An update on the Cached BDII

Lorenzo Dini – WLCG Information Officer

June 08, 2011
Overview

• To Cache Or Not To Cache
  – How the cache impacts on the service
  – What are the benefits on stability

• Tests performed on production-like hardware
• Non-Cached: lcg-bdii.cern.ch
  – Production DNS round-robin
• Cached: clcg-bdii.cern.ch
  – Dedicated test service with 4-day cache enabled
  – Same hardware as any node of lcg-bdii.cern.ch
Content Dump (seconds)

Average time: 5.4 seconds faster
Total Objects

Average overhead: 3% (4500 objects)
Objects Added/Removed

All objects

Average improvement: 46X
No GlueLocationLocalID

Average improvement: 28X
Added/Removed per type

No GlueLocationLocalID

(Co-ordinate system: (x,y) 0,0 -> 1000,5000)

- CACHED
- NON-CACHED
Conclusions

• No query performance degradation
• Small size overhead (3% in object number)
• Stability highly improved (28X – 46X)

• Ready for Prime Time!

• Next steps
  – Functional testing by experiments
  – Introduce it to the lcg-bdii DNS round-robin
  – Cache enabled by default in production