

CCRC'08 Weekly Update

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WLCG MB, 19th February 2008

Agenda

- Do not plan to repeat talk from today's meeting with LHCC referees
- Focus on recommendations and key issues
 1. Scope & Timeline of the Challenge(s)
 - 2. Problem Tracking, Reporting & Resolution**

Scope & Timeline

- We will not achieve sustained exports from ATLAS+CMS(+others) at nominal 2008 rates for 2 weeks by end February 2009
- There are also aspects of individual experiments' work-plans that will not fit into Feb 4-29 slot
- **Need to continue thru March, April & beyond**
- After all, the WLCG Computing Service is in full production mode & this is its purpose!
- **Need to get away from mind-set of "challenge" then "relax" – its full production, all the time!**

Handling Problems...

- Need to clarify current procedures for handling problems – some mismatch of expectations with reality
 - e.g. no GGUS TPMs on weekends / holidays / nights...
 - **c.f. problem submitted with max. priority at 18:34 on Friday...**
 - Use of on-call services & expert call out as appropriate
 - Contacts are needed on all sides – sites, services & experiments
- Complete & open reporting in case of problems is essential!
 - Only this way can we learn and improve!
- Trigger post-mortems when MoU targets not met
 - This should be a light-weight operation that clarifies what happened and identifies what needs to be improved for the future
 - Once again, the problem is at least partly about communication!

FTS “corrupted proxies” issue

- The proxy is only delegated if required
 - The condition is lifetime < 4 hours.
- The delegation is performed by the glite-transfer-submit CLI. The first submit client that sees that the proxy needs to be redelegated is the one that does it - the proxy then stays on the server for ~8 hours or so
 - Default lifetime is 12 hours.
- **We found a **race condition** in the delegation - if two clients (as is likely) detect at the same time that the proxy needs to be renewed, they both try to do it and this can result in the delegation requests being mixed up - so that what finally ends up in the DB is the **certificate** from one request and the **key** from the other.**
- We don't detect this and the proxy remains invalid for the next ~8 hours.
- The real fix requires a server side update (ongoing).
- The quick fix. There are two options: ... **[being deployed]**

ATLAS CCRC'08 Problems 14-18 Feb

- There seem to have been 4 unrelated problems causing full or partial interruption to the Tier0 to Tier1 exports of ATLAS.
 1. *On Thursday 14th evening the Castor CMS instance developed a problem which built up an excessive load on the server hosting the srm.cern.ch request pool. This is the SRM v1 request spool node shared between all endpoints. By 03:00 the server was at 100% cpu load. It recovered at 06:00 and processed requests till 08:10 when it stopped processing requests until 10:50. There were 2 service outings totalling 4:40 hours. S.Campana entered in the CCRC08 elog the complete failure of ATLAS exports at 10:17, in the second failure time window, and also reported the overnight failures as being from 03:30 to 05:30. This was replied to by J.Eldik at 16:50 as a 'site fixed' notification with the above explanation asking SC for confirmation from their Atlas monitoring. This was confirmed by SC in the elog at 18:30. During the early morning of 15th the operator log received several high load alarms for the server followed by a 'no contact' at 06:30. This lead to a standard ticket being opened. The server is on contract type D with importance 60. It was followed by a sysadmin at 08:30 who were able to connect via the serial console but not receive a prompt and lemon monitoring showed the high load. They requested advice on whether to reboot or not to the castor.support workflow. This was replied to at 11:16 with the diagnosis of a problem of the monitoring because of a pile-up of rfiod processes.*
- **SRM v1.1 deployment at CERN coupled the experiments – this is not the case for SRM v2.2!**

Monitoring, Logging & Reporting

- Need to follow-up on:
 - Accurate & meaningful presentation of status of experiments' productions wrt stated goals
 - "Critical Services" – need input from the experiments on "check-lists" for these services, as well as additional tests
 - MoU targets – what can we realistically measure & achieve?
- ↳ **The various views that are required need to be taken into account**
 - e.g. sites, depending on VOs supported, overall service coordination, production managers, project management & oversight
- **March / April F2Fs plus collaboration workshop, review during June CCRC'08 "post-mortem"**

Supporting the Experiments

- Need to focus our activities so that we support the experiments in as efficient & systematic manner as possible
- Where should we focus this effort to have maximum effect?
- What “best practices” and opportunities for “cross fertilization” can we find?

- The bottom line: it is in everybody’s interest that the services run as smoothly and reliably as possible and that the experiments maximize the scientific potential of the LHC and their detectors...

- **Steady, systematic improvements with clear monitoring, logging & reporting against “SMART” metrics seems to be the best approach to achieving these goals**

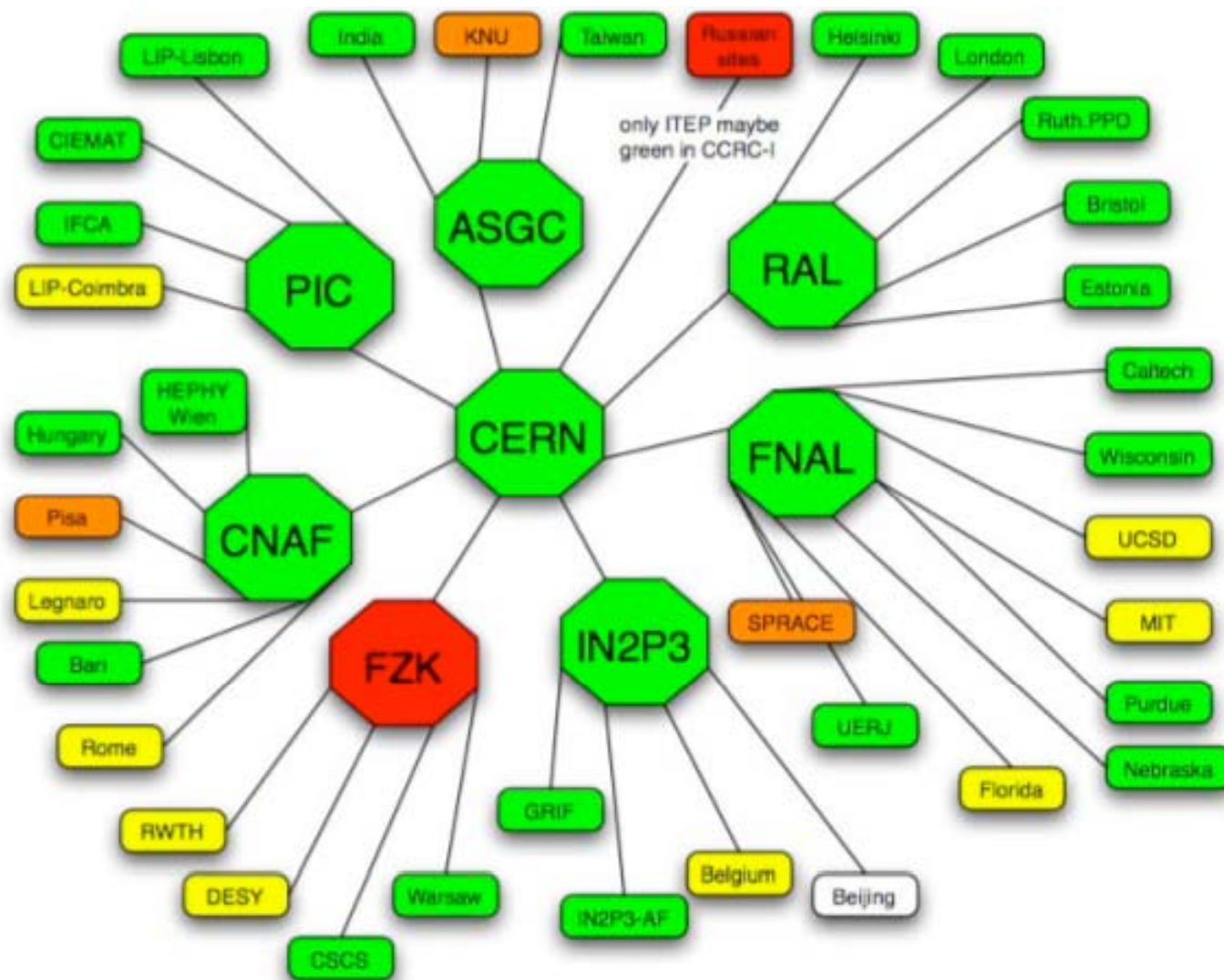
Draft List of SRM v2.2 Issues

Priorities to be discussed & agreed:

- Protecting spaces from (mis-)usage by generic users
 - Concerns dCache, CASTOR
- Tokens for *PrepareToGet/BringOnline/srmCopy* (input)
 - Concerns dCache, DPM, StoRM
- Implementations fully VOMS-aware
 - Concerns dCache, CASTOR
- Correct implementation of *GetSpaceMetaData*
 - Concerns dCache, CASTOR
 - Correct size to be returned at least for T1D1
- Selecting tape sets
 - Concerns dCache, CASTOR, StoRM
 - ¿ by means of tokens, directory paths, ??

Feedback by Friday
22nd February!

BACKUP SLIDES



only ITEP maybe green in CCRC-I

NOTE: only T0-T1 and regional T1-T2 links are depicted here (+ Russian sites)

- SRMv2 ready in week-1
- SRMv2 ready in week-2
- SRMv2 ready in week-3/4
- SRMv2 not 100% ready within CCRC-I time window