

CREAM-L&B integration – tentative thoughts

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gLite jobs

- get more accurate info from CE
- details on in-CREAM job processing

CREAM-only jobs

- access to job state with L&B client uniformly
- logging-info, L&B notifications
- export to JP
- help job tracability

- log events to L&B directly
 - poor man solution
- exploit L&B proxy
 - more sophisticated processing
 - discussed further
- fit into OGSA-BES
 - not considered so far

Data sources

- components
 - CREAM itself
 - eventually Job Wrapper and CEMon too
- events
 - CREAM state transitions
 - additional information (command execution etc.)
 - must contain enough info to derive “native” gLite events
 - for gLite jobs, provide CREAM-gLite jobid mapping

CREAM state machine in L&B

- specific (like current PBS, Condor)
- mostly trivial (follow state transitions only)

L&B server-proxy at CREAM head node

- “restructured” L&B component, works both ways
- accept events from CREAM (over UNIX socket)
- answer client queries (native CREAM jobs)
- resend events to L&B server (gLite jobs)
- generate gLite events based on CREAM ones

Client queries

- CREAM-aware L&B client
- native CREAM jobs
 - approach “server” endpoint of L&B server-proxy on CREAM node
 - well-known shifted port (CREAM + x)
 - additional CREAM operation to tell port number
 - ▶ resolved by client (jobid syntax etc.)
 - CREAM port
 - ▶ use http redirect
 - ▶ CREAM detects L&B client and redirects request
- gLite jobs
 - query normal L&B server
 - CREAM job state available as additional gLite job attribute

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L&B team

- provide producer library (Java or C?)
- implement CREAM L&B state machine
- required extensions to L&B proxy
 - jobid mapping
 - generate gLite events for CREAM jobs

CREAM team

- define CREAM L&B events and job state
- instrument CREAM to call L&B producer
- http redirect?
- help testing ;-)