

Experiments and the Grid

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THE UNIVERSITY
of MANCHESTER

- D0
- CDF
- Others
- BABAR

D0

Based on talk with Iain Bertram

SAM currently just a file super-manager ('Sequential Access to Metadata') FNAL wants to do a lot more with it and is putting effort in.

Adapt SAM to use GRID technology.

Job submission post filed (Rodney Walker). Choosing useful bits of globus, Condor-G, GridPP, DataGrid, etc to be used with SAM. Formulate work plan.

MC post interviewing next week.

Lancaster will be evaluating gridftp

CDF

Based on talk with Todd Huffman and Rick St Denis' slides.

CDF adopting SAM.

Have shown it is possible (can access AC++ using SAMstation)

Still a fair way from general adoption.

This is not GRID per se. But will be

SAM currently just a file super-manager ('Sequential Access to Metadata') FNAL wants to do a lot more with it and is putting effort in. (As before)

Working on reconciling Kerberos and Globus security, Globus and Condor for job submission within SAM, using GRID middleware to publish hardware resource availability and data file catalogue.

CDF now enthusiastic about GRID and encouraging people to go this route.

Recruitment ongoing...

Others

Based on talk with Dan Tovey

No recruitment problem - no recruitment!

Important to remember that 'others' covers many differences. E.g. MI-NOS and Dark Matter...

Still heavily interested in data discovery and transport and prospects offered by GRID.

No manpower available to work on this.

Could be interested in adapting someone else's system (UKQCD?) provided the adaptations required are minor. Believe this to be unlikely however - this is not a one-size-fits-all problem.

BaBar

BABARGrid under construction:

Machine VO with clickable maps (Bristol)

Authorisation server in operation (Manchester), painless for users. (Uses afs ACLs at SLAC)

Resource Broker next on the list (Imperial).

We have agreement in principle that BABAR JREI+JIF equipment can be used for general grid purposes to a 'small' extent.

Q: Why is BaBar reinventing the wheel?

Or: What have you guys got against DataGrid.

Misapprehension. We will use/are using existing technology.

But our needs and operation are different from GridPP. We come at things from a different angle.

We will need continuity and service. To be open to European and US BaBarians. To be easily usable by everybody, not just experts.

‘Ask not what BABAR can do for GridPP, ask what GridPP can do for BABAR’

JFK, adapted

Job Submission

Start has been made using standard Globus

Unintelligent: specify destination, restricted range of activities, not yet useful.

Moving to Globus 2

Then move to Resource Broker mediated system with same functionality.

Then utilise RBs features properly.

David Smith (Birmingham), Dave Colling + new post (being recruited), IN2P3 people.

Trying to build bridges with DataGrid - join WP8?

Next meeting in about 1 month at CERN



Objectivity

Bristol half post not yet recruited.

Establishment of Objectivity analysis federation at RAL Tier A/1 centre high on their list.

Persistent objects are essential. Objectivity handles them. There is currently no alternative. ROOT is not yet an alternative even though it may be one day (Stickland report).

Monte Carlo Generation

Monitoring of MC performance being Gridified on short timescale and added to clickable map.



metaData

Manchester post filled (by Alessandra Forti)

Adding full information to current skimData system

Will map this onto globus data catalogue somehow.

(Need to understand replica catalog and the rumour is that it's changing.)

Tier A

PCs and disks on order.

BaBar management happy → common fund rebate → SCP4 happy(!)

Order more than fulfils 2002 obligation.

(Tendering process for 2003 should start and proceed more briskly!)

Identify need for BaBar voice in how Tier A runs. Internal decisions like software releases to import, libraries etc. Early warning of problems like non-ordering of disks, continuing afs glitches, etc. Formalise communications channels and decision making.

Establish Tier A management Board (N de G, T A, R B, U E) to report to BABAR UK SC and negotiate with SLAC, RAL, GridPP, etc.

Encourage Tier 1 to do the same - severally or together.



BaBar and the Grid in future

Strong political will for this to work

Tier A centres essential for BaBar

Grid technology essential for Tier A centres

SLAC is a little slow to appreciate this but the Europeans have got it:
The snowball is starting to roll!