The EDG Testbed Deployment Details

The European DataGrid Project Team (UFFICIALI)

http://www.eu-datagrid.org

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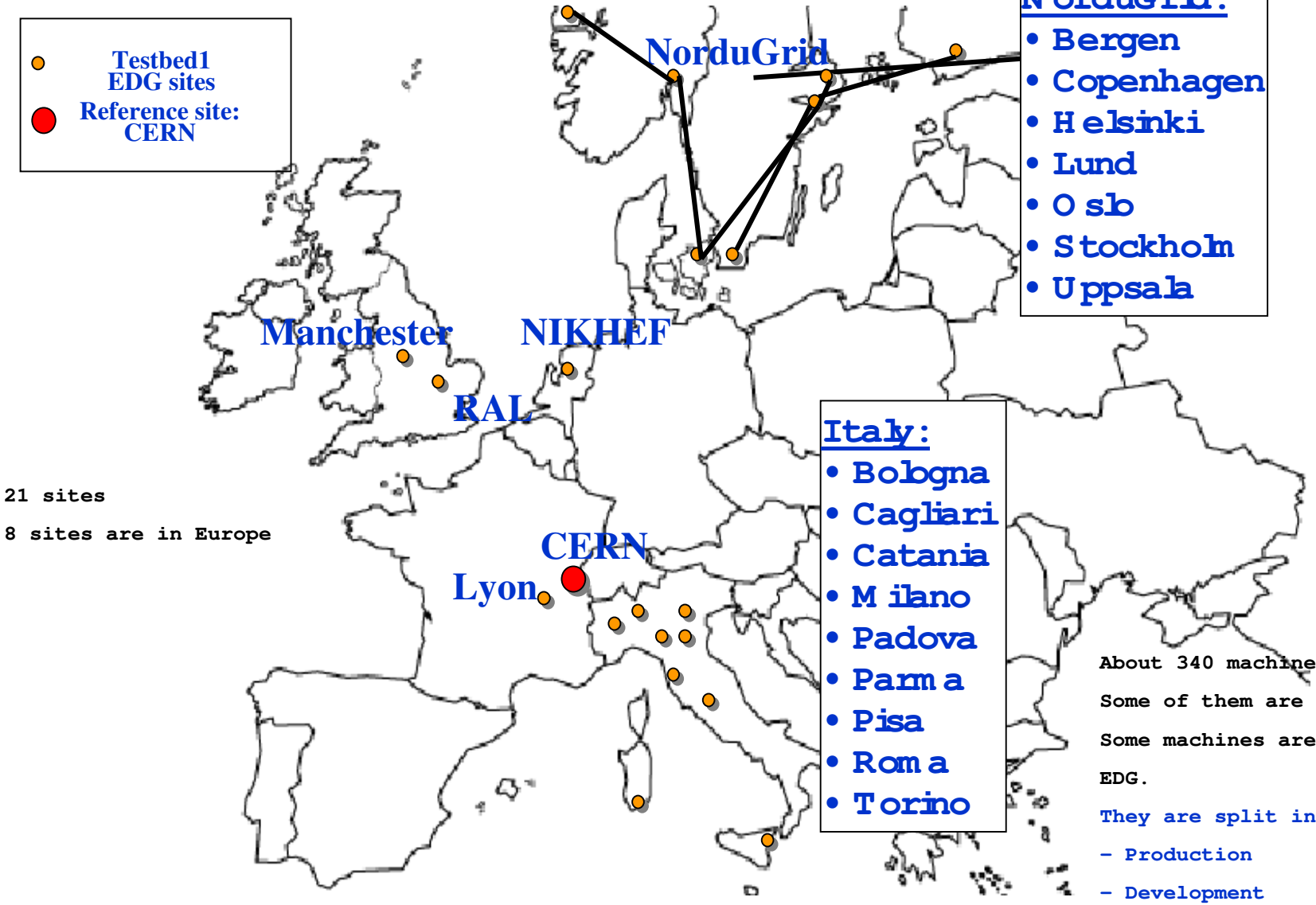
Current EDG Testbed



NorduGrid:
- Bergen
- Copenhagen
- Helsinki
- Lund
- Oslo
- Stockholm
- Uppsala

NorduGrid is as a Grid infrastructure in the Nordic countries

Italy:
- Bologna
- Cagliari
- Catania
- Milano
- Padova
- Parma
- Pisa
- Roma
- Torino

21 sites

8 sites are in Europe

About 340 machines are available.

Some of them are dual processor.

Some machines are only used for EDG.

They are split into:

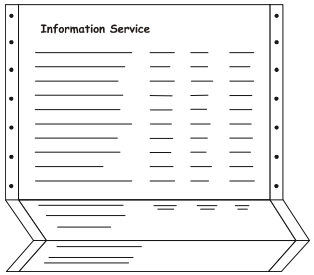
- Production
- Development

EDG Logical Machine Types

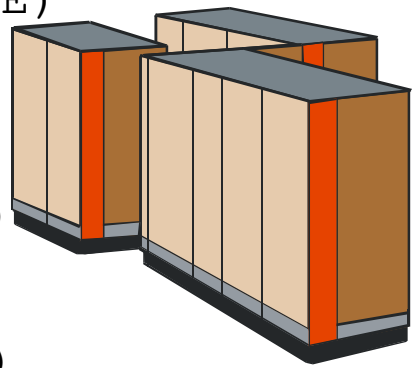
1. User Interface (UI)

2. Resource Broker (RB)

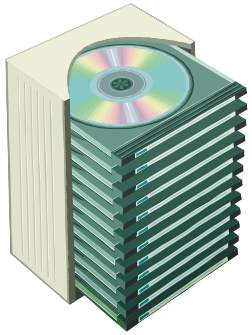
3. Information Service (IS)



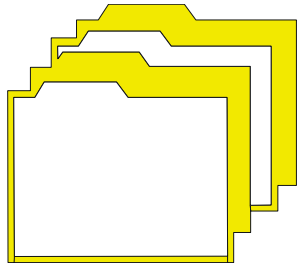
4. Computing Element (CE)
   - Gatekeeper
     (Front-end Node)
   - Worker Nodes (WN)



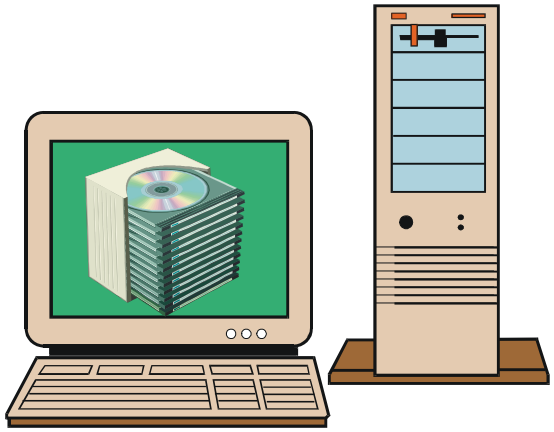
5. Storage Element (SE)



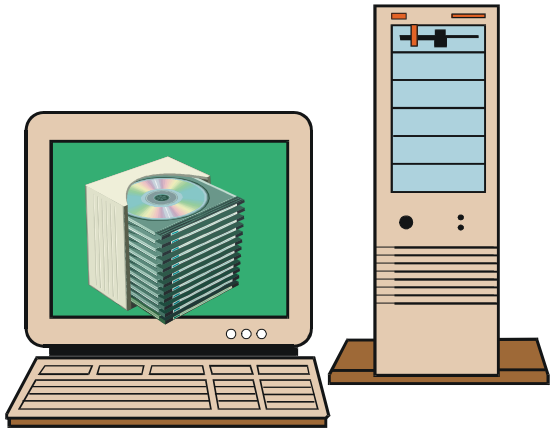
6. Replica Catalog (RC)



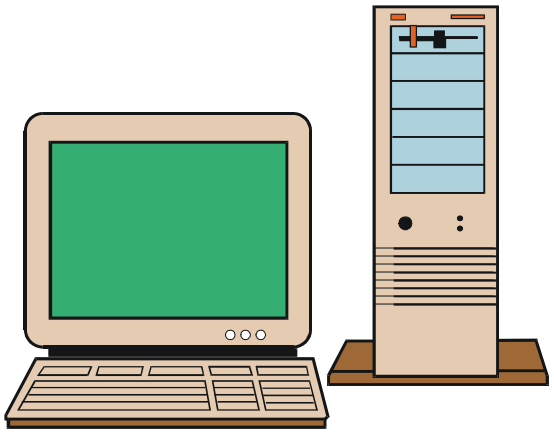
A simple Testbed Site Configuration



Storage Element 1



Storage Element 2

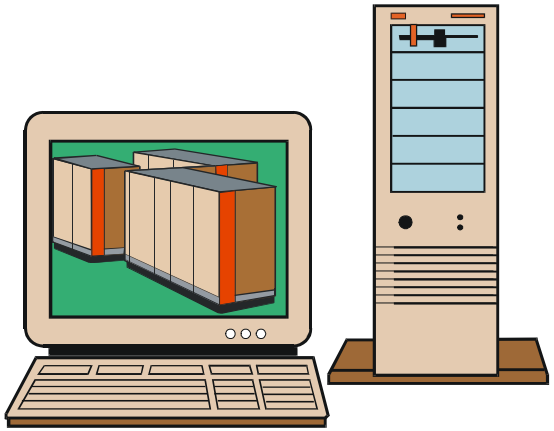


User Interface

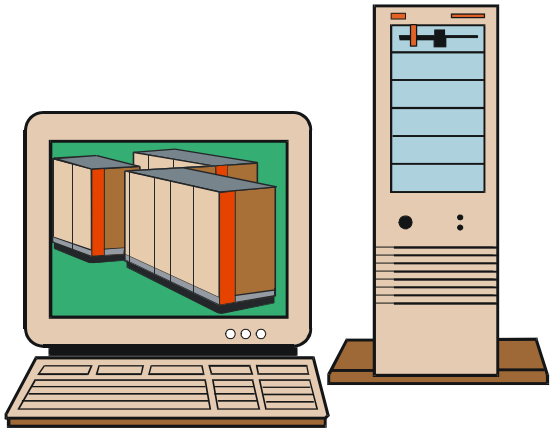
Resource Broker

Replica Catalog

Information Service

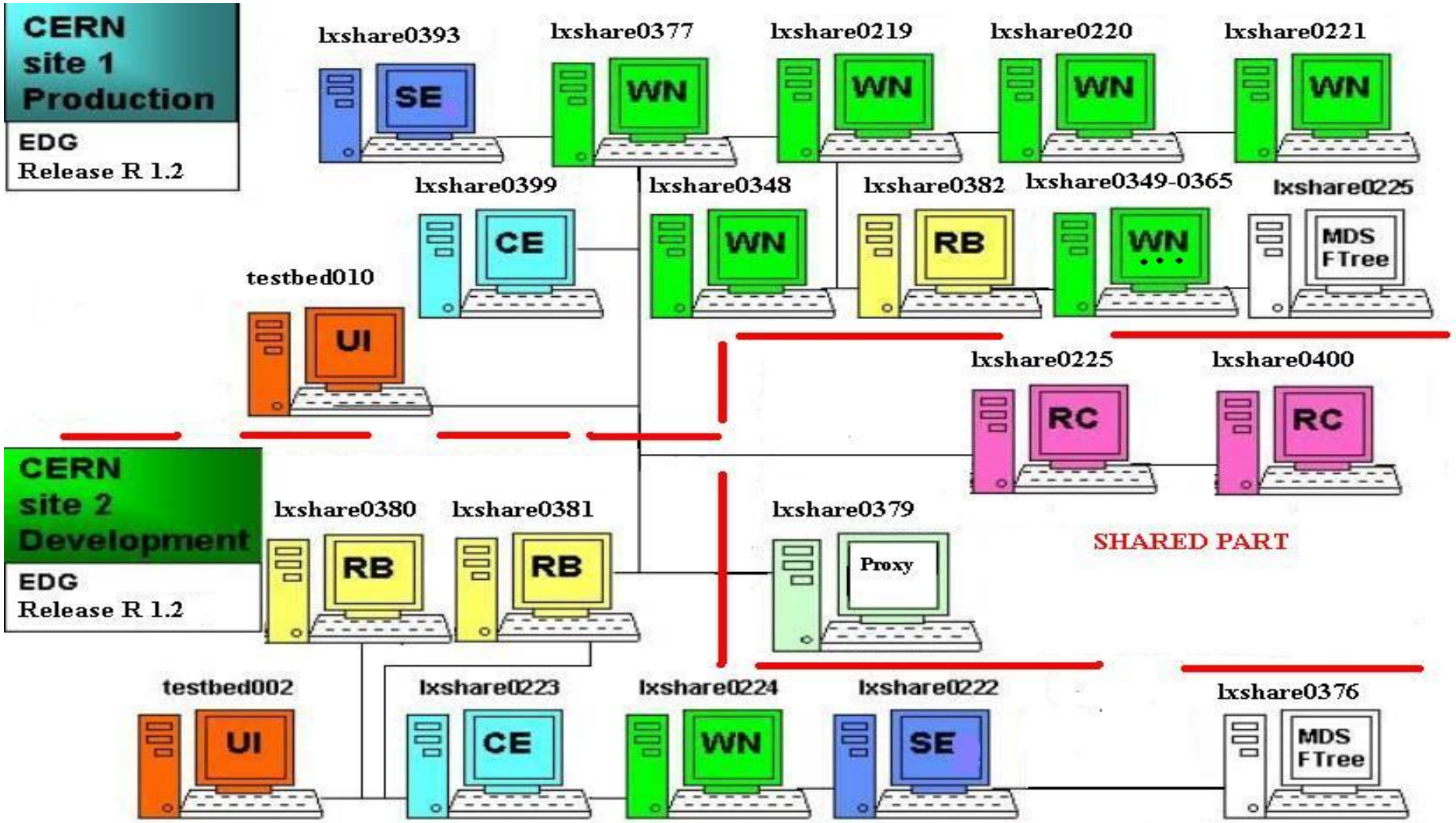


Computing Element 1



Computing Element 2

Example CERN Testbed Structure



Services per Machine Type

Deamon	UI	IS	CE (frontend)	WN	SE	RC	RB
Globus Gatekeeper	–	–	✓	–	–	–	–
Replica Catalog	–	–	–	–	–	✓	–
GSI-enabled FTPd	–	–	✓	–	✓	–	✓
Globus MDS	–	✓	✓	–	✓	–	–
Info-MDS	–	✓	✓	–	✓	–	–
Resource Broker	–	–	–	–	–	–	✓
Job Submission	–	–	–	–	–	–	✓
Information Index	–	–	–	–	–	–	✓
Logging & Bookkeeping	–	–	–	–	–	–	✓
LocalLogger	–	–	✓	–	✓	–	✓
CRL Update	–	–	✓	–	✓	–	✓
Grid mapfile Update	–	–	✓	–	✓	–	✓
RFIO	–	–	–	–	✓	–	–
GDMP	–	–	–	–	✓	–	–

Example IS Content

Site: NIKHEF

CE tbn09.nikhef.nl:2119/jobmanager-pbs-qlong:

- PBS queue "qlong" with 96 hours time limit
- Software installed: ATLAS-3.2.1 ALICE-3.07.01 LHCb-1.1.1 IDL-5.4 NIKHEF D0MCC-0.1-4
- There are 0 jobs running and 0 waiting, with 24 CPUs free

Close SE tbn03.nikhef.nl with mount point /flatfiles

CE tbn09.nikhef.nl:2119/jobmanager-pbs-qshort:

- PBS queue "qshort" with 240 minutes time limit
- Software installed: ATLAS-3.2.1 ALICE-3.07.01 LHCb-1.1.1 IDL-5.4 NIKHEF D0MCC-0.1-4
- There are 0 jobs running and 0 waiting, with 24 CPUs free

Close SE tbn03.nikhef.nl with mount point /flatfiles

SE tbn03.nikhef.nl close to 2 CEs:

- tbn09.nikhef.nl:2119/jobmanager-pbs-qshort
- tbn09.nikhef.nl:2119/jobmanager-pbs-qlong
- VOs supported: alice, atlas, lhcb, biomedical, earthob, iteam (wpsix)
- gridftp on port 2811
- rfio on port 3147
- file
- 29216 Mb of free space

Outlook

- EDG Testbed 1.x contains basic services

Further Information

- EDG Testbed homepage:

http://marianne.in2p3.fr