

Install_Globus4.0.0

```

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:      : 2005 - 08 - 22
Globus4.0

```

globus

```

:
```

```

root#groupadd -gid 504 globus
root#useradd -m -uid 504 -g globus globus

```

```

1. : gid   uid           , redhat           500
2. :           uid   gid           .

```

JDK

1. Version : 1.4.2+
2. : http://javashopl.m.sun.com/ECOM/docs/Welcome.jsp?StoreId=22&PartDetailId=j2sdk-1.4.2_08-oth-JPR&SiteId=JSC&TransactionId=noreg

- 3.

```

root

```

```

root# ./j2sdk - 1_4_2_08 - linux - i586.bin
root# mkdir /usr/java
root# mv j2sdk1.4.2_08 /usr/java

```

- 4.

```

, globus

```

```

user$ cat >> ~/.bashrc
export JAVA_HOME=/usr/java/j2sdk1.4.2_08
export PATH=$JAVA_HOME/bin:$PATH

```

```

user$ . ~/.bashrc

```

Ant

1. Version : 1.5.1+
2. : <http://ant.apache.org/bindownload.cgi>

```

: Fedora Core2           Ant

```

- 3.

```

root

```

```

root# tar zxvf apache - ant - 1.6.2 - bin.tar.gz

```

```

root# cd apache - ant - 1.6.2
root# mkdir /usr/java/ant
root# mv bin lib /usr/java/ant

```

4. 가 , .

```

user$ cat >> ~/.bashrc
export ANT_HOME=/usr/java/ant
export PATH=/usr/java/ant/bin:$PATH

```

```

user$ . ~/.bashrc

```

postgresql

1. Version : 7.1+
2. : <http://www.postgresql.org/ftp/>
- 3.

```

root# rpm -ivh postgresql - libs - 7.2.3 - 1PGDG.i386.rpm
root# rpm -ivh postgresql - 7.2.3 - 1PGDG.i386.rpm
root# rpm -ivh postgresql - server - 7.2.3 - 1PGDG.i386.rpm
root# rpm -ivh postgresql - jdbc - 7.2.3 - 1PGDG.i386.rpm

```

```

: OS(Redhat 7.3) 7.2.3 . Redhat9 7.3.2 - 3

```

4.
 - o /var/lib/pgsqli/data/pg_hba.conf 127.0.0.1 .

```

root# diff -Naur pg_hba.conf_orig pg_hba.conf
- - - pg_hba.conf_orig Thu Mar 3 15:34:34 2005
+++ pg_hba.conf Fri Mar 4 13:52:33 2005
@@ -242,4 +242,4 @@
# TYPE DATABASE IP_ADDRESS MASK AUTH_TYPE AUTH_ARGUMENT

local all trust
- host all 127.0.0.1 255.255.255.255 trust
+ host all 150.183.24.17 255.255.255.255 trust

```

- o /var/lib/pgsqli/data/postgresql.conf tcp 가 .

```

root# diff -Naur postgresql.conf_orig postgresql.conf
- - - postgresql.conf_orig Fri Mar 4 13:58:49 2005
+++ postgresql.conf Fri Mar 4 13:59:32 2005
@@ -23,7 +23,7 @@
#
# Connection Parameters

```

```
#
- #tcpip_socket = true
+ tcpip_socket = true
#ssl = false

#max_connections = 32
```

Globus

1. [:http://www-unix.globus.org/toolkit/survey/index.php?download=gt4.0.0-all-source-installer.tar.gz](http://www-unix.globus.org/toolkit/survey/index.php?download=gt4.0.0-all-source-installer.tar.gz)

- 2.

```
root# mkdir /usr/local/globus - 4.0.0
root# chown globus:globus /usr/local/globus - 4.0.0
```

3. Globus

```
globus$ tar zxvf gt4.0.0-all-source-installer.tar.gz
globus# cd gt4.0.0-all-source-installer
globus$ export GLOBUS_LOCATION=/usr/local/globus-4.0.0
globus$ ./configure --prefix=$GLOBUS_LOCATION
globus$ make # : make 2 > &1 | tee build.log
globus$ make install
```

- 4.

```
globus$ cat >> ~/.bashrc
export GLOBUS_LOCATION=/usr/local/globus-4.0.0
. $GLOBUS_LOCATION/etc/globus-user-env.sh
```

Grid FTP RFT

1. GridFTP (xinetd)
 - a. /etc/xinet.d/ gsiftp .

```
service gsiftp
{
disable = no
instances = 100
socket_type = stream
wait = no
user = root
env += GLOBUS_LOCATION=/usr/local/globus-4.0.0
env += LD_LIBRARY_PATH=/usr/local/globus-4.0.0/lib
server = /usr/local/globus-4.0.0/sbin/globus-gridftp-server
server_args = -i
```

```

log_on_success      += DURATION
nice                = 10
}

```

b. /etc/services 가 .

```

gsiftp      2811/tcp      gsiftp      # GridFtp

```

c. xinetd

```

root# chkconfig gsiftp on
root# /etc/init.d/xinetd restart

```

2. RFT

a. postgresql DB

```

root# su postgres
postgres$ createuser globus -P          #create db privilege: yes / create user privilege : no
postgres$ su globus
globus$ createdb rftDatabase
globus$ psql -d rftDatabase -f $GLOBUS_LOCATION/share/globus_wsrf_rft/rft_schema.sql

```

b. postgresql

```

root# /etc/init.d/postgresql start      #(root      )

```

or

```

postgres$ /usr/bin/pg_ctl start -D /var/lib/pgsql/data -l /var/log/pgsql

```

```

c. $GLOBUS_LOCATION/etc/globus_wsrf_rft/jndi - config.xml      "dbConfiguration"
connectionString      userName      password      .

```

```

globus$ cat $GLOBUS_LOCATION/etc/globus_wsrf_rft/jndi - config.xml

```

```

...
<parameter >
  <name >
    connectionString
  </name >
  <value >
    jdbc:postgresql://solar16.gridcenter.or.kr/rftDatabase
  </value >
</parameter >
<parameter >
  <name >
    userName

```

```

</name>
<value>
  globus
</value>
</parameter>
<parameter>
  <name>
    password
  </name>
  <value>
    foo.bar.
  </value>
</parameter>
...

```

ca.gridcenter.or.kr GridCA Certification

1.
 - a. /etc/ grid - security grid - security/certificates

root# mkdir -p /etc/grid - security/certificates

- a.
 - o <https://ca.gridcenter.or.kr/certificates> Trusted CA /etc/grid - security/certificates
 - [47183fda.0](https://ca.gridcenter.or.kr/certificates/47183fda.0)(https://ca.gridcenter.or.kr/certificates/47183fda.0)
 - [47183fda.0.signing_policy](https://ca.gridcenter.or.kr/certificates/47183fda.0.signing_policy)(https://ca.gridcenter.or.kr/certificates/47183fda.0.signing_policy)
 - [globus - host - ssl.conf](https://ca.gridcenter.or.kr/certificates/globus - host - ssl.conf)(https://ca.gridcenter.or.kr/certificates/globus - host - ssl.conf) :
 - globus - host - ssh.conf.47183fda
 - [globus - user - ssl.conf](https://ca.gridcenter.or.kr/certificates/globus - user - ssl.conf)(https://ca.gridcenter.or.kr/certificates/globus - user - ssl.conf) :
 - globus - user - ssh.conf.47183fda
 - o grid - cert - request configuration
 - /etc/grid - security/certificates , grid - security.conf.47183fda

```

#####
#
# File: grid - security.conf
#
# Purpose: This file contains the configuration information
#        for the Grid Security Infrastructure
#
#####
# These values are set by globus - setup
SETUP_GSI_HOST_BASE_DN="c=KR, o=KISTI"
SETUP_GSI_USER_BASE_DN="c=KR, o=KISTI"
SETUP_GSI_CA_NAME="KISTI GRID ROOT CA"
SETUP_GSI_CA_EMAIL_ADDR="sangwan@kisti.re.kr"

```

```

_domain=`globus - domainname`
DEFAULT_GSI_HOST_BASE_DN="c=KR, o=KISTI"
DEFAULT_GSI_USER_BASE_DN="ou=${_domain}, c=KR, o=KISTI"
DEFAULT_GSI_CA_NAME="KISTI GRID ROOT CA"
DEFAULT_GSI_CA_NAME="KISTI GRID ROOT CA"
DEFAULT_GSI_CA_EMAIL_ADDR="sangwan@kisti.re.kr"

# Distinguish Name (DN) of the Host
GSI_HOST_BASE_DN="${SETUP_GSI_HOST_BASE_DN: - ${DEFAULT_GSI_HOST_BASE_DN}}"

# Distinguish Name (DN) of the User
GSI_USER_BASE_DN="${SETUP_GSI_USER_BASE_DN: - ${DEFAULT_GSI_USER_BASE_DN}}"

# CA Name for the organization
GSI_CA_NAME="${SETUP_GSI_CA_NAME: - ${DEFAULT_GSI_CA_NAME}}"

# CA Email address for the organization
GSI_CA_EMAIL_ADDR="${SETUP_GSI_CA_EMAIL_ADDR: - ${DEFAULT_GSI_CA_EMAIL_ADDR}}"

export GSI_HOST_BASE_DN
export GSI_USER_BASE_DN
export GSI_CA_NAME
export GSI_CA_EMAIL_ADDR

```

```

: , /etc/grid - security , .

```

```

root# ln -s /etc/grid - security/certificates/globus - user - ssl.conf.47183fda /etc/grid - security/globus - user -
ssl.conf
root# ln -s /etc/grid - security/certificates/globus - host - ssl.conf.47183fda /etc/grid - security/globus - host -
ssl.conf
root# ln -s /etc/grid - security/certificates/grid - security.conf.47183fda /etc/grid - security/grid - security.
conf

```

Host Certificates

```

a. root Host Certificates .

```

```

root# grid - cert - request - host 'solar16.gridcenter.or.kr'

```

```

b. /etc/grid - security/hostcert_request.pem https://ca.gridcenter.or.kr/GridCA/ ( )
"Upload a new CSR for a host" Cert .
c. https://ca.gridcenter.or.kr/GridCA/ host certificates /etc/grid - security/hostcert.pem
d. /etc/grid - security/ hostcert.pem hostkey.pem containercert.pem containerkey.pem
copy globus .

```

```

root# pwd
/etc/grid - security/
root# cp hostcert.pem containercert.pem

```

```
root# cp hostkey.pem containerkey.pem
root# chown globus:globus container*
```

```
User Certificates (globus )
```

```
user$ grid - cert - request
```

- ~/globus/usercert_request.pem <https://ca.gridcenter.or.kr/GridCA/> "Upload a new CSR for a user" Cert .
- user certificates ~/globus/usercert.pem .
- certification host .

```
user$ grid - cert - info - subject
/O=Grid/O=Globus/OU=KISTI/CN=s0lar16
```

```
user$ whoami
user01
```

```
user$ su
password:
```

```
root# grid - mapfile - add - entry - dn "/O=Grid/O=Globus/OU=KISTI/CN=s0lar16" - ln "user01"
```

```
root# cat /etc/grid - security/grid - mapfile
"/O=Grid/O=Globus/OU=KISTI/CN=s0lar16" user01
```

```
globus$ grid - proxy - init - verify - debug
```

```
User Cert File: /home/globus/.globus/usercert.pem
User Key File: /home/globus/.globus/userkey.pem
```

```
Trusted CA Cert Dir: /etc/grid - security/certificates
```

```
Output File: /tmp/x509up_u504
Your identity: /O=Grid/O=Globus/OU=KISTI/CN=s0lar16
Enter GRID pass phrase for this identity:
Creating proxy .....+++++++
..+++++++
Done
Proxy Verify OK
Your proxy is valid until: Mon Mar 7 05:36:04 2005
```

```
globus$ globus - start - container
```

```
Starting SOAP server at: https://XXX.XXX.XXX.XXX:8443/wsrf/services/
With the following services:
```

```
[1]: https://XXX.XXX.XXX.XXX:8443/wsrf/services/TriggerFactoryService
```

[2]: https://XXX.XXX.XXX.XXX:8443/wsrf/services/DelegationTestService

[3]: https://XXX.XXX.XXX.XXX:8443/wsrf/services/SecureCounterService

[4]: https://XXX.XXX.XXX.XXX:8443/wsrf/services/IndexServiceEntry

...

WS Gram Sudo

```
1.      :      ,      (      Globus      )
      : "/O=Grid/O=Globus/OU=KISTI/CN=s0lar16" proxy Job test_sudo
```

```
2. root , "visudo" /etc/sudoers 가 .
```

```
# Globus GRAM entries
```

```
globus ALL=(test_sudo) ##
```

```
    NOPASSWD: /usr/local/globus - 4.0.0/libexec/globus - gridmap - and - execute ##
```

```
    /usr/local/globus - 4.0.0/libexec/globus - job - manager - script.pl *
```

```
globus ALL=(test_sudo) ##
```

```
    NOPASSWD: /usr/local/globus - 4.0.0/libexec/globus - gridmap - and - execute ##
```

```
    /usr/local/globus - 4.0.0/libexec/globus - gram - local - proxy - tool *
```

```
1. test_sudo가 Job . ( : " , "username01,
username02" , "ALL" )
```

```
2. "/usr/local/globus - 4.0.0" $GLOBUS_LOCATION 가 .
```

```
3. /etc/grid - security grid - mapfile .
```

```
"/O=Grid/O=Globus/OU=KISTI/CN=s0lar16" test_sudo
```

```
4.      :      1      .
```

```
globus$ whoami
```