Status of POOL in the US
and
Federated Grids – a suggestion

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First – the status of RLS?

◆ At the last two GDBs it has been stated that we need to support both RLS's and therefore assure that POOL will be able to work with both

◆ Also stated that no manpower to do this !

◆ There is a concerted effort through the JTB (chaired by Ian Bird and Ruth Pordes) to sponsor a project to bring the two RLS's together

  ◆ Informal dates like March 04 have been mentioned

  ◆ GDB needs to track this and ask for a workplan and dates

  ◆ The project is becoming POOL-aware and has asked for experiment liaisons in the US. Perhaps need international experiment liaisons

RLS status and POOL (continued)

- The "merge the RLS's" project needs to make a real plan and present it to JTB and GDB next month
  - Perhaps then a status report on how it is going in January or February
- Both RLSs are currently deficient technically in some way if you are looking for
  - RLI distributed functionality
  - Global identifier that is acceptable to POOL
- Clearly we are on the right track to fix all this
  - Question is when. Clearly not in the next 2 months.
- Experiments other than LHC (e.g. LIGO) will be affected by changes to RLS and will provide a liaison to the RLS project

POOL

- Given that one consolidated RLS will almost certainly not be available for CMS data challenge, and perhaps not for ATLAS, where does that leave us?
- The experiment's will tell you their plans for the data challenges after this talk.
- In the US we think the following is probably the most likely

ATLAS DC and POOL/RLS in the US

1.) ATLAS (and US ATLAS) intends to use POOL in data challenge 2

2.) The detailed interface of POOL in DC 2 to grid services has yet to be worked out precisely, depending on technical issues and the timescale of the development of data catalogs.

3.) Ultimately there must be a commonly accessible data catalog for all of DC2 data for all of ATLAS.

4.) Flavors of RLS may be one choice, MAGDA may be a fall-back, but there must be ultimately one populated catalog.

5.) Details of grid configurations may vary from region to region, but the greater the commonality, the easier it is for ATLAS to run a uniform data challenge - in particular access to all of the data in a uniform format.

6.) Where the grid configurations vary from region to region, we need to define the common interfaces and services carefully and understand the definition of interoperability.

CMS DC and POOL/RLS in the US

- ◆ Looks like the SRB MCAT (upgraded version) may be the safest and most useful global catalog available in the short term.

- ◆ For production and scheduled analysis modes of operation this will be mostly sufficient for DC04.

- ◆ CMS could choose to cross-populate one or more RLS's for specific analysis tests. Most of them could in fact use RLS at the job prep stage rather than execution stage, so in fact the connection POOL/RLS may not be on the critical path

Iteroperation/Cooperation/Federation

Whatever we choose to call it means :-

◆ Work towards common software, interfaces, architecture as far as possible

◆ Don't allow unnecessary divergence

◆ Expect and respect some divergence for both political and technical reasons

◆ But - make everything interoperate and work together

Propose New Task Force of GDB

- I would like to propose a new taskforce or Working Group on Federated Grids
  - What does it mean ? What does it mean for LCG?
  - What are the technical challenges?
  - What work does federation entail and how will it work?
- I am willing to chair or co-chair such a taskforce if people are willing to participate from GDB and outside the GDB
- Deliverable would be a document
  - Perhaps Feb GDB timescale?
- I have heard some expressions of interest in this
- Who would be willing to participate?
- Who thinks this is a good idea?