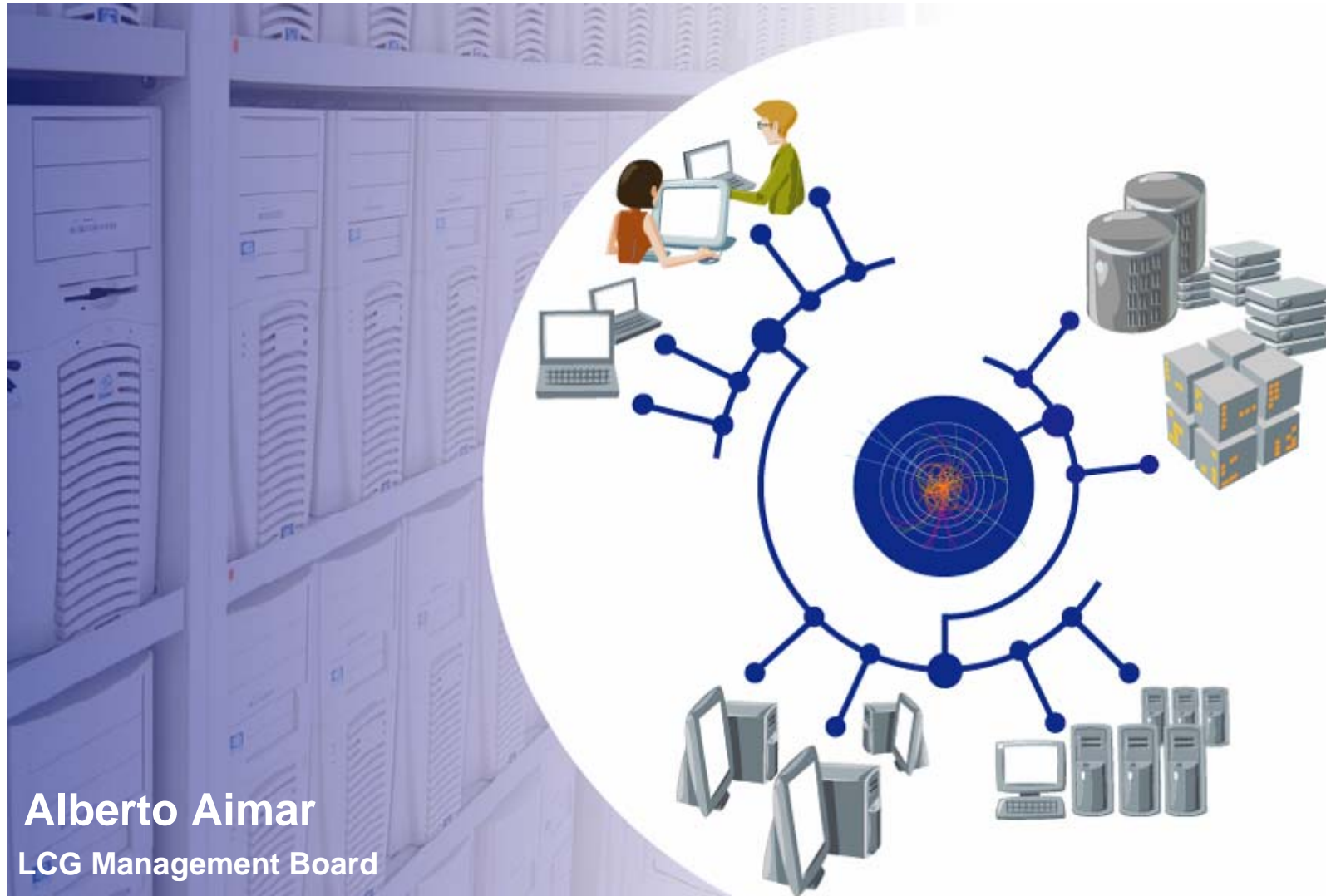


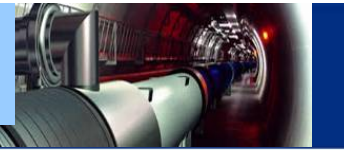
# Targets and Milestones for 2007



**Alberto Aimar**  
LCG Management Board

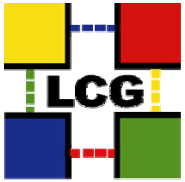


## Slide from last week's MB



### Q1 2007 - Tier0 / Tier1s

1. Demonstrate Tier0-Tier1 data export at **65%** of full nominal rates per site using experiment-driven transfers
  - Mixture of **disk / tape** endpoints as defined by experiment computing models, i.e. 40% tape for ATLAS; transfers driven by experiments
  - Period of at least one week; daily VO-averages may vary (~normal)
2. Demonstrate Tier0-Tier1 data export at **50%** of full nominal rates (as above) in conjunction with T1-T1 / T1-T2 transfers
  - Inter-Tier transfer targets taken from ATLAS DDM tests / CSA06 targets
3. Demonstrate Tier0-Tier1 data export at **35%** of full nominal rates (as above) in conjunction with T1-T1 / T1-T2 transfers **and** Grid production at Tier1s
  - Each file transferred is read at least once by a Grid job
  - Some explicit targets for WMS at each Tier1 need to be derived from above
4. Provide SRM v2.2 endpoint(s) that implement(s) all methods defined in SRM v2.2 MoU, **all critical** methods pass tests
  - See attached list; Levels of success: threshold, pass, success, (*cum laude*)



# Data rates - for each site

Based on the data rates for 2008 in the Megatable ([link](#))

Targets to be achieved by June 07

## CMS

65% Tier-0 → Tier-1 peak rate	for a week
Tier-1 → each Tier-2 sustain 10 MB/s	for 12 hours
Each Tier-2 → Tier-1 sustain 5 MB/s	for 12 hours

Aggregate for the Tier-1:

Tier-1 → Tier-2s – 50% of sum of average rate	for 12 hours
Tier-2s → Tier-1 – 50% of sum of average rate	for 12 hours

## ATLAS

65% Tier-0 → Tier-1 peak rate	for a week
Tier-1 → each Tier-2 sustain 65% peak rate	for 12 hours
Each Tier-2 → Tier-1 sustain 65% peak rate	for 12 hours

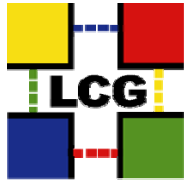
Aggregate for the Tier-1:

Tier-1 → Tier-2s – 50% of sum of average rate	for 12 hours
Tier-2s → Tier-1 – 50% of sum of average rate	for 12 hours



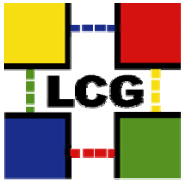
# Data rates - Example

ASGC				
CMS				
<b>Tier-0 → Tier-1</b> <b>65% peak rate</b> 65% of 26.3 = 17.1 MB/s	<b>Belgium</b> <b>to from</b> 10 MB/s 5 MB/s	<b>China</b> <b>to from</b> 10 MB/s 5 MB/s	<b>Finland</b> <b>to from</b> 10 MB/s 5 MB/s	<b>FR/GRIF</b> <b>to from</b> 10 MB/s 5 MB/s
<b>Tier-1 → all Tier-2s</b> <b>50% average rate</b> 50% of 76.0 = 38 MB/s	<b>D/CMSF</b> <b>in out</b> 10 MB/s 5 MB/s	<b>I/TIFR</b> <b>to from</b> 10 MB/s 5 MB/s	<b>INFN</b> <b>to from</b> 10 MB/s 5 MB/s	<b>Pakistan</b> <b>to from</b> 10 MB/s 5 MB/s
<b>all Tier-2s → Tier-1</b> <b>50% average rate</b> 50% of 9.0 = 4.5 MB/s	<b>Poland</b> <b>to from</b> 10 MB/s 5 MB/s	<b>Portugal</b> <b>to from</b> 10 MB/s 5 MB/s	<b>RU/RDIG</b> <b>to from</b> 10 MB/s 5 MB/s	<b>SP/CMS</b> <b>to from</b> 10 MB/s 5 MB/s
	<b>CH/CSCS</b> <b>to from</b> 10 MB/s 5 MB/s	<b>Taipei</b> <b>to from</b> 10 MB/s 5 MB/s	<b>UK</b> <b>to from</b> 10 MB/s 5 MB/s	<b>Ukraine</b> <b>to from</b> 10 MB/s 5 MB/s
	<b>US/Caltech</b> <b>to from</b> 10 MB/s 5 MB/s	<b>US/Florida</b> <b>to from</b> 10 MB/s 5 MB/s	<b>US/MIT</b> <b>to from</b> 10 MB/s 5 MB/s	<b>US/Nebraska</b> <b>to from</b> 10 MB/s 5 MB/s
	<b>US/Purdue</b> <b>to from</b> 10 MB/s 5 MB/s	<b>US/S.Diego</b> <b>to from</b> 10 MB/s 5 MB/s	<b>to from</b> 10 MB/s 5 MB/s	<b>to from</b> 10 MB/s 5 MB/s



# Site Reliability – Tier-0, Tier-1

- 2007 SAM targets monthly average
- Target for each site
  - 91% - by Jun 07
  - 93% - by Dec 07
- Taking 8 best sites
  - 93% - by Jun 07
  - 95% - by Dec 07
- Tier-2s – Begin reporting the monthly averages, but do not set targets yet

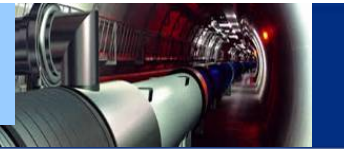


## Other Site Milestones in 2007 (i)

- **24x7 milestones**
  - Definition of the levels of support and rules to follow, depending on the issue/alarm February
  - Support and operation scenarios tested April
- **VOBoxes**
  - Service level, backup and restore defined March
  - VOBoxes service implemented at the site April
- **Job Priorities**
  - Mapping of the Job priorities on the batch software of the site April
  - Configuration and maintenance of the jobs priorities as defined by the VOs June
- **3D Service milestones**
  - Oracle Service in production, and certified by the experiment(s) - streams interventions CERN working-hours only February
  - Conditions DB in operations (ATLAS, CMS, and LHCb) April

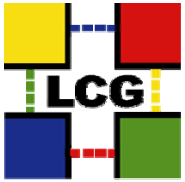


## Slide from 3D workshop



### DB Service Schedule

<b>ATLAS conditions</b>	<b>LHCb LFC</b>	<b>LHCb conditions</b>	<b>CMS conditions</b>	<b>Site</b>
01.03.07	01.11.06	01.04.07	01.12.06	<b>CERN</b>
01.03.07	N/A	N/A	01.12.06	<b>ASGC</b>
01.03.07	N/A	N/A	01.12.06	<b>BNL</b>
01.03.07	01.11.06	01.04.07	01.12.06	<b>CNAF</b>
N/A	N/A	N/A	01.12.06	<b>FNAL</b>
01.03.07	?01.04.07?	01.04.07	01.12.06	<b>FZK</b>
01.03.07	?01.04.07?	01.04.07	01.12.06	<b>IN2P3</b>
01.04.07	N/A	N/A	N/A	<b>NDGF</b>
01.04.07	?01.04.07?	01.04.07	01.12.06	<b>PIC</b>
01.03.07	?01.04.07?	01.04.07	01.12.06	<b>RAL</b>
01.04.07	?01.04.07?	01.04.07	N/A	<b>SARA</b>
01.04.07	N/A	N/A	N/A	<b>TRIUMF</b>



## Other Site Milestones in 2007 (ii)

- **Procurement**
  - At the beginning of each quarter the capacity required by the experiments (as defined in Harry's table) installed and in production
- **Once the Storage Systems have SRM 2.2 certified then we will agree dates for each site to provide:**
  - SRM 2.2 endpoint with storage classes as specified in the Megatable



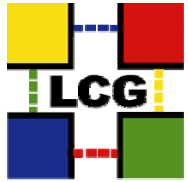
<b>Site Milestones</b>	<b>CERN</b>	<b>ASGC</b>	<b>CC- IN2P3</b>	<b>FZK</b>	<b>INFN</b>	<b>NDGF</b>	<b>PIC</b>	<b>RAL</b>	<b>SARA NIKH EF</b>	<b>TRIUM F</b>	<b>US- ATLAS</b>	<b>US- CMS</b>
<b>Feb07</b> 24x7 defined		15 01 2007	10 01 2007	15 02 2007								
<b>Feb07</b> VO Box Services defined												
<b>Apr07</b> Job Priorities implemented		ATLAS	ATLAS CMS		LHCb ALICE		CMS					
<b>Apr 07</b> 24x7 in operations and tested												
<b>Jun07</b> Site Reliability 91%												
<b>Jun07</b> Job Priorities Tested/used by experiments												
<b>[...etc...]</b>												



# Milestones 2007

In the usual QR report tables

Milestone	Status	Comments
Feb07 24x7 defined	15 Dec 2006	
Feb07 VO Box Services defined		
Apr07 Job Priorities implemented		
Apr 07 24x7 in operations and tested		
Jun07 Site Reliability 91%		
Jun07 Job Priorities Tested/used by experiments		
[...etc...]		



# Experiment Milestones

- **Job Submission Rates**
  - **CMS (from CSA07)**
    - Apr 07                      50K jobs/day
    - May 07                     75K jobs/day
    - Jun 07                    100K jobs/day
  - **ATLAS**
    - To be defined - similar values?