Interference/interaction of the GRID Middleware with the Fabric

In principle clear separation of the middleware from the Fabric through definition of APIs and services

Separation between special service nodes and the majority of the worker nodes (CPU server, Disk server, etc.)

But current middleware implementations are not there yet ……

Few random examples :

1. Data replication system
   GDMP , WP2 in EDG
   → Client software
   → 'local' disk access and management
   → device driver

2. Distribution mechanisms
   Integration into the configuration and installation System of the Fabric
   → RPM
   → PACMAN
   → GPT (Grid Packaging Technology)

3. Security
   e.g Resource broker communications
   (sendboxes)

4. Implicit assumptions about users home directories (shared, common)

Extra software on the worker nodes

- → **Executables**
- → **Shared libraries**
- → **Kernel modules**
- → **Daemons**

Problem : e.g. OS dependencies, hardware dependencies
→ different timescales for changes

Points for discussion :

How critical are these interactions ?

Are these just concerns for the current systems and near future developments ?

Long term future ?

What is an acceptable interference/adaptation level ?

Are fabrics concerns criteria for the selection of Middleware packages ???