The VO glast.org

Michael Kuss

INFN Pisa

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VO manager: Michael Kuss, Francesco Longo

software manager: Michael Kuss, Francesco Longo, Johan Bregeon

VOMS server: voms2.cnaf.infn.it, voms-02.pd.infn.it (replica)

WMS: glite-rb-00.cnaf.infn.it, prod-wms-01.pd.infn.it (backup)

Site	Place	CPU	Reserved	Fermi SW
INFN-PISA	INFN Pisa	1746	52	y
TRIESTE	INFN Trieste	228	48	y
INFN-T1	CNAF/Bologna	1846	100	y
GRIF	LAL/POL Paris	2100	?	y
INFN-BARI	INFN Bari	737	70	n
PERUGIA	INFN Perugia	180	?	n
INFN-NAPOLI-PAMELA	INFN Napoli	130	?	n
INFN-CNAF	CNAF/Bologna	8	?	n
CNR-ILC-Pisa	CNR Pisa	4	?	n
ESA-ESRIN	ESA Rome	33	?	n
SNS-PISA	SNS Pisa	63	?	n
ROMA2	INFN ROMA2	24	?	n

Running Fermi Software

Use the software tag as requirements in your jdl file:

```
Requirements = Member("VO-glast.org-GlastRelease-rh9_gcc32opt-v15r47p1",
other.GlueHostApplicationSoftwareRunTimeEnvironment);
Requirements = ( other.GlueCEInfoHostName == "gridce1.pi.infn.it" );
```

In your shell script, source the setup.sh script giving the tag as parameter:

```
# script which will set the following variables:
# INST_DIR points to the main install dir of the package
# GLAST_EXT points to the external libraries
# LATCalibRoot points to the calibration files
# PACKAGEROOT points to the package root dir, like cmt defines it
source $VO_GLAST_ORG_SW_DIR/setup.sh VO-glast.org-GlastRelease-rh9_gcc32opt-v15r47p1
[ $? -ne 0 ] && sourcing the script failed && exit 1
```

And, use the INST_DIR scripts, there is no CMT:

```
MALLOC_CHECK_=0 $INST_DIR/bin/Gleam jobOptions.txt
```

The workload management system (WMS) doesn't queue jobs. It uses a rank to decide on which queue a job might start earliest, based on information supplied by the information super-market (ISM), and sends it there.

```
DefaultRank =  -other.GlueCEStateEstimatedResponseTime; (rank
```
based on the recent response time of the queue).

Issues:

- fails if the queue is shared among VO's, and internal priorities are enabled.
- fails if a queue manages few CPU's, because it may fill-up before the ISM has updated it's database.
- fails if the underlying batch system allows also local users.
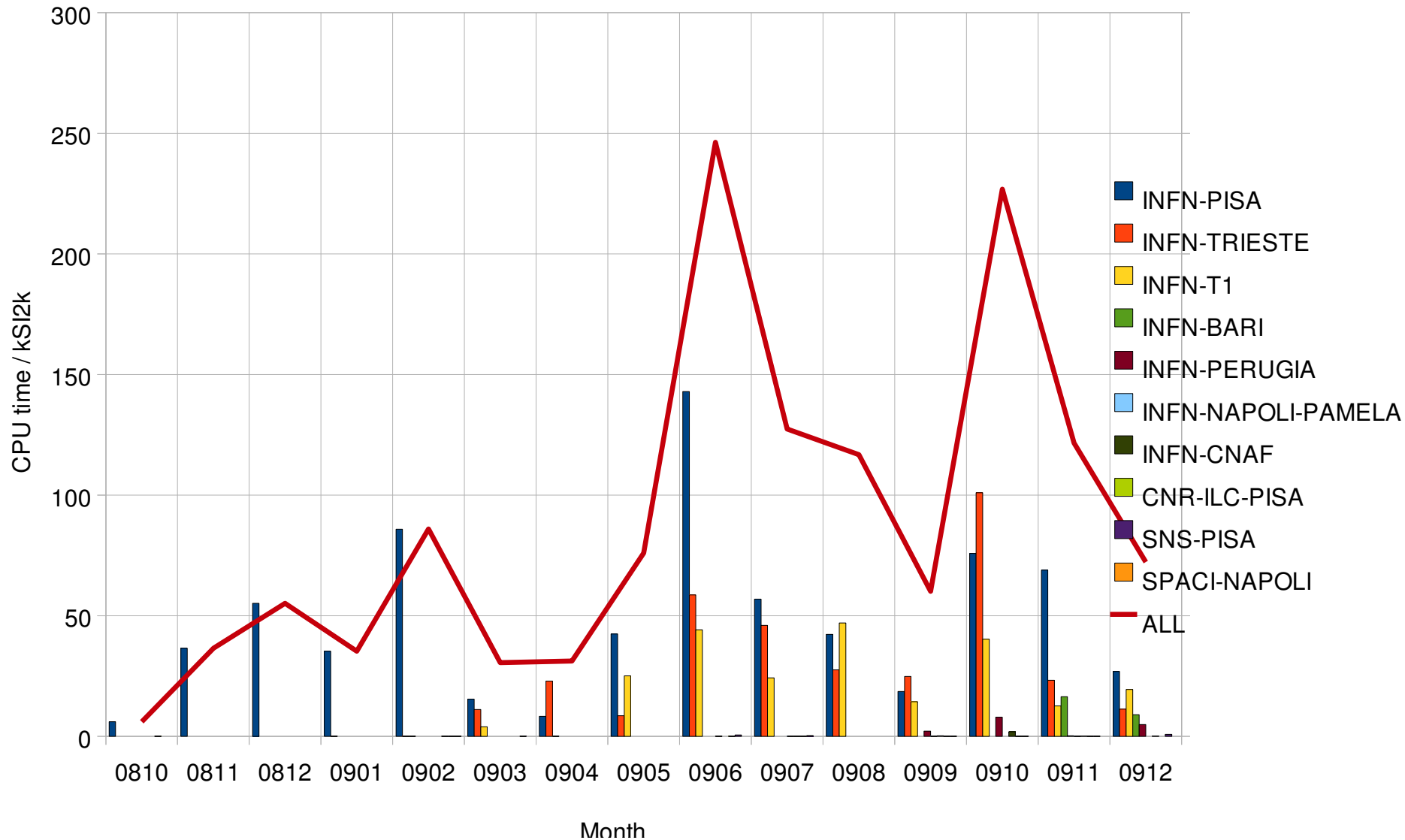
Consequence: Fermi SW isn't installed at sites with few (<100) CPU, no dedicated queue, and local users.

More issues: each site is different, i.e. shared SW area or not, missing packages, etc.

```
Rank = ( other.GlueCEStateWaitingJobs == 0 ? other.GlueCEStateFreeCPUs :
-other.GlueCEStateWaitingJobs);
```
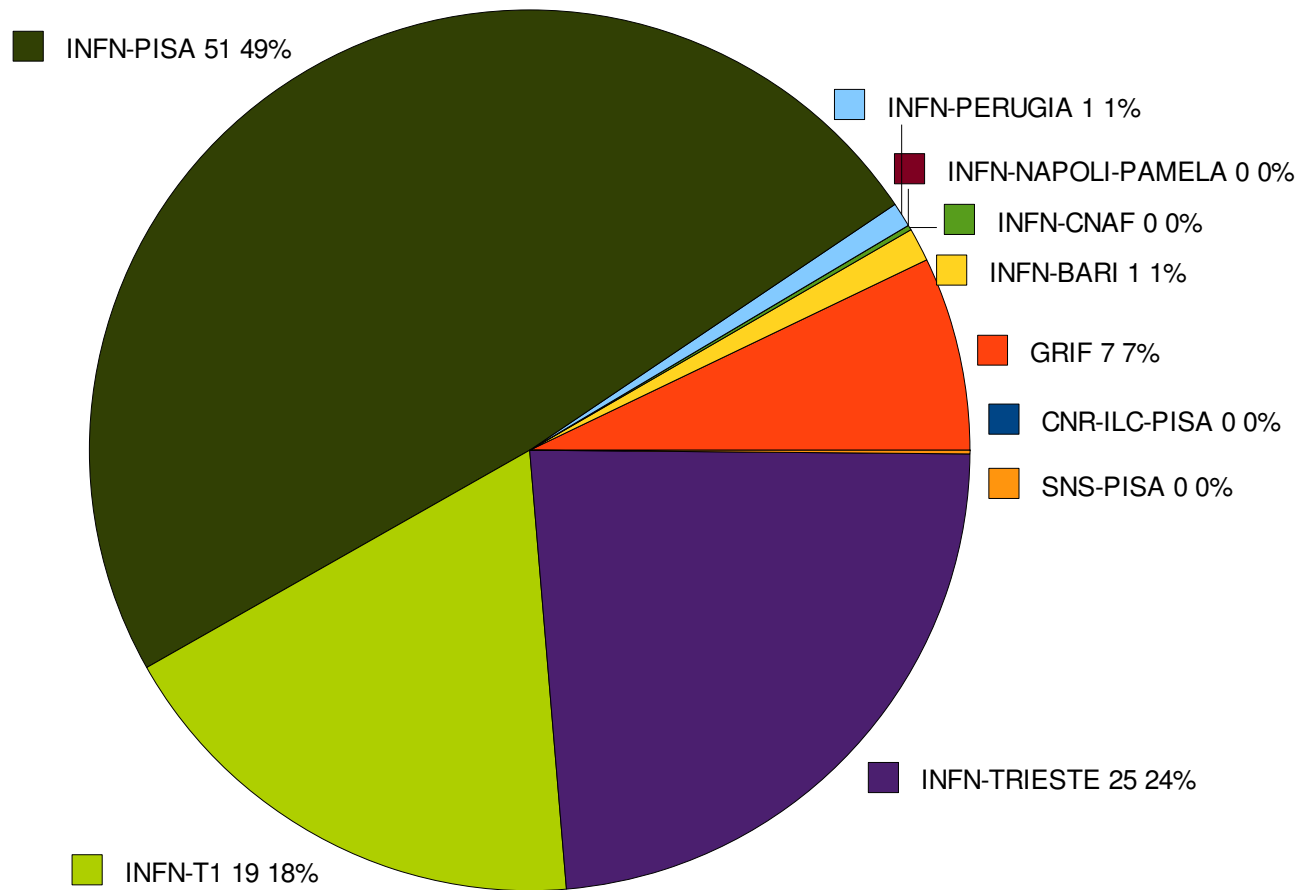
glast.org GRID utilization by month

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Month

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glast.org EGEE GRID utilization 2009 (kSI2k)

- INFN-PISA 51 49%
- INFN-PERUGIA 1 1%
- INFN-NAPOLI-PAMELA 0 0%
- INFN-CNAF 0 0%
- INFN-BARI 1 1%
- GRIF 7 7%
- CNR-ILC-PISA 0 0%
- SNS-PISA 0 0%
- INFN-TRIESTE 25 24%
- INFN-T1 19 18%

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Instructions for the following items can be found in the side bar of http://grid-it.cnaf.infn.it/, "Access to the grid".

1. Enable your UserInterface (UI). Usually not needed, as every site should have at least one UI operational.
2. Get your personal certificate.
3. Register to a VO (i.e. glast.org).
4. Learn how to "Use the grid".