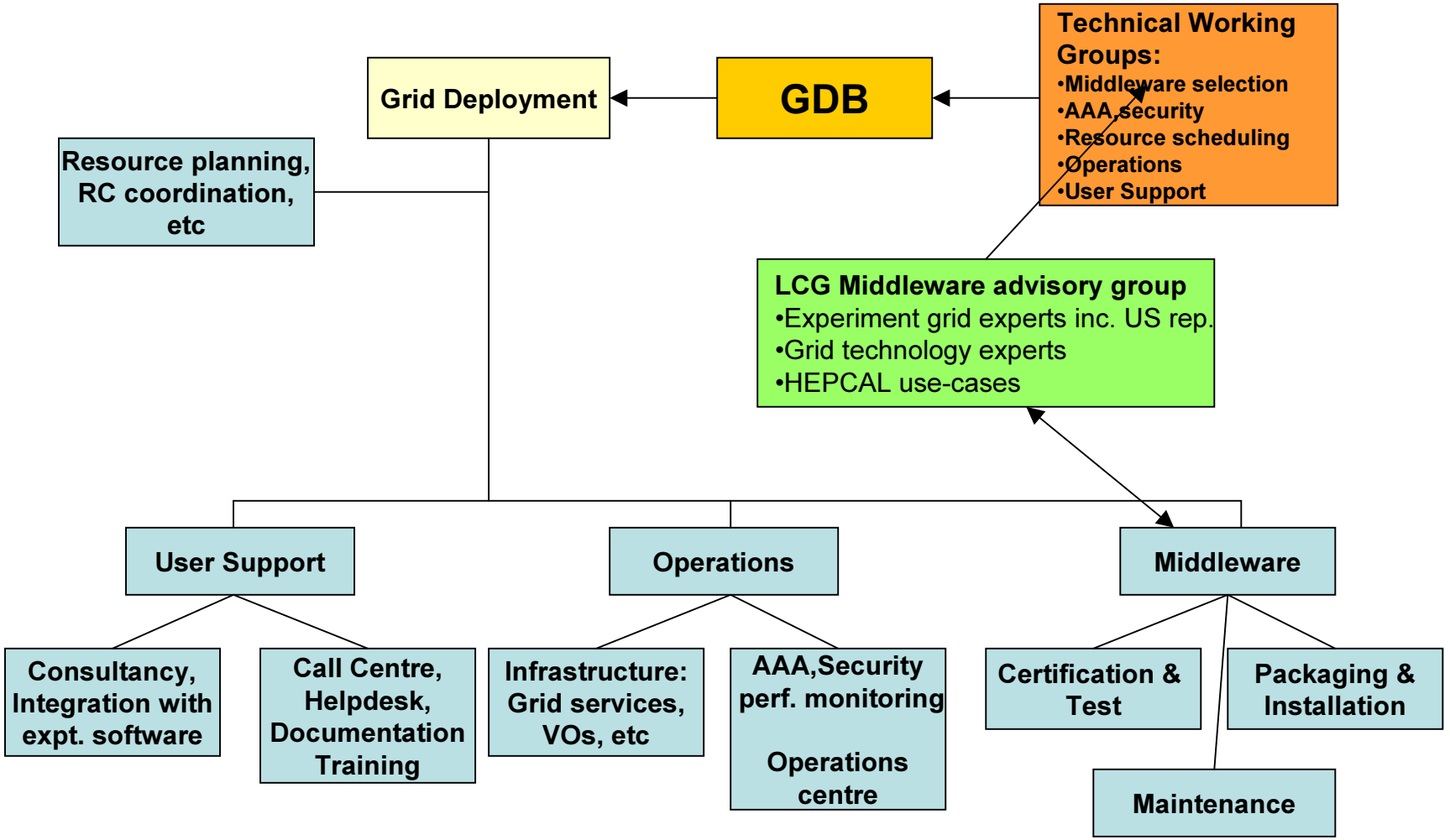
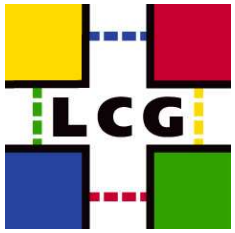
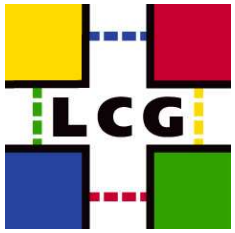
Grid Deployment





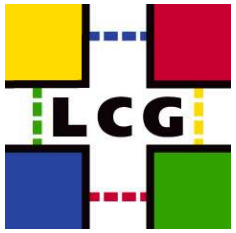
Middleware Selection TWG Proposed Mandate:

- Select and recommend the grid middleware components to be deployed in LCG-1, with implementation schedules coordinated with the requirements of the experiments and with LCG milestones. The requirements of the experiments, in terms of functionality needed for specific data challenges, will be based on a prioritized list of use-cases from the HEPCAL document. …



Service & Resource Scheduling & Planning TWG Proposed Mandate:

- Recommend policies for allocating resources to experiments. Suggest how the allocation process should be implemented, including a request and review process as necessary to ensure fair allocations within the guidelines of the funding agencies…
- Determine common metrics for allocating and accounting usage of various resources.
- Should there be a common policy on priorities of grid users versus local users? If so, determine the policy.
- Agree on the LCG infrastructure and responsibilities:
  - Recommend the services and resources to be provided by each site
  - Recommend the relative responsibilities of the site and the LCG teams – where is the boundary between site responsibility and LCG?
  - Recommend responsibilities for the operation of common services
  - **Recommend an overall schedule for rolling out the infrastructure and computing resources for LCG-1.**



Registration, Authentication, Authorization & Security Proposed Mandate:

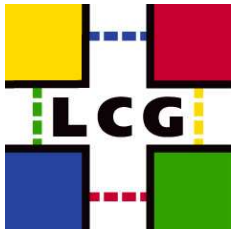
- Recommend common Registration, Authentication, Authorization, and Security policies and procedures to **ensure integrated availability of LCG-assigned infrastructure and resources to valid users**.
- Registration & Authentication:
  - Acceptable use policy
  - Agreements and trusts between CA's, RA's etc
  - User Registration model
  - Constraints from sites on authentication and accountability
- Authorization:
  - Recommend a model for authorization that meets the constraints of the participating sites, and that satisfies the requirements of the experiments. Recommend how a model of authorization that includes layers of delegation of authorization be implemented.
  - Recommend a common model for mapping VO users to local users, and define a minimum requirement for accountability that satisfies the security needs of the sites.
- Security:
  - Agreements and procedures for security issues – must be agreed by all site security officers…

Operations TWG Proposed Mandate:

- Recommend an LCG model of operations; including defining the responsibilities of the LCG teams, the experiments and the participating site operations teams.
- Recommend a standard LCG operating environment; define the mechanism for implementing standard operating environments that satisfy the needs of the experiments; for example OS level, compilers, etc. How should the upgrade process be handled? What tools are required to implement this? What is the certification process?
- Agree on and recommend an LCG policy for deployment of middleware including the integration, testing, and certification process for release candidates of the software.
- Recommend a common accounting and reporting process for resource usage so that aggregate resource usage LCG-wide can be monitored. What are the requirements for this process? What reporting is needed back to the participating sites or to funding agencies?
- Recommend configuration management policies – what are the system administration requirements for grid services at a site?

User Support TWG
Proposed Mandate:

- Recommend the initial LCG user support model, including:
- The scope of responsibilities for a call-center or helpdesk type facility serving LCG,
- Define the call center – one place or many, and define the process for communication to ensure problem resolution and tracking,
- user expectations (or service level agreements), including the framework within which to implement these,
- Define how such a facility interacts with local support services at sites providing grid resources,
- Recommend procedures and tools to track and coordinate distributed/grid problem resolution



Timescale

- TWG's should report in December
  - Define initial set of (prioritised) basic functionality
  - Define performance goals
- Define LCG-1 by end 2002
  - Middleware selection process during 2002
    - Compromise between experiment requirements and availability of supportable components
  - Test and certification of components 1H03 – iterative with developers and experiments requirements
- LCG-1 in production July 2003
  - Add functionality according to expt. Needs and as feasible
  - Incorporate production systems (e.g. LXBATCH) into LCG-1
- LCG-1 should meet performance targets by end 2003