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Notes about Installation and Configuration of a LFC server

- These notes are provided by site admins on a best effort base as a contribution to the IGI communities and **MUST not be considered as a substitute of the Official IGI documentation** .
- This document is addressed to site administrators responsible for middleware installation and configuration.
- The goal of this page is to provide some hints and examples on how to install and configure an IGI LFC server based on EMI/UMD middleware.

NB: LFC service is a **CORE** service, it should not be installed at Resource Center level. If you want to provide an official instances which will be added to the IGI endpoint, please contact igi-noc@lists.italiangrid.it

References

1. EMI 1 Kebnekaise Products - LFC v. 1.8.2
2. YAIM configuration variables
3. About IGI - Italian Grid infrastructure
4. About IGI Release
5. IGI Official Installation and Configuration guide
6. Troubleshooting Guide for Operational Errors on EGI Sites
7. Grid Administration FAQs page

Recommendations and Scenarios

- A full virtualized machine based on KVM has been used in the following notes. There are three installation scenarios that can be follow.

Scenario 1 (all in one)

LFC frontend and backend are installed on the same server. The service needs at least two cores, 4 GB RAM, 10 GB disk space (disk space highly depends on the number of VOs that will be use the instance).

Scenario 2 (n frontends and one backend)

In this scenario the frontend and the backend are installed on separate servers. The number of frontends could be higher than one for load balancing and high availability purpose.

Scenario 3 (n frontends and high availability backend)

In this scenario the frontends and backends are installed on separate server and the backend, based on mysql, is configured in high availability mode (master-master replica).

Service Installation

O.S. and Repos

- Starts from a fresh installation of Scientific Linux 5.x (x86_64).

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```
# cat /etc/redhat-release
Scientific Linux SL release 5.7 (Boron)
```

- Install the additional repositories: EPEL, Certification Authority, EMI

```
# cd /etc/yum.repos.d/
# rpm -ivh http://mirror.switch.ch/ftp/mirror/epel//5/x86_64/epel-release-5-4.noarch.rpm
# wget http://repo-pd.italiangrid.it/mrepo/repos/egi-trustanchors.repo
# rpm -ivh http://repo-pd.italiangrid.it/mrepo/EMI/1/sl5/x86_64/updates/emi-release-1.0.1-1.sl5.n
# yum install yum-priorities yum-protectbase
```

- Be sure that SELINUX is disabled (or permissive). Details on how to disable SELINUX are here :

```
# getenforce
Disabled
```

- Check the repos list (sl-*.repo are the repos of the O.S. and they should be present by default).

```
# ls /etc/yum.repos.d/
emil-base.repo emil-updates.repo epel-testing.repo emil-third-party.repo
sl-contrib.repo sl-fastbugs.repo sl-security.repo sl-testing.repo sl-debuginfo.repo sl.repo sl-
egi-trustanchors.repo
epel.repo
```

Update host and perform the installation of middleware package(s)

```
# yum clean all
Loaded plugins: downloadonly, kernel-module, priorities, protect-packages, protectbase, security,
Cleaning up Everything

# yum install -y ca-policy-egi-core emi-lfc_mysql
Loaded plugins: downloadonly, kernel-module, priorities, protect-packages, protectbase, security,
263 packages excluded due to repository priority protections
0 packages excluded due to repository protections
Reading version lock configuration
Setting up Install Process
Package ca-policy-egi-core-1.46-1.noarch already installed and latest version
Resolving Dependencies
--> Running transaction check
---> Package emi-lfc_mysql.x86_64 0:1.8.2-3sec.sl5 set to be updated
--> Processing Dependency: lfc-devel for package: emi-lfc_mysql
--> Processing Dependency: emi-version for package: emi-lfc_mysql
--> Processing Dependency: voms for package: emi-lfc_mysql
--> Processing Dependency: glite-yaim-bdii for package: emi-lfc_mysql
--> Processing Dependency: python-lfc for package: emi-lfc_mysql
--> Processing Dependency: edg-mkgridmap for package: emi-lfc_mysql
--> Processing Dependency: fetch-crl for package: emi-lfc_mysql
--> Processing Dependency: bdii for package: emi-lfc_mysql
--> Processing Dependency: perl-lfc for package: emi-lfc_mysql
--> Processing Dependency: lcgdm-libs for package: emi-lfc_mysql
--> Processing Dependency: lfc for package: emi-lfc_mysql
--> Processing Dependency: lcgdm-devel for package: emi-lfc_mysql
--> Processing Dependency: LFC-server-mysql for package: emi-lfc_mysql
--> Processing Dependency: glue-schema for package: emi-lfc_mysql
--> Processing Dependency: lfc-yaim for package: emi-lfc_mysql
--> Processing Dependency: voms-devel for package: emi-lfc_mysql
--> Processing Dependency: lfc-libs for package: emi-lfc_mysql
--> Processing Dependency: glite-yaim-core for package: emi-lfc_mysql
--> Running transaction check
---> Package LFC-server-mysql.x86_64 0:1.8.2-3sec.sl5 set to be updated
--> Processing Dependency: libargus-pep.so.2()(64bit) for package: LFC-server-mysql
--> Processing Dependency: libgsoap.so.0()(64bit) for package: LFC-server-mysql
--> Processing Dependency: libglobus_gssapi_gsi.so.4()(64bit) for package: LFC-server-mysql
--> Processing Dependency: libglobus_gss_assist.so.3()(64bit) for package: LFC-server-mysql
```

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```
---> Package bdii.noarch 0:5.2.10-1.el5 set to be updated
--> Processing Dependency: openldap-servers for package: bdii
--> Processing Dependency: expect for package: bdii
--> Processing Dependency: openldap-clients for package: bdii
---> Package edg-mkgridmap.noarch 0:4.0.0-1 set to be updated
--> Processing Dependency: perl(IO::Socket::SSL) >= 0.90 for package: edg-mkgridmap
--> Processing Dependency: perl(Net::SSLLeay) >= 1.16 for package: edg-mkgridmap
--> Processing Dependency: perl(Net::LDAP) 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::SSLLeay) 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 emi-version.x86_64 0:1.10.0-1.sl5 set to be updated
---> Package fetch-curl.noarch 0:2.8.5-1.el5 set to be updated
---> Package glite-yaim-bdii.noarch 0:4.3.9-1.el5 set to be updated
---> Package glite-yaim-core.noarch 0:5.0.2-1.sl5 set to be updated
---> Package glue-schema.noarch 0:2.0.8-1.el5 set to be updated
---> Package lcgdm-devel.x86_64 0:1.8.2-3sec.sl5 set to be updated
---> Package lcgdm-libs.x86_64 0:1.8.2-3sec.sl5 set to be updated
---> Package lfc.x86_64 0:1.8.2-3sec.sl5 set to be updated
---> Package lfc-devel.x86_64 0:1.8.2-3sec.sl5 set to be updated
---> Package lfc-libs.x86_64 0:1.8.2-3sec.sl5 set to be updated
---> Package lfc-yaim.noarch 0:4.2.1-0.sl5 set to be updated
---> Package perl-lfc.x86_64 0:1.8.2-3sec.sl5 set to be updated
---> Package python-lfc.x86_64 0:1.8.2-3sec.sl5 set to be updated
---> Package voms.x86_64 0:2.0.7-1.el5 set to be updated
---> Package voms-devel.x86_64 0:2.0.7-1.el5 set to be updated
--> Processing Dependency: automake for package: voms-devel
--> Processing Dependency: openssl-devel for package: voms-devel
--> Running transaction check
---> Package argus-pep-api-c.x86_64 0:2.0.2-1.sl5 set to be updated
---> Package automake.noarch 0:1.9.6-2.3.el5 set to be updated
--> Processing Dependency: autoconf >= 2.58 for package: automake
---> Package expect.x86_64 0:5.43.0-5.1 set to be updated
---> Package globus-gss-assist.x86_64 0:8.1-2.el5 set to be updated
--> Processing Dependency: globus-gsi-sysconfig >= 5 for package: globus-gss-assist
--> Processing Dependency: globus-gsi-cert-utils >= 8 for package: globus-gss-assist
--> Processing Dependency: globus-common >= 14 for package: globus-gss-assist
--> Processing Dependency: globus-callout >= 2 for package: globus-gss-assist
--> Processing Dependency: libglobus_common.so.0 (GLOBUS_COMMON_14) (64bit) for package: globus-gss-assist
--> Processing Dependency: libglobus_gsi_sysconfig.so.1() (64bit) for package: globus-gss-assist
--> Processing Dependency: libglobus_gsi_cert_utils.so.0() (64bit) for package: globus-gss-assist
--> Processing Dependency: libglobus_common.so.0() (64bit) for package: globus-gss-assist
--> Processing Dependency: libglobus_callout.so.0() (64bit) for package: globus-gss-assist
---> Package globus-gssapi-gsi.x86_64 0:10.2-2.el5 set to be updated
--> Processing Dependency: globus-openssl-module >= 3 for package: globus-gssapi-gsi
--> Processing Dependency: globus-gsi-proxy-core >= 6 for package: globus-gssapi-gsi
--> Processing Dependency: globus-gsi-openssl-error >= 2 for package: globus-gssapi-gsi
--> Processing Dependency: globus-gsi-credential >= 5 for package: globus-gssapi-gsi
--> Processing Dependency: globus-gsi-callback >= 4 for package: globus-gssapi-gsi
--> Processing Dependency: libglobus_openssl_error.so.0() (64bit) for package: globus-gssapi-gsi
--> Processing Dependency: libglobus_openssl.so.0() (64bit) for package: globus-gssapi-gsi
--> Processing Dependency: libglobus_gsi_proxy_core.so.0() (64bit) for package: globus-gssapi-gsi
--> Processing Dependency: libglobus_gsi_credential.so.1() (64bit) for package: globus-gssapi-gsi
--> Processing Dependency: libglobus_gsi_callback.so.0() (64bit) for package: globus-gssapi-gsi
---> Package gsoap.x86_64 0:2.7.13-4.el5 set to be updated
---> Package openldap-clients.x86_64 0:2.3.43-12.el5_6.7 set to be updated
---> Package openldap-servers.x86_64 0:2.3.43-12.el5_6.7 set to be updated
--> Processing Dependency: libltdl.so.3() (64bit) for package: openldap-servers
```

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```
---> Package openssl-devel.x86_64 0:0.9.8e-22.el5_8.1 set to be updated
--> Processing Dependency: zlib-devel for package: openssl-devel
--> Processing Dependency: krb5-devel for package: openssl-devel
---> Package perl-Crypt-SSLeay.x86_64 0:0.51-11.el5 set to be updated
---> Package perl-DateManip.noarch 0:5.44-1.2.1 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
--> 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 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 autoconf.noarch 0:2.59-12 set to be updated
--> Processing Dependency: imake for package: autoconf
---> Package globus-callout.x86_64 0:2.1-2.el5 set to be updated
---> Package globus-common.x86_64 0:14.5-4.el5 set to be updated
---> Package globus-gsi-callback.x86_64 0:4.1-2.el5 set to be updated
--> Processing Dependency: globus-gsi-proxy-ssl >= 4 for package: globus-gsi-callback
--> Processing Dependency: libglobus_proxy_ssl.so.1(64bit) for package: globus-gsi-callback
---> Package globus-gsi-cert-utils.x86_64 0:8.1-2.el5 set to be updated
---> Package globus-gsi-credential.x86_64 0:5.1-2.el5 set to be updated
---> Package globus-gsi-openssl-error.x86_64 0:2.1-2.el5 set to be updated
---> Package globus-gsi-proxy-core.x86_64 0:6.1-2.el5 set to be updated
---> Package globus-gsi-sysconfig.x86_64 0:5.1-2.el5 set to be updated
---> Package globus-openssl-module.x86_64 0:3.1-2.el5 set to be updated
---> Package krb5-devel.x86_64 0:1.6.1-70.el5 set to be updated
--> Processing Dependency: libselinux-devel for package: krb5-devel
--> Processing Dependency: e2fsprogs-devel for package: krb5-devel
--> Processing Dependency: keyutils-libs-devel for package: krb5-devel
---> 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-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 0:0.03-2.el5 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
---> Package zlib-devel.x86_64 0:1.2.3-4.el5 set to be updated
--> Running transaction check
---> Package e2fsprogs-devel.x86_64 0:1.39-33.el5 set to be updated
---> Package globus-gsi-proxy-ssl.x86_64 0:4.1-2.el5 set to be updated
---> Package imake.x86_64 0:1.0.2-3 set to be updated
---> Package keyutils-libs-devel.x86_64 0:1.2-1.el5 set to be updated
---> Package libselinux-devel.x86_64 0:1.33.4-5.7.el5 set to be updated
--> Processing Dependency: libsepol-devel >= 1.15.2-1 for package: libselinux-devel
---> 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
--> Running transaction check
---> Package libsepol-devel.x86_64 0:1.15.2-3.el5 set to be updated
--> Finished Dependency Resolution
Beginning Kernel Module Plugin
Finished Kernel Module Plugin
```

Dependencies Resolved

```
=====
Package                                                                                               Arch
=====
```

Update host and perform the installation of middleware package(s)

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```
Installing:
emi-lfc_mysql x86_64
Installing for dependencies:
LFC-server-mysql x86_64
argus-pep-api-c x86_64
autoconf noarch
automake noarch
bdii noarch
e2fsprogs-devel x86_64
edg-mkgridmap noarch
emi-version x86_64
expect x86_64
fetch-curl noarch
glite-yaim-bdii noarch
glite-yaim-core noarch
globus-callout x86_64
globus-common x86_64
globus-gsi-callback x86_64
globus-gsi-cert-utils x86_64
globus-gsi-credential x86_64
globus-gsi-openssl-error x86_64
globus-gsi-proxy-core x86_64
globus-gsi-proxy-ssl x86_64
globus-gsi-sysconfig x86_64
globus-gss-assist x86_64
globus-gssapi-gsi x86_64
globus-openssl-module x86_64
glue-schema noarch
gsoap x86_64
imake x86_64
keyutils-libs-devel x86_64
krb5-devel x86_64
lcgdm-devel x86_64
lcgdm-libs x86_64
lfc x86_64
lfc-devel x86_64
lfc-libs x86_64
lfc-yaim noarch
libselinux-devel x86_64
libsepol-devel x86_64
libtool-ltdl x86_64
openldap-clients x86_64
openldap-servers x86_64
openssl-devel x86_64
perl-Compress-Zlib x86_64
perl-Convert-ASN1 noarch
perl-Crypt-SSLeay x86_64
perl-DateManip noarch
perl-HTML-Parser x86_64
perl-HTML-Tagset noarch
perl-IO-Socket-SSL noarch
perl-LDAP noarch
perl-Net-SSLeay x86_64
perl-TermReadKey x86_64
perl-URI noarch
perl-XML-DOM noarch
perl-XML-NamespaceSupport noarch
perl-XML-Parser x86_64
perl-XML-RegExp noarch
perl-XML-SAX noarch
perl-lfc x86_64
perl-libwww-perl noarch
python-lfc x86_64
voms x86_64
voms-devel x86_64
zlib-devel x86_64
```

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Transaction Summary

```
=====
Install          64 Package(s)
Upgrade          0 Package(s)
```

Total download size: 16 M

Downloading Packages:

```
(1/64): emi-version-1.10.0-1.sl5.x86_64.rpm
(2/64): emi-lfc_mysql-1.8.2-3sec.sl5.x86_64.rpm
(3/64): perl-XML-RegExp-0.03-2.el5.noarch.rpm
(4/64): glite-yaim-bdii-4.3.9-1.el5.noarch.rpm
(5/64): globus-openssl-module-3.1-2.el5.x86_64.rpm
(6/64): perl-HTML-Tagset-3.10-2.1.1.noarch.rpm
(7/64): perl-XML-Namespacesupport-1.09-1.2.1.noarch.rpm
(8/64): lfc-yaim-4.2.1-0.sl5.noarch.rpm
(9/64): globus-gsi-openssl-error-2.1-2.el5.x86_64.rpm
(10/64): globus-callout-2.1-2.el5.x86_64.rpm
(11/64): globus-gsi-proxy-ssl-4.1-2.el5.x86_64.rpm
(12/64): globus-gsi-cert-utils-8.1-2.el5.x86_64.rpm
(13/64): bdii-5.2.10-1.el5.noarch.rpm
(14/64): fetch-crl-2.8.5-1.el5.noarch.rpm
(15/64): voms-devel-2.0.7-1.el5.x86_64.rpm
(16/64): edg-mkgridmap-4.0.0-1.noarch.rpm
(17/64): keyutils-libs-devel-1.2-1.el5.x86_64.rpm
(18/64): globus-gsi-sysconfig-5.1-2.el5.x86_64.rpm
(19/64): perl-TermReadKey-2.30-5.el5.x86_64.rpm
(20/64): glue-schema-2.0.8-1.el5.noarch.rpm
(21/64): globus-gss-assist-8.1-2.el5.x86_64.rpm
(22/64): globus-gsi-credential-5.1-2.el5.x86_64.rpm
(23/64): globus-gsi-proxy-core-6.1-2.el5.x86_64.rpm
(24/64): libtool-ltdl-1.5.22-7.el5_4.x86_64.rpm
(25/64): perl-Convert-ASN1-0.20-1.1.noarch.rpm
(26/64): globus-gsi-callback-4.1-2.el5.x86_64.rpm
(27/64): perl-Crypt-SSLeay-0.51-11.el5.x86_64.rpm
(28/64): perl-IO-Socket-SSL-1.01-1.fc6.noarch.rpm
(29/64): perl-Compress-Zlib-1.42-1.fc6.x86_64.rpm
(30/64): argus-pep-api-c-2.0.2-1.sl5.x86_64.rpm
(31/64): globus-gssapi-gsi-10.2-2.el5.x86_64.rpm
(32/64): perl-XML-SAX-0.14-8.noarch.rpm
(33/64): perl-HTML-Parser-3.55-1.fc6.x86_64.rpm
(34/64): lfc-libs-1.8.2-3sec.sl5.x86_64.rpm
(35/64): zlib-devel-1.2.3-4.el5.x86_64.rpm
(36/64): perl-URI-1.35-3.noarch.rpm
(37/64): glite-yaim-core-5.0.2-1.sl5.noarch.rpm
(38/64): globus-common-14.5-4.el5.x86_64.rpm
(39/64): perl-XML-DOM-1.44-2.el5.noarch.rpm
(40/64): perl-DateManip-5.44-1.2.1.noarch.rpm
(41/64): libselinux-devel-1.33.4-5.7.el5.x86_64.rpm
(42/64): expect-5.43.0-5.1.x86_64.rpm
(43/64): lcgdm-libs-1.8.2-3sec.sl5.x86_64.rpm
(44/64): voms-2.0.7-1.el5.x86_64.rpm
(45/64): perl-Net-SSLeay-1.30-4.fc6.x86_64.rpm
(46/64): libsepol-devel-1.15.2-3.el5.x86_64.rpm
(47/64): lcgdm-devel-1.8.2-3sec.sl5.x86_64.rpm
(48/64): perl-XML-Parser-2.34-6.1.2.2.1.x86_64.rpm
(49/64): openldap-clients-2.3.43-12.el5_6.7.x86_64.rpm
(50/64): perl-LDAP-0.33-3.fc6.noarch.rpm
(51/64): imake-1.0.2-3.x86_64.rpm
(52/64): lfc-devel-1.8.2-3sec.sl5.x86_64.rpm
(53/64): perl-lfc-1.8.2-3sec.sl5.x86_64.rpm
(54/64): perl-libwww-perl-5.805-1.1.1.noarch.rpm
(55/64): gsoap-2.7.13-4.el5.x86_64.rpm
(56/64): automake-1.9.6-2.3.el5.noarch.rpm
(57/64): e2fsprogs-devel-1.39-33.el5.x86_64.rpm
(58/64): autoconf-2.59-12.noarch.rpm
(59/64): LFC-server-mysql-1.8.2-3sec.sl5.x86_64.rpm
(60/64): python-lfc-1.8.2-3sec.sl5.x86_64.rpm
```

Update host and perform the installation of middleware package(s)

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```
(61/64): lfc-1.8.2-3sec.sl5.x86_64.rpm
(62/64): openssl-devel-0.9.8e-22.el5_8.1.x86_64.rpm
(63/64): krb5-devel-1.6.1-70.el5.x86_64.rpm
(64/64): openldap-servers-2.3.43-12.el5_6.7.x86_64.rpm
```

Total

warning: rpmts_HdrFromFdno: Header V3 DSA signature: NOKEY, key ID df9e12ef

EMI-1-updates/gpgkey

Importing GPG key 0xDF9E12EF "Doina Cristina Aiftimiei (EMI Release Manager) <aiftim@pd.infn.it>"

Running rpm_check_debug

Running Transaction Test

Finished Transaction Test

Transaction Test Succeeded

Running Transaction

```
Installing      : voms
Installing      : libtool-ltdl
Installing      : globus-common
Installing      : globus-gsi-openssl-error
Installing      : globus-gsi-proxy-ssl
Installing      : globus-gsi-sysconfig
Installing      : globus-openssl-module
Installing      : globus-gsi-cert-utils
Installing      : perl-URI
Installing      : globus-gsi-callback
Installing      : globus-gsi-credential
Installing      : perl-Net-SSLeay
Installing      : perl-IO-Socket-SSL
Installing      : glite-yaim-core
Installing      : glite-yaim-bdii
Installing      : glue-schema
Installing      : globus-gsi-proxy-core
Installing      : globus-gssapi-gsi
Installing      : globus-callout
Installing      : globus-gss-assist
Installing      : lcgdm-libs
Installing      : lfc-libs
Installing      : perl-lfc
Installing      : python-lfc
Installing      : lfc
Installing      : openldap-servers
Installing      : expect
Installing      : openldap-clients
Installing      : imake
Installing      : argus-pep-api-c
Installing      : gsoap
Installing      : LFC-server-mysql
Installing      : perl-TermReadKey
Installing      : perl-Compress-Zlib
Installing      : perl-Crypt-SSLeay
Installing      : lcgdm-devel
Installing      : lfc-devel
Installing      : autoconf
Installing      : automake
Installing      : bdii
Installing      : lfc-yaim
Installing      : emi-version
Installing      : perl-DateManip
Installing      : perl-XML-RegExp
Installing      : e2fsprogs-devel
Installing      : keyutils-libs-devel
Installing      : perl-HTML-Tagset
Installing      : perl-HTML-Parser
Installing      : perl-libwww-perl
Installing      : perl-XML-Parser
Installing      : perl-XML-DOM
Installing      : fetch-crl
Installing      : zlib-devel
```

Update host and perform the installation of middleware package(s)


```
Installing      : perl-Convert-ASN1
Installing      : perl-XML-Namespacesupport
Installing      : perl-XML-SAX
Installing      : perl-LDAP
Installing      : edg-mkgridmap
Installing      : libsepol-devel
Installing      : libselinux-devel
Installing      : krb5-devel
Installing      : openssl-devel
Installing      : voms-devel
Installing      : emi-lfc_mysql
```

Installed:

```
emi-lfc_mysql.x86_64 0:1.8.2-3sec.s15
```

Dependency Installed:

```
LFC-server-mysql.x86_64 0:1.8.2-3sec.s15      argus-pep-api-c.x86_64 0:2.0.2-1.s15      autocon
e2fsprogs-devel.x86_64 0:1.39-33.e15         edg-mkgridmap.noarch 0:4.0.0-1                emi-ver
glite-yaim-bdii.noarch 0:4.3.9-1.e15          glite-yaim-core.noarch 0:5.0.2-1.s15          globus-
globus-gsi-cert-utils.x86_64 0:8.1-2.e15     globus-gsi-credential.x86_64 0:5.1-2.e15          globus-
globus-gsi-sysconfig.x86_64 0:5.1-2.e15     globus-gss-assist.x86_64 0:8.1-2.e15          globus-
gsoap.x86_64 0:2.7.13-4.e15                imake.x86_64 0:1.0.2-3                keyutil
lcgdm-libs.x86_64 0:1.8.2-3sec.s15          lfc.x86_64 0:1.8.2-3sec.s15          lfc-dev
libselinux-devel.x86_64 0:1.33.4-5.7.e15     libsepol-devel.x86_64 0:1.15.2-3.e15     libtool
openssl-devel.x86_64 0:0.9.8e-22.e15_8.1    perl-Compress-Zlib.x86_64 0:1.42-1.fc6        perl-Co
perl-HTML-Parser.x86_64 0:3.55-1.fc6        perl-HTML-Tagset.noarch 0:3.10-2.1.1          perl-IO
perl-TermReadKey.x86_64 0:2.30-5.e15        perl-URI.noarch 0:1.35-3                perl-XM
perl-XML-RegExp.noarch 0:0.03-2.e15         perl-XML-SAX.noarch 0:0.14-8            perl-lf
voms.x86_64 0:2.0.7-1.e15                  voms-devel.x86_64 0:2.0.7-1.e15          zlib-de
```

Complete!

MySQL server installation and configuration

NB: If you want to install/run a MySQL server in the same host as the LFC, add `mysql-server` to the yum install command above.

```
# yum install -y mysql-server
Loaded plugins: downloadonly, kernel-module, priorities, protect-packages, protectbase, security,
263 packages excluded due to repository priority protections
0 packages excluded due to repository protections
Reading version lock configuration
Setting up Install Process
Resolving Dependencies
--> Running transaction check
---> Package mysql-server.x86_64 0:5.0.95-1.e15_7.1 set to be updated
--> Processing Dependency: perl-DBD-MySQL for package: mysql-server
--> Running transaction check
---> Package perl-DBD-MySQL.x86_64 0:3.0007-2.e15 set to be updated
--> Finished Dependency Resolution
Beginning Kernel Module Plugin
Finished Kernel Module Plugin
```

Dependencies Resolved

```
=====
Package                                                    Arch
=====
Installing:
mysql-server                                                x86_64
Installing for dependencies:
perl-DBD-MySQL                                              x86_64
```

Transaction Summary

```
Install          2 Package(s)
Upgrade         0 Package(s)
```

Total download size: 10 M

Downloading Packages:

```
(1/2): perl-DBD-MySQL-3.0007-2.e15.x86_64.rpm
(2/2): mysql-server-5.0.95-1.e15_7.1.x86_64.rpm
```

Total

Running rpm_check_debug

Running Transaction Test

Finished Transaction Test

Transaction Test Succeeded

Running Transaction

Installing : perl-DBD-MySQL

Installing : mysql-server

Installed:

mysql-server.x86_64 0:5.0.95-1.e15_7.1

Dependency Installed:

perl-DBD-MySQL.x86_64 0:3.0007-2.e15

Complete!

- **Configure MySQL to start at boot time**

```
# chkconfig mysqld on
```

- **Start MySQL server**

```
# /etc/init.d/mysqld start
```

```
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 lfcserver04.cnaifn.it password 'new-password'
```

Alternatively you can run:

```
/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>

[OK]

Starting MySQL:

[OK]

- **Configure MySQL service using /usr/bin/mysql_secure_installation**

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

NOTE: RUNNING ALL PARTS OF THIS SCRIPT IS RECOMMENDED FOR ALL MySQL SERVERS IN PRODUCTION USE! PLEASE READ EACH STEP CAREFULLY!

In order to log into MySQL to secure it, we'll need the current password for the root user. If you've just installed MySQL, and you haven't set the root password yet, the password will be blank, so you should just press enter here.

Enter current password for root (enter for none):
OK, successfully used password, moving on...

Setting the root password ensures that nobody can log into the MySQL root user without the proper authorisation.

Set root password? [Y/n] Y
New password:
Re-enter new password:
Password updated successfully!
Reloading privilege tables..
... Success!

By default, a MySQL installation has an anonymous user, allowing anyone to log into MySQL without having to have a user account created for them. This is intended only for testing, and to make the installation go a bit smoother. You should remove them before moving into a production environment.

Remove anonymous users? [Y/n] Y
... Success!

Normally, root should only be allowed to connect from 'localhost'. This ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] Y
... Success!

By default, MySQL comes with a database named 'test' that anyone can access. This is also intended only for testing, and should be removed before moving into a production environment.

Remove test database and access to it? [Y/n] Y
- Dropping test database..
... Success!
- Removing privileges on test database..
... Success!

Reloading the privilege tables will ensure that all changes made so far will take effect immediately.

Reload privilege tables now? [Y/n] Y
... Success!

Cleaning up...

All done! If you've completed all of the above steps, your MySQL installation should now be secure.

Thanks for using MySQL!

MySQL master-master replica

To setup master-master replica between two (or more) MySQL server, please follow the guides available [HERE](#) and [HERE](#)

LFC Service configuration

LFC YAIM variables are reported [here](#)

- Start from example:

```
# cp -vr /opt/glite/yaim/examples/siteinfo .
~/opt/glite/yaim/examples/siteinfo' -> `./siteinfo'
~/opt/glite/yaim/examples/siteinfo/services' -> `./siteinfo/services'
~/opt/glite/yaim/examples/siteinfo/services/lfc_oracle' -> `./siteinfo/services/lfc_oracle'
~/opt/glite/yaim/examples/siteinfo/services/glite-bdii_site' -> `./siteinfo/services/glite-bdii_s
~/opt/glite/yaim/examples/siteinfo/services/lfc_mysql' -> `./siteinfo/services/lfc_mysql'
~/opt/glite/yaim/examples/siteinfo/site-info.def' -> `./siteinfo/site-info.def'

# rm /root/siteinfo/services/lfc_oracle /root/siteinfo/services/glite-bdii_site
```

site-info.def

The configuration file for this service is really basic:

```
# cat /root/siteinfo/site-info.def
#####
# Site configuration variables #
#####
SITE_NAME=INFN-CNAF
SITE_EMAIL="grid-operations@lists.cnaf.infn.it"
SITE_LAT=44.4948
SITE_LONG=11.3417

MYSQL_PASSWORD=<KEEP IT SECRET>

VOS="gerda.mpg.de icarus-exp.org igi.italiangrid.it ops infngrid"

# Download the last files (groups.conf and users.conf) at https://wiki.italiangrid.it/twiki/bin/v
GROUPS_CONF=/root/siteinfo/groups.conf
USERS_CONF=/root/siteinfo/users.conf
```

emi_lfc_mysql

The configuration file for this service is really basic:

```
# cat /root/siteinfo/services/emi_lfc_mysql

# LFC hostname
LFC_HOST=lfcserver04.cnaf.infn.it

LFC_HOST_ALIAS="lfc.italiangrid.it"

LFC_DB_HOST=lfcdb.italiangrid.it
LFC_DB=cns_db
LFC_DB_PASSWORD=<KEEP IT SECRET>

LFC_CENTRAL="gerda.mpg.de icarus-exp.org igi.italiangrid.it"
LFC_LOCAL="ops infngrid"
```

yaim check

```
# chmod -R 600 /root/siteinfo

# /opt/glite/yaim/bin/yaim -v -s siteinfo/site-info.def -n emi_lfc_mysql
INFO: Using site configuration file: siteinfo/site-info.def
INFO: Sourcing service specific configuration file: siteinfo/services/emi_lfc_mysql
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: Apr 17 13:51 siteinfo/site-info.def
yaim command: -v -s siteinfo/site-info.def -n emi_lfc_mysql
log file: /opt/glite/yaim/bin/./log/yaimlog
Tue Apr 17 16:24:04 CEST 2012 : /opt/glite/yaim/bin/yaim

Installed YAIM versions:
glite-yaim-bdii 4.3.9-1
glite-yaim-core 5.0.2-1
glite-yaim-lfc 4.2.1-1

#####
INFO: The default location of the grid-env.(c)sh files will be: /usr/libexec
INFO: Sourcing the utilities in /opt/glite/yaim/functions/utils
INFO: Detecting environment
INFO: Executing function: config_sysconfig_lcg_check
INFO: Executing function: config_host_certs_check
INFO: Executing function: config_vomsdir_check
INFO: Executing function: config_edgusers_check
INFO: Executing function: config_mkgridmap_check
INFO: Executing function: config_bdii_5.2_check
INFO: Executing function: config_gip2_lfc_check
INFO: Executing function: config_lfc_user_check
INFO: Executing function: config_lfc_mysql_upgrade_check
INFO: Executing function: config_lfc_mysql_check
INFO: Executing function: config_lfc_server_check
INFO: Executing function: config_lfc_dli_check
INFO: Executing function: config_lfc_smsg_check
INFO: Checking is done.
INFO: All the necessary variables to configure emi_lfc_mysql are defined in your configuration
INFO: Please, bear in mind that YAIM only guarantees the definition of variables
INFO: controlled in the _check functions.
INFO: YAIM terminated succesfully.
```

yaim config

Please use the debug flag ("-d 6") to configure the services in order to have detailed information. For your convenience you can save all the configuration information in a log file you can look at any time, separated from the yaimlog default one.

```
# /opt/glite/yaim/bin/yaim -d 6 -c -s siteinfo/site-info.def -n emi_lfc_mysql
DEBUG: Checking siteinfo dir is not world readable
DEBUG: Checking site-info.def is syntactically correct
DEBUG: Sourcing /opt/glite/yaim/bin/./defaults/site-info.pre
DEBUG: Sourcing /opt/glite/yaim/bin/./defaults/emi_lfc_mysql.pre
```

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```
INFO: Using site configuration file: siteinfo/site-info.def
DEBUG: Sourcing site-info.def file: siteinfo/site-info.def
INFO: Sourcing service specific configuration file: siteinfo/services/emi_lfc_mysql
DEBUG: Sourcing /opt/glite/yaim/bin/./defaults/site-info.post
DEBUG: Sourcing /opt/glite/yaim/bin/./defaults/mapping
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: Apr 17 13:51 siteinfo/site-info.def
yaim command: -d 6 -c -s siteinfo/site-info.def -n emi_lfc_mysql
log file: /opt/glite/yaim/bin/./log/yaimlog
Tue Apr 17 16:26:29 CEST 2012 : /opt/glite/yaim/bin/yaim

Installed YAIM versions:
glite-yaim-bdii 4.3.9-1
glite-yaim-core 5.0.2-1
glite-yaim-lfc 4.2.1-1

#####
INFO: The default location of the grid-env.(c)sh files will be: /usr/libexec
INFO: Sourcing the utilities in /opt/glite/yaim/functions/utils
INFO: Detecting environment
DEBUG: Detect platform: OS flavour detected is: emi
DEBUG: Detected architecture is 64BIT
DEBUG: Detect platform: OS type detected: sl5
DEBUG: GROUPS_CONF is defined. Adding global groups to the groups.conf temp file
DEBUG: GROUPS_CONF points now to the groups.conf temp file
DEBUG: GROUPS_CONF=/tmp/yaim.JA4261
DEBUG: Resulted NODE_TYPE_LIST is : emi_lfc_mysql
DEBUG: Setting environment variable GRID_ENV_LOCATION, to value "/usr/libexec".
DEBUG: Unset environment variable GRID_ENV_LOCATION.
DEBUG: Setting environment variable LCG_LOCATION, to value "/usr".
DEBUG: Unset environment variable LCG_LOCATION.
DEBUG: Setting environment variable GLITE_LOCATION, to value "/usr".
DEBUG: Unset environment variable GLITE_LOCATION.
DEBUG: Setting environment variable GLITE_LOCATION_VAR, to value "/var".
DEBUG: Unset environment variable GLITE_LOCATION_VAR.
DEBUG: Appending value "/bin" to environment variable PATH.
DEBUG: Deleting value "/bin" from environment variable PATH.
DEBUG: Appending value "/opt/glite/share/man" to environment variable MANPATH.
DEBUG: Deleting value "/opt/glite/share/man" from environment variable MANPATH.
DEBUG: Sourcing node definition file: /opt/glite/yaim/bin/./node-info.d/emi_lfc_mysql
DEBUG: Skipping function: config_root_email_check because it is not defined
DEBUG: Skipping function: config_sysconfig_edg_check because it is not defined
DEBUG: Skipping function: config_sysconfig_globus_check because it is not defined
INFO: Executing function: config_sysconfig_lcg_check
DEBUG: Skipping function: config_crl_check because it is not defined
INFO: Executing function: config_host_certs_check
INFO: Executing function: config_vomsdir_check
INFO: Executing function: config_edgusers_check
INFO: Executing function: config_mkgridmap_check
INFO: Executing function: config_bdii_5.2_check
INFO: Executing function: config_gip2_lfc_check
INFO: Executing function: config_lfc_user_check
INFO: Executing function: config_lfc_mysql_upgrade_check
INFO: Executing function: config_lfc_mysql_check
INFO: Executing function: config_lfc_server_check
```

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```
INFO: Executing function: config_lfc_dli_check
INFO: Executing function: config_lfc_smsg_check
DEBUG: Skipping function: config_root_email_setenv because it is not defined
INFO: Executing function: config_root_email
DEBUG: Skipping function: config_sysconfig_edg_setenv because it is not defined
INFO: Executing function: config_sysconfig_edg
DEBUG: Skipping function: config_sysconfig_globus_setenv because it is not defined
INFO: Executing function: config_sysconfig_globus
DEBUG: Skipping function: config_sysconfig_lcg_setenv because it is not defined
INFO: Executing function: config_sysconfig_lcg
DEBUG: Skipping function: config_crl_setenv because it is not defined
INFO: Executing function: config_crl
INFO: Now updating the CRLs - this may take a few minutes...
Enabling periodic fetch-crl: [ OK ]
DEBUG: fetch-crl cron enabled
DEBUG: Skipping function: config_host_certs_setenv because it is not defined
INFO: Executing function: config_host_certs
INFO: Executing function: config_vomsdir_setenv
DEBUG: This function currently doesn't set any environment variables.
INFO: Executing function: config_vomsdir
DEBUG: .lsc file configuration for VO gerda.mpg.de...
DEBUG: Create the /etc/grid-security/vomsdir/gerda.mpg.de/vomsmania.cnaf.infn.it.lsc
DEBUG: Copying /C=IT/O=INFN/OU=Host/L=CNAF/CN=vomsmania.cnaf.infn.it in /etc/grid-security/vom
DEBUG: Copying the vomsmania.cnaf.infn.it CA DN /C=IT/O=INFN/CN=INFN CA in /etc/grid-security
DEBUG: .lsc file configuration for VO icarus-exp.org...
DEBUG: Create the /etc/grid-security/vomsdir/icarus-exp.org/vomsmania.cnaf.infn.it.lsc
DEBUG: Copying /C=IT/O=INFN/OU=Host/L=CNAF/CN=vomsmania.cnaf.infn.it in /etc/grid-security/vom
DEBUG: Copying the vomsmania.cnaf.infn.it CA DN /C=IT/O=INFN/CN=INFN CA in /etc/grid-security
DEBUG: .lsc file configuration for VO ops...
DEBUG: Create the /etc/grid-security/vomsdir/ops/lcg-voms.cern.ch.lsc
DEBUG: Copying /DC=ch/DC=cern/OU=computers/CN=lcg-voms.cern.ch in /etc/grid-security/vomsdir/o
DEBUG: Create the /etc/grid-security/vomsdir/ops/voms.cern.ch.lsc
DEBUG: Copying /DC=ch/DC=cern/OU=computers/CN=voms.cern.ch in /etc/grid-security/vomsdir/ops/v
DEBUG: Copying the lcg-voms.cern.ch CA DN /DC=ch/DC=cern/CN=CERN Trusted Certification Author
DEBUG: Copying the voms.cern.ch CA DN /DC=ch/DC=cern/CN=CERN Trusted Certification Authority
DEBUG: .lsc file configuration for VO infngrid...
DEBUG: Create the /etc/grid-security/vomsdir/infngrid/voms.cnaf.infn.it.lsc
DEBUG: Copying /C=IT/O=INFN/OU=Host/L=CNAF/CN=voms.cnaf.infn.it in /etc/grid-security/vomsdir/
DEBUG: Create the /etc/grid-security/vomsdir/infngrid/voms-01.pd.infn.it.lsc
DEBUG: Copying /C=IT/O=INFN/OU=Host/L=Padova/CN=voms-01.pd.infn.it in /etc/grid-security/vomsd
DEBUG: Copying the voms.cnaf.infn.it CA DN /C=IT/O=INFN/CN=INFN CA in /etc/grid-security/voms
DEBUG: Copying the voms-01.pd.infn.it CA DN /C=IT/O=INFN/CN=INFN CA in /etc/grid-security/vom
DEBUG: Skipping function: config_edgusers_setenv because it is not defined
INFO: Executing function: config_edgusers
DEBUG: Creating user edguser...
DEBUG: Skipping user edguser since it already exists...
DEBUG: Creating user edginfo...
DEBUG: Skipping user edginfo since it already exists...
DEBUG: Creating user glite...
DEBUG: Skipping user glite since it already exists...
DEBUG: Creating user edguser...
DEBUG: Skipping user edguser since it already exists...
INFO: Executing function: config_mkgridmap_setenv
DEBUG: This function currently doesn't set any environment variables.
INFO: Executing function: config_mkgridmap
DEBUG: Defining the grid-map file configuration file location and the gridmapdir
DEBUG: Configuration file in /etc/edg-mkgridmap.conf
DEBUG: gridmapdir in /etc/grid-security/gridmapdir
DEBUG: Configuration file in /etc/lcgdm-mkgridmap.conf
DEBUG: **** VO GERDA.MPG.DE ****
DEBUG: The voms servers are 'vomss://vomsmania.cnaf.infn.it:8443/voms/gerda.mpg.de?/gerda.mpg.
DEBUG: VO_lower is gerda.mpg.de
DEBUG: VO group is gerda
DEBUG: The user prefix is gerda
DEBUG: create gridmapdir files
DEBUG: The pool account prefix is .gerda
INFO: The grid-map file will also contain special users for VO GERDA.MPG.DE since UNPRIVILEGED
```

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```
DEBUG: VO tags are sgm
dmg
DEBUG: special match is ^"/gerda.mpg.de\[^\]*\).*:sgm:
DEBUG: special match is ^"/gerda.mpg.de\[^\]*\).*:dmg:
INFO: Adding ordinary users in the gridmap file since the VO is defined in groups.conf
DEBUG: **** VO ICARUS-EXP.ORG ****
DEBUG: The voms servers are 'vomss://vomsmatia.cnaf.infn.it:8443/voms/icarus-exp.org?/icarus-exp.org'
DEBUG: VO_lower is icarus-exp.org
DEBUG: VO group is icarus
DEBUG: The user prefix is icarus
DEBUG: create gridmapdir files
DEBUG: The pool account prefix is .icarus
INFO: The grid-map file will also contain special users for VO ICARUS-EXP.ORG since UNPRIVILEGED_MKGRIDMA
DEBUG: VO tags are sgm
DEBUG: special match is ^"/icarus-exp.org\[^\]*\).*:sgm:
INFO: Adding ordinary users in the gridmap file since the VO is defined in groups.conf
DEBUG: **** VO OPS ****
DEBUG: The voms servers are vomss://voms.cern.ch:8443/voms/ops?/ops/
DEBUG: VO_lower is ops
DEBUG: VO group is ops
DEBUG: The user prefix is ops
DEBUG: create gridmapdir files
DEBUG: The pool account prefix is .ops
INFO: The grid-map file will also contain special users for VO OPS since UNPRIVILEGED_MKGRIDMA
DEBUG: VO tags are sgm
pilot
DEBUG: special match is ^"/ops\[^\]*\).*:sgm:
DEBUG: special match is ^"/ops\[^\]*\).*:pilot:
INFO: Adding ordinary users in the gridmap file since the VO is defined in groups.conf
DEBUG: **** VO INFNGRID ****
DEBUG: The voms servers are 'vomss://voms.cnaf.infn.it:8443/voms/infngRID?/infngRID' 'vomss://voms.cern.ch:8443/voms/ops?/ops/'
DEBUG: VO_lower is infngRID
DEBUG: VO group is infngRID
DEBUG: The user prefix is infngRID
DEBUG: create gridmapdir files
DEBUG: The pool account prefix is .infngRID
INFO: The grid-map file will also contain special users for VO INFNGRID since UNPRIVILEGED_MKGRIDMA
DEBUG: VO tags are sgm
pilot
DEBUG: special match is ^"/infngRID\[^\]*\).*:sgm:
DEBUG: special match is ^"/infngRID\[^\]*\).*:pilot:
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...
DEBUG: Skipping function: config_bdii_5.2_setenv because it is not defined
INFO: Executing function: config_bdii_5.2
Stopping BDII update process: [ OK ]
Stopping BDII slapd: [ OK ]
Starting BDII slapd: [ OK ]
Starting BDII update process: [ OK ]
DEBUG: Skipping function: config_gip2_lfc_setenv because it is not defined
INFO: Executing function: config_gip2_lfc
DEBUG: Skipping function: config_lfc_user_setenv because it is not defined
INFO: Executing function: config_lfc_user
DEBUG: Skipping function: config_lfc_mysql_upgrade_setenv because it is not defined
INFO: Executing function: config_lfc_mysql_upgrade
INFO: mysql database machine not local, not checking or setting the mysql root password
INFO: Checking for database schema version...
INFO: Database version used: 3.1.0
DEBUG: Skipping function: config_lfc_mysql_setenv because it is not defined
INFO: Executing function: config_lfc_mysql

INFO: mysql database machine not local, not checking or setting the mysql root password
DEBUG: Skipping function: config_lfc_server_setenv because it is not defined
INFO: Executing function: config_lfc_server
Stopping lfcdaemon: [ OK ]
INFO: Waiting for complete wake-up of the name server...
```



```
Starting lfcdaemon: [ OK ]
nsentergrpmap -1: Group exists already
nsentergrpmap -1: Group exists already
  DEBUG: Creating default paths for the VOs
nsentergrpmap -1: Group exists already
nsentergrpmap -1: Group exists already
  DEBUG: Skipping function: config_lfc_dli_setenv because it is not defined
  INFO: Executing function: config_lfc_dli
Stopping lfc-dli: [ OK ]
Starting lfc-dli: [ OK ]
  DEBUG: Skipping function: config_lfc_semsg_setenv because it is not defined
  INFO: Executing function: config_lfc_semsg
  WARNING: LFC_SEMSG set to no. SEMsg will not be configured.
  INFO: Configuration Complete. [ OK ]
  INFO: YAIM terminated succesfully.
```

Service checks

From a User Interfaces, try the following commands (replace `lfc.grid.cnaf.infn.it` with your LFC hostname):

- Create a valid proxy for a VO supported by the LFC server, e.g. `voms-proxy-init --voms infngrid`
- Export the following variables:

```
export LCG_CATALOG_TYPE=lfc
export LFC_HOST=lfc.grid.cnaf.infn.it
```

- Ping the service (take a look at `/var/log/lfc/log` on the LFC server)

```
$ lfc-ping -h lfc.grid.cnaf.infn.it
1.8.2-3
```

Revisions

| Date | Comment |
|------------|---|
| 2012-04-17 | installation notes completed - EMI 1 Kebnekaise Products - LFC v. 1.8.2 |

-- PaoloVeronesi - 2012-04-17

This topic: SiteAdminCorner > NotesAboutInstallationAndConfigurationOfALFCServer

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