

# Condor to CREAM submission

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- Request for LCG to give support for Condor to Cream submission
  - ATLAS usage
  - The Problem
  - Requirements
  - Alternatives
  - Conclusion

# ATLAS usage

- 90% of official production uses pilots submitted by Condor to LCG and CREAM CEs
  - US also using Condor
  - NDGF(ARC), IT use gliteWMS with Condor backup
  - LCG CEs disappearing
    - now increasingly have cream-only sites
- Most user analysis uses Panda and hence same split as above
  - gliteWMS analysis exists

# The Problem

- Condor-GT2 at scale had some problems
  - memory blow-up/leaks, occasional crashes
  - all overcome in Condor patch/dev cycle
- Increase in Cream CEs find new problems
  - lease renewal, crashes – teething problems
  - timeouts on bulk status request
  - since a few weeks the GridManager process crashes every hour or so
    - submission works, but degraded due to frequent restart and initialization
    - log and core analysis shows memory corruption problem

# Somebody Else's Problem

- Really it was always SEP
  - heavy LCG involvement made Condor-GT2 robust
    - used in RB
  - ATLAS manpower now moved to operations
    - no time for methodical analysis during production ops
- Requires:
  - help when problems arise
  - coordination between CreamCE and Condor developers
  - functional and scaling tests for significant Cream/Condor changes

# Practically

- Install `condor-7.6.0-1.rhel5.x86_64.rpm` and submit some jobs
  - `grid_resource=cream grid-cr5.desy.de:8443/ce-cream/services/CREAM2 pbs atlas`
  - `queue 100`
- Occasional bursts of LCG person activity
  - when there is a problem
  - re-validate for major cream/condor changes
  - perhaps involves observation of problem Condor in ATLAS prod(3@CERN)
  - ~10% FTE and will get less
- Expect current problem will be solved before any LCG action

# Alternatives

- Could say problem with Condor should make us look elsewhere
  - gliteWMS – bad memories, no going back!
    - still looks difficult to operate service, scaling doubts
    - doesn't cover the US
    - OTOH we do have a working pilot factory(D.Rebatta)
      - sustaining 20k running jobs for a week might convince
  - direct cream submission from factory
    - Does this scale? Tracking jobs, getting outputs, control?
    - All the bits Condor does?
    - Quicker death of LCGCE and tie-in to Cream

# Conclusion

- Interface issues with major external client package falls under LCG/EGI(?) remit
  - continuation of Condor-GT2 support
  - expertise and contacts exist
- ATLAS would be grateful