

Installed Resource Capacity: update and operational plan



Flavia Donno
CERN/IT-GS

*WLCG Management Board,
CERN 3 February 2009*

Outline

- **Summary of the comments received on the previous published version of the document**
 - **Computing**
 - **Storage**

- **The new version of the document is v1.8 publicly available**
 - **It includes a description for pure xrootd installations**
 - **Integration of the new benchmark HEP-SPEC**
 - **A few more comments received from OSG**

- **Presentation of the operational plan**



Computing Capacity: changes

■ **GlueHostBenchMarkSI00 = Average SpecInt2000 rating per LogicalCPU**

- Sites that decide to publish CPU power using the new benchmark HEP-SPEC MUST use the *GlueHostBenchmarkSI00* attribute to publish CPU power. In this case, the power MUST be expressed in SpecInt2000 using the scaling factor that can be found in [11]. Such sites MUST also publish the attribute GlueHostProcessorOtherDescription: Benchmark=<value>-HEP-SPEC, where in <value> they report the CPU power expressed in the new unit.

■ **CECapability: CPUScalingReferenceSI00=<refCPU SI00> the CPU SI00 for which the published GlueCEMaxCPUtimes are valid.**

$$S(WLCGSubCluster)_{Site} = \begin{cases} \sum_{WLCG\ vos} GlueCECapability(Share) / 100 & \text{if WLCG share are published} \\ & \text{through the GlueCECapability attribute (EGEE sites)} \\ \sum_{WLCG\ vos} GlueSiteSponsor(Share) / 100 & \text{if WLCG share are published} \\ & \text{through the GlueSiteSponsor attribute (OSG sites)} \\ 1 & \text{if WLCG share are not published} \end{cases}$$

This is one of the quantities to collect for the APEL reports at Federation and VO level

$$\text{Total Installed Computing Capacity}_{Site} (KSI00) = \sum_{WLCG\ SubClusters} GlueHostBenchMarkSI00 * GlueSubClusterLogicalCPUs * \frac{S(WLCGSubCluster)_{Site}}{10^3}$$

Storage Capacity: changes

■ Changes involve the description of pure xroot installations

- GlueSEImplementationName/Version: It includes xrootd and the version of the protocol.
- GlueControlProtocol/AccessProtocol: Pure xrootd installations will publish both control and access protocol (xroot is both a storage control and file access protocol) to distinguish from “xroot door”-only installations such as dCache, DPM, and CASTOR.
- It is advisable that pure xroot installations will publish only one SA.



$$\text{Installed Capacity} = \left(\sum_{\text{WLCG GlueSA}} \text{GlueSACapability}(\text{InstalledCapacity}) \right)$$

This is one of the quantities to collect for the APEL reports at Federation and VO level



Installed Capacity: status

- The new version of the document (v1.8-6) has been published with all details, operational instructions for site administrators and explicative examples (OSG missing)
 - https://twiki.cern.ch/twiki/pub/LCG/WLCGCommonComputingReadinessChallenges/WLCG_GlueSchemaUsage-1.8.pdf

- Technical agreement on the content of the document :
 - From EGEE
 - No explicit answer from OSG: no news is good news ? ;-)

- If approved, we move to the operational plan
 - See next slide



Installed Capacity: plan (1)

- **Operational plan agreed with WN working group, Gstat, EGEE operations, developers, gLite certification team.**
- **This plan assumes that the document is approved today.**
- **Plan description(1):**
 - Presentation of the requirements and of the document at the next EGEE operations meeting. Presentation at the next GDB (February 11th 2009).
 - Creation of a support group in GGUS to support sites. To be in place by the 18th of February 2009
 - Nothing to be done for DM or WMS clients. Nothing to be done for SAM tests.
 - Next version of YAIM supporting configuration to be released by end of February 2009.



Installed Capacity: plan (2)

■ Plan description (2):

- New Gstat sanity checks will go to production at the end of February 2009.
- New GridMap will go to production at the end of February 2009.
 - size the sites by #LogicalCPUs (Cores) or Installed Capacity (SI2K) as defined in the document
 - will have a button to show the OSG sites contributing to WLCG (OSG sites are shown if they are listed in SAM and also in BDII)
 - will allow to interactively explore the PhysicalCPU and LogicalCPU numbers of sites (helps with inspection if the values are set correctly)
 - If we get the online data feed for WLCG topology information in time, we'll also add this as the source for the "tiers" button. This will then show WLCG sites only.
- **APEL will produce the first reports for Tier-2s in April 2009 (?)**
 - This are just test reports to verify that the system as conceived works.
 - Official reports will be produced later on in the year.

■ *Dates can change slightly*



Installed Capacity: plan

- **The described operational plan has been approved by the EGEE side of WLCG.**
- **Started engaging with the OSG ...**
 - Progress is being made. A list of the current concerns and ideas is being created.
A concrete plan is being worked on.
 - OSG top concerns regarding deployment are:
 - The ability to "override" any final numbers collected in APEL which might be incorrect.
 - USATLAS has requested that they not send any data via the BDII which could result in jobs matching their sites in a WMS.
 - USCMS appears to be interested in having separate data paths between the "normal" BDII which might be used by meta-schedulers and any used in accounting data.

