LHC Computing Grid

The Megatable Revisited

Christoph Eck

IT Department, CERN

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Introduction

- During the last meeting of the Megatable team on June 14 a few problems concerning the Megatable effort were reported and the team decided to ask for them to be discussed at one of the next MB meetings.

- The problems fall into three classes:
  - Forgotten decisions of the MB which need to be recalled.
  - Misinterpretation of the aims of the Megatable
  - Difficulties in site – experiment communication

Decisions to Remember

- **Resources pledged for a given year have to be installed and fully available on April 1 of this year.**
  - Only in 2007 this date is July 1.
  - Russian pledges are labelled in the MoU as available at the end of the pledge year.
    - The Megatable uses therefore their 2007 pledges.
  - Each site will plan its acquisition and installation schedule accordingly.
- **The requirements published by the experiments and the pledges made by funding agencies and/or sites are gross capacities.**
  - They include resources required due to usage inefficiency and the disk capacity required for efficient tape access (a.k.a. tape cache).
  - There are no "hidden" resources besides the pledges!

What is the Megatable?

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- **The Megatable is a translation of the TDR requirements of the experiments into specific requests for storage at given sites and into specific network bandwidths between these sites.**

  - It should give sites a clearer view of what is requested from them and give experiments a better idea of how much will be available for them at which location.

- **A side effect of generating the Megatable is the establishment of Tier-2 to Tier-1 relationships and the possibility to compare the load generated by connected Tier-2s at given Tier-1s.**

  - Giving at least the possibility to optimise the Tier-2 to Tier-1 dependency network.

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The Megatable is NOT:

- A detailed recipe for implementing storage and networking at a WLCG site.
    - Splitting storage into the SRM classes and asking for the size of the tape cache gave some sites the impression that the Megatable was developing into a blueprint of their system architecture.
        - Creating automatically requests for more and more detail.
- The start of a detailed series of tables listing the installation requirements at each site for the next decades.
    - Starting this series now would inevitably launch endless discussions about the LHC schedule during the next years.
    - Having created the Megatable for 2008 should have prepared the sites and experiments for adapting their agreements to the coming years.

Site – Experiment Communication

- Some experiments claim big difficulties in finding the right discussion partners at certain sites.
  - Maybe this explains why none of the experiments were able to deliver yet a Megatable update based on the pledge revision of last April.
  - By definition this is nobody's fault.
- Can the MB do something to improve this?

Proposal

- Do a last version of the Megatable for 2008, based on the requirements of October 2006 and the pledges of April 2007.
    - Will contain only summary information on tape and disk allocation requests at each Tier-1 (no split into SRM storage classes etc.)
    - Should be ready beginning of July.

- What is your reaction?