LCG Service Challenges
SC2 Goals

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Introduction

- Reminder of where we are with the Service Challenges

- Some words on mailing lists

- Goals of SC2

- Next talks…

Mailing Lists

3 new mailing lists created:

- service-challenge-man
    - For 'management level' discussions

- service-challenge-tech
    - For 'technical level' discussions

- service-challenge-cern
    - For discussions within the CERN team

    This one is being used!

- service-challenge-info ??
    - Includes all of above?

➤ **Should we start to use these in addition to project-lcg-gdb?**
    - (actually I have)

2005 Q1 - SC2

SC2 - Robust Data Transfer Challenge

Set up infrastructure for 6 sites
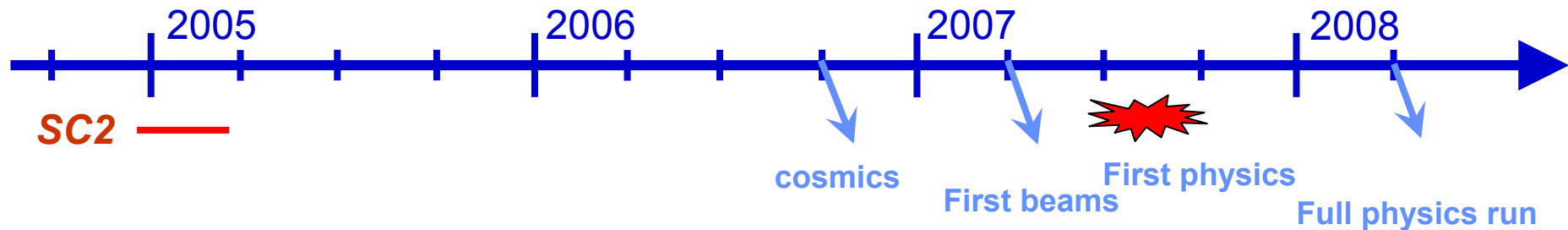- Fermi, NIKHEF/SARA, GridKa, RAL, CNAF, CCIN2P3

Test sites individually
– at least two at 500 MByte/s with CERN

Agree on sustained data rates for each participating centre
Goal – by end March sustained 500 Mbytes/s aggregate at CERN

In parallel - serve the ATLAS "Tier0 tests"

2005   2006   2007   2008

SC2 ——

cosmics

First beams

First physics

Full physics run

SC2 Goals – Milestones document (Feb GDB)

High level overview of SC2 from Milestones document:

- *"Service challenge 2 extends SC1 by including at least 6 Tier1 centres, with the goal of running for one month sustained. Data rates of 100MB/s disk – disk and* **50MB/s tape – tape** *are targeted for each participating Tier1 site with a total aggregate throughput of 500MB/s out of CERN. At least two sites should be tested at rates up to 500MB/s per site.*

- *The sites that are expected to participate in this challenge include Fermi, NIKHEF/SARA, GridKa, RAL, CNAF, CCIN2P3, BNL, although other sites may join as part of the preparatory exercise for later challenges."*

This text was based on my understanding of existing milestones from previous presentations and discussions

Reactions to Milestones

➢ *Documents should be made available ~2 weeks prior to meetings to allow T1s (and others) to comment*

  ▪ I fully agree. Just did not have the time. Will do my best for future meetings. (They were progressively added in the days before…)

➢ *The tape – tape component of SC2 is new. Where did it come from? We have been planning based on previous presentations.*

  ▪ Once again, my understanding (for which I take full responsibility) of the state of planning when I landed on planet SC.

  ▪ Because SC3 is so daunting, I believe that it makes sense / is necessary to include some optional components, which can also be considered "SC3 preparation"

  ▪ I would propose we retain this as an optional test with sites that could be ready

  ▪ But must not negatively interfere with primary goals…

February Milestones

M2.01	Choice of data management components for SC2	February GDB
	The data management components and their versions that will be deployed at CERN will be defined, together with the plan for acceptance tests and service deployment. CASTOR SRM (CERN, INFN), dCache SRM (FNAL, RAL, IN2P3, FZK), SARA SRM(?) + RADIANT, no file catalog(s)	
M2.02	T0 Configuration for SC2	February
	The hardware and network configuration to be used at CERN in SC2 should be finalized, together with the schedule for putting it in place.	
M2.03	Choice of Tier 1 sites to participate in SC2	February GDB
	The sites that will participate in SC2 should confirm their commitment	
M2.04	Choice of 2 Tier 1 sites for 500MB/s for SC2	February GDB
	The sites with which 500MB/s data transfers will be attempted should be confirmed.	
M2.05	Plans for SC2	February GDB
	All Tier 1 centres involved in SC2 should present their plans for the SC2 challenge, including the foreseen data rates that they expect to be able to support. The plans should also detail the data management software components and versions that will be deployed.	
M2.06	Choice of 2 Tier 1 sites for 500MB/s for SC2	February GDB
	The sites with which 500MB/s data transfers will be attempted should be confirmed.	

March Milestones

M2.07	Acceptance tests for Data Management s/w and configuration for SC2	March GDB
	[to be defined in detail]	
M3.01	Draft list of Tier 2 centres	March GDB
	All experiments should come with a draft list of their potential Tier 2 centres with an outline of the likely network topology.	
Mg.01	Heavy ion models and data rates	March GDB
	The required data rates between T0 and T1 sites should be presented, based on revised calculations from the relevant computing models.	
Mg.02	Synchronization of service challenge and experiment milestones	March GDB
	The milestones for experiment-specific challenges should be synchronized with the global service challenge milestones so that the former build on the latter.	

Participants and Goals

- A mail has been sent to all participants asking them:

    - To confirm their intent to participate;
    - To outline their preferred schedule;
    - To confirm the target data rates;
    - To understand if they could participate in additional goals:
        - Pushing data rate per site towards 500MB/s
        - Obtaining 50MB/s from tape - tape

Next talks...

- Site-specific plans for the participating T1s

- Update on Computing Models

- Plans for T2s

- SC3 – draft milestones

- Coordination with 3D project

- Future meetings