

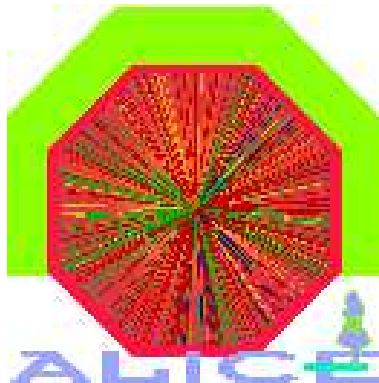
Southern Tier 2 Centre: Status

J. Tseng
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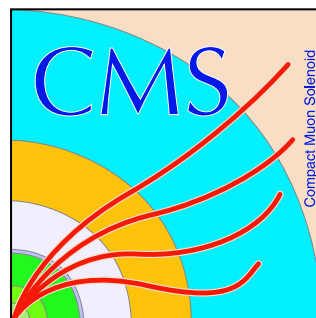
GridPP8
Bristol
23 October 2003

- Introduction
- Aims
- Organization
- LCG-*n*
- Next Steps
- Conclusion

Southern Tier 2 Centre



BaBar



Aims

- proximity to Tier 1 at RAL
- PP and e-Science Centres
- DC1 involvement, focus on applications (*e.g.*, Ganga at Oxbridgeham)

⇒ draw on existing directions

- distributed “centre”
how to make this realistic, practical?
 - role of Tier 2
✓ resources, service levels, geography
→ what does it mean in practice?
 - ◇ “tier” and “cloud” models intersect?
 - applications/physicists at Tier 2
how do users see Tier 2 (and Tier 1)?
 - connection with other grids
more resources, increased support?
 - data challenges, second round
- ▷ Larger issues than just Tier 2,
but Tier 2 a good place for practice

Aims (II)

Start with an immediate use case:

1. prepare for Data Challenge 2
 2. run single-site Tier 2's, mutual support
 3. integrate into a multi-site Tier 2
 4. practice Tier 1 \leftrightarrow Tier 2 support
 5. physicist access to DC2 output
- \Rightarrow Tier 1 \leftrightarrow Tier 2 \leftrightarrow Tier 4 integration

Parallel, longer-term aims:

- e-Science connection
- running experiments BaBar and CDF

Organization

- Collaboration board: tend to meet at lunch at GridPP meetings
 - Technical board: incomplete, initial focus on LCG-1 early deployers
 - User board: not yet
 - Acting manager: yours truly
 - Technical coordinator:
applications due 30 Sep
(based at Oxford, but a regional resource)
 1. drive LCG-1 deployment
 2. work with others to figure out how to share GridPP and other grid resources
- ⇒ informal organization focused on DC2,
build official organization in parallel

Technical Coordinator

applications due 30 Sep

details linked to GridPP webpage

informal enquiries to J. Tseng

1. drive LCG-1 deployment

- run LCG-1 individually at multiple sites
- draw support from present experts
- pull in others to share load

2. work with others to figure out how to share GridPP and other grid resources

- investigations have already begun
(Cambridge, RAL, *et al.*)
- focus on implementation

Technical Coordinator (II)

⇒ Work on parallel directions:

1. prepare for Data Challenge 2
2. run single-site Tier 2's, mutual support
3. integrate into a multi-site Tier 2
4. practice Tier 1 \leftrightarrow Tier 2 support
5. physicist access to DC2 output
 - e-Science connection
 - running experiments BaBar and CDF

Site Developments

- EDG2 testbeds being set up
- Cambridge cluster → 40 nodes
- JISC data cluster → CLRC eSC
- JISC compute cluster → Oxford eSC
- Oxford PP will stagger purchase of new cluster (up to 128 CPU's, 6TB)
- Birmingham ALICE/ATLAS/BaBar cluster re-installed; new cluster (200 CPU's) being installed by astronomy
- Birmingham and Bristol e-SC being set up, AccessGrid node soon to be installed
- Cambridge, RAL, *et al.* investigating GridPP/other grid interoperation



LCG- n

- Early adopter meeting on 1 Aug
(Cambridge, Bristol, RAL PPD)
- wait for LCG-1 or what DC2 will use
- Cambridge will participate in initial LCG-1 testbed as a Tier 2
 - ◇ work already underway
- Bristol will use LCG-1 as a CMS site
- RAL PPD will follow,
then Birmingham and Oxford
- Issues:
 - ◇ lots of testbeds
 - ◇ Tier 1 support model (RAL PPD)
 - ◇ realistic, practical distributed support
 - ◇ remote collaboration tools

Next Steps

1. prepare for Data Challenge 2
 2. run single-site Tier 2's, mutual support
 3. integrate into a multi-site Tier 2
 4. practice Tier 1 \leftrightarrow Tier 2 support
RAL PPD specialty
 5. physicist access to DC2 output
all institutes
 - e-Science connection
 - running experiments BaBar and CDF
- ▷ could Ganga be used beyond LHCb/ATLAS?

Next Steps (II)

More general issues

(LCG? EDG? Core Programme?)

- laundry lists, *e.g.*,
 - ◇ database access
 - ◇ concurrent software versions
 - ◇ bottlenecks, single points of failure
 - ◇ ...
- how to encourage institutes to offer more Grid resources (general problem!)
- how to attract users to use it consistently (not just try it out)

Conclusion

- starting to build up “virtual” Southern Tier 2 Centre as a functioning entity through LCG-1 deployment, data challenges
 - ◇ Cambridge/Bristol earliest deployers
 - ◇ first concentrate on mutual support
 - ◇ later see where hierarchies appropriate
- ▷ Tier 1 \leftrightarrow Tier 2 \leftrightarrow Tier 4 integration:
how does a physicist use these resources?
- work on grid interoperation is beginning interdisciplinary use, more toys