



DIRAC testbed

SuperBDIRAC development

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Summary



- SuperBDIRAC module installation status
- DIRAC compatibility on EMI2
- Marseille meeting presentation
- DIRAC testbed status
- Milestone proposal



SuperBDIRAC module installation status



- SuperBDIRAC → prototype
 - <https://github.com/managai/SuperBDIRAC> (testing purpose)
 - https://github.com/managai/DIRAC_tmp (testing purpose)
 - add menu in webportal named "Production Manager" and a new named "Home"
- Installation procedure customized
 - Works well but...
 - Install only vanilla DIRAC
 - SuperBDIRAC downloaded but not installed
- Support requested to developers
 - Received new tips and suggestions to consider...



DIRAC compatibility on EMI2



- Opened thread on dirac community forum
 - <https://groups.google.com/forum/?hl=en&fromgroups=#!topic/diracgrid-forum/5qkCyP0bNX0>
- DIRAC not certified on EMI2
- Joel Closier (involved in LHCb) reports no compatibility problems
- Successfully tested functionalities
 - Installation
 - Proxy upload
- Other functionalities will be tested



Marseille Meeting presentation



- Meeting in Marseille, 29-31 October 2012
 - <http://diracgrid.org/?p=208>
- Two presentations from SuperB
- Title proposal
 - DIRAC testbed for SuperB report (Bruno)
 - Will cover also SuperBDIRAC development
 - Integrating DIRAC with a PostgreSQL bookkeeping database via SQLAlchemy (Milosz)



DIRAC testbed status



- `bbrbuild01.cr.cnaf.infn.it`
 - v6r5p5
 - production
- `sb-serv04.cr.cnaf.infn.it`
 - v63r5p5
 - Test
- `gridtest-05.ba.infn.it`
 - v6r5p6
 - SuperBDIRAC installation test



Milestone proposal



- Second October week
 - _ SuperBDIRAC installation
 - _ SBK5 insert query via SQLAlchemy
 - Sbkprodrhas only read permission
 - Write and update permission necessary to replicate Site Management page
- October
 - _ Transformation System testing
 - Should be useful for workflow and Massive Data Transfers
 - _ Site Management porting under SuperBDIRAC
 - _ First FastSim job submission via SuperBDIRAC
 - Prototype (Expert or Shift) Init page
- November
 - _ Manage permission rules for Operations via SuperBDIRAC web interface
 - _ Production Requests page
 - _ Monitoring functionalities in SuperBDIRAC
- December
 - _ SuperBDIRAC able to perform complete MC production stack



Next meeting reminder



- Third DIRAC User Meeting
 - 29-31 October 2012
 - <http://diracgrid.org/?p=183>
 - Bruno Santeramo should participate
 - Someone else interested ?
- SuperB Collaboration Meeting @ Frascati
 - December 2012



BACKUP SLIDES



Credits



- Armando Fella – Pisa
- Bruno Santeramo – Bari
- Christian De Santis - Rome
- Giacinto Donvito - Bari
- Marcin Chrzaszcz - Kracow
- Miłosz Zdybał - Kracow
- Rafał Grzymkowski - Kracow

Thanks to DIRAC developers, expecially to
Andrei Tsaregorodtsev, Federico Stagni, Matvey Sapunov,
Krzysztof Daniel Ciba, Ricardo Graciani



Groups



Groups and Role in VO and DIRAC

Group/Role	Type	Description	VO share	DIRAC mapping
/superbvo.org	Standard User	Generic user group	0	sb_user
/superbvo.org/Role=ProductionManager	Production Manager	User role related to MC production management	20	sb_productionmanager
/superbvo.org/Role=SoftwareManager	Software Manager	VO Software administrator	0	sb_softwaremanager
/superbvo.org/Role=Analysis	Standard User	User role related to analysis task	0	sb_analysis
	DIRAC administrator	DIRAC administrator		dirac_admin
	DIRAC pilot job	Useful for DIRAC		sb_pilot



Collaborative tools update



- SVN: <https://sbrepo.pd.infn.it:8911/projects/WebUi/browser/trunk/DIRAC>
 - Uploaded SuperBDIRAC module
 - Uploaded Severus (modified to work with DIRAC)

- Severus/version24/modules/fileManager.py
 - Line 109
 - Original
 - *out = self.lcgUtil.lfcLs(path)*
 - Modified
 - *out = self.lcgUtils.lcgLs(path)*
 - Why?: Workaround because surl starting with lfn:/ supposed to be accessed from CNAF (so Severus drop initial lfn:/ from surl and try to access input file locally)

- DIRAC job wrapper install its own python environment
 - Python version 2.6.6
- Severus tested to work with Python 2.4
 - Severus perform an intial python version check
 - Version24 directory contains all components
- Proposal
 - Test modified Severus with Python 2.6
 - New code under version26 directory
 - Modify severus.py to enable Python 2.6 usage



MC production via SuperBDIRAC



- SBK5 queries to be prepared - via SQLAlchemy and/or REST interface
 - _ SELECT count(runnum) as tot FROM "<session_name>"_Job " WHERE (prod_series = '<prod_series>') AND (runnum BETWEEN "<minrun>" AND "<maxrun>") AND (status!='prepared')";
 - _ SELECT * FROM "<session_name>"_Job " WHERE (prod_series = '<prod_series>') AND runnum = '<runnum>';
 - _ UPDATE "<session_name>"_Job SET grid_job_id = "<job_id>", status = 'submitted', ts_submitted = cast(now) as timestamp(0) WHERE prod_series = '<prod_series>' AND runnum = "<runnum>" AND status = 'prepared';
 - _ UPDATE "<session_name>"_Submission SET bulk_job_id || ('<site>' => '<bulk_job_id>') WHERE uid = '<uid>' AND ts_prepared = '<timestamp>';



MC production via SuperBDIRAC



- Issue: SuperBDIRAC/ProductionSystem need to interact with SBK5
 - N.B. Now Severus can be properly launched only from CNAF (?)
 - SBK5 psql-like access only from CNAF
 - SBK5 access outside CNAF only via REST interface
 - Solution proposal:
 - Create a Service (temporary named SBK5Service) into SuperBDIRAC to cope (all?) SBK5 queries
 - Each site equipped with a DIRAC server and SBK5Service must be able to directly query SBK5
 - Enhance SBK5 REST interface by adding some views to simply perform needed queries from every DIRAC Server Instance
 - No changes to SBK5 access policy



SBK operations



- DIRAC webportal must replicate all WebUI features
- DIRAC/WebUI operations
 - Production creation → write
 - Production data retrieve → read
 - Request creation → write
 - Request data retrieve → read
 - Bulk job creation → write
 - Bulk job submission → read data for Severus
- Severus job wrapper
 - Job status report → write
 - Job Log registration → write



DIRAC API



- DIRAC offers a powerful set of API
 - We need a good quality documentation to speed up development
- API documentation
 - <http://diracgrid.org/files/docs/CodeDocumentation/API/index.html>
 - Epydoc generated – updated – maintained by developers



Useful links



- **DIRAC official site**
 - _ <http://diracgrid.org/>
- **DIRAC official forum**
 - _ <https://groups.google.com/forum/?hl=en&fromgroups#!forum/diracgrid-forum>
- **DIRAC repository**
 - _ <https://github.com/DIRACGrid>
- **DIRAC API documentation**
 - _ <http://diracgrid.org/files/docs/CodeDocumentation/API/index.html>
- **DIRAC testbed for SuperB wiki page**
 - _ http://mailman.fe.infn.it/superbwiki/index.php/Distributed_Computing/Dirac_testbed
- **DIRAC testbed webportals:**
 - _ bbrbuild01.cr.cnaf.infn.it
 - <https://bbrbuild01.cr.cnaf.infn.it:8443/DIRAC/>
 - _ sb-serv04.cr.cnaf.infn.it
 - <https://sb-serv04.cr.cnaf.infn.it:8443/DIRAC/>
- **Production WebUI**
 - _ https://bbr-serv09.cr.cnaf.infn.it:8443/~webui_sb5/
- **SuperB resources (google Doc)**
 - _ <https://docs.google.com/spreadsheet/ccc?key=0AsjxRpEZ2zEIIdHU2cjh4YTdrajdYdlNmajdBVGZWLWc#gid=0>
- **SuperB Production Shifter Guide wiki page**
 - _ http://mailman.fe.infn.it/superbwiki/index.php/Distributed_Computing/Production_Shift_Guide

WebUI workflow

