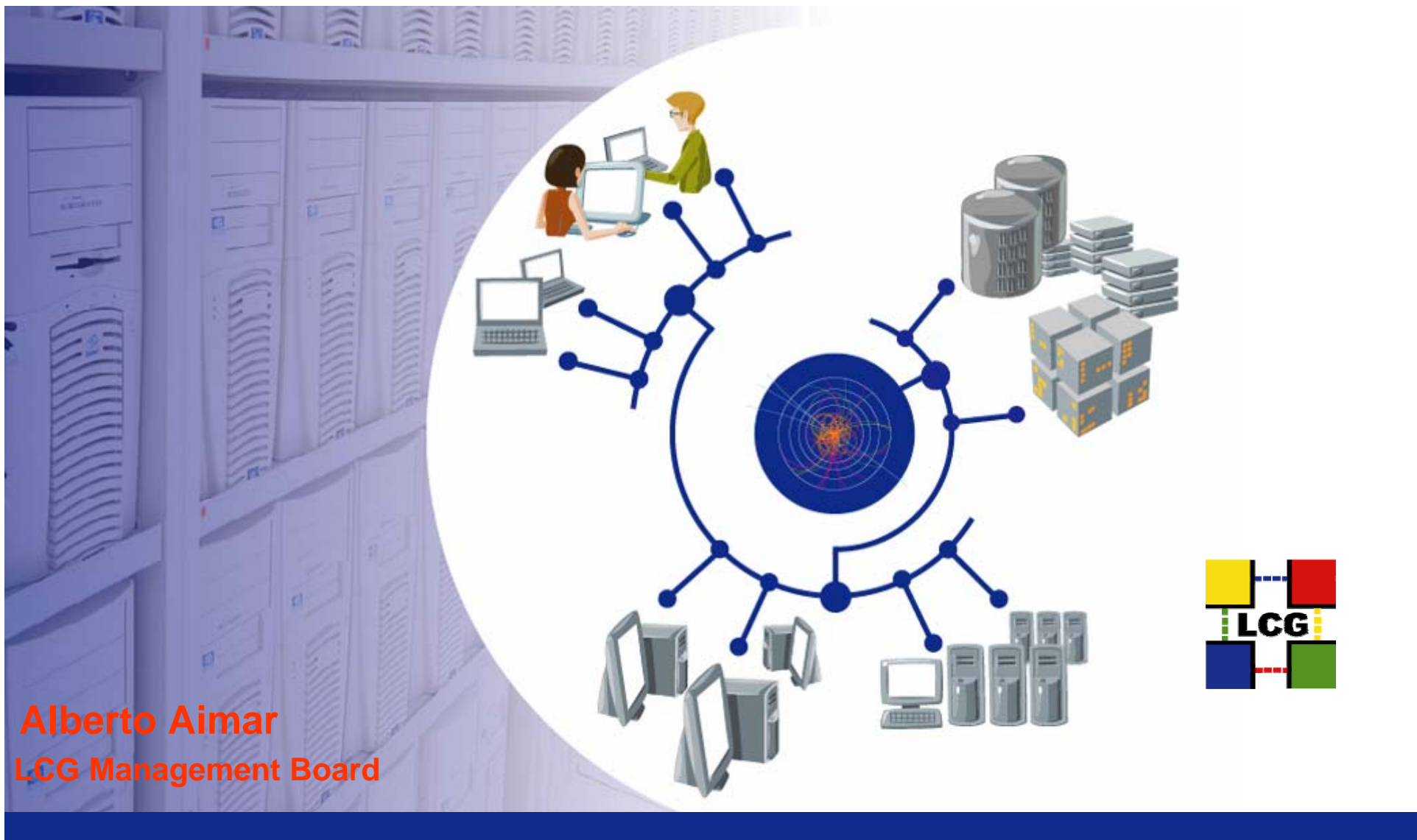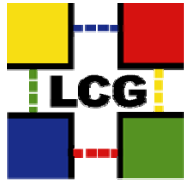# Ideas on Planning for 2007


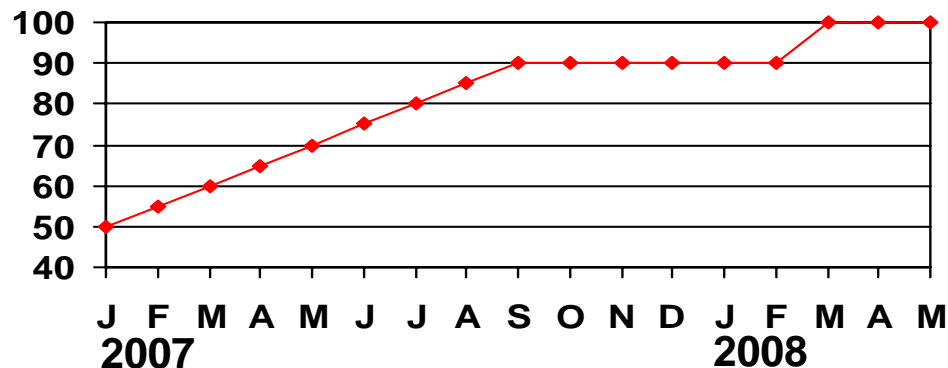
**Alberto Aimar**

LCG Management Board

# Outline

- **General ideas**

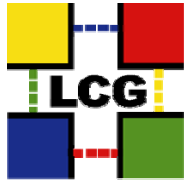- **Possible "targets" and "milestones" for 2007**

- **Discussion**

# General Remarks

- In order to measure progress towards target metrics we could define a realistic ramp-up profile for each site and metric

- For example – data rates to be sustained at a specific site:
  - Define the realistic targets needed for the end of 2007 and for the 2008 run – not the *nominal rate* if this is not needed yet – take account of expected machine and experiment efficiency
  - Then define the profile through 2007 to reach the 2008 target rate in Feb 2008, starting from the currently achievable level ..
    .. and then compare progress at regular intervals
  - Below is an example assuming that a reasonable target that can be permanently sustained today (with a combination of *experiment and background dteam load*) is 50% of the 2008 data rate *(the pause in October-January is when everybody will be busy with real data taking)*

```
100 |                                    ◆ ◆ ◆
 90 |                  ◆ ◆ ◆ ◆ ◆ ◆
 80 |              ◆
 70 |          ◆
 60 |      ◆
 50 | ◆  ◆
 40 |
    J  F  M  A  M  J  J  A  S  O  N  D  J  F  M  A  M
    2007                              2008
```
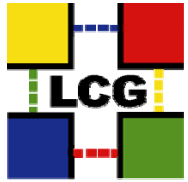
- Peak rates can be defined as 2 x the average to be demonstrated for short periods – say 3 days
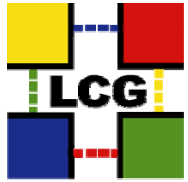
# General Remarks (II)

- **In order to generate a measure at the level of the project we can aggregate the site values into one single value that can be compared with the target**
  - **70% of the Tier-1 sites (CERN + 8 best sites) could be taken into account for each target**

- **For the different metrics we should use the data in H.Renshall's (resources) and C.Eck's (network transfers) tables**

- **Should the targets be measured for each VO?
  Or should we be measuring the aggregate for the site (to show that it can support all of its VOs simultaneously)?**
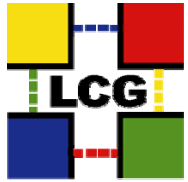
# 1. Targets: Data rates "to Tape"

- **Target of I/O rates to tape storage at each site**

- **Demonstrate peak rate**
    - **for 3 days before June**
    - **For 7 days before September**

- **Sustain average rates at Tier-0 and at each Tier-1, driven by the experiments (DAQ at the Tier-0, FTS at the Tier-1s) and background dteam load**
    - **3 days at 50% - Feb 07**
    - **7 days at 70% - Jul 07**
    - **10 days at 100% - Feb 08**

- **Data from the MegaTable**
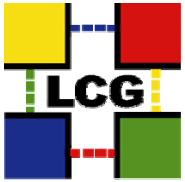- **Results monitored and reported by the site**

# 2. Targets: FTS Transfers

- **Targets for the FTS transfers at each site**

- **Peak 2008 rates sustained for 3 days before July 07**
  - **Tier-1 to/from Tier-0**
  - **Tier-1 to/from other Tier-1s**
  - **Tier-1 to/from all Tier-2s**

- **Average rates sustained permanently from Tier-0 to each Tier-1, driven by the experiments and background dteam load**
  - **50% - Feb 07**
  - **70% - Jun 07**
  - **90% -  Sep 07**
  - **100% - Oct 07**

- **Targets from Megatable, results extracted from GridView**
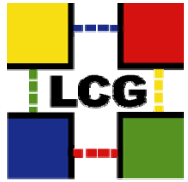
# 3. Targets: DAQ → Tier-0 → Tier-1

- **Targets for data from DAQ to Tier-0 and to Tier-1 sites**

- **Need to reach 100% by November 2007, driven by the experiments**
    - **3 days 20% before Mar 07**
    - **5 days 50% before Jun 07**
    - **7 days 100% before Sep 07**


- **Target values from the experiments and Megatable**

- **Result from Lemon (CERN) and GridView**

# 4. Targets: Job Success rate

- **Quality of Operations:
  set targets for job success rates, by site and by VO**

- **Measured by job log analysis (ARDA dashboard work)**

- **Measure overall success rate (grid, network, site problems)**

- **And site success rate (exclude non-site related errors)**

- **2008 targets to be decided by the MB**

- **Ramp up based on these targets:**
  - **60% - Jan 07**
  - **70% - Mar 07**
  - **80% - May 07**
  - **90% - Sep 07**
  - **100% - Feb 08**

# 5. Targets: SAM reliability tests

- **Reach 95% by Feb 2008**
    - **80% - Feb 07**
    - **85% - Jun 07**
    - **90% - Sep 07**
    - **95% - Feb 08**
- **Taking CERN + 8 sites**
- **Monthly averages**

# Milestones in 2007 (I)

- **24x7 milestones**
  - Definition of the levels of support and rules to follow, depending on the issue/alarm     **February**
  - Testing the support and operation scenarios     **April**
- **3D Project milestones**
  - Phase 1 sites in production, used by the experiments     **February**
  - Tests of replication of experiments data among sites     **March**
  - Experiment condition DB in operations     **April**
- **SAM tests**
  - SAM test complete and including VO tests     **March**
- **SRM 2.2 and MSS Implementation**
  - Tier-1 sites upgraded to SRM 2.2     **March**
  - Storage classes implemented at sites     **April**
  - Experiment software using storage classes     **May**
- **gLite CE**
  - Installed and available at the sites     **February**
  - Usage by the experiments     **April**

# Milestones (II)

- **VOBoxes**
    - Service level, backup and restore defined          February
    - VOBoxes service implemented at the sites          April
- **Job Priorities**
    - Mapping of the Job priorities on the batch software          April
      of the sites
    - Configuration and maintenance of the jobs priorities          June
      as defined by the VOs
- **CAF**
    - Experiments define their needs for the CAF          January
    - CERN implements the CAF for the experiments          June
- **General Milestones**
    - Targets for procurements.
      Equipment for 2007 should be operational by          May
    - Define "operation challenges" to check tools          April & September
      and procedures for operation between VOs and sites
    - Targets on number of nodes available at each site          March
      (statistics by the job wrappers?)