

Monitoring of jobs submitted via condor-g

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Motivation

- LHC experiments are using various submission methods
- In case submission is done not via RB, LB does not keep a track of such jobs
- Either monitoring data should come directly from CE (then we loose the track of jobs which are aborted before getting to the CE)
- Or instrument need condor-g in a way that job status information would come from condor-g submitter

Experiment dashboard approach

- In the experiment dashboard we choose the second approach
- In collaboration with the condor-g team started to develop the listener to the condor-g log files
- Listener retrieves interesting events from the condor logs and sends them in the real time to the global monitoring system
- In case of the dashboard the global monitoring system is dashboard. In the current prototype reporting is done via Monalisa server (single server can handle up to 5K events per second)

Reported data

- **Job status changes, exit code and error reasons, information about resource usage**
 - All this data is contained in condor-g logs
 - Not all job status changes are reported to the dashboard , some filtering is applied
- **Meta information about job (VO, task name, type of activity)**
 - This type of info can be defined by user in the classad attribute during job submission
 - On our request condor-g team added this information to the log file parsed by the listener
- **Alias to the job name as an alternative to condor id**
 - Allows to correlate information about the same job coming from other sources (Job Submission tools, job reports from the WN via Monalisa)
 - Is also defined via classad attribute
- **CE name, site name**
 - Currently only the name of the WN is contained in the condor logs, name of the CE will be added
 - Mapping of the CE – SITE can be done using data from other sources (BDII, Gratia)

Handling of the log listener

- **Log listener is running at the same host where condor-g submitter is running**
- **It is started (restarted in case of failure) by condor itself. No changes required from condor side for handling such jobs.**
- **Some changes are required regarding better log rotation procedure of the condor log file which is used by the listener and for saving info required for correct restart of the listener after eventual failure in the persistent spool area (on the way)**

Current status

- First listener prototype (C++) is developed and tested at CERN with the modified version of condor provided by the condor-g team
- Allocated Monalisa server is set up at CERN
- Sergey Belov (developer from the dashboard side) and Todd Tannenbaum from condor team had a meeting at CERN in August and agreed on further modification which are required from both sides (slide 5)
- By the end of September – middle of October we should have a version which can be tested with the real jobs
- At this point we start to collaborate with the developers of the Job submission tools (initially ProdAgent and Crab in CMS) to implement modifications required from their side (adding classad attributes to the condor-g submission)

Testing at the global scale and deployment

- Certainly an issue, since every OSG site have several condor-g submitter instances
- For the dashboard purposes we would need that condor-g submitters used by the LHC community for production and analysis jobs are swithed to the modified version.
- We are planning to start with CMS first, most probably with production