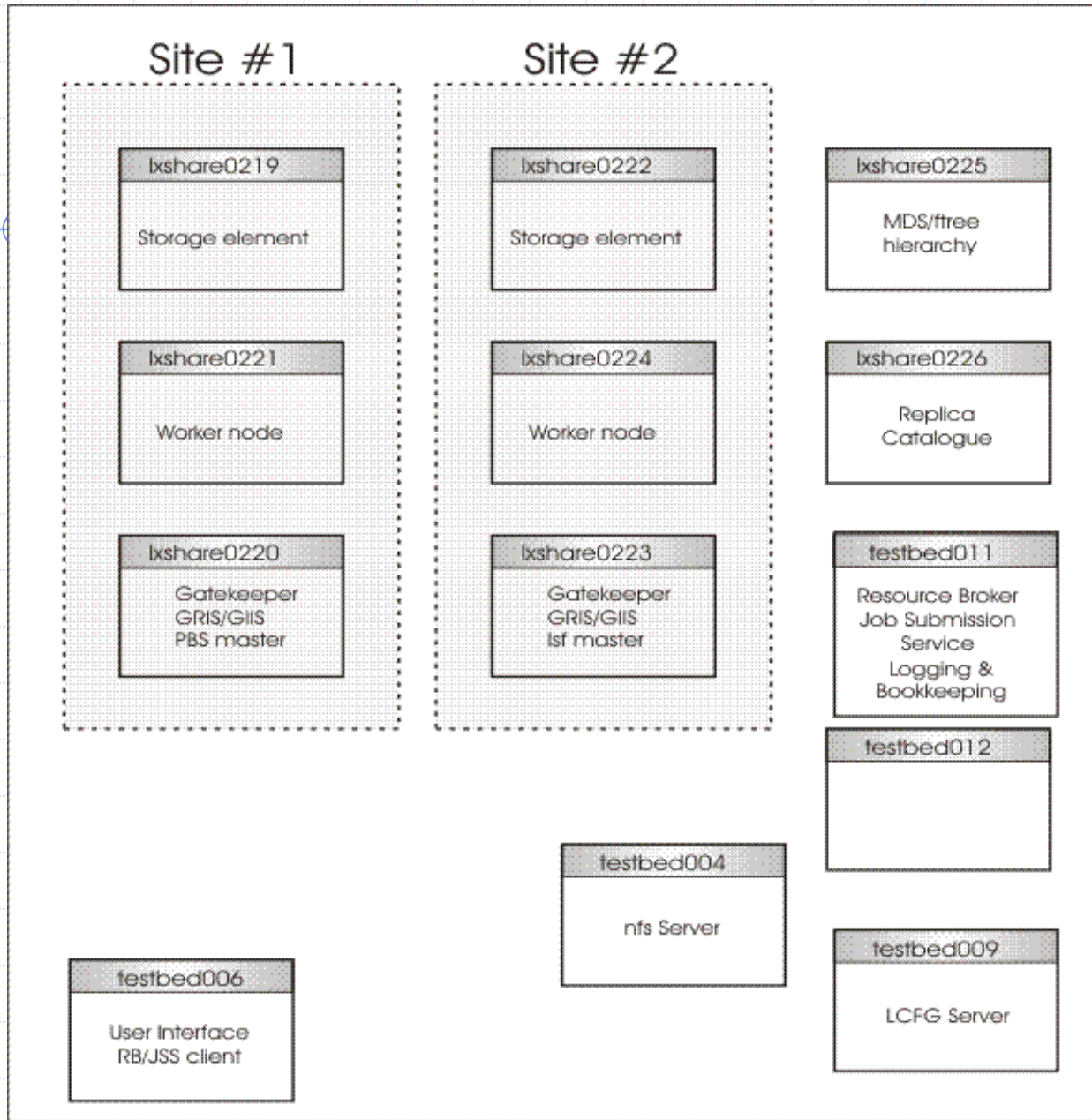


Testbed1 Status

LOOSE CANNONS





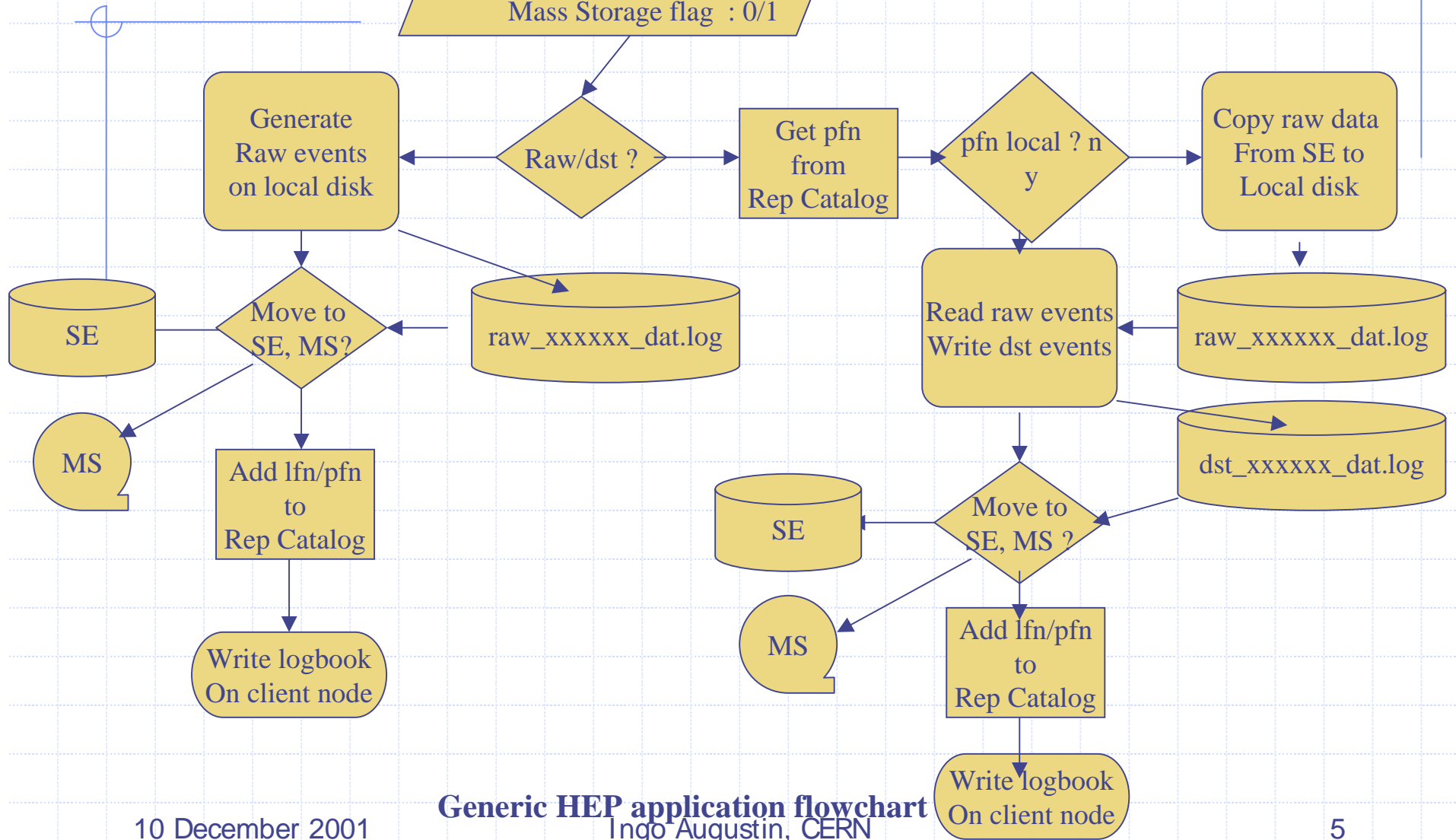
+ CNAF
 (since 9.12.01)
 with 4 worker
 nodes

CNAF Site

- ◆ a user interface node (UI)
grid008f.cnaf.infn.it
- ◆ a Resource broker node (RB)
grid010g.cnaf.infn.it
- ◆ a CE gatekeeper node (CE)
testbed002.cnaf.infn.it jobmanager-pbs

- ◆ worker nodes (WN)
testbed003.cnaf.infn.it, 004, 005
- ◆ a storage element node (SE)
testbed001.cnaf.infn.it
- ◆ a R.Catalog server node (RS)
Ixshare0226

Job arguments
 Data Type : raw/dst
 Run Number :xxxxxx
 Number of evts :yyyyyy
 Number of wds/evt:zzzzz
 Rep Catalog flag : 0/1
 Mass Storage flag : 0/1



The installation script running on the UIN
uses globus-job-run and gsincftp to:

- **create the directory structure on any gatekeeper**
/home/iteam002/VO1/SRC, /EXE, /DAT, /LOG ... at CERN1
/home/iteam/VO1/SRC, /EXE, /DAT, /LOG ... at CNAF
- **copy the source code and Makefile on any gatekeeper**
in /home/iteam002/VO1/SRC at CERN1
in /home/iteam/VO1/SRC at CNAF
- **copy the submit scripts on any gatekeeper**
in /home/iteam002/VO1/SRC at CERN1
in /home/iteam/VO1/SRC at CNAF
- **build the executable on any gatekeeper**
in /home/iteam002/VO1/EXE at CERN1
in /home/iteam/VO1/EXE at CNAF

- The generic application test script running on the UIN uses either **globus-job-submit** to submit the job on the gatekeeper Computing Element (CE) which submits it on the worker node (WN) using the job-manager.
or **dg-job-submit**.
- The execution script `submit_vo1.csh` is passed via the InputSandbox

On the worker node the program performs the following steps: (for the data type raw, the application should generate raw data)

given an LFN raw_XXXXXX_dat.log

- check if a PFN is already registered in the Rep.Catalog

if a PFN exists => exit

if it doesn't exist => continue

- open a data file raw_XXXXXX_dat.log on the local disk /tmp of the WN
- generate and write events in the data file
- close data file
- open, write, close a logbook file
/home/iteam002/VO1/LOG/book_raw_XXXXXX.log

- copy the data file from the WN /tmp/ to the SE with globus-url-copy
 - in /home/flatfiles/ at CERN1
 - in /home/iteam002/VO1/DAT/ at CERN1
 - in /shared/TEST/ (not tested) at CNAF
 - with gsincftpput (no more core, no transfer)
- check if the file is copied on the SEN with gsincftpls gsiftp://\$SE_NODE/
 - in /home/flatfiles/ at CERN1
 - in /home/iteam002/VO1/DAT/ at CERN
 - in /shared/TEST/ (not tested) at CNAF
- dg-job-status Job-id

Sample Job (JDL)

JDL FILE gridpawCNAF.jdl - Goal : Test basic PAW on the Grid @ BOLOGNA-CNAF

Executable = "/ opt/ cern/ cms/ cern/ 2000/ bin/ paw";

Arguments = "-b testgrid";

StdOutput = "stdoutput.log";

StdError = "stderr.log";

OutputSandbox = { "stderr.log", "stdoutput.log", "testgrid.ps" };

InputSandbox = { "pawlogon.kumac", "testgrid.kumac" };

Requirements = member(other.RunTimeEnvironment, "CMS4.3");

Sample Job (Submission)

```
[reale@testbed006 JDL]$ dg-job-submit gridpawCNAF.jdl  
Connecting to host testbed011.cern.ch, port 7771  
Transferring InputSandbox files...done  
Logging to host testbed011.cern.ch, port 1  
5830
```

```
===== dg-job-submit Success =====
```

```
The job has been successfully submitted to the Resource Broker.  
Use dg-job-status command to check job current status. Your job  
identifier (dg_jobid) is:
```

```
https://testbed011.cern.ch:7846/137.138.181.253/1853371699  
21026?testbed011.cern.ch:7771
```

```
=====
```

```
Killed
```

Sample Job (Status LB)

```
[reale@testbed006 JDL]$ dg-job-status  
https://testbed011.cern.ch:7846/137.138.181.253/185  
337169921026?testbed011.cern.ch:7771
```

Sample Job (Status Output)

dg_JobId =
https://testbed011.cern.ch:7846/137.138.181.253/185337169921026?testbed011.cern.ch:7771

Status = **Scheduled**

Last Update Time (UTC) = **Sun Dec 9 18:53:34 2001**

Job Destination =
testbed002.cnaf.infn.it:2119/jobmanager-pbs/workq

Status Reason = **job accepted**

Job Owner =
**/C=IT/O=INFN/OU=PersonalCertificate/L=CNAF/CN=MarioReale/
Email=Mario.Reale@cnaf.infn.it**

Status Enter Time (UTC) = **Sun Dec 9 18:53:34 2001**

Location =
testbed002.cnaf.infn.it:2119/jobmanager-pbs

Sample Job (Retrieve Output)

```
[reale@testbed006 JDL]$ dg-job-get-output  
https://testbed011.cern.ch:7846/137.138.181.253/185337169921026  
?testbed011.cern.ch:7771
```

Retrieving OutputSandbox files...done

===== dg-get-job-output Success =====

Output sandbox files for the job:

-

```
https://testbed011.cern.ch:7846/137.138.181.253/185337169921026  
?testbed011.cern.ch:7771
```

have been successfully retrieved and stored in the directory:

/ sandbox/ 185337169921026

Sample Job (sandbox)

```
[reale@testbed006 JDL]$ cd / sandbox/ 185337169921026
```

```
[reale@testbed006 185337169921026]$ ls -la
```

```
total 16
```

```
drwxrwxr-x    2 reale  reale  4096 Dec  9 19:57 .
drwxrwxrwx  154 root   root   8192 Dec  9 19:57 ..
-rw-rw-r--    1 reale  reale   155 Dec  9 19:53
  stderr.log
-rw-rw-r--    1 reale  reale    0 Dec  9 19:57
  stdout.log
```

Sample Job (what went wrong?)

```
[reale@testbed006 185337169921026]$ more stderr.log  
/ opt/ cern/ cms/ cern/ 2000/ bin/ paw: / cern/ pro/ bin/ pawX11:  
File o directory inesistente  
rm: impossibile rimuovere `paw.metafile': File o directory  
inesistente
```

```
[reale@testbed006 JDL]$ more testgrid.kumac
```

```
ve/ create a(10) r 1 2 3 8 3 4 5 2 10 2
```

```
ve/ print a
```

```
for/ file 1 testgrid.ps
```

```
metafile -1 -111
```

```
ve/ draw a
```

```
title ' first PAW plot done on the grid - Loose Cannons Team'
```

```
close 1
```


Final

- ◆ No protection of data yet!
- ◆ Manchester & RAL up (untested)
- ◆ Thanks to the integration team and the other Loose Cannons
- ◆ Not yet there (storing at SE)
- ◆ Next week: D8.2 and experiments move in....