



Phase 2 Planning

- **MoU Task Force - draft will go to the C-RRB this month**
 - Tier-1 and large Tier-2s only
 - Moves towards a collaboration – but it is a building service not an experiment
 - Task Force has major sites, experiments
 - Draft also given to the GDB
 - See proposed organisation
- **Resource Planning**
 - New round of Tier-1 resource planning figures –
 - Not there yet for capacity
 - Disk capacity is the major issue – even a basic disagreement on disk-tape ratio
 - Overall summary only to be shown to C-RRB (MoU task force decision)
 - Very little information on Tier-2s
- **LHCC Review of experiment requirements and models - January 2005**



C-RRB

- Now beginning to look at Phase 2
- Planning at CERN will be shown this time
- But only gross figures for Tier-1s



Major Milestones for Phase 2

- Principle
 - Service Challenges – check out the infrastructure/service to iron out the problems before the experiments get involved
 - Experiments also need preparatory period to sort out their software – avoid doing this while trying to ramp up performance and scalability
- Tier-1 service must be in operation a full 3 months before the first beams
 - i.e. April 2007 on current timescale
 - at full capacity
 - checked out by experiments



Milestone Proposals

Tier-0 data recording

Nov05

- Tier-0 data recording at 750 MB/sec
→ ALICE data storage challenge VII completed

Nov06

- Tier-0 data recording at 1 GB/sec
→ ALICE data storage challenge VIII completed

Nov07 (at end of the 2007 run)

- Tier-0 data storage at 1.5 GB/sec



Milestone Proposals

Tier-1 Readiness Challenges - 2005

Dec04 - Service Challenge 1 complete

- mass store-mass store, CERN+3 sites, 500 MB/sec between sites, 2 weeks sustained

Mar05 - Service Challenge 2 complete

- reliable file transfer service, mass store-mass store, CERN+5 sites, 500 MB/sec between sites, 1 month sustained

Jul05 - Service Challenge 3 complete

- mock acquisition - reconstruction - recording - distribution, CERN + 5 sites, 300 MB/sec., sustained 1 month

Nov05 - ATLAS or CMS Tier-0/1 50% storage & distribution challenge complete

- 300 MB/sec, 5 Tier-1s (This is the experiment validation of Service Challenge 3)





Milestone Proposals

Tier-1 Readiness Challenges - 2006

Mar06 - Service Challenge 4 complete

- sustained network service exerciser - ramping to 2 GB/sec aggregate permanent load, 1 GB/sec at CERN, disk-disk, simulated Tier-0/1 and Tier-1/1 traffic patterns), ALL Tier-1 sites involved

Jun06 - Service Challenge 5 complete - Tier-0/Tier-1 infrastructure readiness

- ALL Tier-1s, full target data rates, mock acquisition - reconstruction - recording - distribution, PLUS mock ESD skimming, distribution to Tier-2s - sustained 1 month, simulated traffic patterns

Oct06 - All experiments - Tier-0/1 50% full model test complete



Milestone Proposals

Tier-1 Readiness Challenges - 2007

Jan07 - Service Challenge 6 complete - Infrastructure Ready

- ALL Tier-1s, twice target data rates, mock acquisition - reconstruction - recording - distribution, PLUS mock ESD skimming, distribution to Tier-2s - sustained 1 month, simulated traffic patterns

Apr07 - ATLAS + CMS + LHCb Tier-0/1 100% full model test complete



Milestones for Tier-2 & Analysis

- Needs discussion

