



Enabling Grids for E-science

Software installation and setup

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- **Creating new user account**
- **Installing Java and Ant**
- **Installing Globus Toolkit 4**
- **Setting up environment variable**
- **Setting up security configurations**
- **Deploying services**

- **PC with Windows XP or Linux**
- **Static IP addresses, should be registered to DNS**
- **Memory, speed**

- **At the moment, we are installing GT4 in user home directory to avoid possible conflicts with other grid software**
- **Do not use your working account, but create a new user (e.g. “globus”) for the installation**

- **Download Java SDK 1.4.2 from <http://java.sun.com>**
 - WSRF work with Java 1.5, but not sure all other components will work
 - Use SDK, not JRE because you may need to compile some java code
- **Just unpacking the installation package to a directory (e.g. /home/globus/java or c:\globus\java)**

- Download Ant from <http://jakarta.apache.org> and unpack it to a directory (e.g. /home/globus/ant or c:\globus\ant)

- We can provide binary package of Globus installation because the installer does not work in Windows XP
- The Java core binary distribution of Globus miss some important components (MDS, CAS, OGSA-DAI)
- Linux users can try to use the original installer

- Just download the binary package of GT4 from us and unpack it in a directory (e.g. /home/globus/gt4 or c:\globus\gt4)

- These variables **JAVA_HOME**, **ANT_HOME**, **GLOBUS_LOCATION** must be set
- **In Linux with Bash**
 - Add to /home/globus/.bashrc these lines

```
export JAVA_HOME=/home/globus/java
export ANT_HOME=/home/globus/ant
export GLOBUS_LOCATION=/home/globus/gt4
```
- **In Windows XP**

Go to Control Panel -> System -> Advanced -> Environments and add the variable
- **For convenient, user can add bin directories into PATH environment**

- **Download CA signing polices files and stored it in
~/.globus/certificates directory
(i.e. /home/globus/.globus/certificates for Linux or
C:\Documents and Settings\globus\globus\certificates)**

- Request host certificates for the services from CA and store them in files (e.g. `/home/globus/.globus/hostcert.pem` and `/home/globus/.globus/hostcert.pem`)
- Edit `etc/globus_wsrp_core/server_config.wsdd` and `global_security_descriptor.xml` for provide access to the certificates

- **Receive GAR files from service developers and deploy them into Globus (by simple ant command)**

- **Execute**

GLOBUS_LOCATION/bin/globus-start-container

If everything is OK, you can start to use the web services

- **There are several configuration files that must be modified**
- **Leave that setting later, until you have your services working correctly**