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CRAB3 architecture and task workflow

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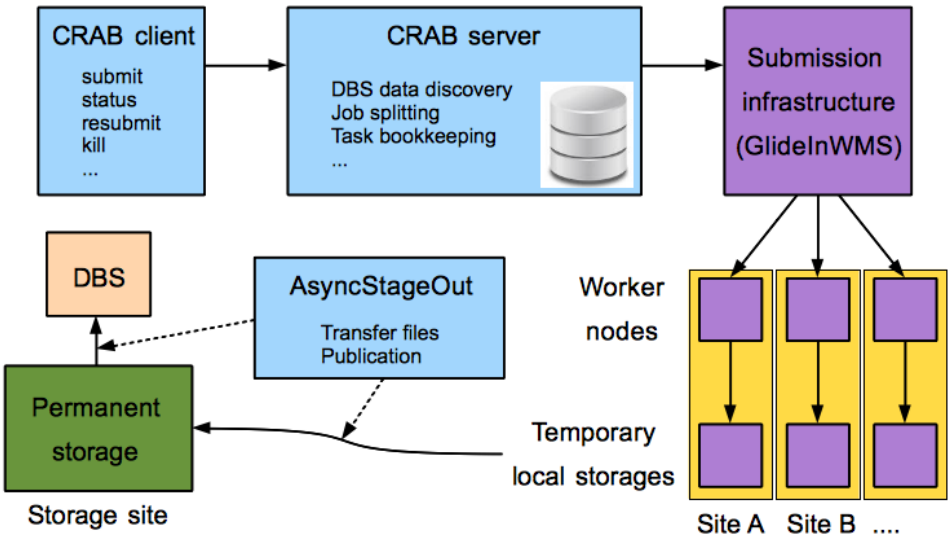
CRAB3 architecture

The following diagram shows (a very simplified version of) the current architecture of the CRAB3 system.



Typical workflow sequence

The arrows in the previous diagram represent a typical workflow, starting from the submission and ending with the publication in DBS. Below we enumerate the steps involved in such a typical workflow.

1. The CRAB client submits the request to the CRAB server (and uploads the user's input sandbox to the CRAB Cache -also in the CRAB server-).
2. The CRAB Server inserts the request as an entry in the Task (Oracle) DB.
3. A subcomponent of the CRAB Server called the Task Worker constantly monitors the Task DB for new requests.
4. The Task Worker grabs the new request and sends it to the submission infrastructure (GlideInWMS).
5. The submission infrastructure looks for available Worker Nodes and submits the jobs to them.
6. The jobs run at the Worker Nodes.
7. When a job finishes, the Worker Node copies the output files to the temporary storage of the site.
8. The AsyncStageOut service transfers the output files from the temporary storage to the permanent storage.
9. Once the transfer is done, the AsyncStageOut service publishes the output dataset in DBS.

-- AndresTanasijczuk - 23 Oct 2014

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