



Enabling Grids for E-science

Accounting Portal

Javier Lopez Cacheiro/ CESGA
ARM-8 Athens

www.eu-egee.org



- **Requirements**
- **EGEE View**
 - Global View
 - ROC View
 - Site View
 - VO Metrics View
- **OSG View**
- **Unregistered View**
- **Future Work**
- **SWE RAP**

- **The site must fulfill the following requirements in GOCDDB:**
 - Site must appear as a **Certified** site in the Production or PPS infrastructure
 - Currently **suspended** sites are also shown
 - Site must have at least one CE registered
- **Site must publish data**

LcgRecords table:

- **Fixed schema**

Data are stored centrally:

- **Production:**
 - Flexible Archiver @ RAL
- **Pre-Production**
 - Flexible Archiver @ CESGA

- **ExecutingSite**
- **ExecutingCE**

- **LocalJobID**
- **LCGJobID**

- **LocalUserID**
- **LCGUserID**
- **LCGUserVO**

- **StartTime**
- **StopTime**
- **ElapsedTime**

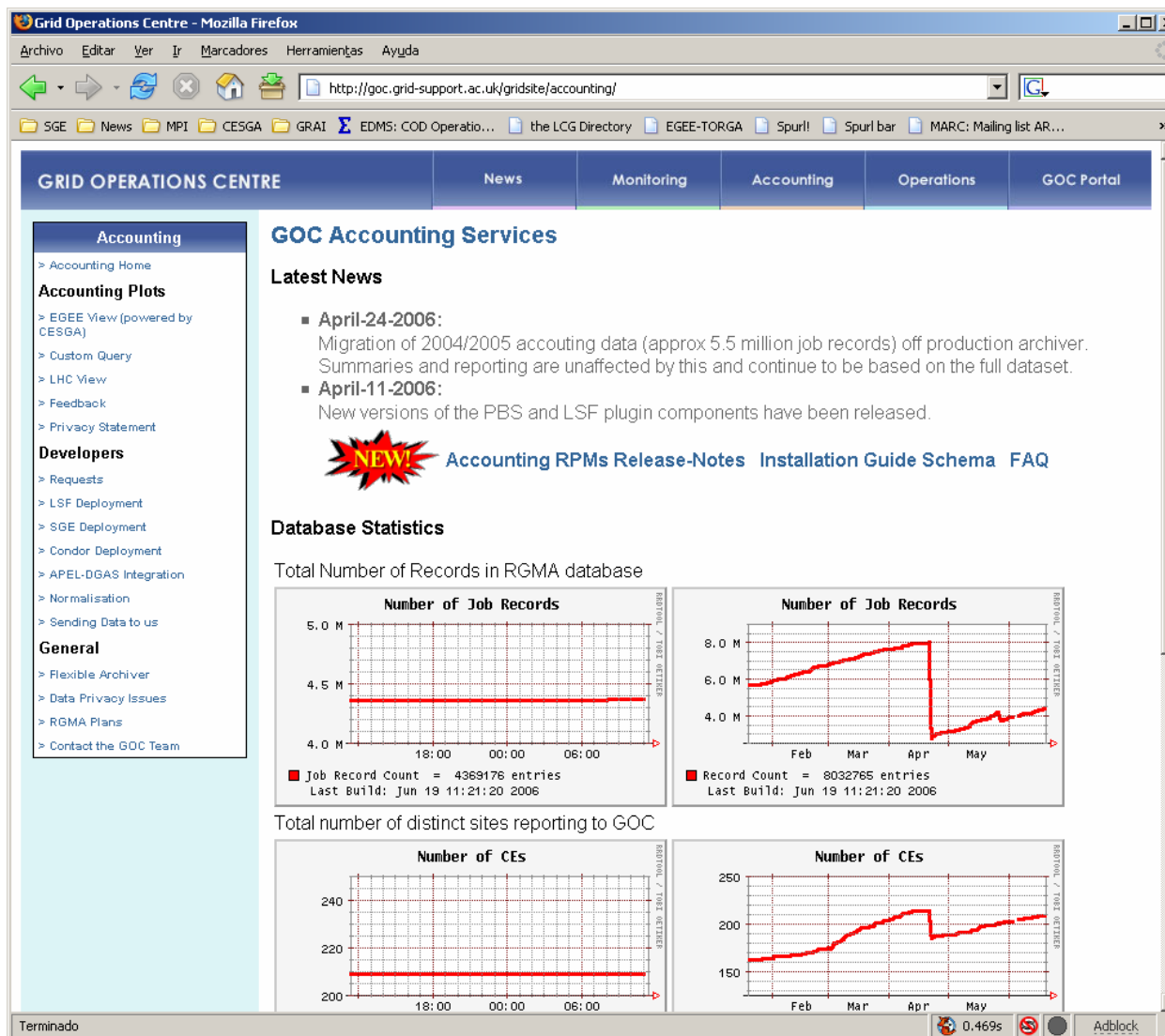
- **BaseCpuTime**
- **SpecInt2000**
- **SpecFloat2000**

- **MemoryReal**
- **MemoryVirtual**

- **ExecutingSite**
- **LCGUserVO**
- **Njobs**
- **SumCPU**
- **NormSumCPU**
- **SumWCT**
- **NormSumWCT**
- **Month**
- **Year**
- **RecordStart**
- **RecordEnd**

- LCGUserVO
- Njobs
- SumCPU
- NormSumCPU
- SumWCT
- NormSumWCT
- **Week**
- Month
- Year
- RecordStart
- RecordEnd

EGEE VIEW



The screenshot shows the 'GOC Accounting Services' page. The browser title is 'Grid Operations Centre - Mozilla Firefox' and the address bar shows 'http://goc.grid-support.ac.uk/gridsite/accounting/'. The page has a navigation menu with 'Accounting' selected. A sidebar on the left contains links for 'Accounting Home', 'Accounting Plots', 'Developers', and 'General'. The main content area includes 'Latest News' with two entries from April 2006, a 'NEW' starburst icon, and links for 'Accounting RPMs Release-Notes', 'Installation Guide', 'Schema', and 'FAQ'. Below this is a 'Database Statistics' section with four line graphs: 'Number of Job Records' (daily), 'Number of Job Records' (monthly), 'Number of CEs' (daily), and 'Number of CEs' (monthly). The status bar at the bottom shows 'Terminado' and '0.469s'.

- Accounting**
- > Accounting Home
 - > Normalisation
 - > Accounting Enforcement Web **NEW**
 - > Accounting Enforcement Description **NEW**
 - > Contact the CESGA accounting team

- EGEE Hierarchical Tree**
- EGEE
 - Production
 - AsiaPacific
 - CentralEurope
 - CERN
 - France
 - GermanySwitzerland
 - Italy
 - NorthernEurope
 - Russia
 - SouthEasternEurope
 - SouthWesternEurope
 - UKI
 - PPS
 - VO_Metrics
 - OSG
 - UNREGISTERED

EGEE View -> Production

Data to graph: Norm. Sum CPU Normalised CPU time to a reference value of 1000 Specint2000

Period: Start year: 2005 Start month: 11 End year: 2006 End month: 10

Groupings: Show data for: REGION as a function of: VO

Chart: Type: ACCUM BAR Scale: LINEAR

dteam VO: Exclude dteam jobs information

Refresh

EGEE Normalised CPU time by REGION and VO.
 November 2005 - October 2006.

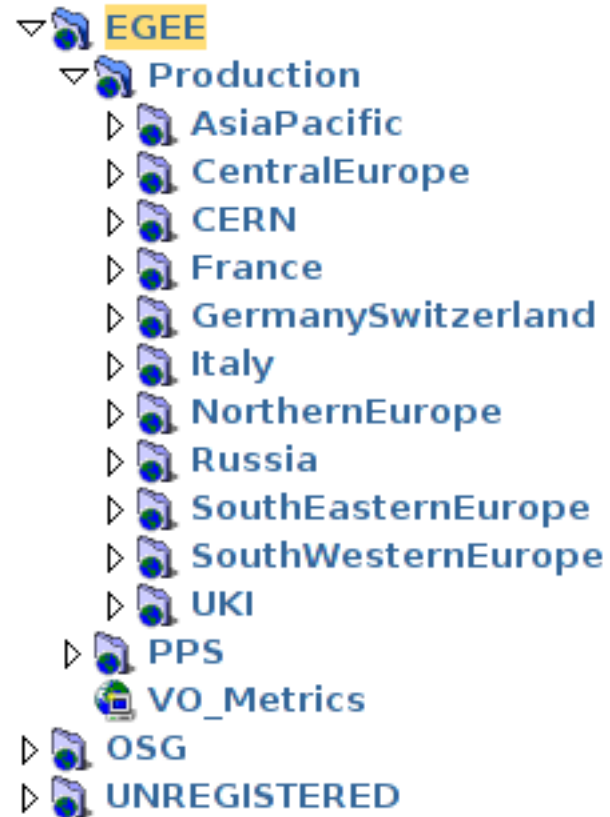
The following table lists the certified sites that have not published accounting data to GOC during the last 3 months. This probably indicates a major problem in the accounting system of the site so **listed sites are encouraged to take the appropriate measures to correct it.** If your site is in this list, you should check the next table because you can have a problem with your published sitename.

CERTIFIED sites NOT publishing accounting data to GOC in the last 3 months	
Region	Sites
CentralEurope	BMEGrid
CERN	TORONTO-LCG2, UIOWA-LCG2
GermanySwitzerland	GSJ-LCG2, MPPMU, UNI-FREIBURG
Italy	ENEA-INFO
NorthernEurope	BEgrid-KULeuven, UiB
Russia	ru-Chernogolovka-IPCP-LCG2
SouthEasternEurope	TAU-LCG2, TECHNION-LCG2
UKI	UKI-SCOTGRID-GLASGOW

The following table lists the sites that have published accounting data to GOC but are not registered in the GOC DB. This probably indicates inconsistencies between the site information published in the accounting system and the one available in the GOC DB. **Listed sites are encouraged to take the appropriate measures to correct it.** You can get more information about the accounting data published by these sites in the **UNREGISTERED** View.

Sites publishing accounting data but NOT defined in the GOCDB		
Sites		
CNR-ILC-PISA	INAF-Trieste	INFN-GENOVA
INFN-NAPOLI-PAMELA	INFN-PARMA	INFN-TORINO-DEV

EGEE Hierarchical Tree



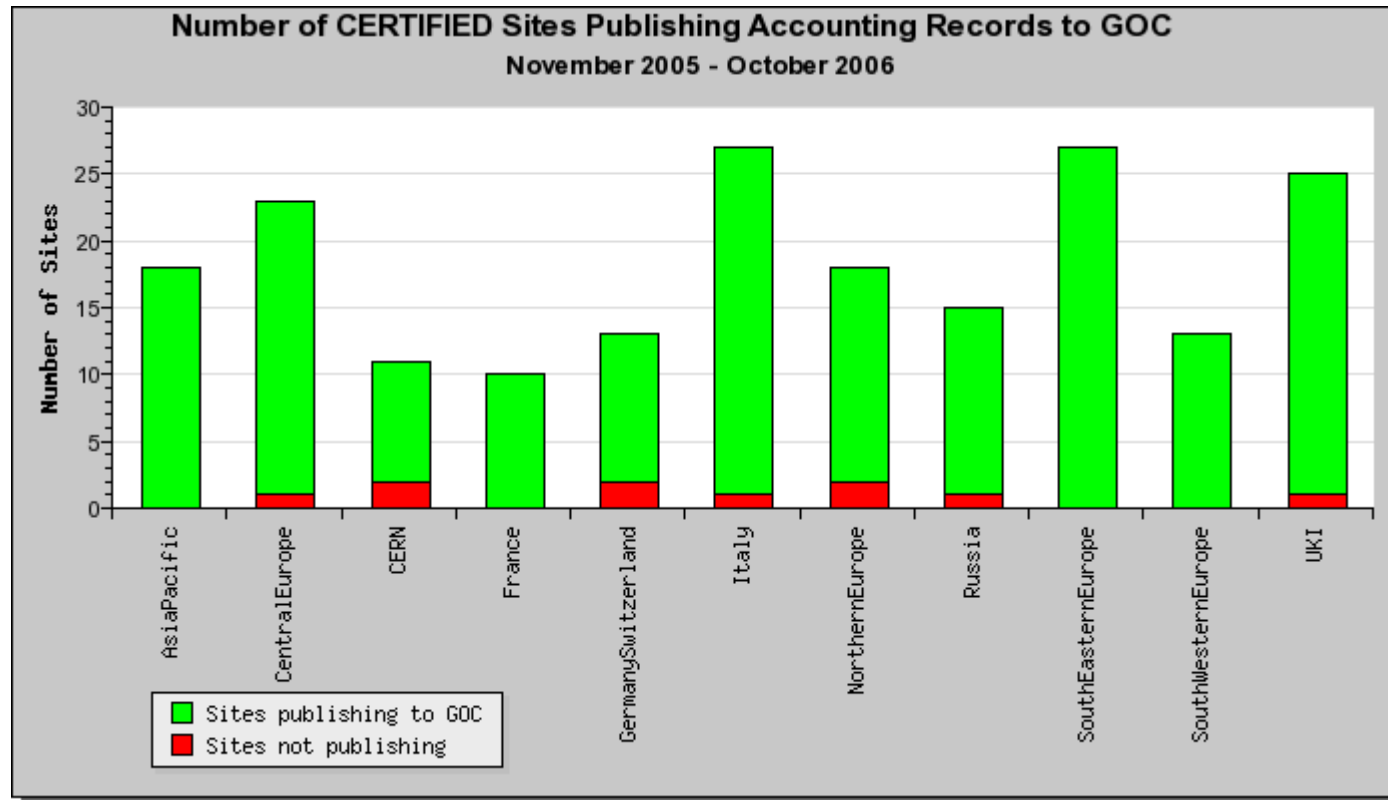
Data to graph:	<input type="text" value="Norm. Sum CPU"/> Normalised CPU time to a reference value of 1000 SpecInt2000
Period:	Start year: <input type="text" value="2005"/> Start month: <input type="text" value="11"/> End year: <input type="text" value="2006"/> End month: <input type="text" value="10"/>
Groupings:	Show data for: <input type="text" value="REGION"/> as a function of: <input type="text" value="VO"/>
Chart:	Type: <input type="text" value="ACCUM BAR"/> Scale: <input type="text" value="LINEAR"/>
dteam VO:	<input type="checkbox"/> Exclude dteam jobs information

Refresh

Data showed:

- Number of jobs
- Norm. Sum CPU
- Sum CPU
- Sum Elapsed
- Norm. Sum Elapsed
- CPU Efficiency (**NEW**)
- Cumulative Charts (**NEW**)

- **List of CERTIFIED sites NOT publishing accounting data to GOC in the last 3 months**
- **List of sites publishing accounting data but NOT defined in the GOCDB**
- **List of certified sites (including also currently suspended sites) that have published accounting data with SpecInt = 0 during the selected period**
- **Number of CERTIFIED sites publishing accounting records to GOC**
- **Summary usage statistics corresponding to the selected options**



- Sites that are not publishing accounting data (>7 days)
- Sites using a non-registered GOCDB sitename
- Normalization
 - **SpecInt < 150**
 - **SpecInt > 2500**
 - *More than 3 different SpecInt values during the last month*

ACCOUNTING ENFORCEMENT

- > Sites That Do Not Publish Data
- > Non-Registered Sitename
- > Normalization
- > REPORT
- > Accounting Enforcement Description
- > Contact the Accounting Enforcement Team

Flexible Archiver Status:

126 Sites publishing data today

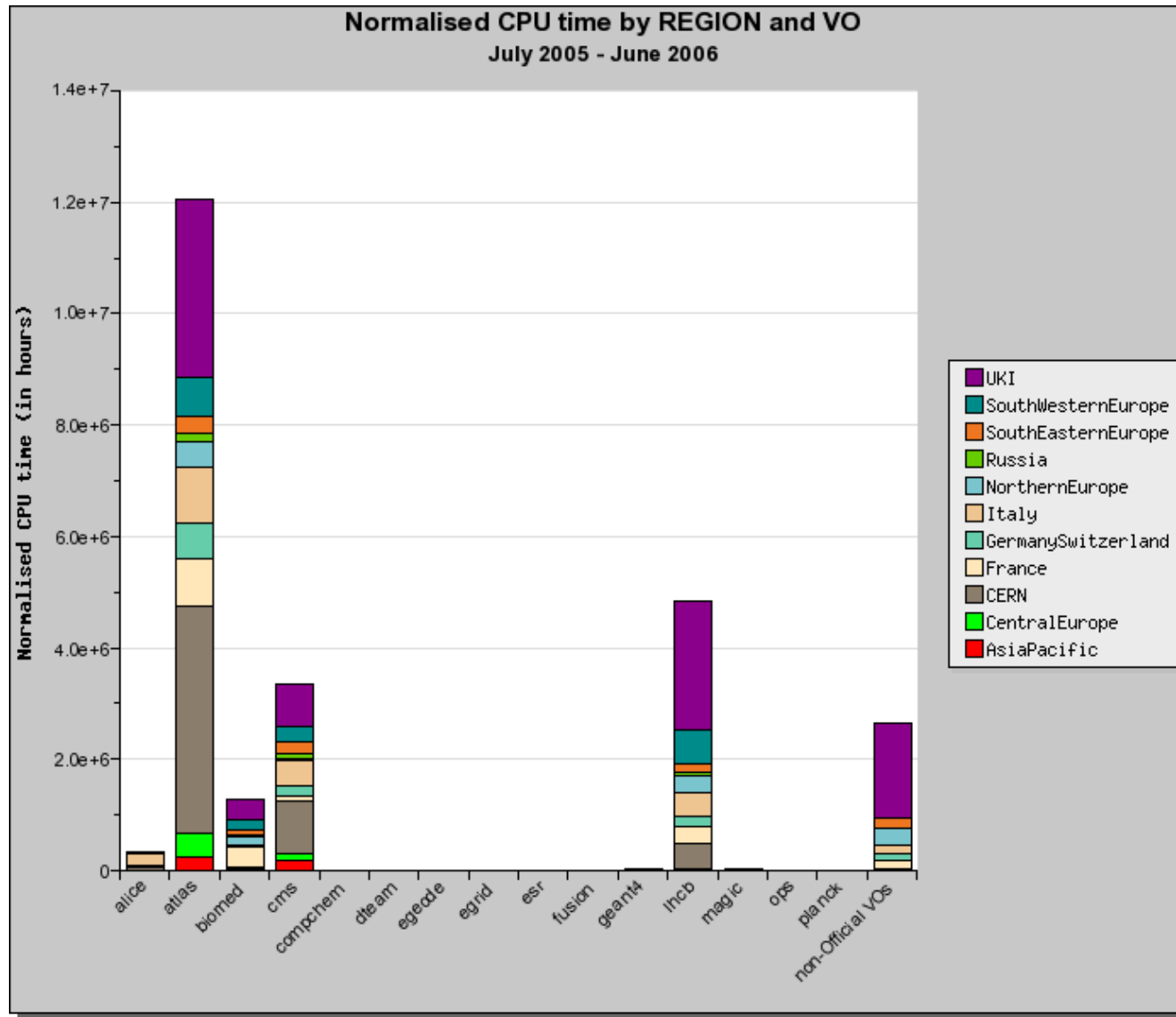
SITES THAT DO NOT PUBLISH ACCOUNTING DATA

The following table lists the certified sites that have not published accounting data to GOC during the last 7 days. This probably indicates a major problem in the accounting system of the site so **listed sites are encouraged to take the appropriate measures to correct it.**

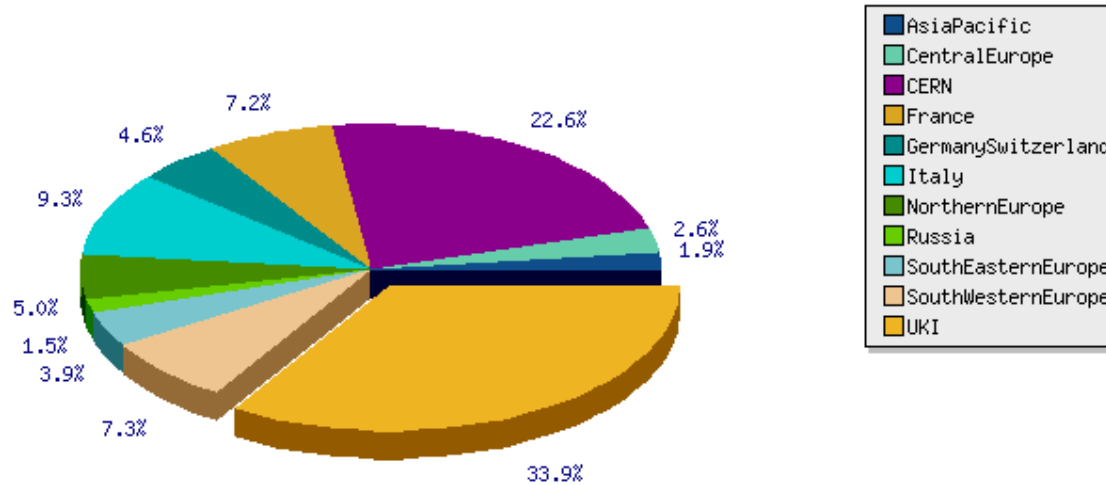
If your site is in this list, you should check the [Non-Registered Sitename](#) page because you can have a problem with your published sitename.

CERTIFIED sites NOT publishing accounting data to GOC in the last 7 days						
Site	Region	Status	RecordEnd	Days	Ticket (*)	
INDIACMS-TIFR SD	AsiaPacific	Certified	2006-09-14	42	No Ticket	
NCP-LCG2 SD	AsiaPacific	Certified	2006-09-21	35	No Ticket	
PAKGRID-LCG2 SD	AsiaPacific	Certified	2006-08-04	83	11844	
Taiwan-LCG2	AsiaPacific	Certified	2006-09-23	33	No Ticket	
TW-FTT	AsiaPacific	Certified	2006-08-20	67	12601	
AMD64.PSNC.PL	CentralEurope	Certified	2006-08-28	59	No Ticket	
BMEGrid	CentralEurope	Certified	1970-01-01	13447	No Ticket	
egee.man.poznan.pl	CentralEurope	Certified	2006-09-25	31	No Ticket	
HEPHY-UIBK	CentralEurope	Certified	2006-10-12	14	No Ticket	
TORONTO-LCG2	CERN	Certified	1970-01-01	13447	10303 (PENDING)	
UIOWA-LCG2 SD	CERN	Certified	1970-01-01	13447	10304 (PENDING)	
USCMS-FNAL-WC1	CERN	Certified	2006-09-31	25	10315 (PENDING)	
GSI-LCG2	GermanySwitzerland	Certified	2005-03-08	597	10306 (PENDING)	
ITWM SD	GermanySwitzerland	Certified	2006-10-02	24	No Ticket	
MPPMU	GermanySwitzerland	Certified	1970-01-01	13447	10299 (PENDING)	
UNI-FREIBURG	GermanySwitzerland	Certified	2006-07-04	114	10335	
ENEA-INFO	Italy	Certified	1970-01-01	13447	No Ticket	
ESA-ESRIN	Italy	Certified	2006-09-19	37	No Ticket	
INFN-BARI	Italy	Certified	2006-07-26	92	No Ticket	
INFN-BOLOGNA	Italy	Certified	2006-08-14	73	No Ticket	
INFN-CAGLIARI SD	Italy	Certified	2006-08-22	65	No Ticket	
INFN-CATANIA	Italy	Certified	2006-09-11	45	No Ticket	
INFN-CNAF	Italy	Certified	2006-07-26	92	No Ticket	
INFN-FERRARA	Italy	Certified	2006-09-27	29	No Ticket	
INFN-FRASCATI	Italy	Certified	2006-10-09	17	No Ticket	
INFN-LNL-2	Italy	Certified	2006-08-31	56	No Ticket	
INFN-MILANO	Italy	Certified	2006-09-23	33	No Ticket	
INFN-NAPOLI	Italy	Certified	2006-09-25	31	No Ticket	
INFN-NAPOLI-ATLAS	Italy	Certified	2006-08-31	56	No Ticket	
INFN-PADOVA	Italy	Certified	2006-08-31	56	No Ticket	
INFN-PERUGIA	Italy	Certified	2006-09-11	45	No Ticket	

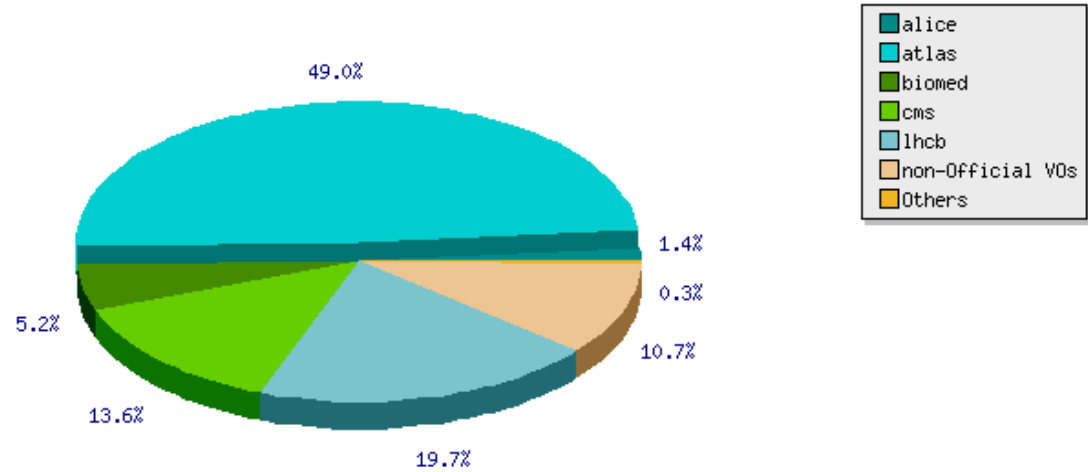
- **How to compare CPU values from different nodes?**
- **Each site publishes one GlueHostBenchmarkSI00**
- **Homogeneous sites:**
 - No problem
 - Unfortunately the least common case
- **Heterogeneous sites:**
 - Set PBS \$cputmult factor in each node
 - CPU Normalization Standalone Test to obtain SPECint



Normalised CPU time
July 2005 - June 2006



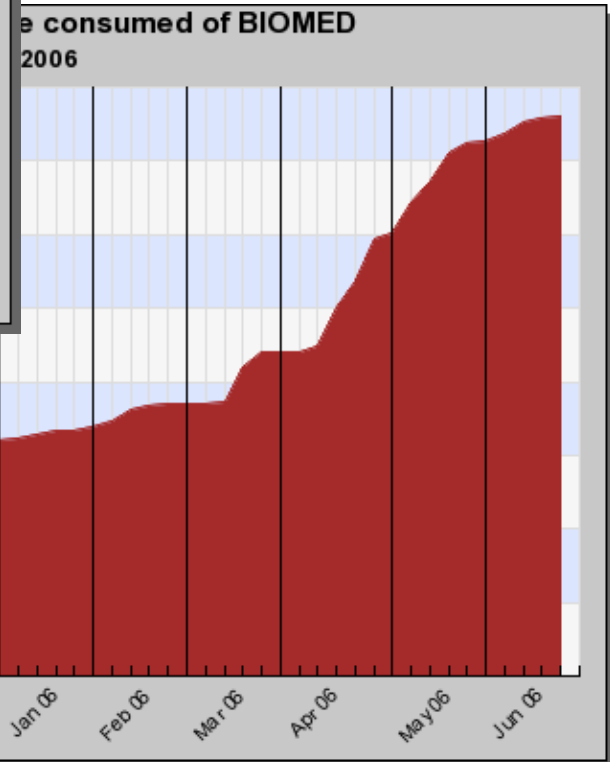
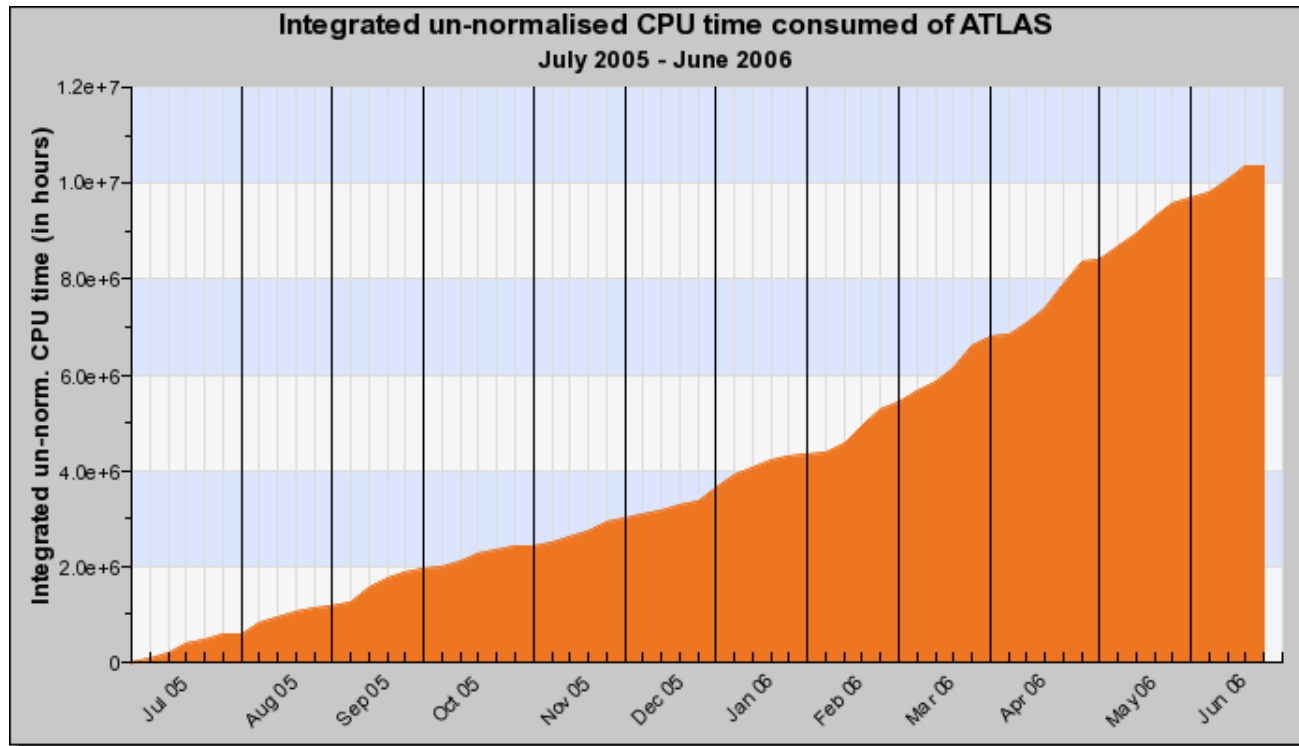
Normalised CPU time
July 2005 - June 2006



- **List of CERTIFIED sites NOT publishing accounting data to GOC in the last 3 months**
- **Summary usage statistics corresponding to the selected options**
- **A Gantt chart showing a summary of the accounting records for all sites in the ROC**

- **Summary usage statistics corresponding to the selected options**
- **Summary usage statistics corresponding to the selected options**

- **Active VO**
- **Integrated NJobs**
- **Integrated Norm. CPU**
- **Integrated CPU**
- **Integrated Norm. Elapsed**
- **Integrated Elapsed**



Grid Operations Centre - Firefox

File Edit View Go Bookmarks Tools Help

http://www3.egee.cesga.es/gridsite/accounting/CESGA/tree_vo.php

SGE News MPI CESGA blades accounting toread SA3 RT saved inteugrid vmware ARM Athens the LCG Directory EGEE-TORGA Spurl! Spurl bar

Grid Operations Centre EGEE View - GOC Wiki Grid Operations Centre

NEW
 > Accounting Enforcement
 Description NEW
 > Contact the CESGA accounting team

PPS
VO_Metrics
 OSG
 UNREGISTERED

Period: Start year: 2005 Start month: 11 Official VO: atlas
 End year: 2006 End month: 10 biomed
 cms

Refresh

Developed by CESGA

EGEE Integrated un-normalised CPU time consumed per VO.

November 2005 - October 2006.

The following chart shows the integrated un-normalised CPU time consumed per week per each selected VO.

Integrated un-normalised CPU time consumed of BIOMED

November 2005 - October 2006

Month	Integrated un-norm. CPU time (in hours)
Nov 05	~0
Dec 05	~0
Jan 06	~0.1e+5
Feb 06	~0.2e+5
Mar 06	~0.3e+5
Apr 06	~0.5e+5
May 06	~0.8e+5
Jun 06	~1.0e+5
Jul 06	~1.2e+5
Aug 06	~1.3e+5
Sep 06	~1.3e+5
Oct 06	~1.9e+5

BIOMED DATA CHALLENGES

November 2005 - October 2006

DC	2005		2006									
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
DC0						█	█	█				
DC1								█				
DC2									█			
DC3												█

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- **List of OSG sites NOT publishing accounting data to GOC in the last 3 months**
- **Summary usage statistics corresponding to the selected options**
- **A Gantt chart showing a summary of the accounting records for all sites in the ROC**

- **Summary usage statistics corresponding to the selected options**
- **A Gantt chart showing a summary of the accounting records for all sites in the ROC**

- **Include DC information (now only Biomed)**
- **User level information (DN/VOMS)**
- **Possible Security Levels**
 - layer 1 = “anonymous” information: open/certificate?
 - layer 2 = “own” user accounting: certificate based
 - layer 3 = VO accounting: VO admins
 - layer 4 = Site accounting: Site admins
 - layer 5 = ROC accounting: ROC admins
- **New metrics**
- **SAM accounting enforcement test**
- **Requests?**
 - Links to useful views of the data (A. Mills)

EGEE-II SA1 SWE Services > Accounting - Firefox

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http://www.egee.cesga.es/EGEE-SA1-SWE/accounting/

SGE News MPI CESGA blades accounting toread SA3 RT saved inteugrid vmware ARM Athens

egEE
Enabling Grids
for E-science

SA1-SWE FEDERATION
SA1-SWE SERVICES
SA1-SWE EVENTS
GENERAL INFO

Home > EGEE-II SA1 SWE Services > Accounting

EGEE-II SA1 SWE Accounting Facilities

Accounting Statistics
Accounting plots and reports of the SWE sites

Guides
Useful guides for accounting tools

FAQ
Frequently Asked Questions

CPU Normal.
What criterion to use for producing normalized CPU times?

Links
Links to useful information

EGEE RAP
EGEE Regional Accounting Portal (EGEE-RAP)

Contact

EGEE-SA1-SWE ROC
Contact:
egee.swe.roc.contact@pic.es
Operational Days/Hours:
Mo-Fri from 9:00 till 17:00

EGEE SA1 SWE

- Previous Web Site

EGEE sites

- EGEE Public Site
- EGEE Technical Site
- EGEE Training Site
- gLite Site
- Previous EGEE Site

EGEE-SA1-SWE Partners:



EGEE-II is a project funded by the European Union under contract number INFSO-RI-031688
Created by **CESGA**



- ▶ JOBS
- ▶ CPU TIME
- ▶ ELAPSED TIME
- ▶ MEMORY
- ▶ CUSTOM
- ▶ REPORTS
- ▼ USERS
- Number of jobs
- Norm. Sum CPU
- Sum CPU time
- Avg CPU time
- Norm. Elapsed time
- Sum Elapsed time
- Avg Elapsed time
- Avg Memory
- Max Memory

Created by [CESGA](#)



Instructions

JOBS

- Number of jobs Total number of jobs run

CPU TIME

- Norm. Sum CPU Normalised CPU time to a reference value of 1000 *SpectInt2000*
- Sum CPU time Total CPU time used
- Avg CPU time Average CPU time

ELAPSED TIME

- Norm. Elapsed time Normalised elapsed time to a reference value of 1000 *SpectInt2000*
- Sum Elapsed time Total elapsed time
- Avg Elapsed time Average elapsed time
- Ratio Elapsed/CPU Ratio elapsed time / CPU time
- Sum Elapsed - CPU Total Elapsed time minus CPU time
- Avg Elapsed - CPU Average Elapsed time minus CPU time



- ▶ JOBS
- ▶ CPU TIME
- ▶ ELAPSED TIME
- ▶ MEMORY
- ▶ CUSTOM
- ▶ REPORTS
- ▼ USERS
 - Number of jobs
 - Norm. Sum CPU
 - Sum CPU time
 - Avg CPU time
 - Norm. Elapsed time
 - Sum Elapsed time
 - Avg Elapsed time
 - Avg Memory
 - Max Memory

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Ratio vmem/pmem Ratio virtual memory / physical memory

CUSTOM

Custom Query User can customize the query by specifying more parameters

REPORTS

Monthly Report User can view a monthly report of the month desired

PDF Report User can view a more complete monthly, quarterly and annual report starting from the month desired (in a PDF file)

USERS (Protected Zone)

Number of jobs Total number of jobs run by user

Norm. Sum CPU Normalised CPU time to a reference value of 1000 *SpectInt2000*, approximately a Pentium 4 2.8GHz processor

Sum CPU time Total CPU time used by user

Avg CPU time Average CPU time by user

Norm. Elapsed time Normalised elapsed time to a reference value of 1000 *SpectInt2000*

Sum Elapsed time Total elapsed time by user

Avg Elapsed time Average elapsed time by user

Avg Memory Average physical memory by user

Max Memory Maximum physical memory by user



SWE Total number of jobs run by user and DATE

July 2006 - October 2006

VO List: 'atlas'

- ▶ JOBS
- ▶ CPU TIME
- ▶ ELAPSED TIME
- ▶ MEMORY
- ▶ CUSTOM
- ▼ REPORTS
 - Monthly Report
 - PDF Report
- ▼ USERS
 - Number of jobs
 - Norm. Sum CPU
 - Sum CPU time
 - Avg CPU time
 - Norm. Elapsed time
 - Sum Elapsed time
 - Avg Elapsed time
 - Avg Memory
 - Max Memory

	Jul 06	Aug 06	Sep 06	Oct 06	Total
	2,555	6,026	1,988	506	11,075
	540	1,263	1,092	4,881	7,776
	5,439	450	130	8	6,027
	0	3,339	1,432	219	4,990
	2,513	511	3	1,793	4,820
	0	3,388	107	0	3,495
	1,197	58	892	1,211	3,358
	764	795	902	618	3,079
	2,957	43	0	0	3,000
	2,288	0	0	0	2,288
	1,529	386	3	0	1,918
	35	258	65	1,061	1,419
	929	206	67	6	1,208
	0	349	159	681	1,189
	1	487	610	0	1,098
	306	5	0	568	879
	0	0	3	855	858
	849	3	0	0	852
	0	0	44	792	836
	0	2	348	464	814
	0	0	724	86	810
	0	0	385	422	807
	0	0	0	757	757
	0	0	4	737	741
	10	71	461	101	643
	450	2	0	117	569

User Info

Created by CESGA



- ▶ JOBS
- ▶ CPU TIME
- ▶ ELAPSED TIME
- ▶ MEMORY
- ▶ CUSTOM
- ▼ REPORTS
 - Monthly Report
 - PDF Report
- ▼ USERS
 - Number of jobs
 - Norm. Sum CPU
 - Sum CPU time
 - Avg CPU time
 - Norm. Elapsed time
 - Sum Elapsed time
 - Avg Elapsed time
 - Avg Memory
 - Max Memory

	0	0	0	2	2
	0	1	0	0	1
	0	0	0	1	1
	0	0	1	0	1
	0	0	1	0	1
	0	0	0	1	1
	0	1	0	0	1
	0	1	0	0	1
	1	0	0	0	1
	0	1	0	0	1
	0	0	1	0	1
	0	0	0	1	1
	0	1	0	0	1
	0	1	0	0	1
	1	0	0	0	1
	0	1	0	0	1
	0	0	1	0	1
	0	0	1	0	1
	1	0	0	0	1
	0	1	0	0	1
	0	0	1	0	1
	0	0	1	0	1
	1	0	0	0	1
	0	1	0	0	1
	0	0	1	0	1
	0	0	0	1	1
	0	0	1	0	1
	0	1	0	0	1
	1	0	0	0	1
	0	0	1	0	1
Total	24,558	18,564	11,122	17,027	71,271

[Click here to download this information as a CSV file.](#)



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EGEE-SAL-SWE Accounting Data - Firefox

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https://www.egee.cesga.es/EGEE-SAL-SWE/accounting/reports/

SGE News MPI CESGA blades accounting toread SA3 RT saved inteugrid vmware ARM Athens the LCG Directory EGEE-TORGA Spurl! >>

SWE general report

- JOBS
- CPU TIME [Normalised CPU time](#) [Total CPU time used](#)
- ELAPSED TIME
- MEMORY
- CUSTOM
- REPORTS
 - Monthly Report
 - PDF Report
- USERS

Created by CESGA

Normalised CPU time

2006

January	February	March	April
May	June	July	August
September	October	November	December

2005

January	February	March	April
May	June	July	August
September	October	November	December

[Top](#)

Total CPU time used

2006

January	February	March	April
May	June	July	August
September	October	November	December

2005

January	February	March	April
May	June	July	August
September	October	November	December

[Top](#)



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EGEE-SAI-SWE Accounting Data - Firefox

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https://www.egee.cesga.es/EGEE-SAI-SWE/accounting/reports/

SGE News MPI CESGA blades accounting toread SA3 RT saved inteugrid vmware ARM Athens the LCG Directory EGEE-TORGA

Total number of jobs run by user

Period: Start year: 2005 Start month: 11 End year: 2006 End month: 10

VOs:
 alice atlas biomed biomedsgm bmed cdf
 cesga cms cmsgrid compchem dteam edteam
 eela fusion geant gear grycap gvmuam
 ific lhcb magic ops planck sixt
 swetest zeus zh

Site: ALL
Order by: User ID

Send Reset

Logged as /C=ES/O=DATAGRID-ES/O=CESGA/CN=Javier Lopez

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- **EGEE View Wiki Page**

- http://goc.grid.sinica.edu.tw/gocwiki/EGEE_View

- **EGEE View**

- <http://www3.egee.cesga.es/gridsite/accounting/CESGA/egee.php>

- **Regional Accounting Portal (RAP)**

- <http://www.egee.cesga.es/EGEE-SA1-SWE/accounting/acctROC/>

- **SWE Accounting Portal**

- <http://www.egee.cesga.es/EGEE-SA1-SWE/accounting/>

- **Accounting Enforcement**

- <https://edms.cern.ch/document/753895>

- <http://www3.egee.cesga.es/acctenfor/>

- **EGEE View Main Developer:**
 - Pablo Rey (CESGA)
- **GOC**
 - Dave Kant (RAL)

We want your feedback!