

CrossGrid Testbed Status

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CrossGrid Testbeds

- CrossGrid will have three testbeds:
 - Production
 - Development
 - Test and Validation
- This is necessary:
 - Due to the different requirements of users, developers and testers
 - To improve the stability of the production testbed
- However the current testbed is monolithic
- The current testbed once stable will give origin to the three different testbeds by M12

The current testbed

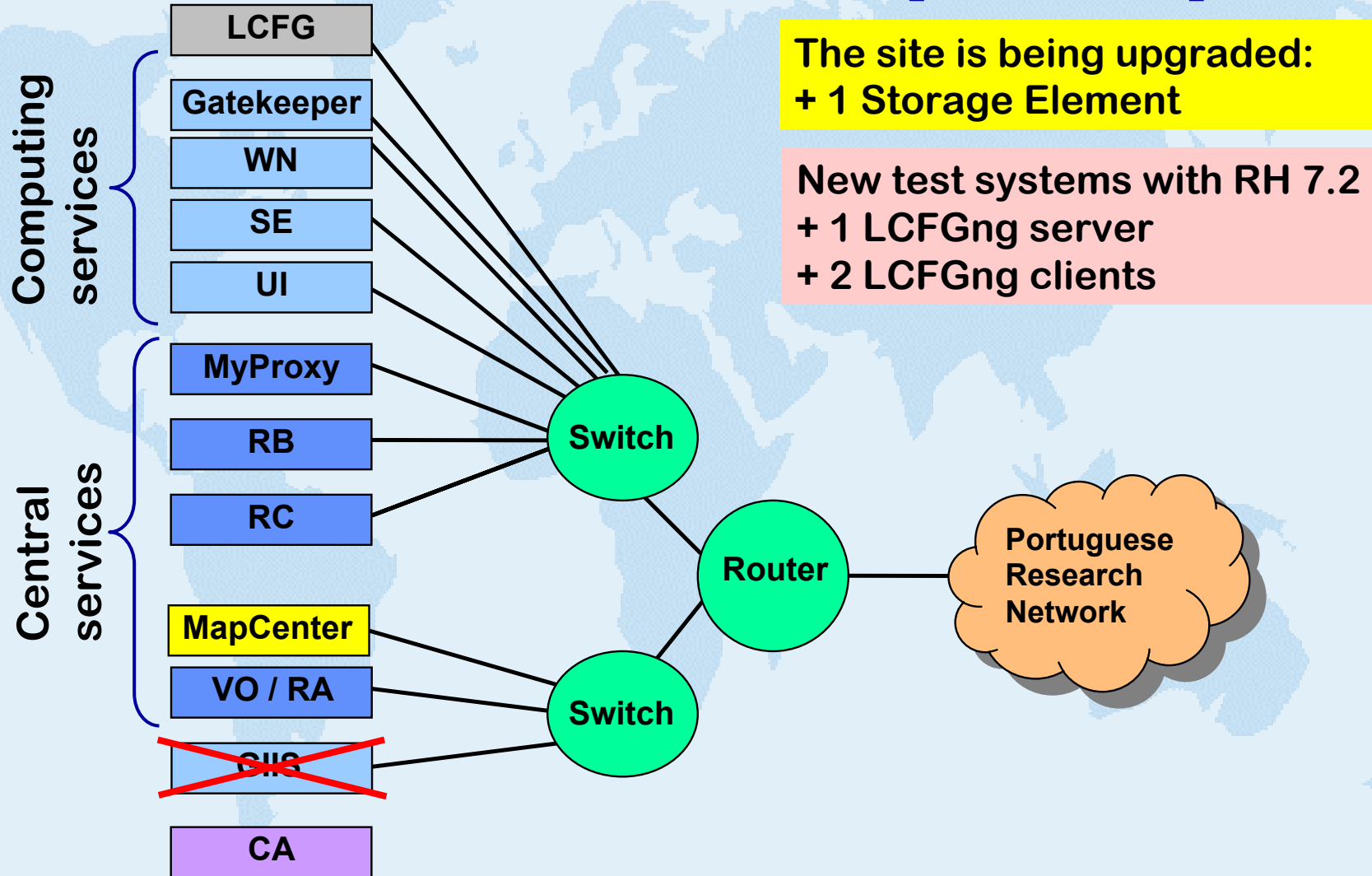
- The current CrossGrid testbed is based on:
 - EDG distribution release 1.2.x (1.2.2 now)
- The current infrastructure allows:
 - To test and gain experience with existing middleware that will be also used in CrossGrid
 - Test applications using:
 - Globus and EDG
 - MPI
 - Compatibility with DataGrid and therefore extend the Grid coverage in Europe
 - Joint tests and interoperation with DataGrid
 - Participation in the IST 2002 demo (4-6 Nov)

Testbed status

- Seven sites in six different countries

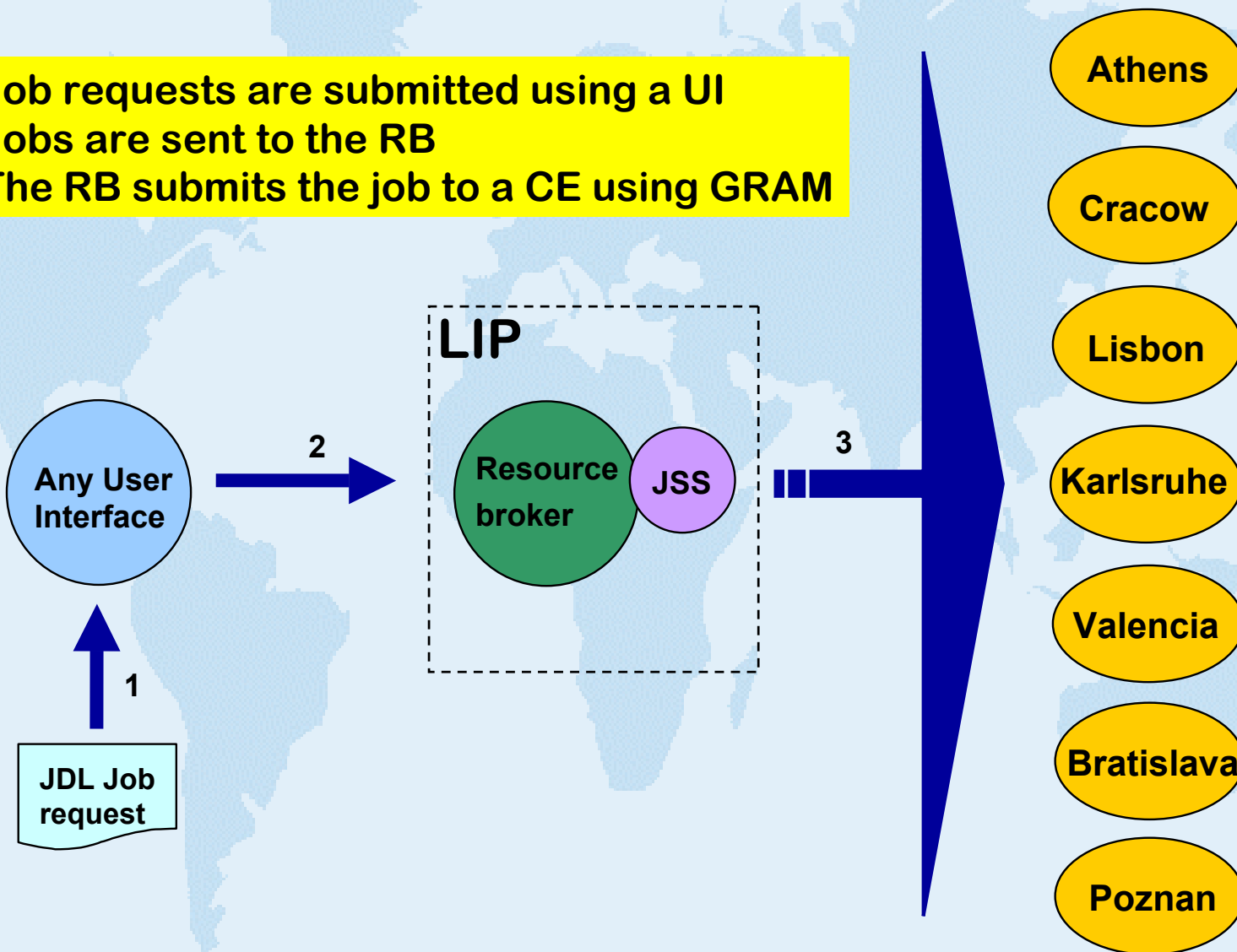
Nodes in the #X RB	Type	Site	Country
ce001.crossgrid.fzk.de	CE	FZK - Karlsruhe	Germany
se001.crossgrid.fzk.de	SE		
cgnode00.di.uoa.gr	CE	Demokritos - Athens	Greece
cgnode04.di.uoa.gr	SE		
zeus.cyf-kr.edu.pl	CE	CYFRONET - Cracow	Poland
zeus03.cyf-kr.edu.pl	SE		
Ingrid02.lip.pt	CE	LIP – Lisbon	Portugal
Ingrid03.lip.pt	SE		
bee001.ific.uv.es	CE	IFIC - Valencia	Spain
bee003.ific.uv.es	SE		
cluster.ui.sav.sk	CE	IISAS - Bratislava	Slovakia
flood-vo.ui.sav.sk	SE		
sequoia.crossgrid.man.poznan.pl	CE	PSNC - Poznan	Poland
se.crossgrid.man.poznan.pl	SE		

The main site at LIP (Lisbon)



The Resource Broker now

1. Job requests are submitted using a UI
2. Jobs are sent to the RB
3. The RB submits the job to a CE using GRAM



Virtual Organizations

- A CrossGrid VO server has been deployed
 - This is an LDAP server
 - Hosted at `grid-vo.lip.pt` port 9990
 - A web page for registration will be implemented

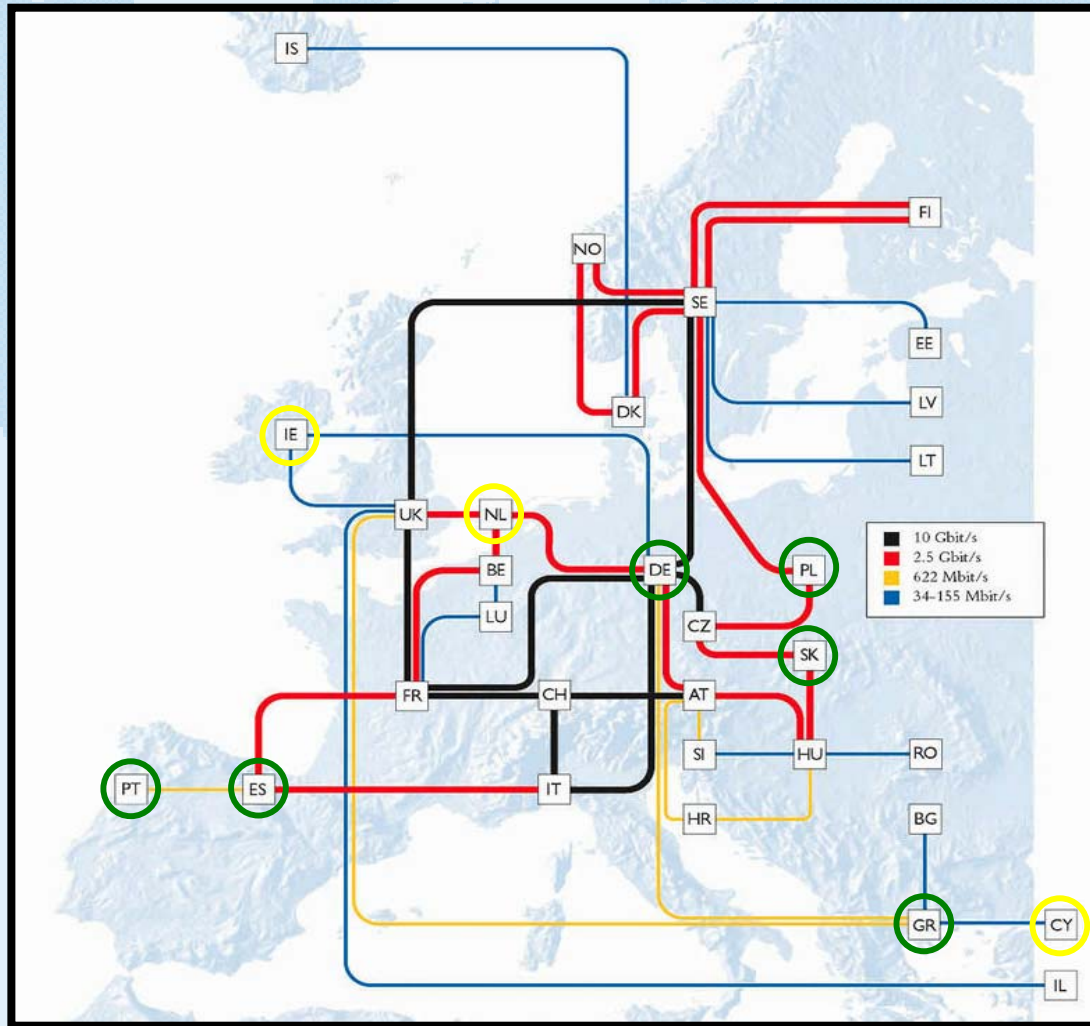
VO	Group	Description
crossgrid	testbed1	All CrossGrid users
gdmpservers	apptb	All GDMP servers
gdmpservers	devtb	Not used

Replica Catalogue

- A RC server has been deployed
 - This is basically an LDAP server
 - Hosted at Ingrid08.lip.pt port 9980
 - **Being used by the RB and RM**
 - Thanks to the help of DataGrid RC experts

VO	Collection	Description
crossgrid	cgtst0	CrossGrid collection
wpsix	wpsixtst0	Being used in tests
atlas	atlastst0	Being used in tests
cms	cmstst0	To be used in tests

CrossGrid and Géant



- Spain
- Portugal
- Poland
- Germany
- Greece
- Slovakia



Testbed validation

- Tests with CrossGrid users and sites are being performed to validate the testbed:
 - Some configuration problems have been found and corrected
 - Other problems have been reported back to DataGrid
 - Some in house corrections have been made
- More CrossGrid sites will be added soon, some have been tested but problems have been found
- Tests of the RB with an external site from DataGrid (IFAE in Barcelona) have also been performed with success

Site status

Site	Location	Status
CYFRONET	Cracow	Running 1.2.2, registered in the RB
ICM / ISN	Warsaw	Deploying 1.2.2
UvA	Amsterdam	Deployed 1.2.2, but not yet in the RB
FZK	Karlsruhe	Running 1.2.2, registered in the RB
IISAS	Bratislava	Running 1.2.2, registered in the RB
PSNC	Poznan	Running 1.2.2, registered in the RB
UCY	Nikosia	Deploying 1.2.2, CA to be accepted
TCD	Dublin	Deployed 1.2.2, but not yet in the RB
IFIC	Valencia	Running 1.2.2, registered in the RB
IFCA	Santander	Deploying 1.2.2
UAB	Barcelona	Deploying 1.2.2
USC/CESGA	Santiago	Deployed 1.2.2, but not yet in the RB
Demokritos	Athens	Running 1.2.2, registered in the RB
Auth	Thessaloniki	Deployed 1.2.2, but not yet in the RB
LIP	Lisbon	Running 1.2.2, registered in the RB

All sites should be ready end November (M9).

Certification Authorities

Country	CrossGrid	DataGrid
Poland	Deployed	Accepted in October
Netherlands	Deployed	Already in DataGrid
Germany	Deployed	Accepted in June
Slovakia	Deployed	Accepted in October
Cyprus	Deployment in progress	
Ireland	Deployed	Already in DataGrid
Spain	Deployed	Already in DataGrid
Greece	Deployed	Accepted in October
Portugal	Deployed	Already in DataGrid

- Most CAs are operational and issuing certs
- Most are already recognized by DataGrid
- Only one more CA needs DataGrid approval

Applications

- Some test and demonstration applications are being selected.
 - HEP simulation
 - ATLAS: FZK, Valencia in the context of the Atlas data challenges (also interested: Demokritos, Auth, LIP).
 - CMS: Santander (LIP is also interested on the near future)
 - CrossGrid application
 - Partial prototype of the X# HEP application: Santander
 - It requires:
 - MPICH-G2
 - Lowest latency possible ➡ (QoS is important)
 - MPI traffic across firewalls

Testbed support

- The CrossGrid testbed helpdesk is being established by IFIC in Valencia
- There is already a basic support
 - crossgrid-wp4-support@lists.cesga.es
 - <http://grid.ifca.unican.es/crossgrid/wp4>
- The support for the central services is currently provided by LIP
 - grid.support@lip.pt
 - <http://www.lip.pt/computing/cg-services>
- A CVS repository has been setup at FZK

Testbed helpdesk

- A support (knowledge) database with solutions is being developed
 - Web access (PHP + SQL)
 - Users will be able to send questions
 - Questions will be routed to the right expert
 - User and administrator level almost finished
- Proposal for a unified helpdesk from EDG
 - See “DataGrid and CrossGrid User support” Sophie Nicoud & Jose Salt later in the afternoon

Collaboration with DataGrid

- Collaboration has been started on:
 - Helpdesk and support
 - Software repository and autobuild
 - Installation and large cluster integration
 - Test and validation with the EDG testgroup
 - Network QoS issues
- Some sites have joined the EDG testbeds
 - FZK (production)
 - LIP (validation)
- Will we join the EDG application testbed soon ? Who ?
See “Deployment strategy” round table in the afternoon

IST Demonstration

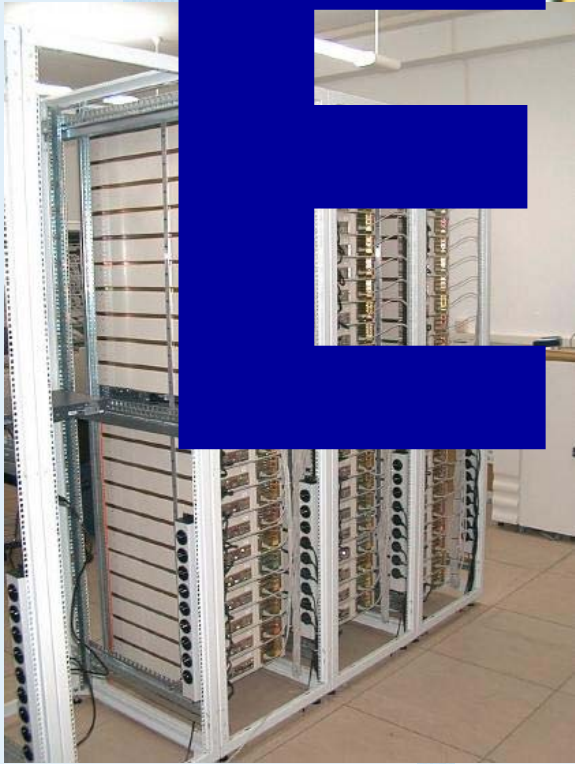
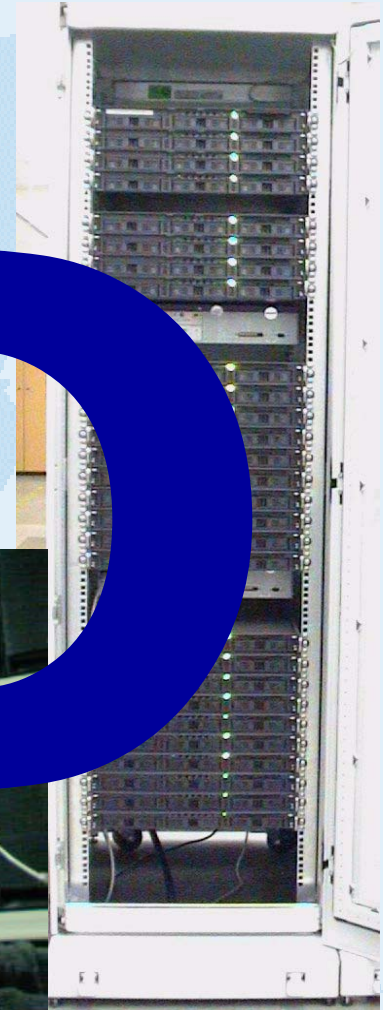
– CrossGrid will participate with 3 sites:

- **LIP** - Lisbon
- **FZK** - Karlsruhe
- **IFIC** - Valencia



Feedback and Information

- **Your feedback is important:**
 - Detect testbed problems and limitations
 - Users are invited to test the testbed (and they have been doing so)
- Information for provisioning and planning
 - **Clear requirements:**
 - Network bandwidth, delay, jitter requirements
 - Storage requirements
 - Computing requirements
 - Additional middleware requirements
 - Run time environment requirements



END

