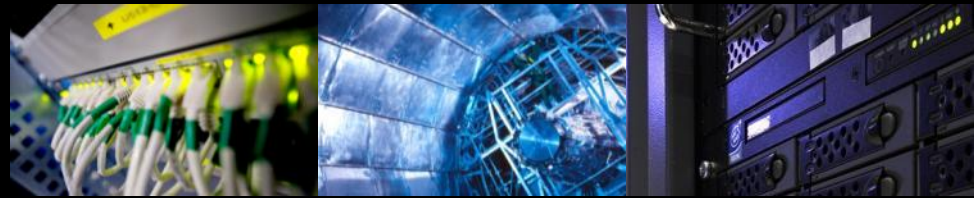
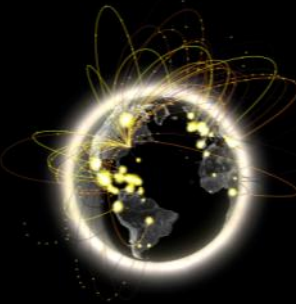
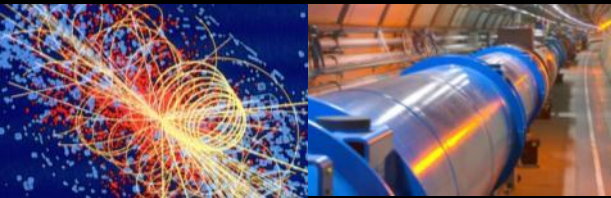


Procedure for proposed new Tier 1 sites

Ian Bird

WLCG Management Board

CERN, 20th March 2012



Background

- There have been several discussions of new proposals for additional Tier 1 sites
 - Korea (KISTI) for ALICE
 - Russia (Kurchatov Inst + Dubna) – all experiments
 - Mexico (UNAM) – ALICE
 - India (?) – ALICE, CMS
- First discussion on process held in CB last year
- Draft process documented – for discussion/agreement here

Process

- Pre-requisite is that any such proposal must be supported by the experiment(s)
- Balance between encouragement of new sites/resources and reaching high standards of existing Tier 1 services
- Process:
 - Prepare with MB a detailed plan that shows how the site will demonstrate required functionality, performance, reliability; timeline and milestones
 - Present plan to OB: OB recommends acceptance (or not)
 - Site can sign MoU as a candidate (provisional?) Tier 1
 - MB monitors progress on ramp up, reports to OB
 - When milestones achieved as agreed by MB, final report to OB to recommend full Tier 1 status

Requirements

- Most elements are described in the MoU addenda
- Candidate site must achieve MoU requirements in terms of
 - Level and performance of resources – see next
 - Quality and reliability of services:
 - Set of services agreed with the experiments
 - Provide agreed levels of support – as in MoU. Typically on-call support year round
 - Availability and reliability: install agreed sensors, publish to WLCG monthly (as all other sites)
 - Interface to WLCG accounting, provide accounting data to be published monthly
 - Support for Tier 2s – in agreement with experiments. Data source and technical support for Tier 2s

Resources - 1

- Networking:
 - Eventually 10 Gb/s (+ alternate) as part of OPN for T0-T1 or T1-T1
 - Proposal should describe how connectivity provided during prototyping, and the plan to achieve connecting to the OPN
 - Tier 2 connectivity via academic networks. Tier 1 normally expected to have good connectivity. Practical needs to be agreed with experiment(s) – as part of the usage model. Plan should describe this.

Resources - 2

- Must provide tape archive service.
 - Capacity needed for share of raw + other data
 - Must guarantee archive for life of the experiment
 - Specified in MoU
- Must show capability of accepting agreed share of raw data and writing it to tape at agreed rate
 - Plan should detail what this is
- Disk & CPU of significant fraction of experiment requirement
 - Typically ~10% (minimum 5%) of requirements expressed to RRB
 - Must be balanced with adequate internal networking to support expected workloads

Questions raised

- Would a new Tier 1 imply existing Tier 1s could reduce their pledges?
 - Hopefully not: the goal is to increase resources
- Do new centres encourage experiments to increase requirements?
 - New centres help to fulfill needs – existing and desired
- NB we have added several Tier 2s without any discussion, or asking of these questions

Summary

- OB agreed to the process
- Proposed 1 year as “normal” expectation during which to achieve milestones
- Requests:
 - KISTI now, Russia at next OB (tbd)
 - Mexico, India (tbd)