

# Globus Toolkit 5.2.4

## Installation Guide (By Peyman Navidi)

May 2013

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- 1- Installing a custom Linux operating system
  - a. **Fedora 17 64bit** (recommended)
  - b. CentOS 6.3 64bit
  - c. Ubuntu 12.10 64bit
- 2- Set the root password more than 6 characters
- 3- Set the system hostname eg. **peyman.nb.pc**
  - a. `# hostname your_hostname`
  - b. `# vim /etc/hosts` → change localhost in first line to *your\_hostname*
  - c. `# vim /etc/sysconfig/network` → check second line `hostname=your_hostname`
  - d. `# hostname --fqdn` → check for set *your\_hostname* is OK
- 4- Set static ip address (recommended)
- 5- `# service network restart`
- 6- If you use university internet, set the proxy form below:
  - a. `# export http_proxy=http://user:pass@172.16.0.1:3100`
  - b. `# export https_proxy=http://user:pass@172.16.0.1:3100`
  - c. `# export ftp_proxy=http://user:pass@172.16.0.1:3100`
- 7- Download GT5 repository for your OS from below ftp server:
  - a. `# wget http://globus.org/ftppub/gt5/5.2/5.2.4/installers/rGlobus-5.2.stable-config.fedora-17-1.noarch.rpm`
  - b. `# rpm -i Globus-5.2.stable-config.fedora-17-1.noarch.rpm`
- 8- Install GRIDFTP and GRAM5:
  - a. `# yum install globus-gridftp globus-gram5`
- 9- If you have operating systems based on RHEL (such as Red Hat Enterprise Linux, CentOS, and Scientific Linux), the compatible EPEL repository must be enabled before installing myproxy:
  - a. In browser => `ftp://rpmfind.net/linux/epel/beta/6/ppc64/epel-release-6-5.noarch.rpm` (Recommended)
  - b. `# wget http://mirrors.kernel.org/fedora-epel/6/x86_64/epel-release-6-8.noarch.rpm`
  - c. `# rpm -Uvh epel-release-6-5.noarch.rpm`
- 10- Install MYPROXY and SIMPLECA:
  - a. `# yum install globus-gsi myproxy myproxy-server myproxy-admin globus-simple-ca lynx mc`
- 11- Create quser as a standard user:
  - a. `# useradd quser`
- 12- Create the certificates:
  - a. `# wget http://globus.org/toolkit/docs/5.2/5.2.1/admin/quickstart/setup-simpleca`
  - b. `# sh setup-simpleca -y`
  - c. Enter password more than 6 characters

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### 13- Creating a MyProxy server:

- a. # vim /etc/myproxy-server.config
- b. Uncomment every line in the section "Complete Sample Policy #1"  
For example see : <http://globus.org/toolkit/docs/5.2/5.2.1/admin/quickstart/myproxyconfig.txt>
- c. # cp /etc/grid-security/myproxy/hostcert.pem /etc/grid-security/
- d. # cp /etc/grid-security/myproxy/hostkey.pem /etc/grid-security/
- e. # cp /etc/grid-security/myproxy/hostcert\_request.pem /etc/grid-security/
- f. # service myproxy-server start
- g. # netstat -an | grep 7512  
Result: tcp 0 0 0.0.0.0:7512 0.0.0.0:\* LISTEN

### 14- Adding this user into authenticator mapfile:

- a. # sudo -H -E -u myproxy myproxy-admin-adduser -c "Globus User" -l quser
- b. # grid-mapfile-add-entry -dn "/O=Grid/OU=GlobusTest/OU=simpleCA-*your\_hostname*/OU=globus.org/CN=Globus User" -ln quser

### 15- Start the GridFTP server:

- a. # service globus-gridftp-server start
- b. # grep gsiftp /etc/services  
Result: gsiftp 2811/tcp #GSI FTP  
gsiftp 2811/udp #GSI FTP
- c. # netstat -an | grep 2811  
Result: tcp 0 0 0.0.0.0:2811 0.0.0.0:\* LISTEN

### 16- Start the GRAM gatekeeper:

- a. # grep gsigatekeeper /etc/services  
Result: gsigatekeeper 2119/tcp # GSIGATEKEEPER  
gsigatekeeper 2119/udp # GSIGATEKEEPER
- b. # service globus-gatekeeper start
- c. # netstat -an | grep 2119  
Result: tcp 0 0 0.0.0.0:2119 0.0.0.0:\* LISTEN

### 17- Go to quser:

- a. \$ myproxy-logon -s *your\_hostname*
- b. Enter the password that you entered previously
- c. \$ globusrun -o -r *your\_hostname*:2119/jobmanager-fork '&(executable="/bin/*hostname*")'
- d. \$ globusrun -s -r *your\_hostname*:2119/jobmanager-fork '&(executable="/usr/bin/whoami)'

### Attention :

- # → That means you should be the root user
- \$ → That means you should be the quser user