



# LHCb gLExec Testing

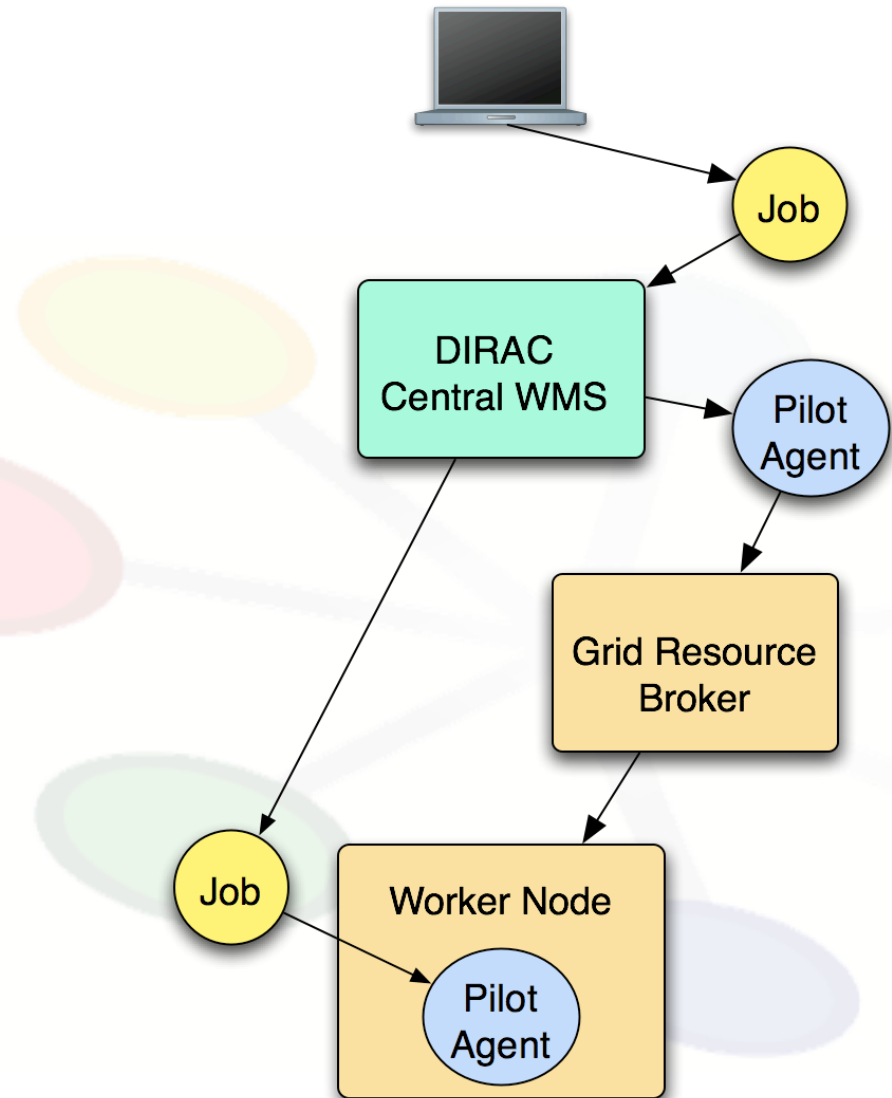


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## Pilot Jobs - Reminder

- Pilot Agents allow us to cope with transient instabilities on the Grid
  - Can check available disk space, memory etc. prior to executing the payload
  - Late binding improves efficiency without compromising VO jobs
    - Simplifies operations





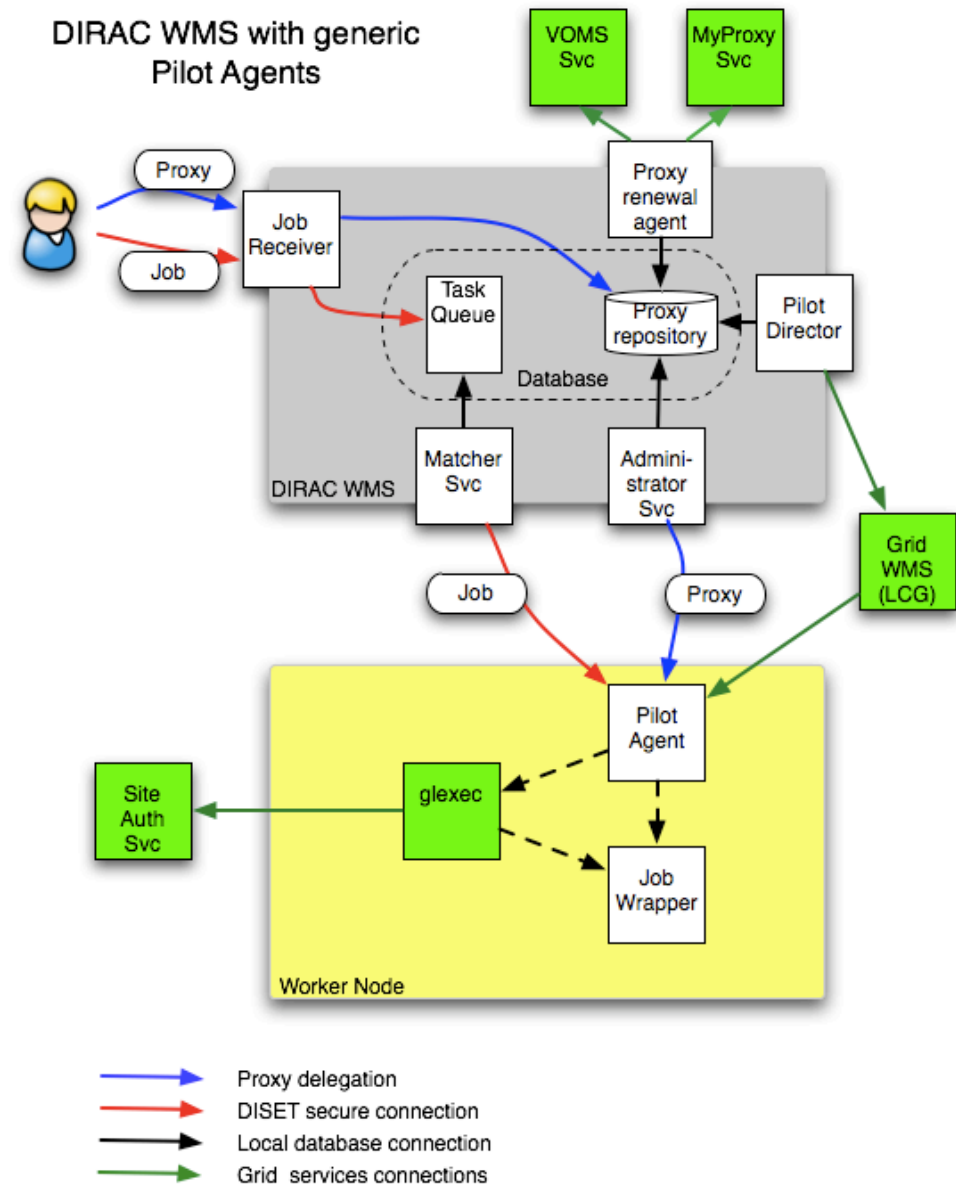
## Generic & Private Pilot Jobs

- Private pilots are submitted on behalf of the owner of the job
  - Same FQAN as the submitter
- Generic pilots are submitted on behalf of the VO with 'pilot' role
  - Currently only for production activities
  - With gLExec, allows the VO to schedule the most important task for the community to the available slots
    - User or production jobs
- LHCb VOMS roles are lcgadmin, production, user, pilot
  - Pilot role is strictly controlled
- Even with gLExec deployed we should cope with a mixture of generic and private pilots
  - DIRAC SAM jobs (lcgadmin) are a persistent use-case for private pilots e.g. to take advantage of priority queues set up at some sites



# DIRAC WMS & Proxy Renewal

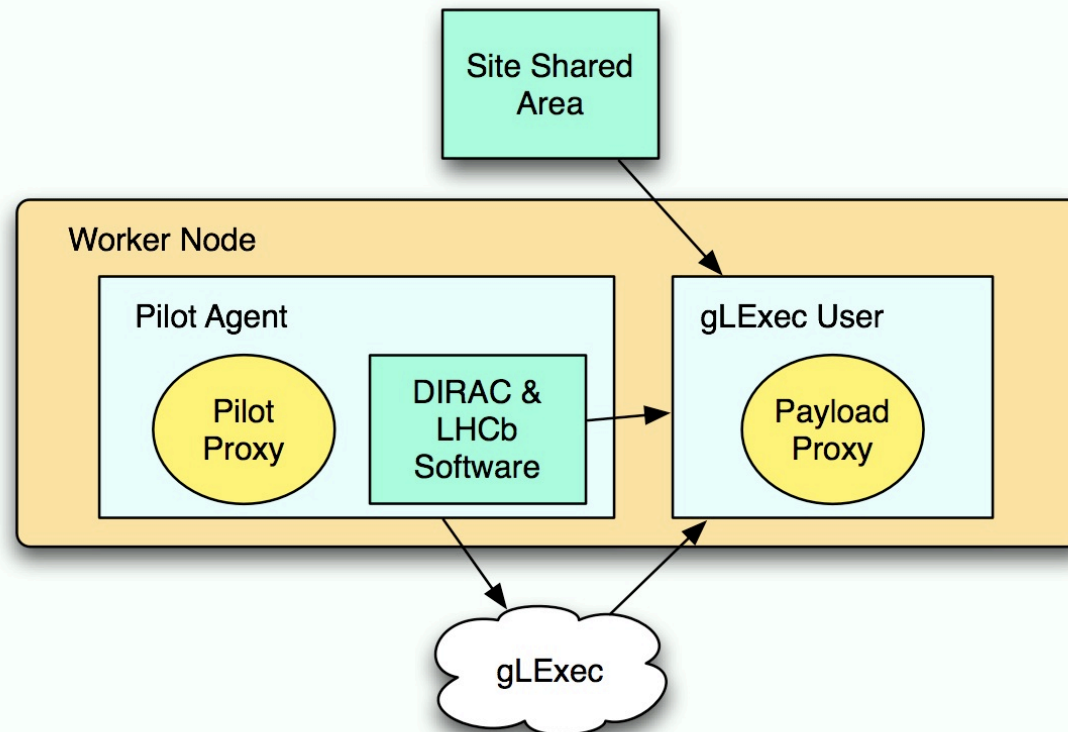
- LHCb WMS already optimized for generic pilots
  - Single WMS for all activities
  - Less freedom to optimize scheduling without gLExec
- Pilot proxy never extended by DIRAC
  - Rely on gLite renewal
- Payload (limited) proxy is extended using the pilot proxy to contact DIRAC
  - Amount of extensions can be restricted





## gLExec Testing on PPS WN

- gLExec was deployed using LCAS on a PPS WN
  - Incorrect proxy serial number was fixed on the DIRAC side
  - Missing compatibility libraries on PPS WN were installed
  - LCAS configuration mapped everything to SGM
- Lack of up to date documentation for gLExec





- DIRAC Job Wrapper always cleans the gLExec user directory after execution
- Tests performed with simple scripts and simulation (Gaudi) jobs
- To avoid unnecessary reinstallation of software on the WN:
  - Pilot and gLExec user should have same unix group
  - Installed DIRAC software should be readable by the gLExec user
  - Can always reinstall but this is sub-optimal
- Happy to help with gLExec vs. SCAS certification



- Original test scheduled in June but postponed
  - Originally foreseen with production jobs
  - Sites should implement LHCb 'pilot' role
- LHCb WMS optimized for generic pilots
  - Currently the users are experiencing less system responsiveness due to not using them
- Would be advantageous to extend test to include some advanced users in production



- gLExec with LCAS properly configured behaves as expected
  - Eager to test SCAS when available
- Concerns about configuration and deployment
  - Account mappings should be correctly tuned
- Only minor changes to DIRAC required to support gLExec usage