

CCRC08 Phase 1

French T2s Experience

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- French sites involved in CCRC08
- CCRC08 at a T2 : what is it ?
- CCRC08 preparation and impressions
- Communication channels (challenge ?)
- Problem reporting
- Experiment support
- Conclusions

- GRIF : open to 4 LHC experiments
 - GRIF is a distributed grid site spread over 5+1 locations
 - 1 CE/SE per location : 5 CE, 5 SE open to LCG
 - 1 external link for each subsite (1Gb/s)
 - Soon GRIFOPN + 10 Gb/s shared external link
 - 5 MSI2K (1,5 pledged), 250 TB (500 TB soon)
- CLERMONT : ATLAS + LHCb + ALICE
 - 3 CE, 1 SE
 - 600 kSI2K, 35 TB, 1 Gb/s external link
- LAPP : open to ATLAS + LHCb
 - 600 kSI2K, 20 TB, 1 Gb/s external link
- SUBATECH : pure ALICE
 - 312 kSI2K, 43 TB

- CCIN2P3 T2 : all experiments
 - 1,5 MSI2K, 180TB
 - Infrastructure (WNs/disk) and management shared with
- Some T3s in addition
 - Used at least by MC
- All sites except SUBATECH open to many non-LHC



- From a site perspective... not easy to answer
 - What's more than usual work ?
 - How to differentiate a CCRC08 job/transfer from a non CCRC08 ?
 - T2s at the end of the chain : not clear to know when T activities have started, in particular analysis
- Every site ready to participate and paying a special attention to problems
 - In particular transfer problems
- 1 new service : SRM 2.2
 - Every site uses DPM
 - No major problem, every site defined some space token
- ALICE sites (2) : attempt to setup DPM/xrootd
 - In fact succeeded beginning of March...
 - Difficult to get support from ALICE

- French technical coordination between T2s and T3
 - Every month : CCRC08 in the agenda for several months
 - Extends to Japan and IHEP because of their T1 relationship
 - Participation of representative from ATLAS mainly
 - Participation of representative from T1
 - Fabio and me participating regularly to F2F and GDB
- LCG France technical mailing list
 - Valuable help and first level support in the rush for baseline services
 - Coordination between T2s and T1
- Upgrade to baseline version in a very short period of time
 - Sites generally up-to-date
 - Almost every site uses Quattor + QWG Templates
 - A couple of DPM 3.1, 1 CE 3.1

- No major problem experienced
 - Sites were “ready” from the first week
- Very few feedback from experiments
 - A “technical expert” of the experiment helps but this is not his primary role
- Difficult to know if you are in or not
 - Difficult to interpret jobs you are receiving... or not receiving
 - Most of the VOs sent less jobs than expected but no clear advertisement
 - The same for transfers...

- Many communication channels and difficult to be
 - An important part of the communication is through informal, bilateral relationship
 - E.g. : ATLAS space token list obtained a few days before start of phase 1 by “unofficial” contacts, several inconsistent sources...
 - Daily meeting by phone is not accessible to people not already well integrated in the “core”
 - More a remote participation to a CERN meeting than a real “collaboration” meeting
 - Site role in this meeting not very clear
- Lack of a lightweight mean to keep “normal”, “non heroic” sites informed
 - No trivial proposal
 - Jamie’s idea of T2 coordinators per country/region/federation is probably a corner stone
 - Need to produce a short summary per week
 - Very high level like CCRC08 Calendar

- GGUS vs. Elog
 - GGUS is THE place for issue tracking
 - Elog value not clear for sites (me)
 - Elog is very difficult to cope with : RSS is just another nightmare (after email!) to read
 - Mainly used as an alert system by experiments for T0/T1
- Direct communication between sites and experiments
 - Non optimal for a site, in particular for tracking potential multi-site issues
 - Duplication of effort between sites
 - E.g. : space tokens not honoured in Atlas transfers to french T2
 - But required for urgent notification of problems...
 - Not everything can be urgent...
- Experiment specific issue tracker sometimes used as an alternative to GGUS to report problems to sites
 - E.g. : CMS Savannah

- Main issue was FTS configuration at Lyon
 - General issue : space tokens ignored because channel configured with srmcp and wrong default protocol options
 - GRIF specific : 1 channel for 6 Ses not allowing to tune configuration for each SE + competition between Ses
- Other issues more experiment related but pressure to solve them
 - Most of them quite old, e.g. CMS commissioning issues
- Demonstrating/pushing hard limits
 - LAL sustained 80 MB/s of incoming data (CMS mainly) during 48 hours
 - Japan demonstrated similar results after M6
- Such an exercise should not be a continuous activity
 - Usefulness depends on site ability to do an exceptional effort

- # Experiment Support
- Sites may have difficulties to support several experiment at once...
 - But experiments have difficulties to support many sites at once if the same problem happens at several sites
 - Need a way for an experiment to advertise a problem known and who is working on it.
 - Elog could have been a tool for this but failed with this respect for problems regarding T2s
 - Site/Experiment relationship is the challenging issue for T2s
 - Generally not a dedicated person for each experiment supported
 - Experiments not always very responsive with support of specific services
 - E.g. ALICE DPM/xrootd support
 - T2 technical contact on duty ?

- Learnt many things during this exercise, as a site
 - Focus set on outstanding issues : several solved
 - Need to be kept as an exceptional, focused exercise
- Communication is the major challenge to get the involved in the global effort
 - T2 sites are ready to participate but cannot participate many meetings a week (day?)
 - Centrally managed communication with T2s is not possible
 - Need to develop local relays, helping them by maintaining a central high-level information
- Information traceability is a key issue
 - GGUS is a probably a corner stone for this
 - Need to be more usable as a browsing source (Google
- Alarm notification must be an additional service, r
an alternative