In2p3

LCG-France Project Status

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# Contents

- LCG-France contribution to WLCG

- Ongoing work

- Progress since last meeting

- Questions

CPU contribution per country

All LHC VOs   -   January-November 2008
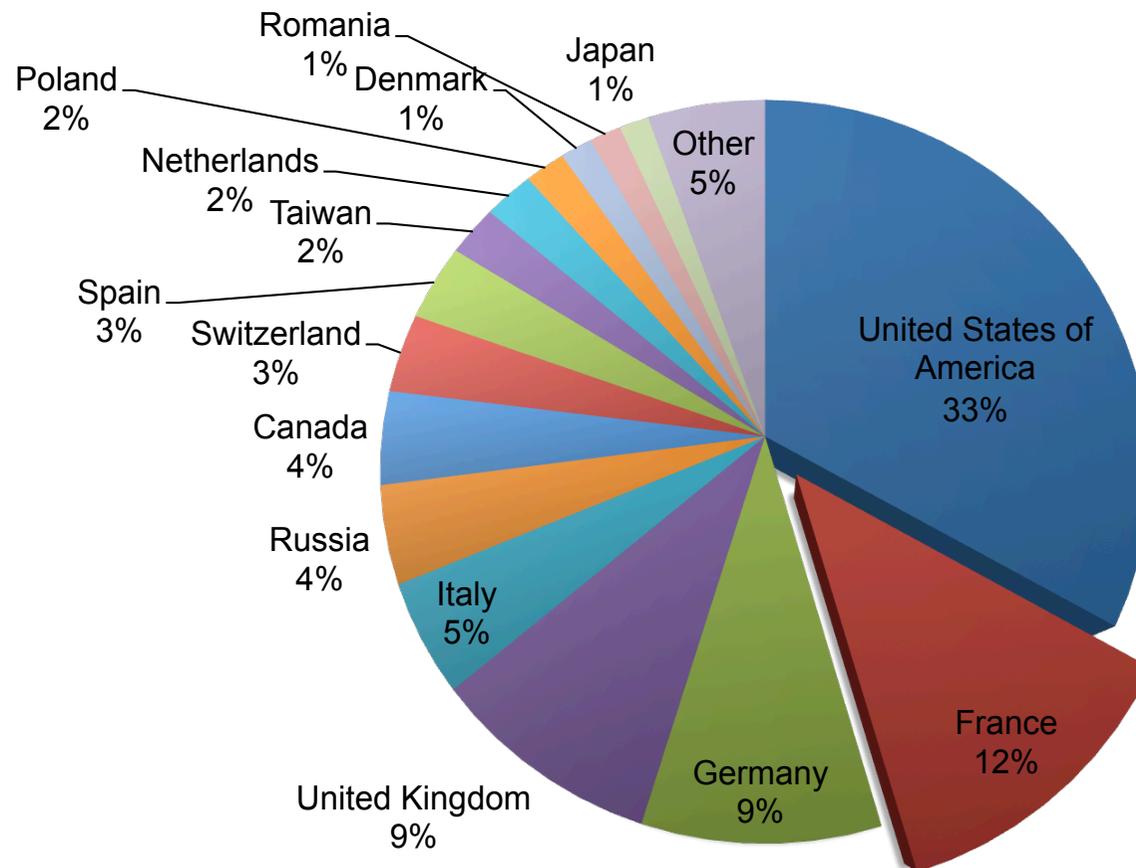
43 countries contribute CPU to the LHC experiments

Source: EGEE Accounting Portal

Actual contribution: CPU tier-1s

CPU contribution by tier-1s

All LHC experiments - Jan.2008-Nov.2008

Source: EGEE Accounting Portal

F. Hernandez/F.Chollet/F.Malek

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CPU contribution by tier-2s

All LHC experiments - Jan.2008-Nov.2008

Contribution by tier-3s not included

Source: EGEE Accounting Portal

CPU contribution by site (France)
All LHC experiments - Jan.2008-Nov.2008

Source: EGEE Accounting Portal

CGG-LCG2 0%
IPSL-IPGP-LCG2 0%
IN2P3-LPSC 0%
AUVERGRID 0%
IN2P3-IPNL 2%
IN2P3-IRES 2%
IN2P3-CPPM 3%
IN2P3-LAPP 4%
IN2P3-SUBATECH 5%
IN2P3-LPC 6%
IN2P3-CC 25%
IN2P3-CC-T2 28%
GRIF 25%

Actual contribution: CPU

**LCG-France tier-2s
Delivered CPU [% of pledged]**
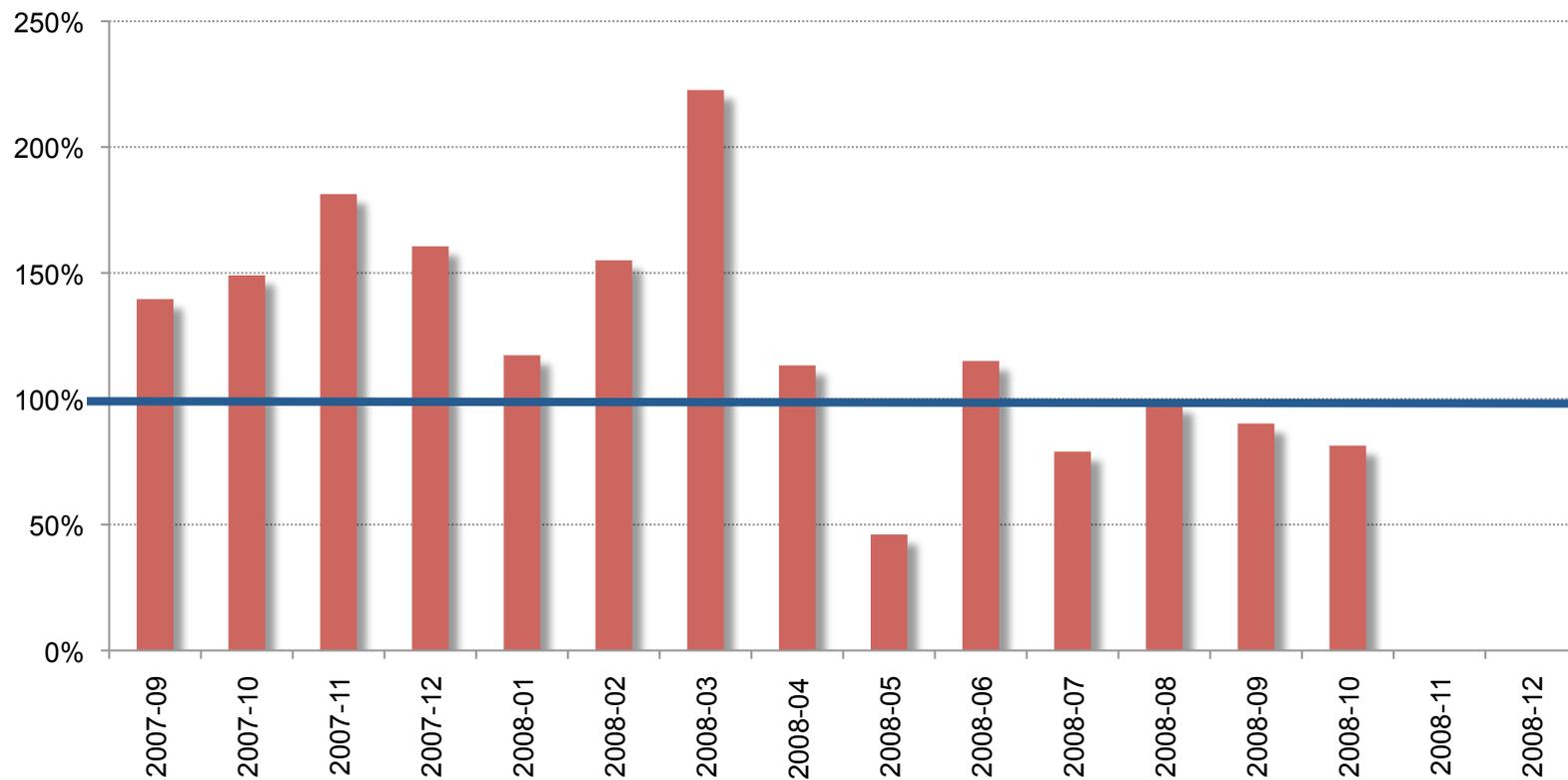
Source: WLCG Tier-2 accounting reports

Actual contribution: CPU (cont.)

FR-IN2P3-CC-T2
**Delivered CPU [% pledged]**
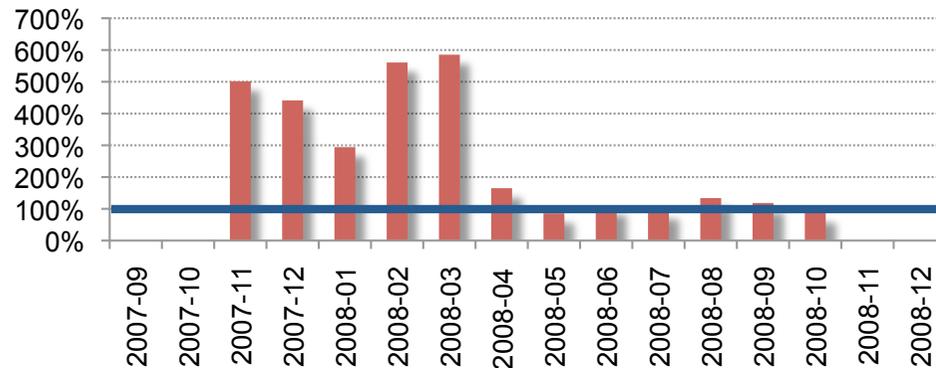
FR-GRIF
Delivered CPU [% pledged]
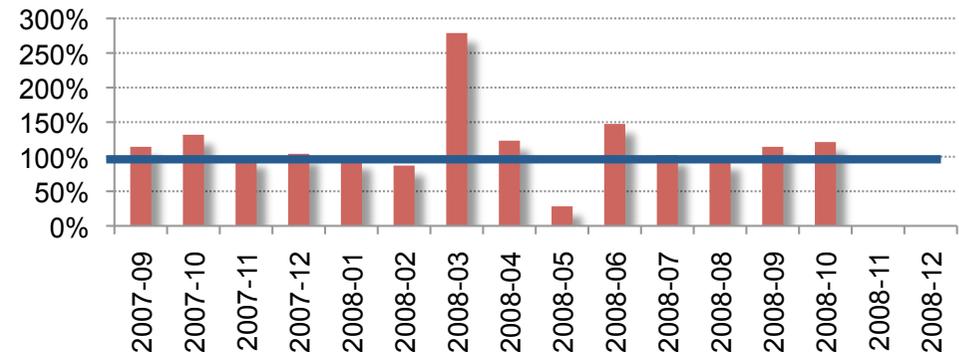
FR-IN2P3-LAPP
Delivered CPU [% pledged]
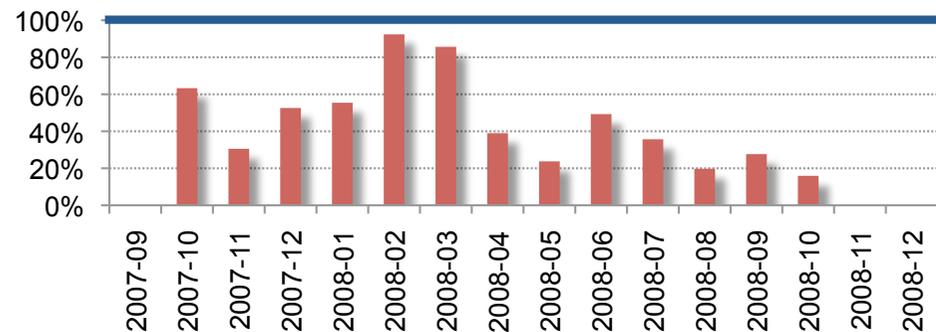
Delivered CPU as a % of pledge

Note: different scales in Y-axis

Source: WLCG Tier-2 accounting reports

Actual contribution: CPU (cont.)

FR-IN2P3-LPC
Delivered CPU [% pledged]

FR-IN2P3-SUBATECH
Delivered CPU [% pledged]
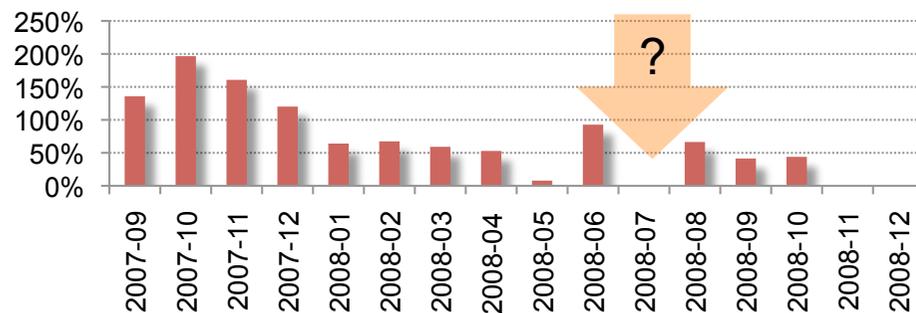
Do sites have tools to verify published information on resource usage?
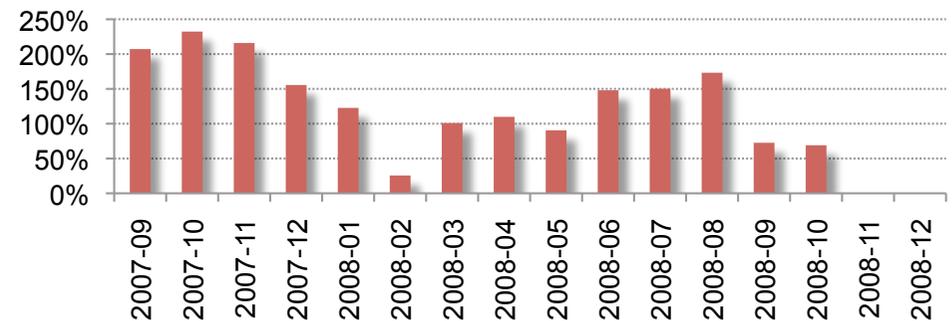
Delivered CPU as a % of pledge

Source: WLCG Tier-2 accounting reports

Tier-1 Availability

CC-IN2P3 Tier-1: monthly availability score
(VO OPS)
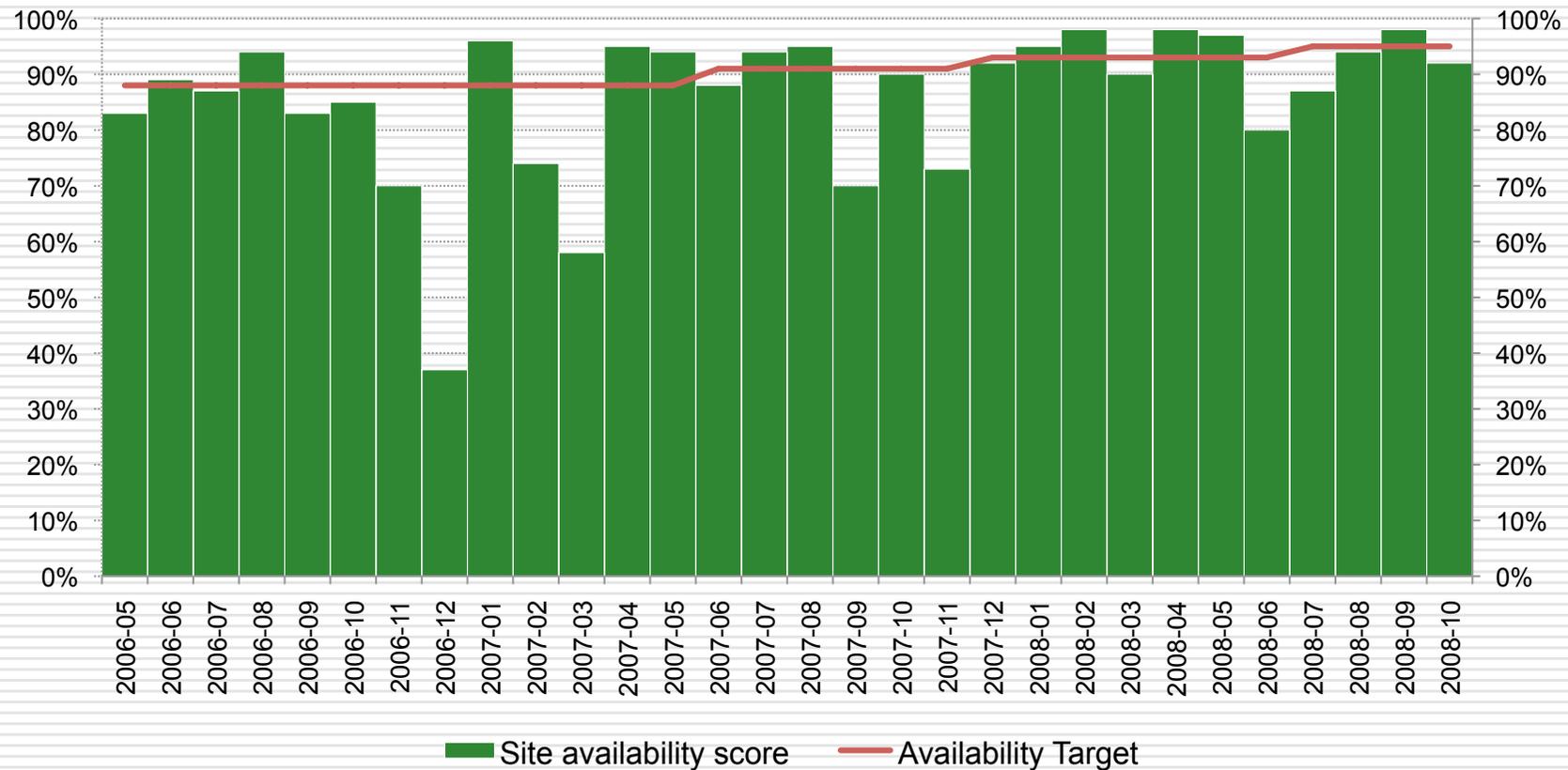
Source: WLCG Reliability Reports

Tier-2 Availability
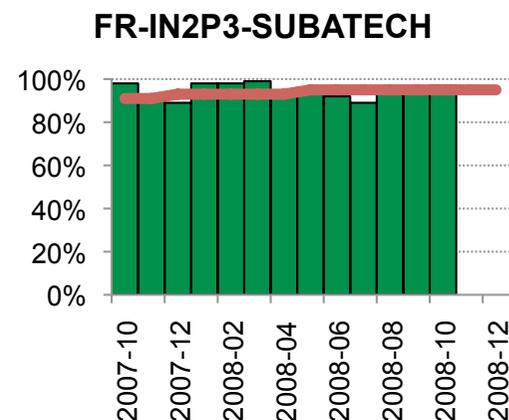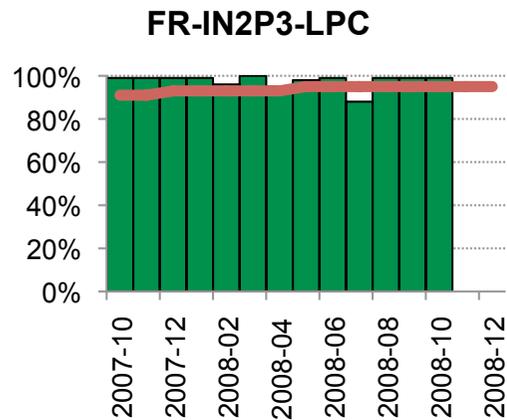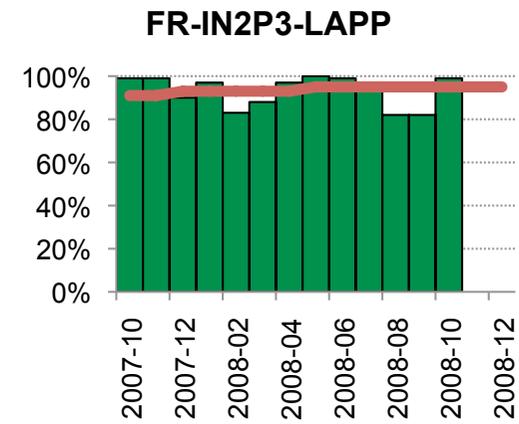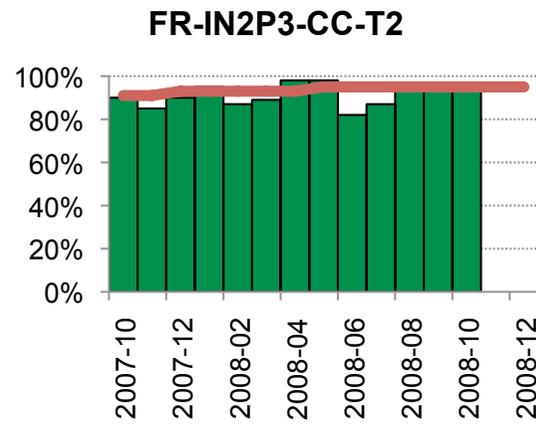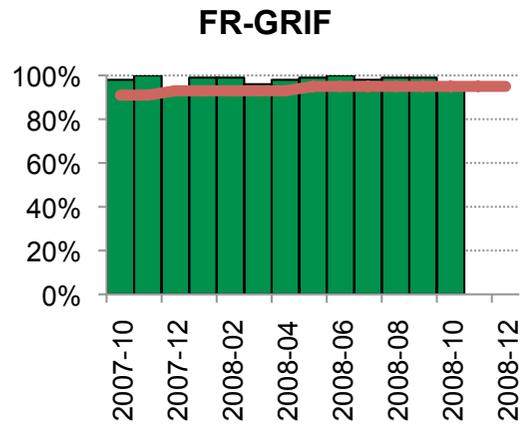
Tier-1: procurement

- Two additional robotic libraries
  - +20.000 slots, +30 tape drives
  - Ordered enough tape cartridges for satisfying requests during 2009Q1

- Disk servers to honour 2008 pledges and roughly half of the needs for 2009
  - +3.4 PB delivered and installed to be put in production on demand

- CPU servers: call for tender in the final phase
  - Delivered expected early 2009

SL4 64bits deployment status

Sites	OS	I686		x86_64
AUVERGRID	SL3 ?	40%		60%
CGG-LGC2	SL3 ?	100%		0%
ESRF	NA	NA		NA
GRIF	SL3 (lal, ipno, apce) ?	IRFU	26%	74%
	SL4	LLR	0%	100%
		IPNO	0%	100%
IBCP-GBIO	SL4	100%		0%
IN2P3-CC	SL4	20%		80%
IN2P3-CC-T2	SL4	20%		80%
IN2P3-CPPM	SL4	0%		100%
IN2P3-IPNL	SL4	100% (30%)		0%
IN2P3-IRES (IPHC)	SL4	0%		100%
IN2P3-LAPP	SL4	0%		100%
IN2P3-LPC	SL3 ?	40%		60%
IN2P3-LPSC	SL4	100%		0%
IN2P3-SUBATECH	SL4	100%		0%
IPSL-IPGP-LCG2	SL4	100%		0%
MSFG	NA	NA		NA
SN-UCAD	SL4	100%		0%

Source: Pierre Girard

SL4 64bits deployment status (cont.)

- Incorrect publishing of CE platform
  - Attribute `GlueHostArchitecturePlatformType` in site information system

- No value
  - lpsc-ce.in2p3.fr
  - cirigridce01.univ-bpclermont.fr
  - iut15auvergridce01.univ-bpclermont.fr
  - iut43auvergridce01.univ-bpclermont.fr
  - obsauvergridce01.univ-bpclermont.fr

SL4 64bits deployment status (cont.)

- Strange value: `dW5zZXQg`
  - apcce01.in2p3.fr
  - grid10.lal.in2p3.fr
  - grid63.lal.in2p3.fr
  - gridce.cci.ucad.sn
  - ipngrid12.in2p3.fr
  - ipnls2001.in2p3.fr
  - lapp-ce01.in2p3.fr
  - lpnce.in2p3.fr
  - marce01.in2p3.fr
  - node07.datagrid.cea.fr
  - node16.datagrid.cea.fr
  - polgrid1.in2p3.fr
  - sbgce1.in2p3.fr

Is this related to the usage of Quattor?

Noteworthy facts

- Connectivity improvements
  - Both at the LAN (tier-1) and WAN levels
  - See Jérôme's talk

- Agreement on funding model by LCG-France for tier-2s and tier-3s
  - Details this afternoon

- WLCG Overview Board
  - Improved representation of tier-2s: Michel Jouvain represents tier-2s associated to a tier-1

- Introduction of a new tier-2 (IPHC) and a new tier-3 (LPSC)

- Improved visibility of LCG-France within the WLCG community

- Strengthen links with associated foreign tier-2s

Ongoing work

- Understand requirements and prototype solutions for end-user data analysis

- Identify and tests site-oriented monitoring tools

- Generalization of VO-specific SAM tests

  - VO-specific realiability and availability metrics based on those tests

- Modification of the unit for benchmarking CPU

  - Based on SPEC CPP 2006

Ongoing work (cont.)

- ## Monitoring working group
  - Mandate
    - collecter les **besoins** des responsables des sites et de services de la région
    - recenser les **pratiques** des sites et les outils de monitoring utilisés
    - **représenter** et défendre les intérêts de la région dans les différents groupes de travail existants au sein de WLCG-EGEE sur un sujet connexe
    - identifier les **standards** qui doivent être suivis ainsi que les outils pertinents à tous les niveaux (services, site et région), proposer aux responsables des sites, des services grid et de l'opération régionale de la grille EGEE un ensemble d'outils répondant à leurs besoins,
    - proposer, si besoin, des **améliorations sur les outils** et procédures d'alertes au niveau des sites, au niveau de la région
    - établir, s'il y a lieu, un **plan** pour la poursuite de ses travaux au-delà de la période initiale des 6 premiers mois.
  - Details
    - https://edms.in2p3.fr/file/I-013168/2/LCG-France-SA1-FR_WGMonitoring.pdf

Ongoing work (cont.)

- Accounting working group
  - Mandate
    - réunir les informations et de suivre les travaux en cours concernant l'*accounting* au sein de WLCG-EGEE, notamment la mise en place de l'*accounting* des ressources de stockage,
    - identifier les besoins, recenser les pratiques coordonner les initiatives des sites français permettant **d'assurer le suivi de l'utilisation des ressources**,
    - proposer aux sites et au coordinateur des opérations au niveau régional des **moyens de vérification des informations publiées** et des statistiques d'usage établies globalement dans le cadre EGEE/WLCG,
    - proposer des **améliorations portant sur les outils, services et procédures** au niveau des sites ou de la région (mise en place d'un outil d'*accounting* local à chaque site, consolidation service *accounting*, établissement de statistiques d'usage régionales…).
  - Details:
    - https://edms.in2p3.fr/file/I-013702/1/LCG-France-SA1-FR_WGAccounting.pdf

Ongoing work (cont.)

- Middleware deployment
  - FTS on SL4
  - CREAM-based computing element
  - WMS to completely replace resource brokers
  - Deployment of SL5 on worker nodes
  - Glexec & SCAS to support multi-user pilot jobs with identity changing
  - DPM v1.7

- Operations
  - Publishing of installed capacity (CPU and storage) information via the site information system
  - CPU usage per user
  - Operations model for LCG-France (see Hélène's talk tomorrow)

Ongoing work (cont.)

- ## Recall of data on tape at tier-1
  - Fix problems unveiled by CMS, Atlas and LHCb exercises
  - Improve interaction between dCache and HPSS
  - Collect appropriate information for monitoring the behavior of the storage components (dCache and HPSS)

Progress since last meeting

- ## Project management

  Done

  - Finalize model for equipment budget for all sites

  Ongoing

  - Regulary collect and consolidate data on installed capacity for LCG-France sites

- ## Consolidation of the grid infrastructure services

  - How many instances of every grid service do we need? Where to deploy them to maximize availability for all supported VOs?
    - ◆ Work to be performed in strong interaction with EGEE-FR operations

  Ongoing

  - Monitoring of the (site and regional) grid infrastructure

  Ongoing

  - Tools for site-level accounting (CPU and storage)

Progress since last meeting (cont.)

- Ramp-up

  Done

  Starting

  - Participation to the second phase of CCRC (May)
  - Make sure we all (sites and experiments) understand what infrastructure is needed for analysis activities

More Information

- LCG-France website http://lcg.in2p3.fr

Questions

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