Summary of requirements at SC3 Sites   **From Pre-GDB Meeting 06 Sep 05**

ALL SITES:
1. LCG 2.6
2. FTS 1.3
3. SE with SRM
4. VO Box for each experiment

FTS servers at the following sites:
5. CERN - for distribution to T-1s
6. BNL, CNAF, FZK, RAL, IN2P3 – for distribution to T-2s, other T-1s

ALICE sites: CERN, CNAF, RAL, NIKHEF/SARA, IN2P3, GridKA, GSI, Torino, Bari, Catania
7. LFC at all sites
8. Resource Broker(s) at CERN
9. xrootd protocol support in CASTOR at CERN

CMS sites: ASCC, CNAF, FNAL, GridKA, IN2P3, RAL, UCL, LNL, Bari, Madrid, UCD, UFL, Purdue, Nebraska
10. Local catalog – Globus RLS at US sites, LFC at all other sites
11. PhEDEx service at CERN **operated by CMS** (will use FTS later – probably November)
12. Unclear what the participation of the other sites is in the PhEDEx service
13. Resource Brokers at CERN – maybe at other sites

ATLAS sites: ASCC, BNL, GridKA, IN2P3, CNAF, NDGF, RAL, SARA/NIKHEF, TRIUMF
14. LFC at all sites
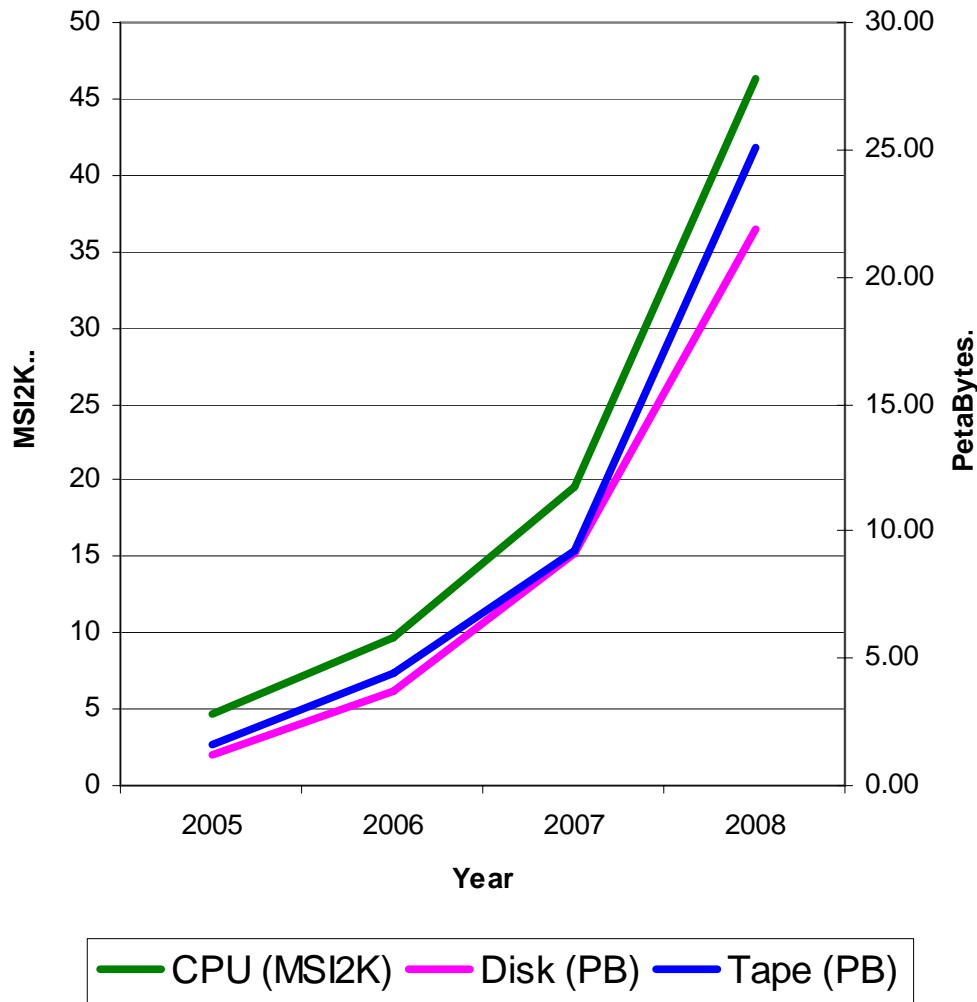15. Resource Broker(s) at CERN

LHCb sites: CNAF, IN2P3, GridKA, NIKHEF/SARA, PIC, RAL, Edinburgh
16. Master LFC at CERN
17. LFC replica at a few sites – IN2P3, CNAF, ASCC, RAL (technology for replication to be decided)
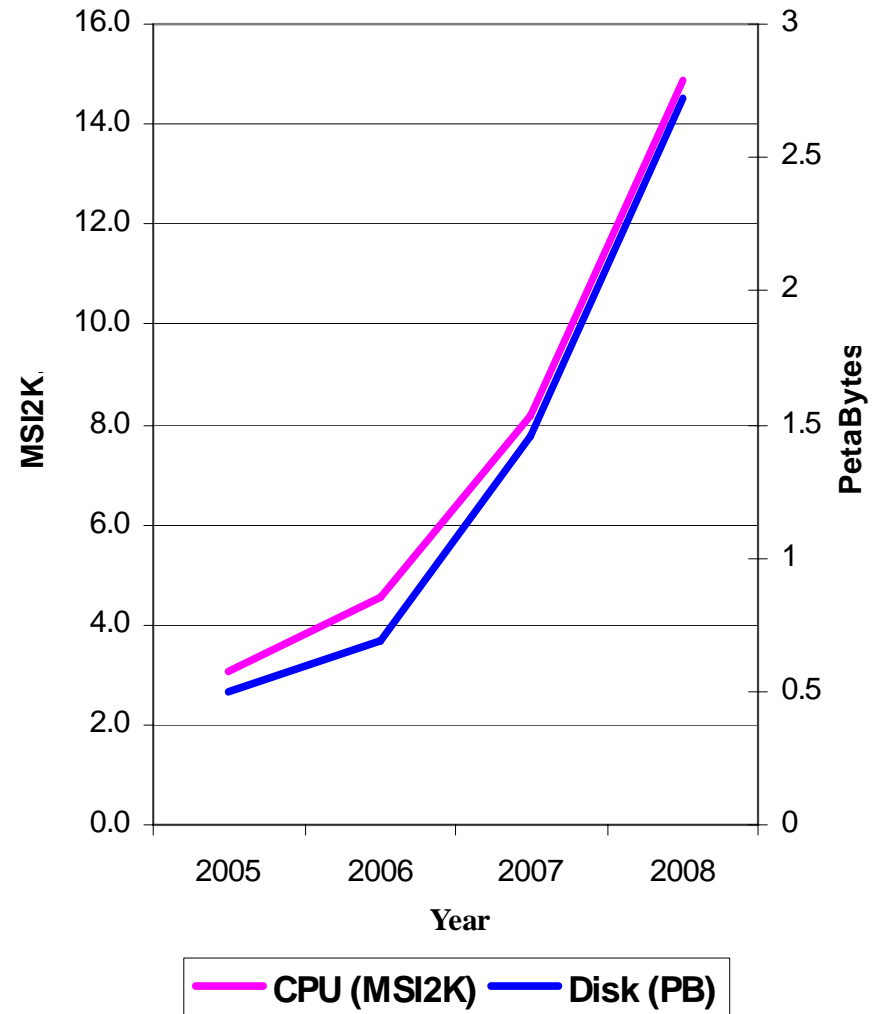18. Resource Brokers at CERN and one other site (?)

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Capacity Growth from now to 2008

Tier-1 Evolution

Legend: CPU (MSI2K) — Disk (PB) — Tape (PB)

Tier-2 Growth
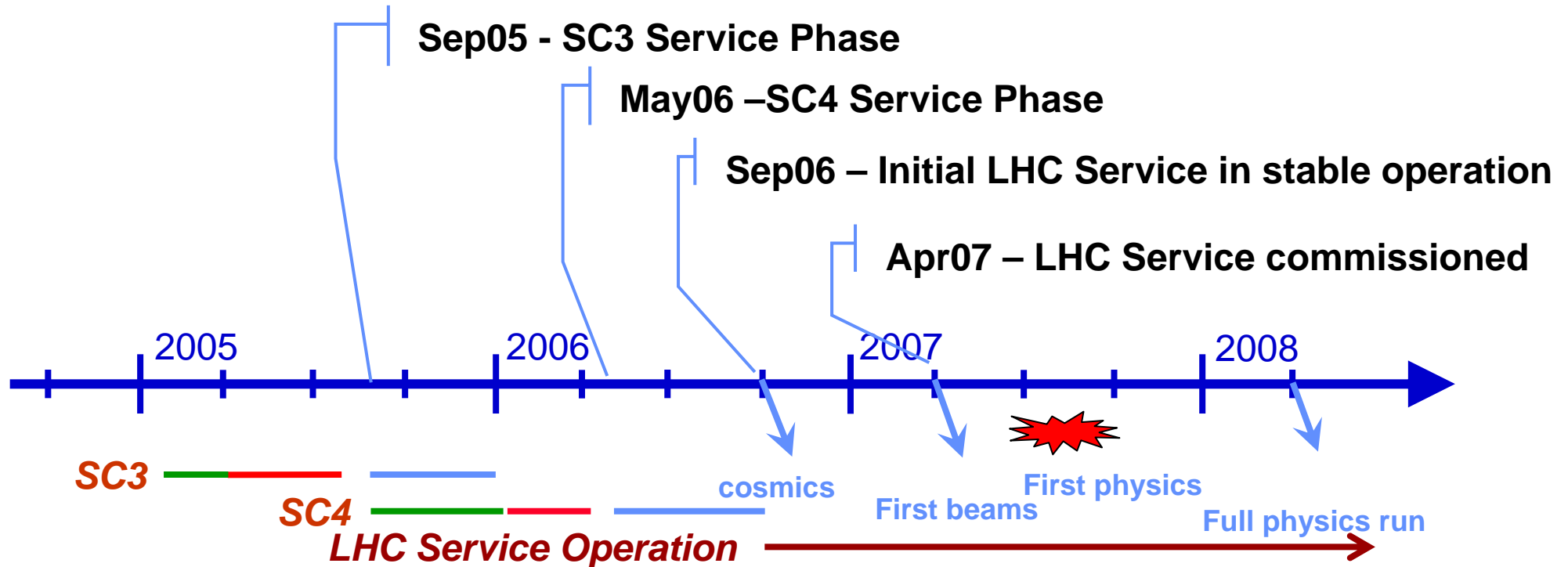
Legend: CPU (MSI2K) — Disk (PB)

Points from yesterday's Pre-GDB

- Tier-1s to submit outline plans for SC4 configurations, acquisition - by email by end of September for discussion at next GDB

- Each Tier-1 site must provide a "reference node" for performance and other tests

- SC4 will be the only service available for experiments
    - to do their daily work as well as testing out their computing models
    - finally becoming the LHC production service in September

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Key dates for Service Preparation

LCG

Sep05 - SC3 Service Phase

May06 –SC4 Service Phase

Sep06 – Initial LHC Service in stable operation

Apr07 – LHC Service commissioned

2005 2006 2007 2008

SC3

SC4

cosmics

First physics

First beams

Full physics run

LHC Service Operation

- **SC3 – Reliable base service – most Tier-1s, some Tier-2s – basic experiment software chain – grid data throughput 150 MB/sec (60 MB/sec to tape) at Tier-1s**
- **SC4 – All Tier-1s, major Tier-2s – capable of supporting full experiment software chain inc. analysis – sustain nominal final grid data throughput (aggregate 1.6 GB/sec to tape)**
- **LHC Service in Operation – September 2006 – ramp up to full operational capacity by April 2007 – capable of handling twice the nominal data throughput**

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