



Enabling Grids for E-science

From research to production grids: **Some issues in EGEE Operations**

*Nick Thackray,
EGEE Grid Operations Manager
CERN, Switzerland*

www.eu-egee.org



- **Failover for middleware service instances**
 - It is difficult/impossible to implement server or database failover mechanisms for several of the middleware services
- **Service discovery**
 - Middleware services should be able to discover other services through the information system (where reasonable to do so).
 - This will:
 - reduce manual configuration and therefore human error
 - increase reliability of the overall service (removal of SPoF)
- **Transparent interventions**
 - As far as possible, interventions on grid services should be invisible to the users.
Goal of operations = keep the service running!

- **Grid sites will not give direct access to their clusters**
 - Definitely cannot SSH in from outside the site
- **Use of clear and uniform logging among the different middleware services**
 - this is now being addressed in EGEE. Lack of consistency of log file location, logging format, logging information, etc. makes debugging at sites difficult
- **Service CLI tools for site administrators**
 - Need CLI tools for the middleware services (service start/stop/status, etc.) and need them to be consistent among the different services
- **Clear, unambiguous error messages**
 - 1 error message = 1 error condition (!= many)
 - Should be easy to determine the problem from the message

- **Creating and removing VOs in the configuration of a site should be as easy as possible**
 - at the moment the re-configuration of a site either to support or to remove support for a VO involves touching many configuration files and running configuration scripts on many services.

- **Big bullet**
 - Smaller Bullet
 - Even smaller
 - *Tiny weenie*
 - Micro bullet
 - Another Smaller Bullet
- **Big bullet with highlights (please use this dark yellow)**
 - Smaller bullet with hyperlink or http://egee