



# LCG-France Tier-1 & AF

*Réunion de Coordination*

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Lyon, 7 février 2008

# ► Table des Matières



- Réunions CCRC, GDB et MB de février 2008
- Chantiers en cours
- Disponibilité, fiabilité, efficacité du site
- Thème du jour



- Agendas:
  - GDB: <http://indico.cern.ch/categoryDisplay.py?categId=3181>
  - MB: <http://indico.cern.ch/categoryDisplay.py?categId=666>
  - CCRC: <http://indico.cern.ch/categoryDisplay.py?categId=1613>
- Principaux sujets traités
  - Middleware pour l'autorisation
  - Accounting CPU & stockage
  - Traceability & logging
  - Taille des fichiers sur bande
  - Pilot jobs
  - Middleware natif 64bits
  - Déploiement du middleware

# Migration vers SL5



FIO

## Recommendation

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- IT/FIO & IT/GD recommend
  - development of SLC5 services at CERN during 2008,
  - introduction of production batch and interactive services in September, and
  - phasing out SLC4 batch and interactive services during Q1 2009.

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[www.cern.ch/it](http://www.cern.ch/it)

Options for SLC @ CERN - 6



Source: Tony Cass, [MB 05/02/2008](#)



# Etude des mécanismes d'autorisation



Enabling Grids for E-science

## Goal of the Study

- **Task by C.Grandi to look into authorization (authZ) in gLite with the goal**
  - review authZ from end-to-end
  - to specify design for “authorization service” work item in EGEE-II/-III
    - EGEE-III proposal: authZ service: Nikhef, UvA, CNAF, SWITCH
- **Should specify the work in 2008 / early 2009**
  - Comment: should be fully deployed within lifetime of EGEE-III
- **Deliverable is a proposal with clear recommendations based on input of many people (experiments, SAX, JRA1) to be accepted/rejected by TCG**

EGEE-II INFOS-RI-031688

GDB 6.2.2008



Enabling Grids for E-science

## Summary

- **Documents** <https://edms.cern.ch/document/887174/1> :
  1. MJRA1.7 document: authorization in gLite:
    - Description of authZ mechanisms in gLite
    - milestone Jan 31, 2008
  2. Document with recommendations
    - recommendations\_authZ.doc
  3. Document with proposal decoupling FQANs - shares
    - recommendation\_fqans\_shares\_v1.0.doc
  4. Forthcoming: Design for new authZ service: in progress
- **Feedback needed !**
  - Particularly on proposal decoupling FQANs - shares
  - Deadline end of February
- **TCG will review situation in March**

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GDB 6.2.2008

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Pierre et Sylvain pourraient être intéressés par cette présentation

Source: Christoph Witzig, [GDB 06/02/2008](#)

# ▶ Job priorities



## Tests performed

### ● Goals

- Verify that the jobs are submitted to the queues where the FQAN in the proxy is authorized
- Verify that the number of waiting and running jobs are correctly reported in the VOView information
- Verify that the WMS takes the information used to calculate the rank from the correct VOView

### ● Method

- Submit jobs with different VOMS FQANs and check

## Results

- All checks *eventually* succeeded
- It took some time to make things work
  - Some misconfigurations
  - The experience will come useful to prepare the documentation

Source: Andrea Sciaba, [GDB 06/02/2008](#)

# WN pour SL 64bits



## Status

### SL4 64bit WN

- Build done
- On certification testbed since 2 months
  - Seems to work
- Issues
  - One configuration change pending
    - ld library path

– Works only with 64bit user code



## Status

### SL4 32/64bit WN

- Build done
  - Packing problems
    - Minor, affects only lcg\_util
    - 32 or 64 binary may be selected / Both should work
- In Certification
- Issues
  - Meta packages
    - RPM can't identify the architecture of its dependent packages
  - Solution: YUM Groupinstall
    - In certification
  - Ld\_library path YAIM fix in preparation
- Release to PPS (can't be fast tracked)

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Source: Markus Schulz, [GDB 06/02/2008](#)

# ► Deploiement du middleware



## Problems

### Propagation of new clients

- Clients need several months to reach all sites
  - Scheduled by sites
  - Examples:
    - Still > 100 sites on non gLite-3\_1\_x (40%)
      - Released June 2007
    - 52 sites installed Update 07 or better
      - December 6th
- User can't select on fine grained versions
  - Like: lcg\_util-XXX version
  - Common use case
- No possibility for a pre-view
- Downgrading is very difficult
  - Slow and careful updates



## Suggestion

### Make new, current and old clients available

- Everywhere
- Instantaneously
- How?
  - Use LHCb's software distribution mechanism
  - Tar balls in shared file system space of ops VO
  - Pushed by SAM test
  - Advertise: actual version of WN libs available
  - Logical selection by:
    - Absolute version
    - Symbolic version ( New, Prod, Old)
- WN installed version??
  - If nothing or a matching version is requested in the jdl
  - Site provided version is used

Source: Markus Schulz, [GDB 06/02/2008](http://GDB.06/02/2008)



# Traceability & Logging Policy



Joint Security Policy Group

## ***Grid Security Traceability and Logging Policy***

<https://edms.cern.ch/document/428037>

Quel est l'état  
d'implémentation de cette  
politique sur notre site?

### **4 Production and Retention of Logging Data**

In order to satisfy the traceability requirements, **software** deployed in the Grid **MUST** produce sufficient and relevant logging. The software **SHOULD** follow the Grid security guidelines on logging but **MUST** include the ability for a Site to collect logs centrally.

The **level of the logging MUST** be configured to produce the required information which **MUST** be retained for a minimum of 90 days. Grid Security Operations **MAY** define longer periods of retention for specific services and/or operational requirements. The logs **MUST** be put into a safe repository.

# CPU accounting



## Why sites don't publish UserDN?

Enabling Grids for E-science

- To publish the UserDN, sites have to set the *publishGlobalUserName* option to “yes”.
- Some sites may wish to suppress the DN for reasons of *personal privacy*. Once they have a Policy, WLCG may mandate its sites to publish
- By default, the DN is suppressed from publication.
- Addition of new variable in YAIM (testing in PPS): *APEL\_PUBLISH\_USER\_DN*. If it is set to “yes”, it will enable UserDN encryption. The default is “no”.
- **Normally, sites don't change the default values, so if we want to obtain the UserDN information the default value should be set to “yes”.**

Sommes-nous prêts techniquement et légalement à envoyer l'information nominative d'accounting CPU à APPEL (UserDN et FQAN)?

# Accounting stockage (encore)



## Information system as data source

- Every SE runs a **generic information provider** (GIP) which publishes information according to GLUE schema (v1.2 → v1.3).
- Concept of storage areas (SAs) in GLUE.

```
BlueSiteName BlueSEArchitecture BlueSAStateUsedSpace  
BlueSAStateAvailableSpace BlueSAType BlueSAPath
```

- Harvest these attributes by querying a top level BDII → MySQL DB.
- **Nothing extra has to be installed on the SE.**

Greig Cowan

GDB

Feb 2008



## Web portal

```
http://goc02.grid-support.ac.uk/accountingDisplay/index.php
```

- Allows site admins, production managers and ROC managers to view the data.
- **Historical plots** of the used and available space.
- **Table** of current used and allocated space numbers.
  - Download latest numbers in CSV format.

```
Allocated space for VO = VO_GlueSAStateUsedSpace + VO_GlueSAStateAvailSpace
```

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GDB

Feb 2008

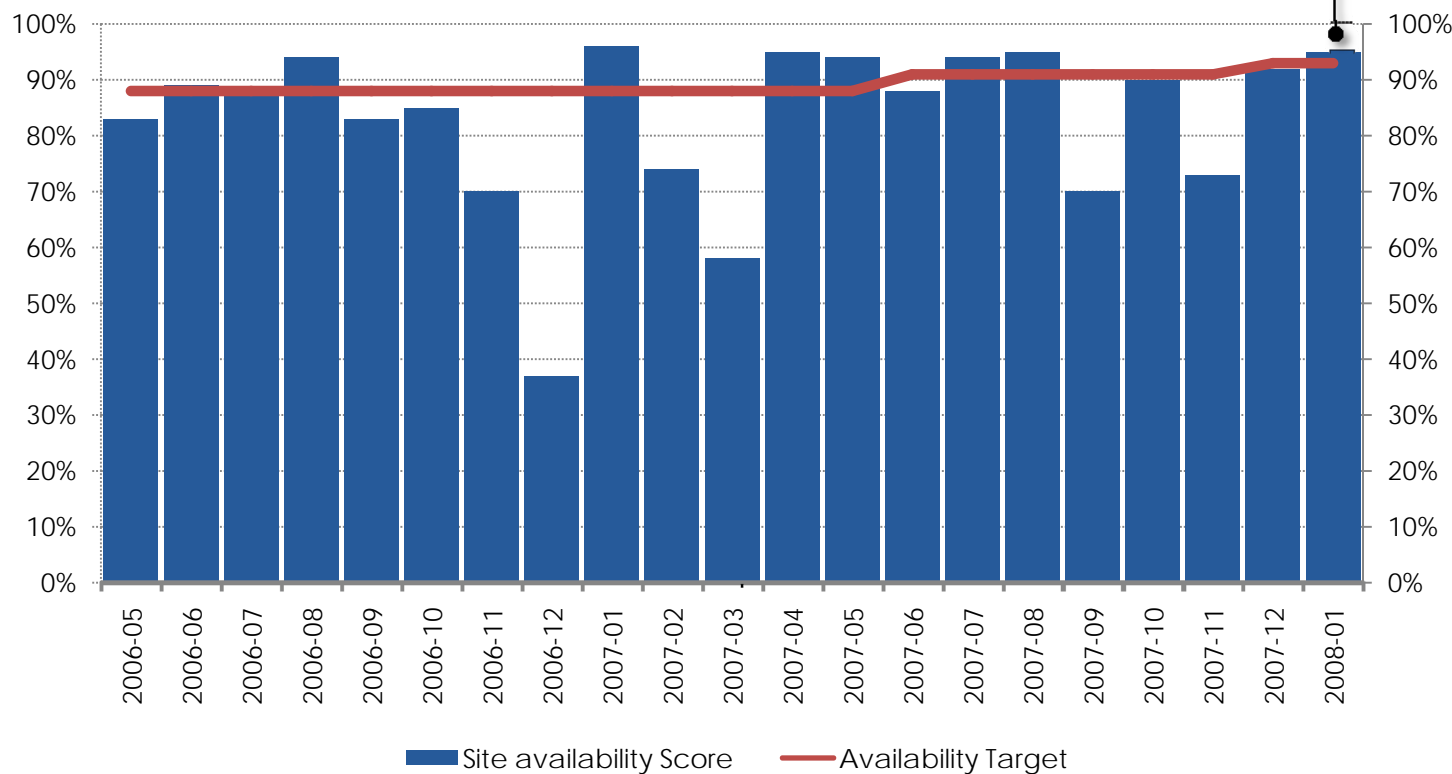
Portal: <http://goc02.grid-support.ac.uk/accountingDisplay/index.php>

Source: Greig Cowan, [GDB 06/02/2008](#)

# Disponibilité du site



CC-IN2P3 Tier-1: monthly availability score  
(VO OPS)



En janvier 2008, l'objectif de disponibilité a été à nouveau atteint



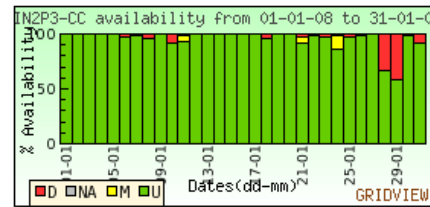
# Disponibilité du site (1/3)



- Janvier 2008

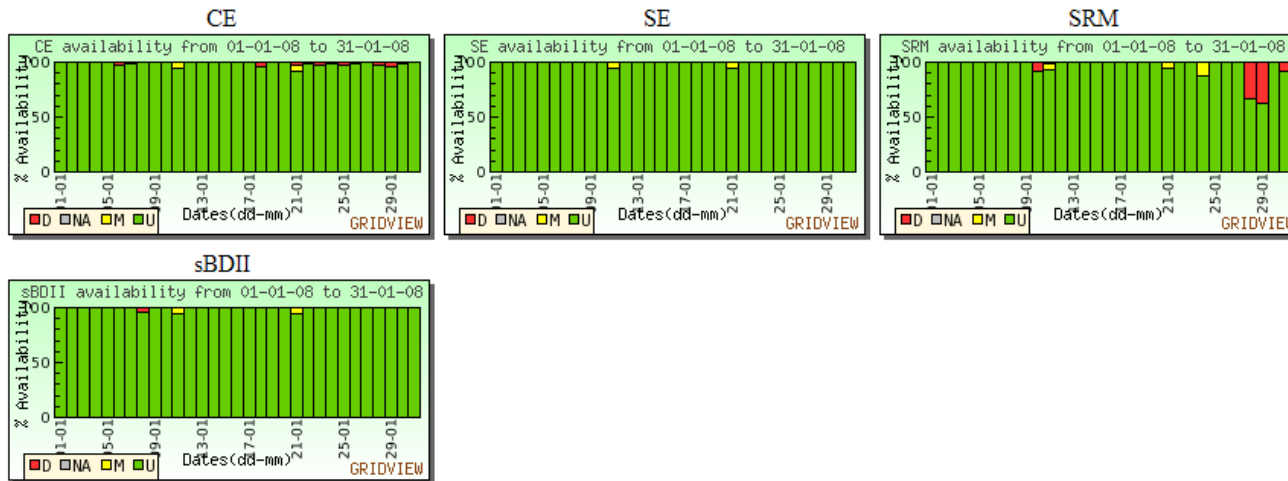
Score: 95%

## Overall Service Availability for Site:IN2P3-CC VO:OPS (Daily Report)



Indisponibilité liée au service SRM

## Individual Service Availability for site:IN2P3-CC VO:OPS (Daily Report)



Source: <http://gridview.cern.ch>

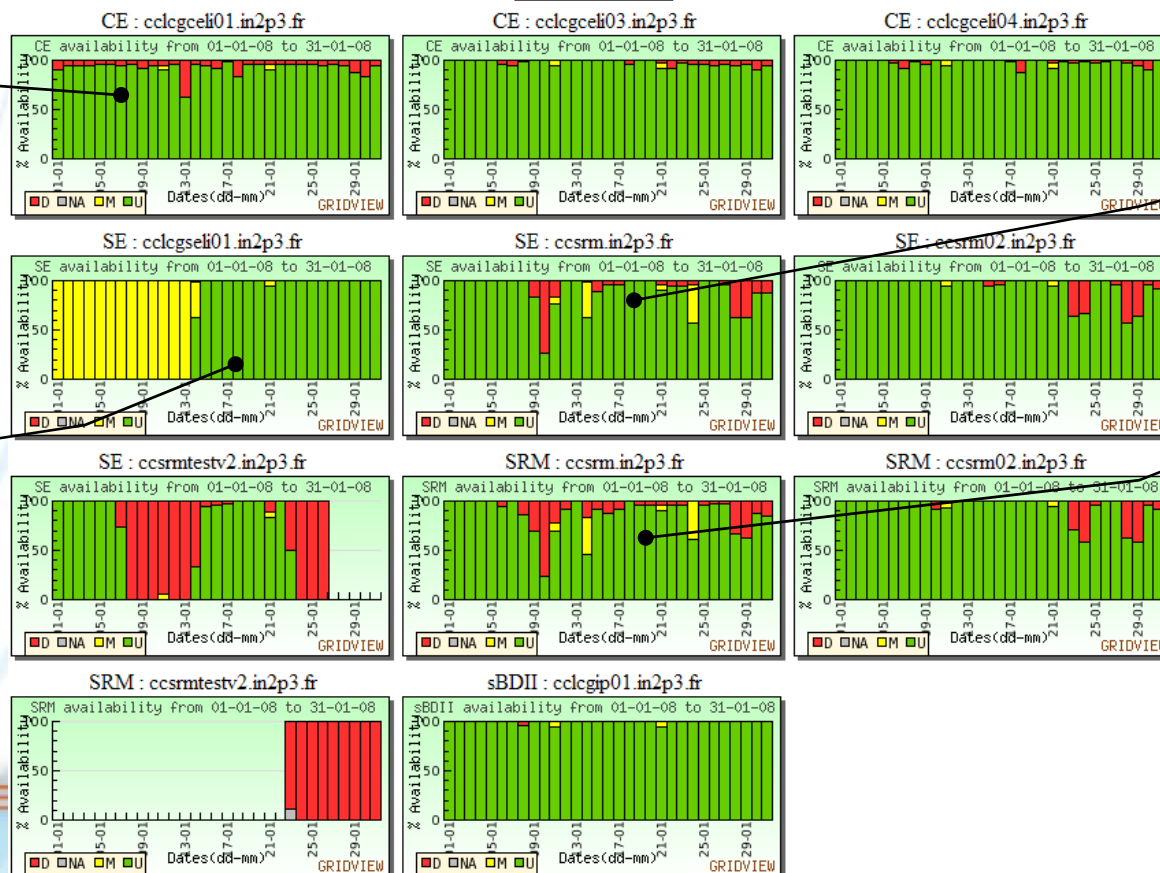
# Disponibilité du site (2/3)



## • Janvier 2008 (suite)

### Service Instance Availability for site:IN2P3-CC VO:OPS (Daily Report)

#### Site Services



Tel qu'en décembre 2007, ce CE s'est montré plus indisponible que les autres. Des raisons particulières?

Réapparition du classic SE?

Les raisons de ces indisponibilités sont-elles comprises?

Quelle est la différence des tests pour le service SE et ceux pour le service SRM?

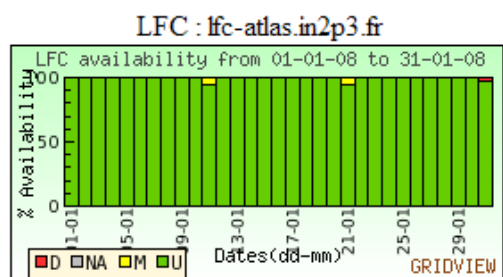
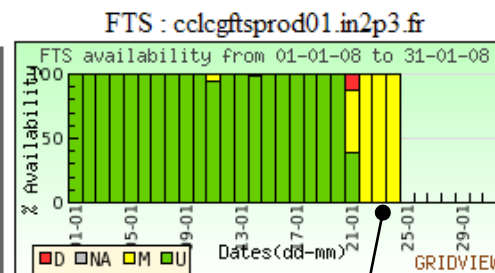
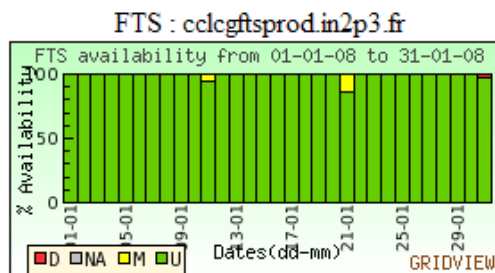
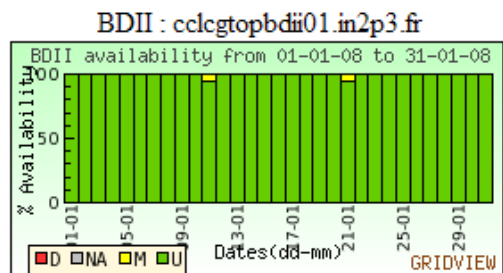
<http://gridview.cern.ch>

# Disponibilité du site (3/3)



- Janvier 2008 (suite)

## Central Services



Arrêt définitif du service FTS 1.5

# ▶ VO Boxes: rappel bis



- Travail systématique nécessaire pour identifier
  - Configuration requise de la machine
    - *Mémoire, partitionnement du disque*
  - Niveau de redondance nécessaire
  - Service système à démarrer
    - *gsiSSH, PNFS, ...*
  - Services spécifiques VO à démarrer
  - Tâches périodiques
    - *Rotation des logs, backups, ...*
  - Monitoring
    - *Système et services VO*
  - Alertes
- Documentation du processus



# ► Revue des chantiers en cours



- Intégration
  - Tests de LCG-CE sous SL4
  - Développement de l'interface BQS pour CREAM-CE
  - Tests d'impact du changement d'utilisateur UNIX (par glexec) pour un job BQS
- Exploitation
  - Consolidation des services grid: LFC, FTS, CE, système d'information
  - Intégration des VO boxes à l'exploitation standard
  - Procédures d'exploitation services grid
  - Plate-forme de monitoring basée sur NAGIOS
  - Séparation des la consommation CPU tier-1 et tier-2 dans la comptabilité interne
  - Rédaction des SLAs pour les VO boxes
  - ✓ Déploiement de LFC-RO pour LHCb
  - ✓ Arrêt de FTS v1.5

## Base versions of services and client tools for CCRC'08 (February 2008)

We list here the base versions of the services and client tools that are needed for CCRC08. Please, make sure your site is up to date.

[gLite 3.1 release notes](#)

[gLite 3.0 release notes](#)

Service	SubComponent	Base Version	Status
FTS	Server/SL3	2.0 <a href="#">PATCH:1589</a>	Available, inc <a href="#">PATCH:1589</a> (gLite 3.0 update 39)
dCache	Server	<a href="#">1.8.0-12</a> with p1, p2 and p4.	<a href="#">1.8.0-12-p1,p2 and p4.</a>
CASTOR	Core Services	2.1.4-10 or 2.1.6	Available
CASTOR	Stager	2.1.4-10 or 2.1.6+GridFTP2	Available
CASTOR	SRM 2.2 Server	≥ 1.3-9 (1.3-12)	Available
DPM	Server	1.6.7-2 (SL3 or SL4) <a href="#">PATCH:1369</a>	Released 16th of January ('-1' on SL4)
STORM	Server	1.3.19	Available the 31st of January 2008 - see <a href="#">release plan</a>
LFC	Server	1.6.8-1 (SL4 32&64 bit) <a href="#">PATCH:1615</a> , <a href="#">PATCH:1617</a>	In production 24th Jan
CE	Server	LCG-CE 3.0 (SL3) or 3.1(SL4)	In production
WN	Service/SL4	gLite 3.1	In production
WMS	Server/SL3	glite-WMS-2.4.6-0	Released 14th of January
LB	Server/SL3	glite-LB-2.3.4-0	Released 14th of January
RB	Server/SL3	3.0.19-1	In production
ARC	Server	0.6	In production

DM Client Tools	Base Version	Status
GFAL	1.10.6-2 (SL4) <a href="#">PATCH:1587</a>	Released to production Mon 21 Jan.
lcg_util	1.6.5-1 (SL4) <a href="#">PATCH:1587</a>	Released to production Mon 21 Jan.
GFAL	1.10.7-2 (SL4) <a href="#">PATCH:1641</a>	1.10.7-1 ; Production Thursday 24th. Is the '-2' requirement real?
lcg_util	1.6.6-1 (SL4) <a href="#">PATCH:1641</a>	Production Thursday 24th.

Source: <https://twiki.cern.ch/twiki/bin/view/LCG/GSSDCCRCBaseVersions>

# CCRC: journal



GS

## Problems with the twiki

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Department

- Hard to generate reports from a twiki
- Statistics extraction is manual
  - Messages/Incidents per day, per site, ...
- Everyone has to poll
  - No feeds
- No categorization
- No threading
- Want it to be write-once, read-many
  - No changing history !

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GS

## Solution

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We believe elog gives us these features

- Let's use CCRC'08 to test it
  - Fallback solution could be a standard blog
- I'd encourage everyone to use if
  - Also secretary of CCRC'08 daily meeting will add items of interest that arise

...Demo...

<https://prod-grid-logger.cern.ch/elog/CCRC'08+Observations/>

RSS feed : <https://prod-grid-logger.cern.ch/elog/CCRC'08+Observations/elog.rdf>

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# CCRC: journal



CERN Grid Operations Logbooks   <b>CCRC'08 Logbooks</b>   Demo Logbooks											
CCRC'08 Logbook   <b>CCRC'08 Observations</b>											
CCRC'08 Logbook, Page 1 of 1											
List   Find   Select   Login   Help											
Full   Summary   Threaded											
ID	Date	Author	Email	VO Affected	Severity	Log Stage	Site	MoU Area	GGUS Ticket URL	Original Author	Original Date
19	Wed, Feb 06, 2008, 17:21 +0100	Flavia Donno	Flavia.Donno@cern.ch	ATLAS	Top Priority	Site Fixed	US-T1-BNL	Acceptance of data from the Tier-0 centre			
18	Wed, Feb 06, 2008, 17:15 +0100	Jan van Eldik	Jan.van.Eldik@cern.ch	CMS	Urgent	Site Fixed	CERN-PROD	Event reco or distribution of data to Tier-1 Centres			
17	Wed, Feb 06, 2008, 13:06 +0100	Flavia Donno	Flavia.Donno@cern.ch	CMS	Urgent	Site Acknowledge	CERN-PROD	Event reco or distribution of data to Tier-1 Centres			
16	Wed, Feb 06, 2008, 12:44 +0100	Flavia Donno	Flavia.Donno@cern.ch	ATLAS   CMS   LHCb	Top Priority	Site Acknowledge	FR-CCIN2P3	Acceptance of data from the Tier-0 centre			
15	Wed, Feb 06, 2008, 11:47 +0100	Simone Campana	Simone.Campana@cern.ch	ATLAS	Urgent	New Problem	NDGF	T1 centres outside data taking			
14	Wed, Feb 06, 2008, 10:55 +0100	Flavia Donno	Flavia.Donno@cern.ch	ATLAS   CMS   LHCb	Top Priority	New Problem	FR-CCIN2P3	Acceptance of data from the			

<https://prod-grid-logger.cern.ch/elog/CCRC'08+Logbook>



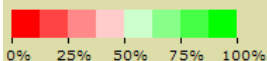
# CCRC: visualisation de l'état des services



## WLCG CCRC'08 Critical Services "GridMap"

### Ticklist Status (updated manually)

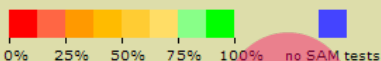
Atlas Critical Services									
DDM central services	LFC (Tier1)	FTS (Tier1)	AMI database	VOBOX (Tier0)	FTS				
	VOMS server	Distributed production servers	Castor internal data movement	VOBOX (Tier1)	SE (Tier1)	Log file serve			
Oracle database RAC (online, ATONR)	Data transfer from Point1 to Castor	Oracle database RAC (offline, ATLR)	LFC (Tier0)	gLite WMS (Tier0)	SE (Tier0)	SE (Tier2)	Tag Collect		
	Tier-0 processing farm	Online-offline database connectivity	Dashboard	CE (Tier2)	CVS server	Build and BTT	CE (CAF)		
				3D stream (Tier0)	Oracle database (Tier1)	CE (Tier1)	AFS Servers		



Alice **Atlas** CMS LHCb

### Test Status (live data)

Atlas Critical Services									
DDM central services	LFC (Tier1)	FTS (Tier1)	AMI database	VOBOX (Tier0)	FTS				
	VOMS server	Distributed production servers	Castor internal data movement	VOBOX (Tier1)	SE (Tier1)	Log file serve			
Oracle database RAC (online, ATONR)	Data transfer from Point1 to Castor	Oracle database RAC (offline, ATLR)	LFC (Tier0)	gLite WMS (Tier0)	SE (Tier0)	SE (Tier2)	Tag Collect		
	Tier-0 processing farm	Online-offline database connectivity	Dashboard	CE (Tier2)	CVS server	Build and BTT	CE (CAF)		
				3D stream (Tier0)	Oracle database (Tier1)	CE (Tier1)	AFS Servers		



CERN-PROD TRIUMF-LCG2 **IN2P3-CC** FZK-LCG2 INFN-T1 SARA-MATRIX NDGF-T1 pic Taiwan-LCG2 RAL-LCG2 BNL-LCG2  
USCMS-FNAL-WC1

<http://gridmap.cern.ch/ccrc08/servicemap.html>

# ► Aujourd'hui



- Préparation et avancement du CCRC
- Monitoring basé sur NAGIOS
- Prochaine réunion
  - Jeudi 13 mars 14h salle 202
- Agendas de toutes les réunions
  - <http://indico.in2p3.fr/categoryDisplay.py?categId=102>

# ► Questions/Commentaires

