LHCb Grid Activities @ IFIN-HH

RO-11-NIPNE

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Agenda

- Site configuration
- Site status
- Results
- Problems encountered

Hardware configuration

Worker Nodes:

- 3 dual processor 3 GHz Xeons, 2 GB RAM, 80 GB
- 15 dual processor 3 GHz Xeons LV, 2 GB RAM, 80 GB
- 13 dual processor 2 GHz Xeons Core Duo, 2 GB RAM, 80 GB
- *6 dual processor 1.6 GHz Xeon Quad Core, 4 GB RAM, 80 GB*

 beginning of 2008 102 cores

Storage Element & Computing Element:

• 2 Pentium 3 GHz, 2 Gb RAM (CE, SE – 500GB storage >> 2TB)

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Hardware configuration

- *2 Gigabit Switches*

- *1 Gbs network connection*

- *UPS for the main machines (CE, SE, GW and switches)*

- *Cooling - 2 inverters x 48000 BTU*

Software

- SLC 3.0.8 32 bits installed on everything.

- From GRID middleware point of view we have installed glite 3.0.2 - standard software packages, corresponding to the typical CE, SE, WN and User Interface (UI)

- Using PBS batch system (3 queues defined – *dteam, ops, lhcb* with 1 CPU dedicated to the first two)

- Additional services to ease the management of the cluster: DHCP+TFTP server, DNS

Network configuration
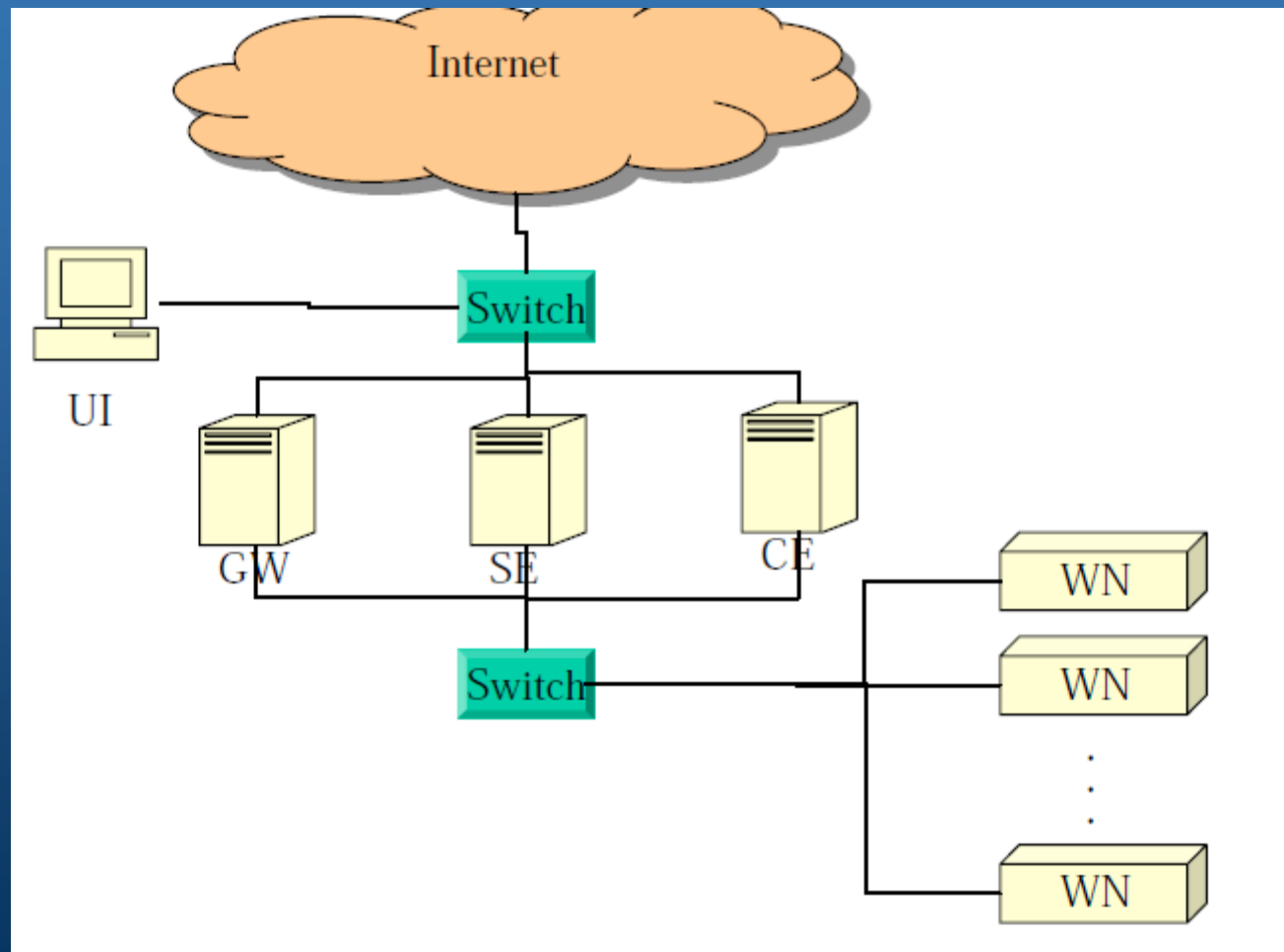
Node installation procedure

• Configuring the necessary services (DNS, DHCP)

• Both the OS and the middleware are network installed and configured (DHCP + TFTP for loading a PXE pre-booting environment, then rpm packets installed from a local repository via HTTP)

• GRID middleware installed in the usual way using yaim

Site status

- The site was registered on October the 3rd 2006 into EGEE and received the name *RO-11-NIPNE* entering the testing period

- Site Functional Tests (SFTs) ran for several weeks and on November the 1st 2006 we obtained the certification entering the production zone

- Adress

    http://goc.grid.sinica.edu.tw/gstat/RO-11-NIPNE

Site status

home alert table service regional service metrics links ? prod pps test baltic eela euchina eumed seegrid gilda trigrid euindia pi2s2 grisu

| RO-11-NIPNE Status: OK	ok	GOC graphs

GOCDB Configuration information:
status: Certified, type: Production
giis url: ldap://lhcb-ce.nipne.ro:2170/mds-vo-name=RO-11-NIPNE,o=grid

To test site GIIS:: ldapsearch -x -H ldap://lhcb-ce.nipne.ro:2170 -b mds-vo-name=RO-11-NIPNE,o=grid

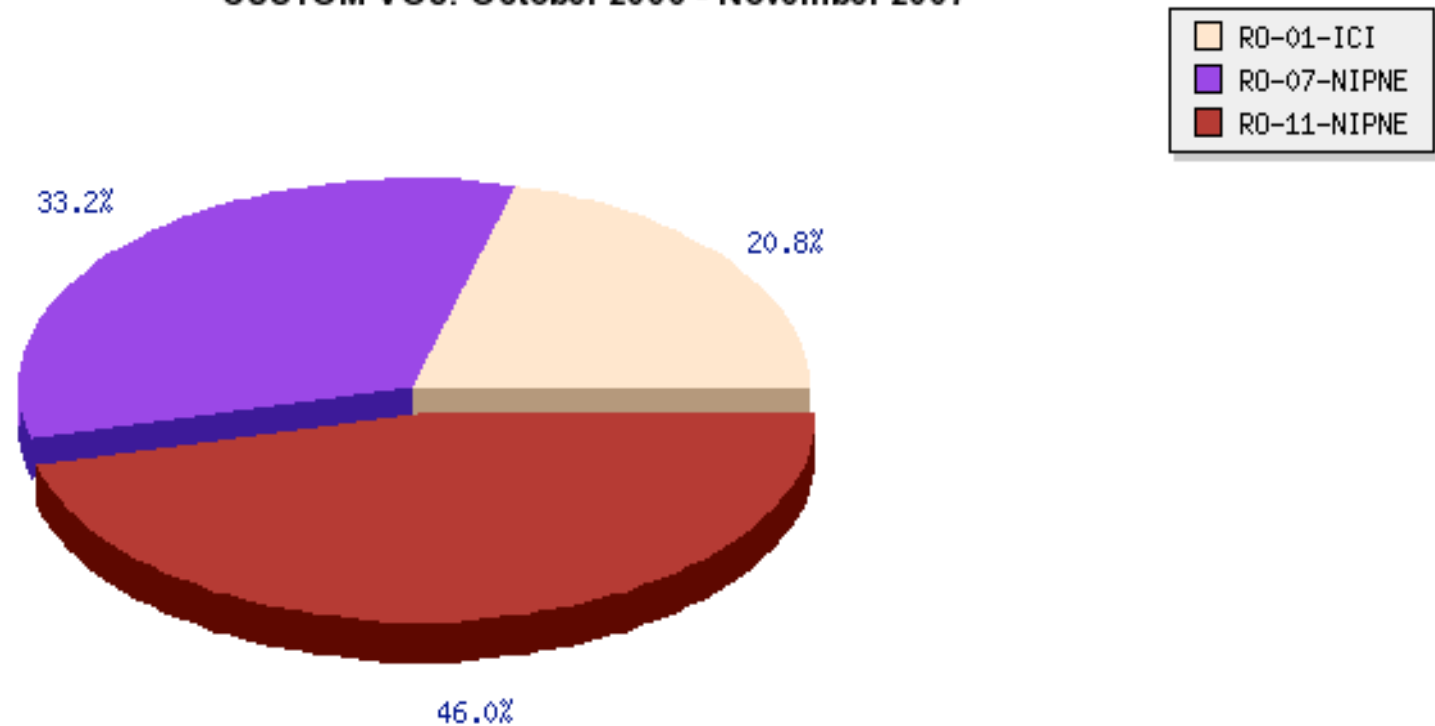| GIIS response time(ms): ok	GIIS Entries: ok	GIIS Old Entries: ok	Total CPU Count: ok	Free CPU Count: ok	Running Jobs: ok	Waiting Jobs: ok	Total Available SE (GB): ok
2805.55	74.00	0.00	36.00	35.00	1.00	0.00	434.90
SE Usage (GB): ok	CE Total CPU: ok	CE Free CPU: ok	CE Running Jobs: ok	CE Waiting Jobs: ok	MAX CPU: ok	AVG CPU: ok	
0.26	36.00	35.00	1.00	0.00	36.00	33.00	

```
lhcb-ce.nipne.ro
    GlueHostOperatingSystemName: Scientific Linux
    GlueHostOperatingSystemRelease:      3.0.8
    GlueHostOperatingSystemVersion:      SL
    GlueSubClusterPhysicalCPUs:  0
    GlueSubClusterLogicalCPUs:   0
    GlueHostApplicationSoftwareRunTimeEnvironment:
        LCG-2                        LCG-2_1_0
        LCG-2_1_1                    LCG-2_2_0
        LCG-2_3_0                    LCG-2_3_1
        LCG-2_4_0                    LCG-2_5_0
        LCG-2_6_0                    LCG-2_7_0
        GLITE-3_0_0                  R-GMA
        VO-lhcb-XmlDDDB-v22r2        VO-lhcb-XmlDDDB-v30r14
        VO-lhcb-Boole-v12r10         VO-lhcb-DaVinci-v17r6
        VO-lhcb-DaVinci-v17r7        VO-lhcb-DaVinci-v17r8
        VO-lhcb-Brunel-v30r14        VO-lhcb-DecFiles-v13r8
        VO-lhcb-ParamFiles-v5r0      VO-lhcb-Gauss-v25r8
        VO-lhcb-DaVinci-v12r18       VO-lhcb-Gauss-v25r9
        VO-lhcb-Brunel-v30r15        VO-lhcb-DecFiles-v13r9
        VO-lhcb-DaVinci-v18r0        VO-lhcb-DaVinci-v19r0
        VO-lhcb-DaVinci-v19r1        VO-lhcb-Brunel-v30r17
        VO-lhcb-Gauss-v25r10         VO-lhcb-Gauss-v25r9-slc3_ia32_gcc323
        VO-lhcb-Gauss-v25r10-slc3_ia32_gcc323VO-lhcb-XmlDDDB-v22r2-slc3_ia32_gcc323
        VO-lhcb-XmlDDDB-v30r14-slc3_ia32_gcc323VO-lhcb-Boole-v12r10-slc3_ia32_gcc323
        VO-lhcb-DaVinci-v12r18-slc3_ia32_gcc323VO-lhcb-DaVinci-v17r6-slc3_ia32_gcc323
        VO-lhcb-DaVinci-v17r7-slc3_ia32_gcc323VO-lhcb-DaVinci-v17r8-slc3_ia32_gcc323
        VO-lhcb-DaVinci-v18r0-slc3_ia32_gcc323VO-lhcb-DaVinci-v19r0-slc3_ia32_gcc323
        VO-lhcb-DaVinci-v19r1-slc3_ia32_gcc323VO-lhcb-DaVinci-v19r2
        VO-lhcb-DaVinci-v19r2-slc3_ia32_gcc323VO-lhcb-DaVinci-v19r3
        VO-lhcb-DaVinci-v19r3-slc3_ia32_gcc323VO-lhcb-Brunel-v30r17-slc3_ia32_gcc323
        VO-lhcb-DecFiles-v13r9-slc3_ia32_gcc323VO-lhcb-DecFiles-v13r10
        VO-lhcb-DecFiles-v13r10-slc3_ia32_gcc323VO-lhcb-ParamFiles-v5r0-slc3_ia32_gcc323
        VO-lhcb-DaVinci-v19r4        VO-lhcb-Gauss-v25r11
        VO-lhcb-DecFiles-v13r11      VO-lhcb-DecFiles-v13r12
        VO-lhcb-DaVinci-v19r5        VO-lhcb-Gauss-v25r12
        VO-lhcb-DaVinci-v19r7        VO-lhcb-Brunel-v31r10
        VO-lhcb-DecFiles-v13r15      VO-lhcb-Brunel-v31r11
```

Site status
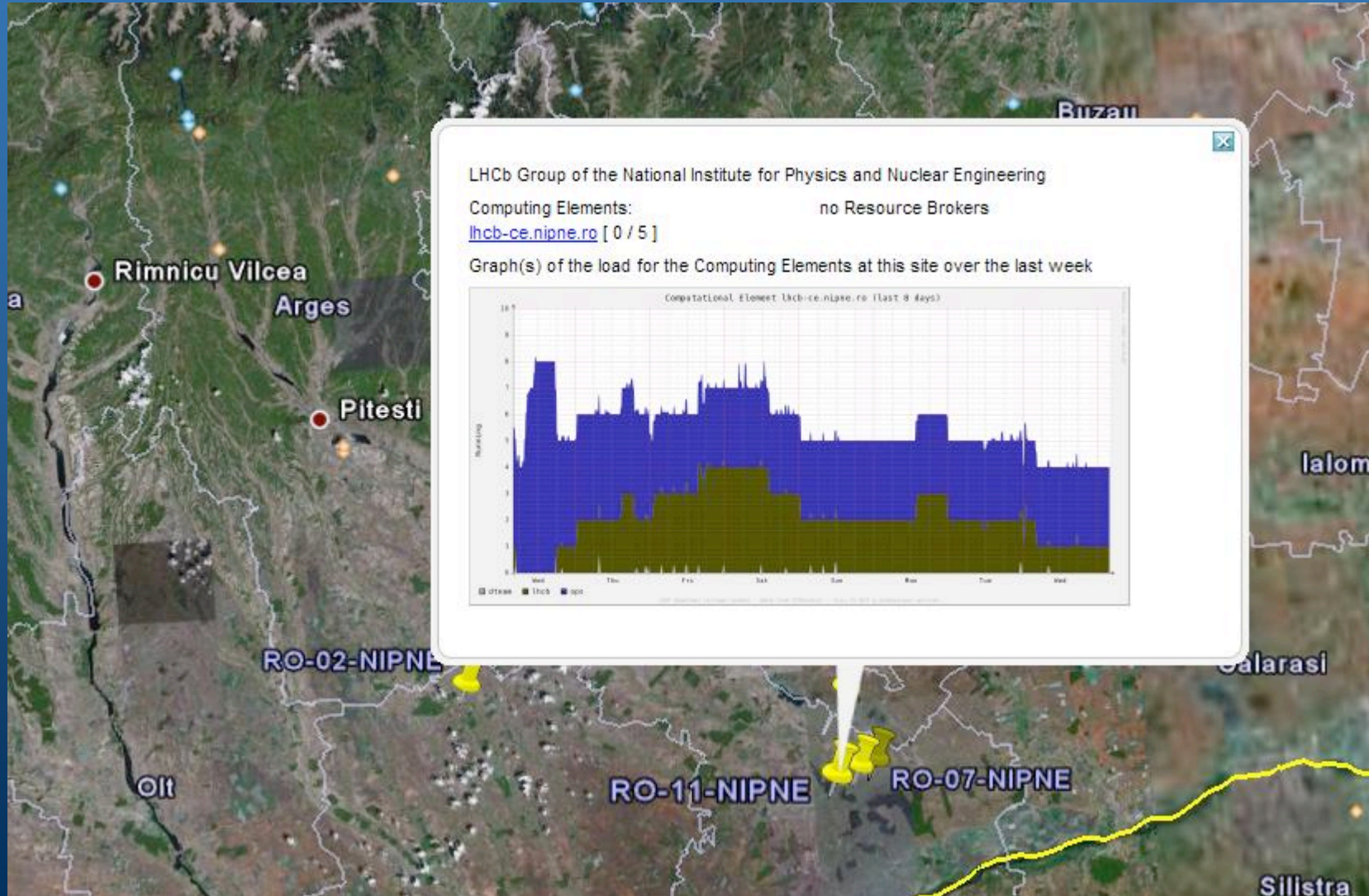
LHCb jobs

Romania Normalised CPU time per SITE
CUSTOM VOs. October 2006 - November 2007

RO-01-ICI
RO-07-NIPNE
RO-11-NIPNE

33.2%
20.8%
46.0%

(C) CESGA 'EGEE View': Romania / normcpu / 2006:10-2007:11 / SITE-VO / custom / ACCBAR-LIN / i

2007-11-28 08:45 UTC

LHCb jobs

Normalised CPU time [units 1K.Sl2K.Hours] by SITE and VO			
SITE	**lhcb**	**Total**	**%**
RO-01-ICI	10,562	10,562	19.76%
RO-07-NIPNE	18,366	18,366	34.36%
RO-11-NIPNE	24,527	24,527	45.88%
Total	53,455	53,455	
Percentage	100.00%		

Accounting Data for Romania
CUSTOM VOs. October 2006 - November 2007

(C) CESGA 'EGEE View': Romania / normcpu / 2006:10-2007:11 / SITE-VO / custom / ACCBAR-LIN / i   2007-11-28 08:45 UTC

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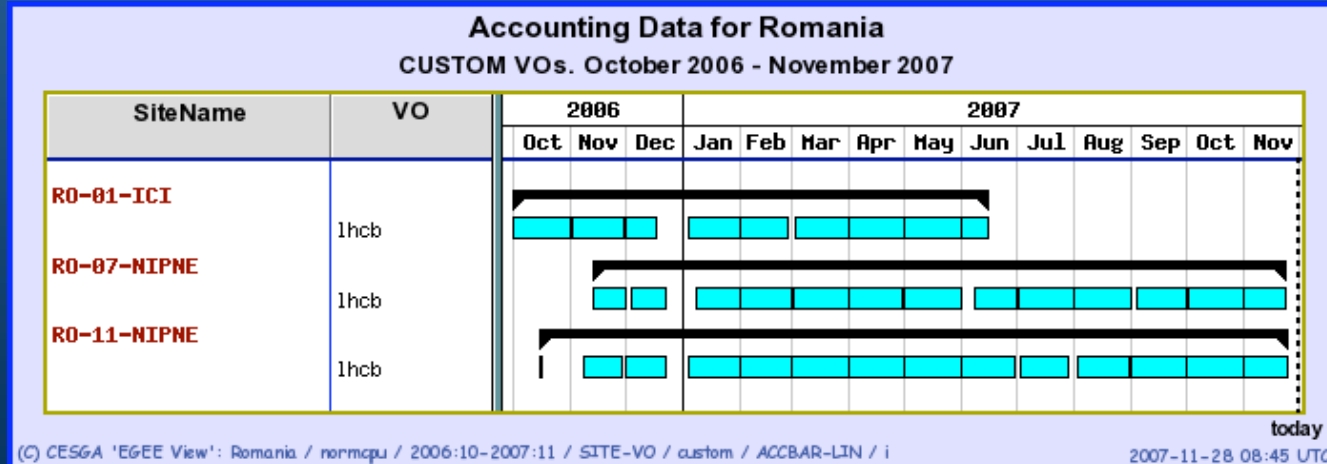
Problems

- Cooling
- Power & network failures
- Middleware upgrades
- Installation of the experiment's software by the sgm team

Plans

- Development according to the experiment needs
- Have more jobs running
- Be online ~ 99 %

- Thank you

- Questions