The Grid Storage System Deployment Working Group

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Grid Storage System Deployment (GSSD)

- Working group launched by the GDB to coordinate SRM 2.2 deployment for Tier-1s and Tier-2s
  - https://twiki.cern.ch/twiki/bin/view/LCG/GSSD
  - Mailing list: storage-class-wg@cern.ch

- Mandate:
  - Establishing a migration plan from SRM v1 to SRM v2 so that the experiments can access the same data from the 2 endpoints transparently.
  - Coordinating with sites, experiments, and developers the deployment of the various 2.2 SRM implementations and the corresponding Storage Classes.
  - Coordinating the Glue Schema v1.3 deployment for the Storage Element making sure that the information published are correct.
  - Ensuring transparency of data access and the functionalities required by the experiments (see Baseline Service report).

- People involved: developers (SRM and clients), storage providers (CASTOR, dCache, DPM, StoRM), site admins, experiments

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GSSD Rough Plan

- (A.) Collecting requirements from the experiments: more details with respect to what is described in TDR. The idea is to understand how to specifically configure a Tier-1 or a Tier-2: storage classes (quality of storage), disk caches (how many, how big and with which access), storage transition patterns, etc.
    - Now

- (B.) Understand current Tier-1 setup: requirements ?
    - Now

- (C.) Getting hints from developers: manual/guidelines ?
    - Now

- (D.) Selecting production sites as guinea pigs and start testing with experiments.
    - Beginning of March 2007 - July 2007

- (E.) Assisting experiments and sites during tests (monitoring tools, guidelines in case of failures, cleaning-up, etc.). Define mini SC milestones
    - March - July 2007

- (F.) Accommodate new needs, not initially foreseen, if necessary.

- (G.) Have production SRM 2.2 fully functional (MoU) by **September 2007**

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Deployment plan in practice

- Detailed requirements already collected from LHCb. Still some reiteration is needed for CMS and ATLAS. ALICE in progress (?).

- Focus on dCache deployment first. Target sites: FZK, Lyon, SARA. Experiments: LHCb and ATLAS.
  - Variety of implementations. Many issues covered by this exercise

- Compiling specific guidelines targeting an experiment: LHCb and ATLAS.

- Guidelines reviewed by developers and sites. Covering possibly also some Tier-2 sites.

- Working then with some of the T2s deploying DPM. Repeat the exercise done for d-Cache. Possible parallel activity.

- Start working with CASTOR if ready: CNAF, RAL.

- Define mini SC milestones with the experiments and test in coordination with FTS and lcg-utils developers.

Deployment plan in practice: the client perspective

- Site admins have to run both SRM v1.1 and SRM v2.2
  - Restrictions: SRM v1 and v2 endpoints must run on the same "host" and use the same file "path". Endpoints may run on different ports.
- Experiments will be able to access both old and new data through both the new SRM v2.2 endpoints and the old SRM v1.1
  - This is guaranteed when using higher level middleware such as GFAL, lcg-utils, FTS, LFC client tools. The endpoints conversion is performed automatically via the information system.
  - SRM type is retrieved from the information system
    - In case 2 versions found for the same endpoint SRM v2.2 is chosen only if space token (storage quality) specified. Otherwise SRM v1.1 is the default
    - FTS can be configured per channel on the version to use; policies can also be specified ("always use SRM 2.2", "use SRM 2.2 if space token specified",...)
- It is the task of the GSSD Working Group to define and coordinate configuration details for mixed mode operations.

===>>> It is possible and foreseen to run in mixed mode with SRM v1.1 and SRM v2.2, until SRM v2.2 is proven stable for all implementations.

Coordination

- Use pre-GDB meetings if possible. Otherwise monthly face-to-face meetings ?

- Sub-groups to work on specific issues: bi-weekly phone conferences ?

- Use mailing list to report updates/problems.

- Use wiki web site for documents.

- Report progress at WLCG MB

- Some subgroups can be started today: volunteers for T2 setup for LHCb and ATLAS with DPM ?

- Enjoy! ;-)