

# GSSD - report from pre-GDB

GDB - CERN  
7 November 2007

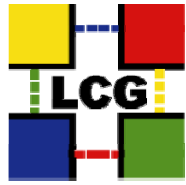
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## Topics discussed

- **Experiments' report** about SRM v2.2 testing : LHCb
- **Deployment in production**: NDGF experience
- Use of **space management**: implications for the experiments
- Organization of **support** for storage services
- Summary of decisions taken for the publication of SRM v2.2 information in production **information system**

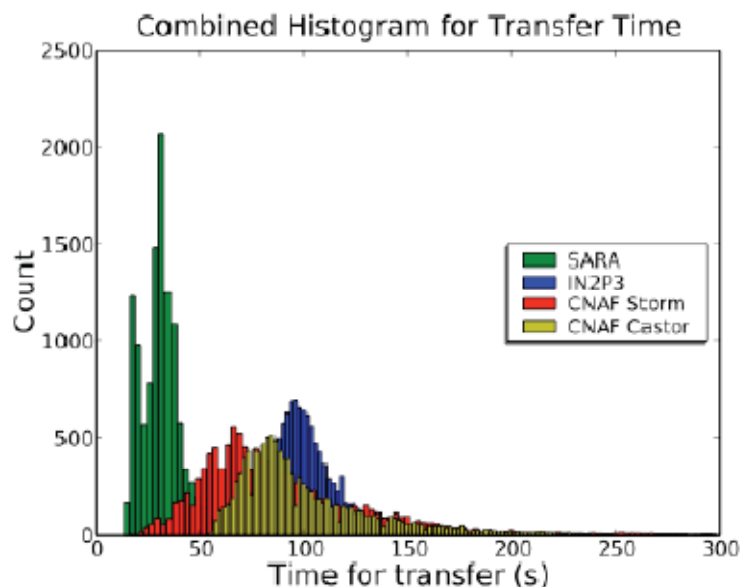


## LHCb SRM v2.2 testing experience

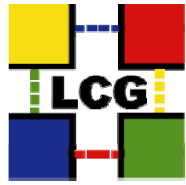
- The test:
  - Pre-staged 12K files (about 2.2TB) in CASTOR@CERN dedicated pools
  - Performed FTS transfers through DIRAC DMS between CASTOR@CERN (srmv1) to IN2P3, SARA, CASTOR@CNAF, and StoRM@CNAF (all running srmv2).
  - FTS channels overloaded with 3 jobs; each jobs performing replications of 100 files.
- Satisfactory results with an average 1-2% failure rate. Nominal transfer rate for LHCb reached everywhere (40MB/sec).



## LHCb SRM v2.2 testing experience

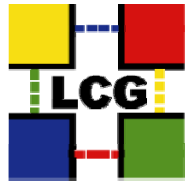


- No errors observed at IN2P3
- SARA quite fast
- Need to understand how to tune the installations for better performance
- Check Andrew's slides for details
  
- Accepted proposal: LHCb will perform stress tests to understand the response of the systems.
- They will coordinate with sites and developers for assistance
- Ongoing production activities should not be disrupted. This might imply configuration changes: new FTS channels ? Storage resources ?



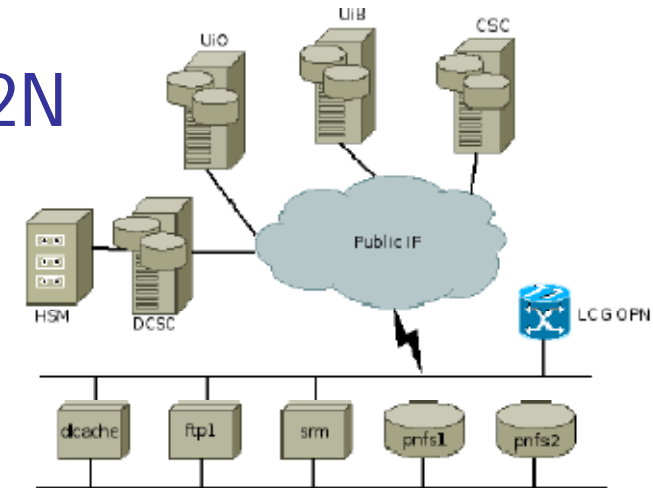
## LHCb SRM v2.2 testing experience

- Functionality tests of **gfal/lcg-utils** performed. **ROOT** access on StoRM through “file” protocol tested
- **Integration** in the experiment framework almost completed
- **Future tests:**
  - Use of SRM v2 at CERN as source
  - Adding FZK into the game
  - Testing bulk removal through **gfal** : continuous transfer-remove over a sustained period.



## NDGF experience: dCache 1.8.0-0 in production

- 5 sites: UiB, UiO, NBI, CSC, HPC2N
  - 56 pools on 15 hosts
  - 243 TB
  - SRM and XROOT2
  - 2 GridFTP
- Everything went as planned
- Bug in FTP discovered. Fix is included in dCache 1.8.0-1
- Space manager not yet enabled
- ARC clients are not SRM v2.2 aware at the moment





## Space Management in production

- The “piece of storage” used by a storage service when a token is specified might be different than the one used when the token is not specified
- Some experiments use paths differently depending if SRM v1 or SRM v2.2 is used.
- How can we insure transparency during the transition period ?
- What are the experiments plans for the next months ?
- The details and a “strategy” will be discussed and agreed during the CCRC08 Monday phoneconfs.



# Organization of Support for Storage Services: conclusions

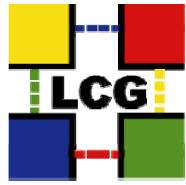
- Several **different types of problems** reported:
  - Problems reported by users and understood by the sites (solved at ROC level)
  - Problems reported by site admins
  - Problems reported by Tier-1s
- It was agreed that issues that fall in 1) are the ones **GGUS** can address. However, 2) and 3) are better addressed via other means
  - **Site-admins forums** (already existing for most of the storage services available)
  - Well **defined channels to developers support** infrastructures
- It is important to build a **second level support** specialized in storage service
  - A group of expert site-admins or users who can help non-expert Tier-2s sort out common problems
  - Such a group of expert could also be a formal GGUS group. In this way problems reported by site-admins can be traced, if GGUS tickets are open.
  - It looks like we have enough experts around and they are willing to provide support. Candidates are in UK, Italy, Spain
  - Second level support will be discussed during the Tier-1/Tier-2 storage workshop at Edinburgh
  - It was agree to also create a channel between the EU and the US second level support so that knowledge can be built in a broad way
- It was stressed that **support** for storage is very important and **cannot come for free**
  - Funding is needed in order to build such a group of dedicated experts
- How should **VOs report problems** during data challenges or production activities ?
  - As of now VOs contact directly Tier-1s. This should not change.
  - At the same time a GGUS ticket should be open for traceability
- For what concerns **Tier-1s**, the site-admins forum can be used but also a direct channel with the developers should be established.
  - GGUS tickets should be created for traceability
  - A feed should be created so that GGUS TPM can assign problems to the developers
- **GSSD will organize the support for Storage** in coordination with GGUS/ESC.





## GLUE SRM v2.2 information

- Maarten summarized the **decisions** concerning the information that needs to be published in the information system for SRM v2.2 services
  - Please, check the slides for details
- There was **common agreement**: the example provided in GSSD pages is complete and correct for all storage services available at the moment
- On the GSSD pages a tarball containing the **scripts** that a site can run in order to verify compliance to the GSSD example has been made available.
- An **S2 family of bdi tests** has also been made available: only the sites that are participating in SRM v2.2 experiments' tests are monitored
- The S2 family of tests is already **integrated in the new monitoring framework**



## Next GSSD F2F meeting

- December 4<sup>th</sup> 2007 ??
  - Probably half day only
  - Sharing experience about SRM v2.2 deployment in production
  - Focus on experiments' tests and use of production SRM v2.2 endpoints