48000:eumed:eumed::
70091:eumed091:48000:eumed:eumed::
70092:eumed092:48000:eumed:eumed::
70093:eumed093:48000:eumed:eumed::
70094:eumed094:48000:eumed:eumed::
70095:eumed095:48000:eumed:eumed::
70096:eumed096:48000:eumed:eumed::
70097:eumed097:48000:eumed:eumed::
70098:eumed098:48000:eumed:eumed::
70099:eumed099:48000:eumed:eumed::
70100:eumed100:48000:eumed:eumed::
70101:sgmeumed01:47001,48000:eumedsgm,eumed:eumed:sgm
70102:sgmeumed02:47001,48000:eumedsgm,eumed:eumed:sgm
70103:sgmeumed03:47001,48000:eumedsgm,eumed:eumed:sgm
```

Add the unix groups in the /opt/glite/yaim/examples/ig-groups.conf file

```
"/eumed/ROLE=SoftwareManager":::sgm
"/eumed":::
```

Configure the /opt/glite/yaim/examples/siteinfo/services/glite-se_dpm_mysql file

```
# The DPM pool name (max 15 character long name)
DPMPOOL="Permanent"

# The filesystems/partitions parts of the pool
DPM_FILESYSTEMS="$DPM_HOST:/storage"

# The database user
DPM_DB_USER=dpmdbuser
```

```
# The database user password
DPM_DB_PASSWORD=dpmdbpassword

# The DPM database host
DPM_DB_HOST=$DPM_HOST

# The DPM infosystem user name
DPM_INFO_USER=dpminfo

# The DPM infosystem user password
DPM_INFO_PASS=the-dpminfopass
```

Start the configuration with ig_yaim

```
$ /opt/glite/yaim/bin/ig_yaim -c -s /opt/glite/yaim/examples/siteinfo/ig-site-info.def -n ig_SE_d
WARNING:
WARNING: *****
WARNING: Your siteinfo directory is world readable. This is generally a bad idea
WARNING: as configuration files may contain passwords and other sensitive information.
WARNING: *****
WARNING:
INFO: Using site configuration file: /opt/glite/yaim/examples/siteinfo/ig-site-info.def
INFO: Sourcing service specific configuration file: /opt/glite/yaim/examples/siteinfo/services
INFO:
#####

.          /'.-. ' )
.   yA,-"-,( ,m, :/ ) .oo.   oo   o       ooo o.   .oo
.   /          .-Y a  a Y-.   8. .8'   8'8.   8   8b  d'8
.   /          ~ ~ /         8'   .8oo88.   8   8  8'  8
.   (_/         '===='       8   .8'    8.   8   8  Y  8
.   Y,-''-,Yy,-.,/         o8o  o8o   o88o  o8o  o8o   o8o
.   I_))_) I_))_)

current working directory: /root
site-info.def date: Dec 30 09:46 /opt/glite/yaim/examples/siteinfo/ig-site-info.def
yaim command: -c -s /opt/glite/yaim/examples/siteinfo/ig-site-info.def -n ig_SE_dpm_mysql
log file: /opt/glite/yaim/bin/./log/yaimlog
Thu Dec 30 10:19:26 CET 2010 : /opt/glite/yaim/bin/ig_yaim

Installed YAIM versions:
glite-yaim-core 4.0.12-1
glite-yaim-dpm 4.0.9-3
ig-yaim 4.0.13-2_7

#####
INFO: The default location of the grid-env.(c)sh files will be: /opt/glite/etc/profile.d
INFO: Sourcing the utilities in /opt/glite/yaim/functions/utils
INFO: Detecting environment
INFO: Executing function: config_ntp_check
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_ntp
INFO: Executing function: config_sysconfig_lcg_check
INFO: Executing function: config_host_certs_check
INFO: Executing function: config_vomsdir_check
INFO: Executing function: config_users_check
INFO: Executing function: config_edgusers_check
INFO: Executing function: config_mkgridmap_check
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_mkgridmap
INFO: Executing function: config_gip_dpm_check
INFO: Executing function: config_lcgenv_check
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_lcgenv
INFO: Executing function: config_DPM_user_check
INFO: Executing function: config_DPM_rfio_check
INFO: Executing function: config_DPM_mysql_check
```

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```
INFO: Executing function: config_DPM_upgrade_mysql_check
INFO: Executing function: config_DPM_info_check
INFO: Executing function: config_DPM_gsiftp_check
INFO: Executing function: config_gridview_se_check
INFO: Executing function: config_DPM_se_check
INFO: Executing function: config_DPM_disk_check
INFO: Executing function: config_DPM_https_check
INFO: Executing function: config_DPM_xrootd_check
INFO: Executing function: config_bdii_only_check
INFO: Executing function: config_ldconf
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_ldconf
INFO: Executing function: config_ntp_setenv
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_ntp
INFO: Executing function: config_ntp
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_ntp
INFO: Storing old ntp settings in /etc/ntp.conf.yaimold.20101230_101928
INFO: Executing function: config_sysconfig_edg
INFO: Executing function: config_sysconfig_globus
INFO: Executing function: config_sysconfig_lcg
INFO: Executing function: config_crl
INFO: Now updating the CRLs - this may take a few minutes...
INFO: Executing function: config_host_certs
INFO: Executing function: config_vomsdir_setenv
INFO: Executing function: config_vomsdir
INFO: Executing function: config_users
INFO: Executing function: config_edgusers
INFO: Executing function: config_mkgridmap_setenv
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_mkgridmap
INFO: Executing function: config_mkgridmap
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_mkgridmap
INFO: The grid-map file will also contain special users for VO DTEAM since UNPRIVILEGED_MKGRID
INFO: Adding ordinary users in the gridmap file since the VO is defined in groups.conf
INFO: The grid-map file will also contain special users for VO OPS since UNPRIVILEGED_MKGRIDMA
INFO: Adding ordinary users in the gridmap file since the VO is defined in groups.conf
INFO: The grid-map file will also contain special users for VO EUMED since UNPRIVILEGED_MKGRID
INFO: Adding ordinary users in the gridmap file since the VO is defined in groups.conf
INFO: Now creating the grid-mapfile - this may take a few minutes...
INFO: Now creating the lcgdm-mapfile - this may take a few minutes...
INFO: Executing function: config_gip_only
INFO: Executing function: config_gip_dpm
INFO: Executing function: config_gip_service_release
INFO: Executing function: config_lcgenv
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_lcgenv
INFO: Executing function: config_nfs_sw_dir_server
INFO: Using locally defined function /opt/glite/yaim/functions/local/config_nfs_sw_dir_server
INFO: $HOST_SW_DIR is not this host. Skip!
INFO: Executing function: config_DPM_user
INFO: Executing function: config_DPM_mgr
INFO: Executing function: config_DPM_rfio
Stopping rfiod: [ OK ]
Starting rfiod: [ OK ]
INFO: Executing function: config_DPM_mysql

Initializing MySQL database: Installing MySQL system tables...
OK
Filling help tables...
OK

To start mysqld at boot time you have to copy
support-files/mysql.server to the right place for your system

PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !
To do so, start the server, then issue the following commands:
/usr/bin/mysqladmin -u root password 'new-password'
/usr/bin/mysqladmin -u root -h vm01.ct.infn.it password 'new-password'

Alternatively you can run:
```

Start the configuration with `ig_yaim`

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```
/usr/bin/mysql_secure_installation
```

which will also give you the option of removing the test databases and anonymous user created by default. This is strongly recommended for production servers.

See the manual for more instructions.

You can start the MySQL daemon with:

```
cd /usr ; /usr/bin/mysqld_safe &
```

You can test the MySQL daemon with `mysql-test-run.pl`

```
cd mysql-test ; perl mysql-test-run.pl
```

Please report any problems with the `/usr/bin/mysqlbug` script!

The latest information about MySQL is available on the web at

<http://www.mysql.com>

Support MySQL by buying support/licenses at <http://shop.mysql.com>

```
Starting MySQL: [ OK ]
```

```
INFO: Setting mysql password on vm01.ct.infn.it.
```

```
INFO: Executing function: config_DPM_upgrade_mysql
```

```
INFO: Checking for database schema version...
```

```
/var/log/bdii/.globus
```

```
INFO: Database versions used: DPM: 3.2.0
```

```
INFO: No DPM database schema version upgrade is necessary. Database schema version is the latest
```

```
INFO: Executing function: config_DPM_info
```

```
INFO: Setting up monitoring access for dpminfo on vm01.ct.infn.it
```

```
INFO: Executing function: config_DPM_gsiftp
```

```
globus-gridftp-server already stopped: [ OK ]
```

```
Starting dpm-gsiftp: [ OK ]
```

```
INFO: Executing function: config_gridview_se_setenv
```

```
INFO: Executing function: config_gridview_se
```

```
WARNING: gridview doesn't seem to be installed. YAIM won't configure it.
```

```
INFO: Executing function: config_DPM_se
```

```
dpnsdaemon already stopped: [ OK ]
```

```
Starting dpnsdaemon: [ OK ]
```

```
dpm already stopped: [ OK ]
```

```
Starting dpm: [ OK ]
```

```
srmv1 already stopped: [ OK ]
```

```
Starting srmv1: [ OK ]
```

```
srmv2 already stopped: [ OK ]
```

```
srmv2.2 already stopped: [ OK ]
```

```
Starting srmv2.2: [ OK ]
```

```
dpmcopyd already stopped: [ OK ]
```

```
Starting dpmcopyd: [ OK ]
```

```
INFO: IMPORTANT: A cron job has been installed: /etc/cron.monthly/create-default-dirs-DPM.sh
```

```
INFO: IMPORTANT: Run it manually this time (may take quite a while), in order to create the 'g
```

```
INFO: IMPORTANT: directories for the VOs with the correct permission.
```

```
INFO: IMPORTANT: This is to ensure that the whole VO is able to write in those directories.
```

```
INFO: IMPORTANT: The script will run once a month and create the directories for the current an
```

```
INFO: Executing function: config_DPM_disk POOL Permanent DEFSIZE 200.00M GC_START_THRESH 0 GC_
```

```
INFO: DEF_LIFETIME 7.0d DEFPINTIME 2.0h MAX_LIFETIME 1.0m MAXPINTIME 12.0h FSS_POLICY maxfrees
```

```
INFO: lru RS_POLICY fifo GIDS 0 S_TYPE - MIG_POLICY none RET_POLICY R CAPACITY 6.63G FREE 4.63
```

```
vm01.ct.infn.it /storage CAPACITY 6.63G FREE 4.63G ( 69.8%)
```

```
INFO: Tuning /etc/sysctl.conf. Present state saved to /etc/sysctl.conf.orig.
```

```
INFO: Running sysctl -p with the new sysctl.conf file.
```

```
net.ipv4.ip_forward = 0
```

```
net.ipv4.conf.default.rp_filter = 1
```

```
net.ipv4.conf.default.accept_source_route = 0
```

```
kernel.sysrq = 0
```

```
kernel.core_uses_pid = 1
```

```
net.ipv4.tcp_syncookies = 1
```

```
kernel.msgmnb = 65536
```

```
kernel.msgmax = 65536
```

```
kernel.shmmax = 68719476736
```

Start the configuration with `ig_yaim`

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```
kernel.shmall = 4294967296
net.ipv4.tcp_rmem = 131072 1048576 2097152
net.ipv4.tcp_wmem = 131072 1048576 2097152
net.ipv4.tcp_mem = 131072 1048576 2097152
net.core.rmem_default = 1048576
net.core.wmem_default = 1048576
net.core.rmem_max = 2097152
net.core.wmem_max = 2097152
net.ipv4.tcp_dsack = 0
net.ipv4.tcp_sack = 0
net.ipv4.tcp_timestamps = 0
net.core.netdev_max_backlog = 10000
INFO: Executing function: config_DPM_https
INFO: [CONFIG_DPM_HTTPS] Skipping configuration of DPM-https - to activate add DPM_HTTPS="yes"
INFO: Executing function: config_DPM_xrootd
INFO: [CONFIG_DPM_XROOTD] Skipping configuration of DPM-xrootd - to activate add DPM_XROOTD="yes"
INFO: Executing function: config_bdii_only
Stopping BDII: BDII Already stopped
Starting SLAPD: [ OK ]

Starting update process: [ OK ]

INFO: Configuration Complete. [ OK ]
INFO: YAIM terminated succesfully.

$ /etc/cron.monthly/create-default-dirs-DPM.sh
Creating and setting correct permissions on: /dpm/ct.infn.it/home/dteam/generated/2011-01-03
Creating and setting correct permissions on: /dpm/ct.infn.it/home/ops/generated/2011-01-03
Creating and setting correct permissions on: /dpm/ct.infn.it/home/eumed/generated/2011-01-03
Creating and setting correct permissions on: /dpm/ct.infn.it/home/dteam/generated/2011-01-04
Creating and setting correct permissions on: /dpm/ct.infn.it/home/ops/generated/2011-01-04
Creating and setting correct permissions on: /dpm/ct.infn.it/home/eumed/generated/2011-01-04
Creating and setting correct permissions on: /dpm/ct.infn.it/home/dteam/generated/2011-01-05
Creating and setting correct permissions on: /dpm/ct.infn.it/home/ops/generated/2011-01-05
[...]
```

Disable YUM update

```
$ /etc/init.d/yum stop
Disabling nightly yum update: [ OK ]
```

Firewall

The following ports have to be opened:

- DPM Server: port 5015/tcp
- DPNS Server: port 5010/tcp
- SRM Server: ports 8443/tcp (SRMV1) and 8444/tcp (SRVM2)
- RFIO Server: port 5001/tcp
- GridFTP Server: 2811/tcp and data ports 20000-25000/tcp (or any range specified by BLOBUS_TCP_PORTS)

TESTING

Connect to the UI and generate a VOMS proxy

```
$ export DPM_HOST=vm01.ct.infn.it
$ export DPNS_HOST=vm01.ct.infn.it
```

Check if the DPM Server is correctly exporting the file system

```
$ dpm-qryconf
POOL Permanent DEFSIZE 200.00M GC_START_THRESH 0 GC_STOP_THRESH 0 DEF_LIFETIME 7.0d DEFPI
MAX_LIFETIME 1.0m MAXPINTIME 12.0h FSS_POLICY maxfreespace GC_POLICY lru RS_POLICY fifo G
MIG_POLICY none RET_POLICY R CAPACITY 6.63G FREE 4.34G ( 65.5%)
```


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```
vm01.ct.infn.it /storage CAPACITY 6.63G FREE 4.34G ( 65.5%)
```

Listing the virtual DPM file system

```
$ dpns-ls /dpm/ct.infn.it/home
dteam
eumed
ops
```

Create a directory

```
$ dpns-mkdir /dpm/ct.infn.it/home/infngrid/generated/2011-01-03/test
```

GridFTP-enabled clietn to transfer files

```
$ uberftp vm01.ct.infn.it
220 vm01.ct.infn.it GridFTP Server 2.8 (gcc64dbg, 1217607445-63) [VDT patched 4.0.8] read
230 User infngrid003 logged in.
uberftp> quit
221 Goodbye.
kthxbye
```

Testing the GridFTP daemon using the globus-url-copy command

```
$ globus-url-copy file:/home/larocca/hostname.jdl gsiftp://vm01.ct.infn.it/dpm/ct.infn.it
$ dpns-ls -l /dpm/ct.infn.it/home/infngrid/generated/2011-01-03/test
-rw-rw-r--  1 102      104      488 Jan 03 10:00 testfile
```

Testing the GIP running on the DPM Server

```
$ ldapsearch -x -h vm01.ct.infn.it -p 2170 -b mds-vo-name=resource,o=grid | grep -i SASTa
GlueSASStateAvailableSpace: 4663750
GlueSASStateUsedSpace: 2454360
objectClass: GlueSASState
```

Testing the MySQL database

```
$ mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 127
Server version: 5.0.77 Source distribution

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> show databases;
+-----+
| Database          |
+-----+
| information_schema |
| cns_db            |
| dpm_db            |
| mysql             |
| test              |
+-----+
5 rows in set (0.00 sec)
```

Log files

```
/var/log/messages
```

```
/var/log/fetch-crl-cron.log
```

/var/log/edg-mkgridmap.log
/var/log/lcgdm-mkgridmap.log

/var/log/dpm/log
/var/log/dpns/log
/var/log/srmv1/log
/var/log/srmv2/log
/var/log/srmv2.2/log
/var/log/rfiiod/log
/var/log/dpm-gsiftp/gridftp.log
/var/log/dpm-gsiftp/dpm-gsiftp.log

External links

https://twiki.cern.ch/twiki/bin/view/LCG/Site-info_configuration_variables#DPM

<https://twiki.cern.ch/twiki/bin/view/LCG/LCGPortTable>

-- GiuseppeLaRocca - 2011-01-17

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