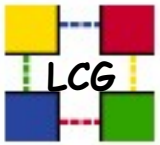
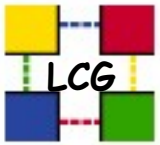


LCG Project Status

WP4 Meeting Presentation

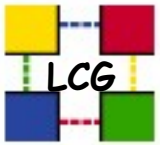
David Foster IT/LCG

20 June 2002



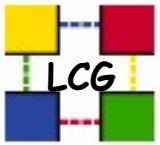
Some Initial Observations

- Little experience around in running a production Grid
- Many issues to be addressed
  - problem determination/tracking/resolution, user support, update policies, grid operations.
  - Big Fabrics, where human intervention is the last resort
- Some complete unknowns
  - How well it will work as a complete system
  - TCO, MTBF,QOS



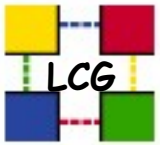
LCG High Level Objectives

- Provide the Computing Solution for LHC
  - Regional Center Model
  - Grid Technologies
- Phase 1
  - Complete end 2004 Fully functional prototype of 1/2 the final capacity for one experiment
- Phase 2
  - Complete 2006 Production System



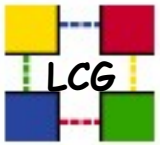
Overall Approach

- Starting now with testbeds to generate early thoughts on how to:
  - Build, manage and maintain a production grid.
  - Provide user support.
  - Define and create an acceptable service quality.
- Basically get all the problems “on the table” including the issues which are not obvious yet !



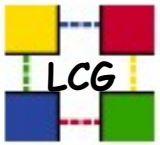
2002

- Applications
  - Software Process and Infrastructure
  - Common software agreed approach
  - Prototype of Hybrid event data store
- Fabrics
  - Production Testbed
  - Demonstrate all elements of Fabric Management



2002 (Cont.)

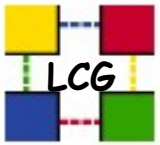
- Grid Technology
  - Work with the GLUE initiative.
  - Recommend interoperable technologies (Europe and the US).
  - Address software quality issues.
    - Management of the software process
    - Testing and validation



2002 (Cont.)

- Grid Deployment
  - Establish Certification Process
  - Establish the Grid Deployment Board
  - Understand what is needed for a “Production Grid Service” and establish the teams.

- Establish a more complete plan for 2003-2005 by the end of 2002

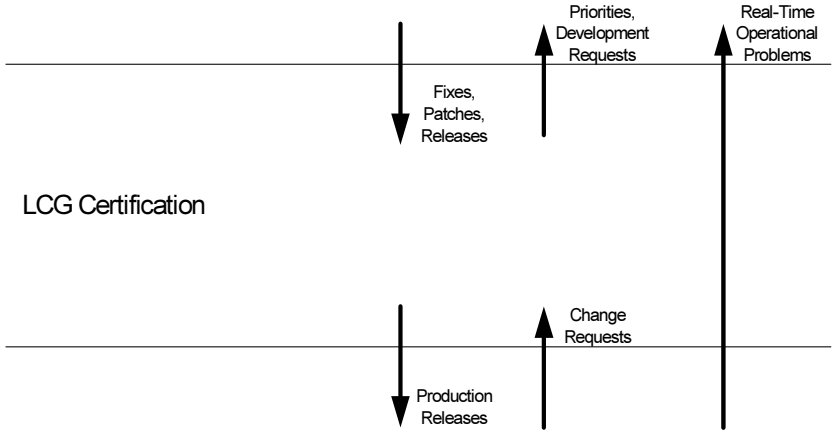


Early Thoughts

- Need to define the processes involved
  - Version Releases, Certification
  - Problem Tracking and Resolution
- Need to understand the handover relationships
  - EDG, LCG
  - ITeam, Testing Team, Certification, Call Center etc etc.

LCG Infrastructure and EDG Activities

EDG Integration and
Development Activites



LCG Certification

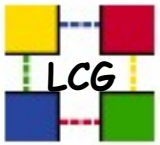
LCG Operations

CERN Fabric
Capacity Planning
Construction
Maintenance
Monitoring
Performance Analysis

Call Center
Staffing (24x7)
Training
Management

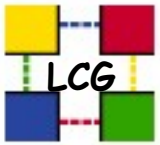
Grid Infrastructure Operations
CA Management
Information Services
Registration
Accounting
Monitoring

David Foster LCG
WP4 Meeting 20th June 2002



2003 Goals

- LCG Production Service
  - Small number of sites in at least the US, Europe and Asia
  - 24x7 Operations
  - Call center details are to be worked out.
    - Central, distributed or both ?
    - Escalation procedures
    - Funding/Staffing ?



Comments

- What LCG Needs …
  - To get something working now.
  - Realistic technology releases and what is released should work
    - 1.2 Release must have bugs fixed
  - Simple technology, not all “bells and whistles”
    - First LCG production probably based on 1.4
  - Problems and resolution should be well structured to avoid developers being pulled in all directions.