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# **CREAM manual installation for EMI-2 release**

# Installation and Configuration

- Install an EMI-1 CREAM-CE
- build emi-cream workarea. Workarea path: [CREAM\_WKA]
- download and extract axis2.war from  
<http://apache.fastbull.org//axis/axis2/java/core/1.6.1/axis2-1.6.1-war.zip>
- rename axis2.war

```
mv axis2.war ce-cream.war
```

- stop tomcat5 service

```
service tomcat5 stop
```

- remove the wars and directories in /usr/share/tomcat5/webapps/
- copy ce-cream.war in /usr/share/tomcat5/webapps/
- start tomcat5 service

```
service tomcat5 start
```

- wait for a while until the ce-cream.war file is unpacked.
- stop tomcat5 service

```
service tomcat5 stop
```

- copy axis2.xml file

```
copy [CREAM_WKA]/emi.cream-ce.cream-common/config/axis2.xml in /usr/share/tomcat5/webapps/ce-cream
```

- copy cream-config.xml file

```
copy [CREAM_WKA]/emi.cream-ce.cream/config/cream-config.xml in /etc/glite-ce-cream/cream-config.x
```

- configure /etc/glite-ce-cream/cream-config.xml file:
  - ◆ set the correct value for the "BLAH\_JOBID\_PREFIX" parameter. Example:

```
<parameter name="BLAH_JOBID_PREFIX" value="cre10_" />
```

- ◆ set the correct value for the "HOST\_SMP\_SIZE" parameter. Example:

```
<parameter name="HOST_SMP_SIZE" value="2" />
```

- ◆ set the correct values for "factory", "username", "password" attributes in the "datasource\_creamdb" section.

How to choice the value for factory attribute?

```
jar tvf /var/lib/tomcat5/common/lib/*dbcp* | grep BasicDataSourceFactory | sed -e 's/.* //g' | s
```

- set the correct values for "factory", "username", "password" attributes in the "datasource\_delegationdb" section.

How to choice the value for factory attribute?

```
jar tvf /var/lib/tomcat5/common/lib/*dbcp* | grep BasicDataSourceFactory | sed -e 's/.* //g' | s
```

- copy log4j.properties file

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```
copy [CREAM_WKA]/stage/etc/glite-ce-cream/log4j.properties in /etc/glite-ce-cream/log4j.properties
```

- copy glite-ce-cream-authorization.mar file

```
copy [CREAM_WKA]/emi.cream-ce.cream/lib/glite-ce-cream-authorization.mar in /usr/share/tomcat5/webapps/ce-cream
```

- copy glite-ce-cream.aar file

```
copy [CREAM_WKA]/emi.cream-ce.cream/lib/glite-ce-cream.aar in /usr/share/tomcat5/webapps/ce-cream
```

- copy the following scripts in /usr/bin/

```
[CREAM_WKA]/stage/usr/bin/glite-cream-copyProxyToSandboxDir.sh
[CREAM_WKA]/stage/usr/bin/glite_cream_load_monitor
[CREAM_WKA]/stage/usr/bin/glite-ce-cream-purge-proxy
[CREAM_WKA]/stage/usr/bin/glite-ce-cream-purge-sandbox
[CREAM_WKA]/stage/usr/bin/glite-cream-createsandboxdir
```

- copy the following scripts in /etc/glite-ce-cream/

```
[CREAM_WKA]/stage/usr/share/glite-ce-cream-api-java/jobwrapper.tpl
[CREAM_WKA]/stage/usr/share/glite-ce-cream-api-java/jobwrapper-mpi.tpl
```

- copy the following jar libraries in /usr/share/java/

```
[CREAM_WKA]/stage/usr/share/java/glite-ce-cream-delegationExecutor.jar
[CREAM_WKA]/stage/usr/share/java/glite-ce-cream-blahExecutor.jar
[CREAM_WKA]/stage/usr/share/java/glite-ce-cream-core.jar
[CREAM_WKA]/stage/usr/share/java/glite-ce-common-java.jar
[CREAM_WKA]/stage/usr/share/java/glite-ce-cream-api-java.jar
[CREAM_WKA]/stage/usr/share/java/glite-jdl-api-java.jar
[CREAM_WKA]/stage/usr/share/java/argus-pep-api-java.jar
[CREAM_WKA]/stage/usr/share/java/argus-pep-common.jar
[CREAM_WKA]/stage/usr/share/java/delegation-java.jar
[CREAM_WKA]/stage/usr/share/java/trustmanager*
[CREAM_WKA]/stage/usr/share/java/vomsjapi.jar
(?) mysql-connector-java.jar
(?) classad.jar
```

- create the following links

```
ln -s /usr/share/java/trustmanager.jar /usr/share/tomcat5/common/lib/[trustmanager\].jar
ln -s /usr/share/java/trustmanager-axis.jar /usr/share/tomcat5/common/lib/[trustmanager-axis\].jar
ln -s /usr/share/java/vomsjapi.jar /usr/share/tomcat5/common/lib/[vomsjapi].jar
ln -s /usr/share/java/log4j.jar /usr/share/tomcat5/common/lib/[log4j].jar
ln -s /usr/share/java/mysql-connector-java.jar /usr/share/tomcat5/common/lib/[mysql-connector-java].jar
ln -s /usr/share/java/delegation-java.jar /usr/share/tomcat5/webapps/ce-cream/WEB-INF/lib/[delegation-java].jar
ln -s /usr/share/java/argus-pep-common.jar /usr/share/tomcat5/webapps/ce-cream/WEB-INF/lib/[argus-pep-common].jar
ln -s /usr/share/java/argus-pep-api-java.jar /usr/share/tomcat5/webapps/ce-cream/WEB-INF/lib/[argus-pep-api-java].jar
ln -s /usr/share/java/glite-jdl-api-java.jar /usr/share/tomcat5/webapps/ce-cream/WEB-INF/lib/[glite-jdl-api-java].jar
ln -s /usr/share/java/classad.jar /usr/share/tomcat5/webapps/ce-cream/WEB-INF/lib/[classad\].jar
ln -s /usr/share/java/glite-ce-cream-api-java.jar /usr/share/tomcat5/webapps/ce-cream/WEB-INF/lib/[glite-ce-cream-api-java].jar
ln -s /usr/share/java/glite-ce-common-java.jar /usr/share/tomcat5/webapps/ce-cream/WEB-INF/lib/[glite-ce-common-java].jar
ln -s /usr/share/java/glite-ce-cream-core.jar /usr/share/tomcat5/webapps/ce-cream/WEB-INF/lib/[glite-ce-cream-core].jar
```

- [trustmanager-tomcat].jar, [trustmanager].jar and [bcprov].jar links must exist in /usr/share/tomcat5/server/lib

```
[trustmanager-tomcat].jar -> /usr/share/java/trustmanager-tomcat.jar
[trustmanager].jar -> /usr/share/java/trustmanager.jar
[bcprov].jar -> /usr/share/java/bcprov.jar
```

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- [bcprov].jar link must exist in /usr/share/tomcat5/common/lib

```
[bcprov].jar -> /usr/share/java/bcprov.jar
```

- configure creamdb database (required version 2.5, use:  
[CREAM\_WKA]/emi.cream-ce.cream/config/db/populate\_creamdb\_mysql.sql)

```
mysql -u<userDB> -p < populate_creamdb_mysql.sql
```

- start tomcat5 service

```
service tomcat5 start
```

# Installation and Configuration using rpms for platform sl5\_x86\_64

## Requirements

- A clean installation of SL5
- Remove the DAG repository
- Protect OS repositories
- install packages: yum-protectbase yum-priorities
- Valid host certificate and key saved into /etc/grid-security/hostcert.pem and /etc/grid-security/hostkey.pem resp.

## Basic setup

- Install PGP keys:

```
wget http://glite.web.cern.ch/glite/glite_key_gd.asc -O /tmp/glite_key_gd.asc
rpm --import /tmp/glite_key_gd.asc
wget http://emisoft.web.cern.ch/emisoft/dist/EMI/1/RPM-GPG-KEY-emi -O /tmp/emi_key_gd.asc
rpm --import /tmp/emi_key_gd.asc
```

- Install the EPEL extension:

```
rpm -Uvh http://download.fedora.redhat.com/pub/epel/5/i386/epel-release-5-4.noarch.rpm
```

- Install EGI trustanchors:

```
wget http://repository.egi.eu/sw/production/cas/1/current/repo-files/EGI-trustanchors.repo
yum install ca-policy-egi-core fetch-crl
service fetch-crl-cron start
chkconfig fetch-crl-cron on
```

- Disable yum autoupdate:

```
wget http://forge.cnaif.infn.it/frs/download.php/101/disable_yum.sh
. disable_yum.sh
```

## CREAM installation setup

- Save in /etc/yum.repos.d/emi1-testing-third-party.repo the following definitions:

```
[EMI-1-testing-third-party]
name=EMI 1 testing third-party
baseurl=http://emisoft.web.cern.ch/emisoft/dist/EMI/testing/1/sl5/$basearch/third-party
protect=0
enabled=1
priority=45
gpgcheck=0
gpgkey=file:///etc/pki/rpm-gpg/RPM-GPG-KEY-emi
```

- Download the current repository definition for CREAM:

```
wget http://etics-repository.cern.ch/repository/pm/volatile/repomd/name/test_cream_emi2/et
```

- Install all the services:

```
yum install xml-commons-apis glite-ce-cream glite-ce-monitor glite-ce-ce-plugin
```

## Manual setup of the tomcat trustmanager

- Install tomcat5 cert and key:

```
service tomcat5 stop
cp /etc/grid-security/host*.pem /usr/share/tomcat5
chown tomcat.tomcat /usr/share/tomcat5/host*.pem
```

- Install the tomcat trustmanager:

```
rpm -ivh http://emisoft.web.cern.ch/emisoft/dist/EMI/1/sl5/x86_64/base/emi-trustmanager-tomcat5
```

- Deploy the classes in tomcat:

```
ln -s /usr/share/java/trustmanager.jar /var/lib/tomcat5/server/lib
ln -s /usr/share/java/trustmanager-tomcat.jar /var/lib/tomcat5/server/lib
ln -s /usr/share/java/bcprov.jar /var/lib/tomcat5/server/lib
ln -s /usr/share/java/log4j.jar /var/lib/tomcat5/server/lib
```

- Configure the trustmanager:

```
cp -f /var/lib/trustmanager-tomcat/server.xml.template /etc/tomcat5/server.xml
```

and then configure the file `/etc/tomcat5/server.xml` with the following definitions:

```
PORT = 8443
TRUSTDIR = /etc/grid-security/certificates/
SSLCERTFILE = /usr/share/tomcat5/hostcert.pem
SSLKEY = /usr/share/tomcat5/hostkey.pem
CAFILES (not required)
CRLFILES (not required)
LOG4JCONF = /var/lib/trustmanager-tomcat/log4j-trustmanager.properties
```

## CREAM service configuration (with Argus)

- Install the CREAM configuration file:

```
cp /etc/glite-ce-cream/cream-config-argus.xml.template /etc/glite-ce-cream/cream-config.xml
```

and then customize it with the following definitions:

```
CREAM_PEPD_RESOURCEID (according to Argus installation)
ARGUS_PEPD_ENDPOINTS (according to Argus installation)
TOMCAT_HOSTCERT_LOCATION = /usr/share/tomcat5/hostcert.pem
TOMCAT_HOSTKEY_LOCATION = /usr/share/tomcat5/hostkey.pem
```

## TBD

- BLAHP setup
- database creation

## Out of scope

- BDII setup
- Interlogger setup

---

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