

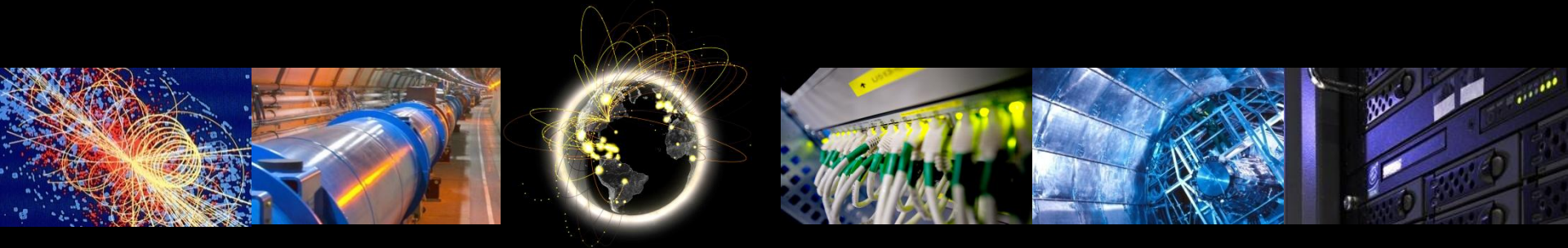
CE extensions requirements for the Information System

Maria Alandes Pradillo

CERN IT Department, Grid Technology Group

With contributions from Stephen Burke and Laurence Field

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WM TEG Use Cases

- Site Support for:
 - whole nodes
 - generic multi-core jobs
 - Both
 - none of these
- Maximum number of cores supported in the site
- Maximum amount of RAM that can be requested for multi-core jobs
- Distinction between I/O-bound and CPU-bound jobs supported in the site

Information System Requirements

- What does it mean *whole nodes*?
 - What do you expect from IS?
 - Publication of a functionality?
 - Publication of a value?
- In general, for all use cases, we would like to understand what you want to see in the IS.

WM TEG Use Case	IS Requirement
Whole nodes	?
Generic multi-core jobs	?
Max number of cores per job	?
Max RAM for multi-core jobs	?

Glue 1.3 Mechanisms

- GlueCECapability attribute
- Currently used for glxec and cpu scaling value
- YAIM Example:
 - `CE_CAPABILITY="CPUScalingReferenceSI00=100
Share=dteam:20 Share=atlas:10 glxec wholenode"`
- This mechanism is not so good for numbers
 - The string needs to be parsed!
 - See June 2010 presentation on *Job Matching – CPU Power Requirements*
<https://indico.cern.ch/getFile.py/access?contribId=6&sessionId=0&resId=1&materialId=slides&confId=72057>

Glue 2.0 Mechanisms

- Some extra attributes are added explicitly
 - ComputingShare (if parameters different per VO):
 - MaxMultiSlotWallTime
 - MaxTotalCPUTime
 - MaxSlotsPerJob
 - ComputingManager (if global properties of the batch system):
 - TotalLogicalCPUs
 - TotalSlots
 - LogicalCPUDistribution
 - ExecutionEnvironment (related to the WN hardware):
 - LogicalCPUs
 - CPUMultiplicity
- GLUE2EntityOtherInfo exists for all Glue 2.0 objects

Manual or Automatic?

- Manual definition by sys admins
 - Clear documentation to make sure all attributes mean the same for all sys admins
 - YAIM variables are re-used for both Glue 2.0 and Glue 1.3
- Automatically collected from batch system
 - Could the batch system provide the information?
 - Time to code new scripts, release them and deploy them!
 - Maintenance and support effort

Deployment

- Glue 2.0:
 - EMI 2 version of CREAM is fully Glue 2.0 compliant
 - It will take time to deploy this version
 - Agreement on the OtherInfo/Capability attributes
- Glue 1.3:
 - Agreement on GlueCECapability attribute
- Deployment of new attributes in either case
- What is the expected deadline?
 - LHC LS?