Distributed computing status

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Distributed computing topics

- Distributed resources management
  - OSG support
- Production system
- Distributed analysis system
- Dirac project
- Data management
- Distributed system for experiment software installation and access: CVMFS
- CNAF resource and service status
- Grid service monitor and alarm system

Distributed resourse summary

Site	Min (cores)	Max (cores)	Disk (TB)	SRM layer	Grid Org.	Site contacts
RAL(T1)	200	1000	25	Castor	EGI	F. Wilson, C. Brew
Ralpp	50	500	5	dCache	EGI	F. Wilson, C. Brew
Queen Mary	300	2000	150	StoRM	EGI	A. Martin, C. Walker
Oxford Univ.	50	200	*1*	DPM	EGI	K. Mohammad, E. MacMahon
IN2P3-CC(T1)	*500*	*1000*	*16*	dCache	EGI	N. Arnaud, O. Dadoun
Grif	50	300	2	DPM	EGI	N. Arnaud, O. Dadoun
in2p3-lpsc	50	100	2	DPM	EGI	J.S. Real
in2p3-ires	50	100	2	DPM	EGI	Y. Patois
CNAF(T1)	500	1000	180	StoRM	EGI	A. Fella, P. Franchini
Pisa	50	500	0.5	StoRM	EGI	A. Ciampa, E. Mazzoni, D. Fabiani
Legnaro	50	100	1	StoRM	EGI	G. Maron, A. Crescente, S. Fantinel
Napoli	500	2000	15	DPM	EGI	S. Pardi, A. Doria
Bari	160	260	0.5	StoRM/Lustre	EGI	G. Donvito, V. Spinoso
Ferrara	10	50	0.5	StoRM	EGI	L. Tomassetti, A. Donati
Cagliari	10	50	1	StoRM	EGI	D. Mura
Perugia	10	50	1	StoRM	EGI	L. Fano'
Torino	50	100	2	DPM	EGI	S. Bagnasco, R. Brunetti
Frascati	30	100	2	DPM	EGI	E. Vilucchi, G. Fortugno, A. Martini
Milano	50	100	2	StoRM	EGI	N. Neri, L. Vaccarossa, D. Rebatto
Catania*	?	?	?	StoRM	EGI	G. Platania
Slac	400	400	10	NFS	OSG	S. Luiz, W. Yang
Caltech	200	400	4.5	NFS	OSG	S. Lo, F. Porter, P. Ongmongkolkul
Fnal	50	400	1	dCache	OSG	M. Slyz
OhioSC*	?	?	?	dCache	OSG	R. Andreassen, D. Johnson
Victoria	50	100	5	dCache	EGI	A. Agarwal
McGill*	100	200	1	StoRM	EGI	S. Robertson, S.K. Nderitu
Cyfronet	100	500	10	DPM	EGI	L. Flis, T. Szepienie, J. Chwastowski
Total	3570	11510	440			

* VO enabling procedure in progress

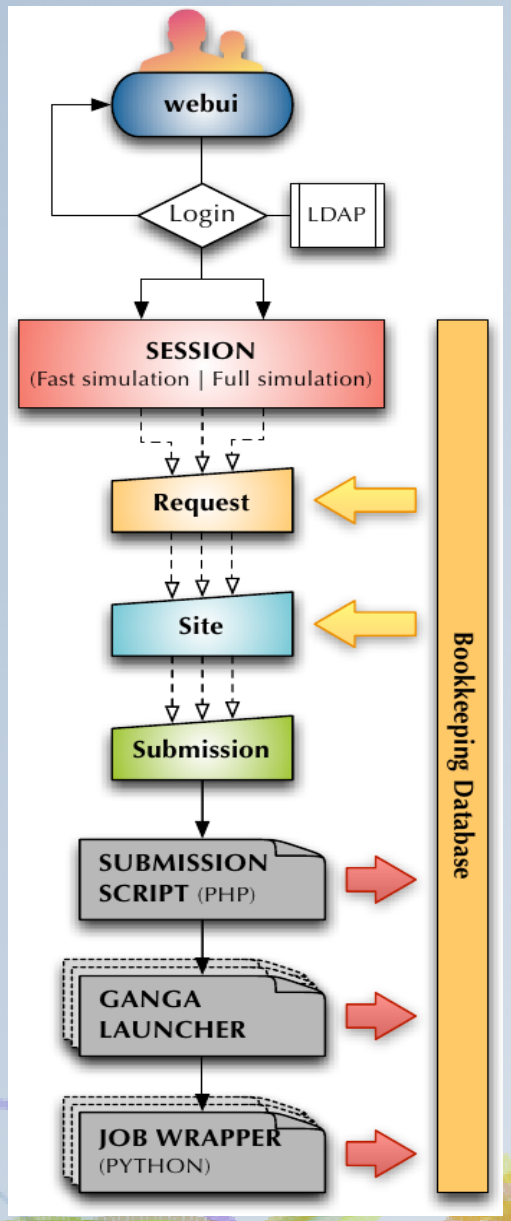
OSG collaboration

- OSG council - SuperB meeting on July 10th
  - Meeting goal is broader the collaboration about crutial subjects in interoperability field
  - SuperB presents its distributed computing related comments and requirements
    - OSG support to distributed software installation CVMFS
    - Use of GlideinWMS as submission system
    - New OSG information service publishing on WLCG/EGI BDIIs is under discussion
      - We are invited to participate to the work
    - Enabling VOMS Role in OSG is a big issue
    - Nagios per VO enabled in OSG Grid
      - Request for installation of required packages in OSG WN release has been accepted

Distributed resources status

- Full distributed resource testing phase is mostly in stand by
  - ~1/3 of the sites results misconfigured
    - Testing, fixing, reinstalling, contacting is slowly going on
    - Need manpower
- VO enabling operations at remote sites
  - **McGill**: testing services in progress
  - **SLAC**: ok
  - **Caltech**: ok *(involved in 2012_Fullsim_summer prod)*
  - **Fermilab**: ok *(involved in 2012_Fullsim_summer prod)*
  - **Ohio Supercomputing Center**: enabling process is stopped

Production system



- FullSim summer production
  - The first on distributed resources
  - The first using the new generation production system
    - Production goals have been accomplished
    - Outcome: sist of improvements and bugs
- M.Manzali, the primary developer left
- C.De Santis is moving to production system issues
- Two students from Ferrara (three years degree):
  - REST interface refactoring
  - Production system debugging
- **See the presentation on «Distributed computing session» 16:30, 20th Sept**

Analysis system prototype

- The main developer left the group in June, need a replacement
- Minor progress in testing functionality and debugging
- Collaboration with Ganga team
  - Evaluation of Dirac backend adoption
    - Setup requested to Ganga team; the task is scheduled
  - We are looking for new developers and testers

- Tutorial page:
  - **http://mailman.fe.infn.it/superbwiki/index.php/Tutorial_%28draft%29**

Dirac project

- A fruitful collaboration with Polish computing group started on June '12
  - Goal: setup and configure a Dirac system to fulfil the SuperB requirements
  - General work plan:
    - Simulation production use case (in progress)
      - Porting of SuperB specific environment
      - Bookkeeping DB integration
    - Workload Monitor system
    - Analysis use case integrated with Ganga system
    - Mass data transfer system
- Bi-weekly meeteeng (http://superb.infn.it/restricted-distributed-computing)

Data management

- Storage system evaluation
  - HadoopFS on WAN: testbed on Bari and Napoli
- Data access framework library development
  - Data access optimization on local and WAN scenario
  - Mask the low level storage system DA layer at the sites
  - Useful support from ROOT development team
- Mass data transfer system (FTS3 by EMI R&D)
  - PhEDEx evaluation process (stand by)
- File catalog ng (dynamic LFC ng by EMI R&D)
- Data model definition (stand by)
- Geographically distributed data center study (stand by)