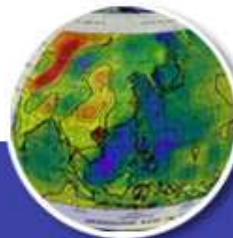




# Installation and Configuration: YUM and YAIM



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# YUM

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- **Yellow dog Updater, Modified (YUM)** is a utility for package management
  - packages have to be in **rpm** format
- By using a package management system...
  - **Install** and **update** rpm package easily
- Using **YUM** to **install** gLite middleware.

# Installing the middleware

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- **Install gLite components is actually done by installing one or more **metapackage****
  - example : `yum install lcg_CE`
- **Configure of repositories in `/etc/yum.repos.d`**
  - Middleware repositories
  - CA repository
  - Jpackage repository
  - DAG
  - SLC

- Using **YAIM** to **configure** gLite 3.1 middleware
- What is YAIM?
  - Yet Another Installation Manager
  - Developed by EGEE SA3 team.
  - A tool to **configure** **gLite middleware**
  - Collection of **bash scripts**
    - **Modular structure** : a general part, and one specific of the configuring module  
glite-yaim-core + glite-yaim-<service name >
    - **Use YAIM's main script to configure middleware**  
\$ /opt/glite/yaim/bin/yaim -c -s your-site-info.def -n lcg\_CE

**glite-yaim-core**



- glite-yaim-clients (UI, WN)
- glite-yaim-dpm
- glite-yaim-lcg-ce
- glite-yaim-mon
- glite-yaim-torque-server
- glite-yaim-torque-client
- .....

# YAIM's directory structure (1/2)

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- **YAIM directory structure is created under**  
**`/opt/glite/yaim`**
  - **`/functions/`** - Functions (bash scripts) to configure node types
  - **`/functions/local/`** - Site administrators can put here their own function definition files
  - **`/functions/pre/`** - If this function exists, will be executed before the main function
  - **`/functions/post/`** - If this function exists, will be executed after the main function
  - **`/node-info.d/`** - Contains a file for each node type which defines the set of functions to be executed during the configuration of that node type

## YAIM's directory structure (2/2)

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- **/defaults/** - Files that will be sourced before and after the main site-info.def; purpose is to give meaningful default values
- **/bin/** - The main YAIM executable
- **/log/** - YAIM's logfile
- **/examples/** - Configuration example

# YAIM configuration files

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- All the sample files were put into /opt/glite/yaim/example directory.
  - **site-info.def:**
    - This is the main configuration file of the site.
  - **users.conf:**
    - Defines local pool accounts to be created
  - **groups.conf:**
    - Defines groups associated with pool accounts.
  - **wn-list.conf:**
    - The host name of work nodes.

# site-info.def

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- **syntax is bash like :**
  - variable=value (**put no spaces before-after =** )
- **Inside site-info.def :**
  - **General configuration variables**
    - MY\_DOMAIN, USERS\_CONF, JAVA\_LOCATION...etc.
  - **Grid services definitions:**
    - CE\_HOST, DPM\_HOST etc
  - **Services specific definitions:**
    - BATCH\_SERVER, JOB\_MANAGER...etc.
  - **Passwords (in clear text)**
    - APEL\_DB\_PASSWORD, DPM\_DB\_PASSWORD etc
  - **Site information**
    - Contact email, Site name, website etc
  - **Supported VOs and queues definition**
    - VOs ,VO\_<vo-name>\_SW\_DIR,

# YAIM commands 1

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- Located in /opt/glite/yaim/bin/
- Performs different configuration steps
- Usage: **\$ ./yaim <action> <parameters>**

## Actions:

**-c | --configure** : Configure already installed services.

Compulsory parameters: -s, -n

**-r | --runfunction** : Execute a configuration function.

Compulsory parameters: -s, -f

Optional parameters : -n

**-v | --verify**: Verify that all required variables are defined in  
site- info.def

Compulsory parameters: -s, -n

**-h | --help** : Prints out this help.

.....

**Specify only one action  
at a time !**

# YAIM Commands 2

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- Usage: **\$ ./yaim <action> <parameters>**

## Parameters:

- s | --siteinfo: : Location of the site-info.def file
  - n | --nodetype : Name of the node type(s) to configure
  - f | --function : Name of the functions(s) to execute
- 
- Examples:
    - `./yaim -c -s < path of site-info.def > -n <node type name>`
    - `./yaim -c -s /opt/glite/yaim/etc/site-info.def -n BDII_site`

# The log file

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- **YAIM logs its output to**  
`/opt/glite/yaim/log/yaim/yaimlog`
- **Each time the `yaim` command is executed an entry is added to this logfile containing the**
  - command executed
  - the `site-info.def` and other config files used
  - the time and date information
  - the version of the installed YAIM RPMs

## Other useful info

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- **YAIM home page**  
<http://www.yaim.info/>
- **YAIM 4 guide for sysadmins**  
<https://twiki.cern.ch/twiki/bin/view/LCG/YaimGuide400>
- **YAIM Status Page**  
<https://twiki.cern.ch/twiki/bin/view/LCG/YaimPlanning>
- **gLite 3.1 Generic Installation & Configuration guide**  
<https://twiki.cern.ch/twiki/bin/view/LCG/GenericInstallationGuide310>



- **Questions?**
- **Thank you 😊**