



The EDG Testbed Deployment Details



The European DataGrid Project Team (UFFICIALI)

<http://www.eu-datagrid.org>



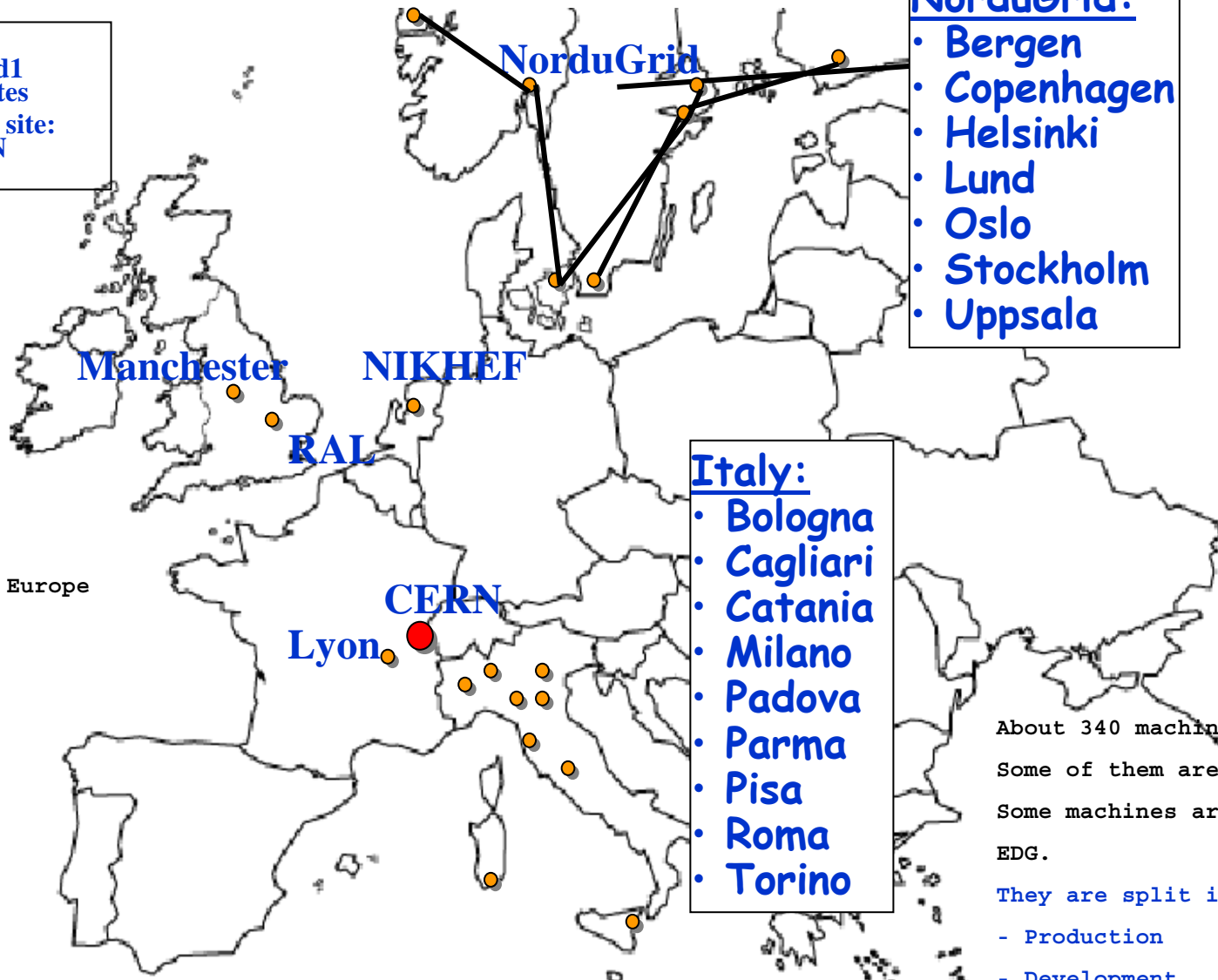
Contents

- ◆ Current EDG Testbed
- ◆ EDG Logical Machine Type
- ◆ Hardware Components of an EDG Testbed



Current EDG Testbed

- Testbed1 EDG sites
- Reference site: CERN



- 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

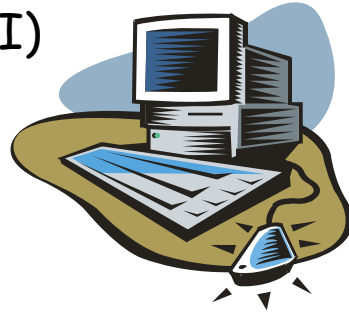
About 340 machines are available. Some of them are dual processor. Some machines are only used for EDG.

- They are split into:
- Production
 - Development

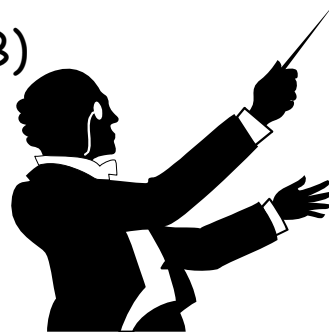
21 sites
8 sites are in Europe

EDG Logical Machine Types

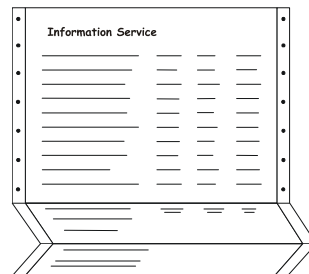
1. User Interface (UI)



2. Resource Broker (RB)

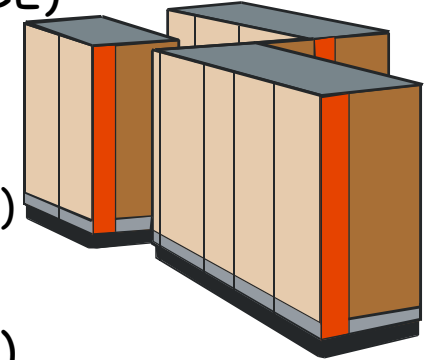


3. Information Service (IS)

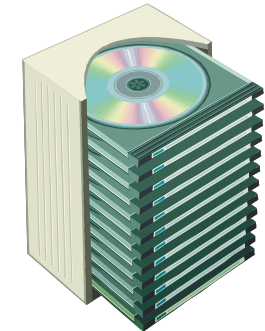


4. Computing Element (CE)

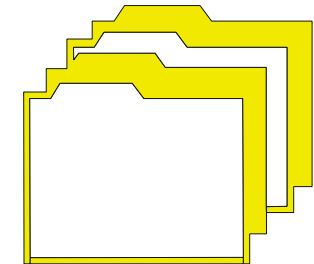
- Gatekeeper (Front-end Node)
- Worker Nodes (WN)



5. Storage Element (SE)

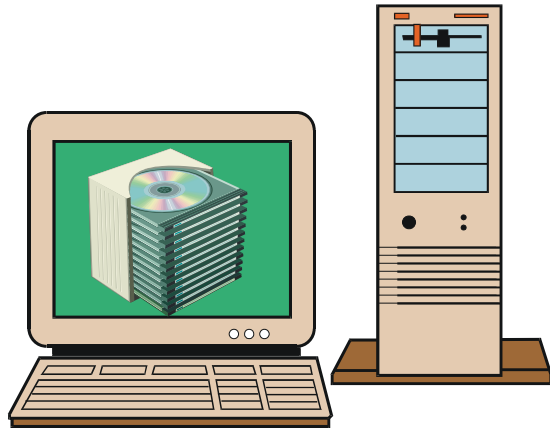


6. Replica Catalog (RC)

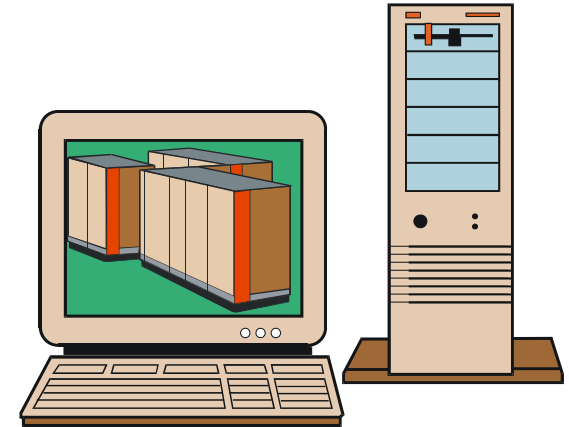




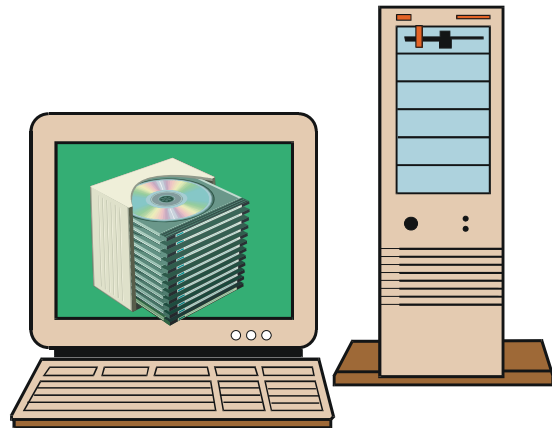
A simple Testbed Site Configuration



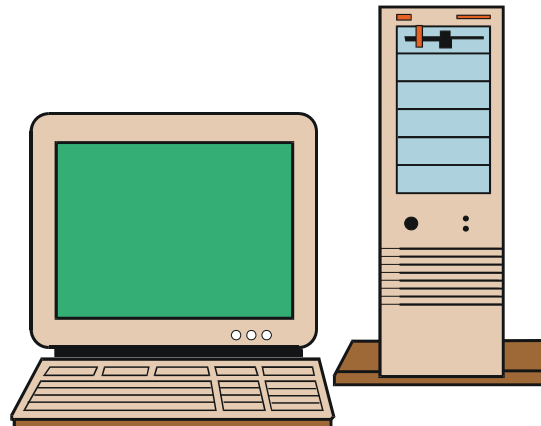
Storage Element 1



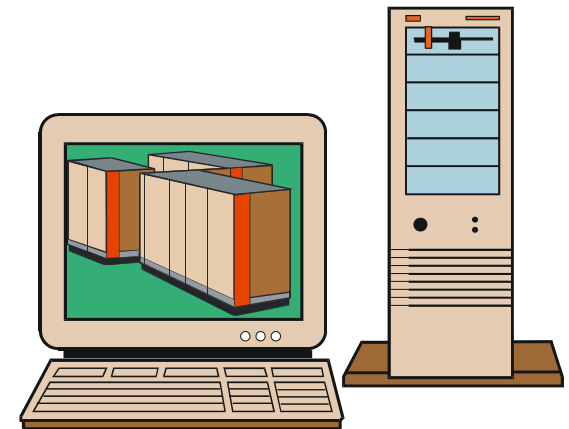
Computing Element 1



Storage Element 2



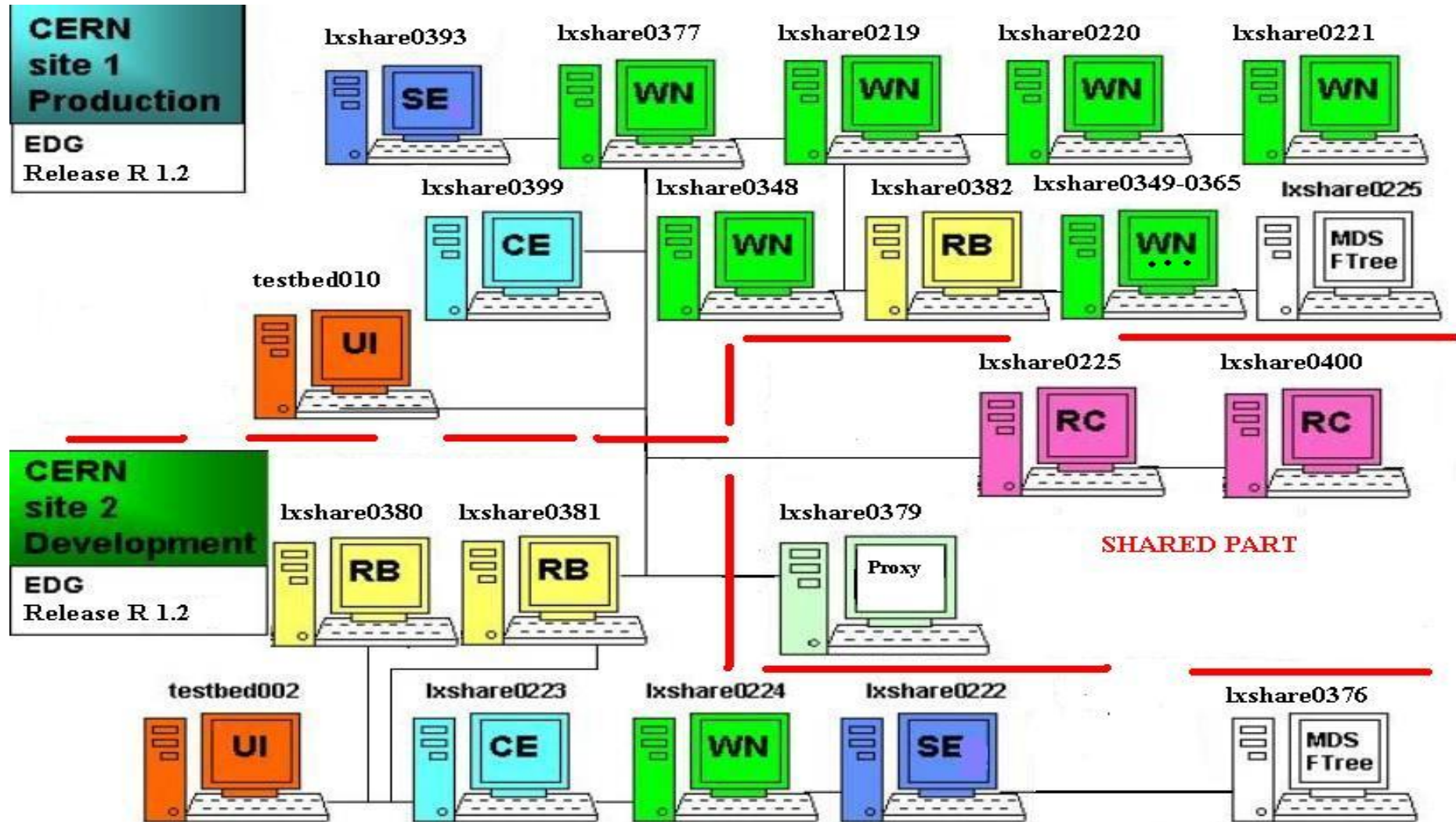
User Interface
Resource Broker
Replica Catalog
Information Service



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	-	-	-	-	-	-	✓
Local Logger	-	-	✓	-	✓	-	✓
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 DOMCC-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 DOMCC-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>