

Integrating New sites in Grid GARUDA

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Grid Components to be installed

- **Hardware Deployment**
 - Garuda network connection
- **Software Deployment**
 - Globus Toolkit-2.4.3 (or) GT4
 - Mpich
 - Resource Managers like Torque, Loadleveler, PBS
 - Moab scheduler

Step 1 : GARUDA network

- Any site that need to be integrated with GARUDA GRID should have GARUDA Network connectivity enabled. This is done in collaboration with Sify and ernet.
- Garuda Network Status :

http://garudaindia.in/network_fabric.asp

Brief Concept of Grid

- **What is Globus?**
 - Globus is a Grid Middleware
- **What is MPICH?**
 - It's a plugin for Parallel Processing
- **What is Resource Manager?**
 - It's a Local scheduler for scheduling the jobs in the cluster
- **What is meta Scheduler?**
 - It's a Scheduler for managing the multiple Resource Managers

Step 2 : Globus Toolkit

- **The Globus Toolkit is an open source software toolkit used for building Grid systems and applications.**
 1. GRAM
 2. GridFTP
 3. MDS
 4. GSISSH
- **GlobusToolkit version 2.4.3 on 32bit machines.**
- **GlobusToolkit version 4 on 64bit machines.**

Step 3: MPICH

- **MPICH is a portable implementation of MPI, a standard for message passing for distributed memory applications used in Parallel Computing.**
- **MPICH 1.2.6 for enabling parallel computing in the grid.**

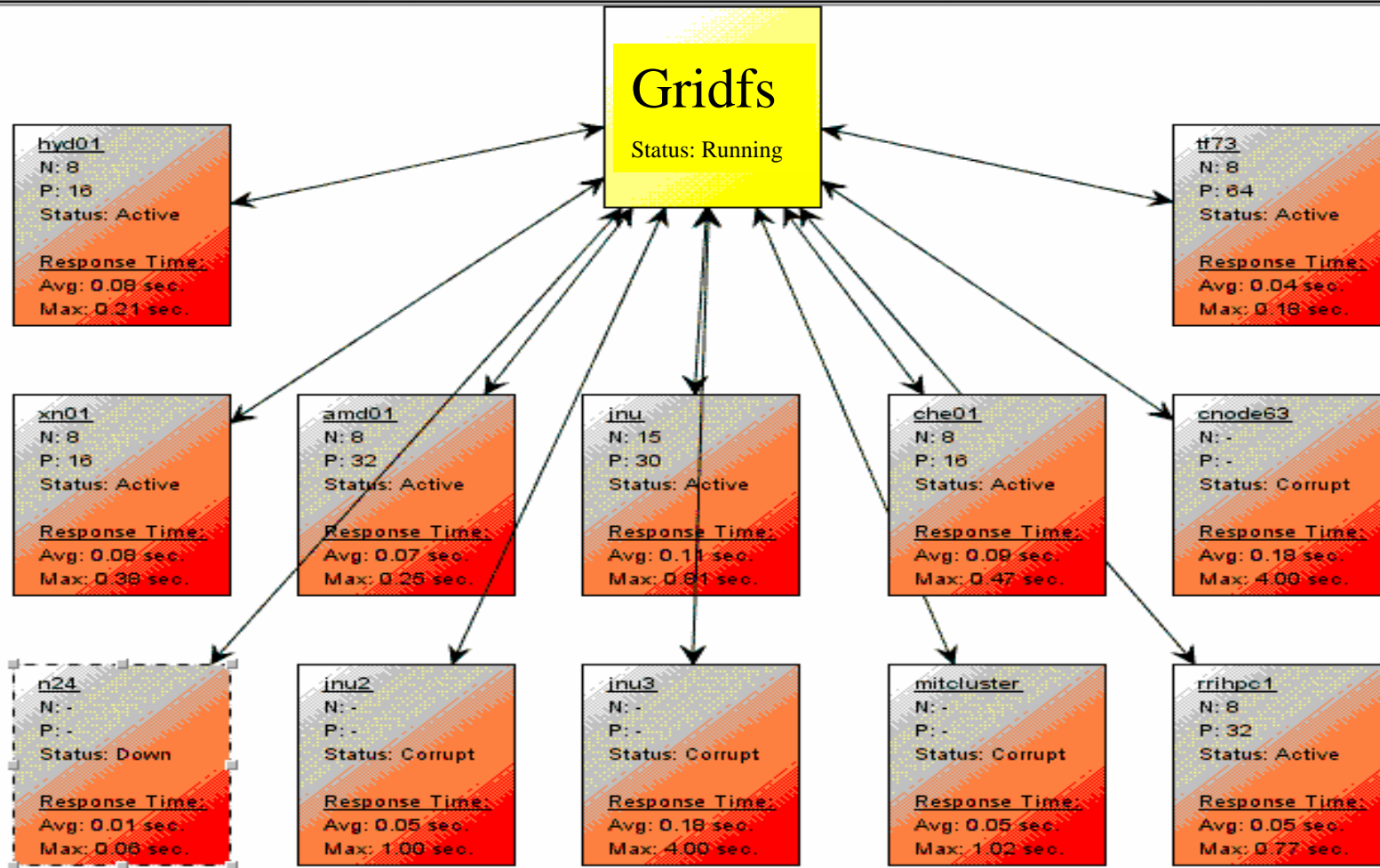
Step 4: Local Resource Managers

- Resources managers provide the low level functionality to start, hold, cancel and monitor jobs. Various resource managers are PBS, Torque, Loadleveler etc.. Further which have to be integrated with GlobusToolkit.

Step 5: Moab Metascheduler

- **Moab Workload Manager[®] for Grids is a policy based workload management and scheduling engine that schedules across multiple clusters.**
- **Every cluster in the grid should be configured with MOAB scheduler & latter will be integrated with Central MOAB server running at Grid Node @ Bangalore.**

- **With all the above steps performed & tested will result a new site added to GARUDA Resource.**



Thank You

