

15/12/2011

LCG-France Tier-1 & AF

Réunion mensuelle de coordination

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- Nouvelles de LCG
 - CR du dernier GDB
 - Technical Evolution Groups
- Disponibilité du site
- Dossiers en cours
- Événements



Nouvelles de LCG



■ GDB du 14 décembre 2011

- <http://indico.cern.ch/conferenceDisplay.py?confId=106651>

CR du dernier GDB

Today

- Technical Evolution Groups
- Experiment Operations
- Middleware
- Identity Tracing

WLCG
Worldwide LHC Computing Grid



Science & Technology
Facilities Council

GDB

CR du dernier GDB

January

- Short Meeting
- Technical Evolution Groups?
- OSG
- CREAM SGE
- Site Dashboard?

CR du dernier GDB

EMI - Beta & Acceptance Testing



- Early availability – once the code is ready:
 - <https://twiki.cern.ch/twiki/bin/view/EMI/EMIBetaAcceptanceTesting>
 - access to interested parties to earlier stages/phases of the software development:
 - *beta phase - through participation in **EMI Beta Testing** activity, using the [testing/](#) repository*
 - *release candidate phase- through participation in **EMI Acceptance Testing** activity, using the [deployment/](#) repository*

WLCG Technical Evolution Groups

TEG Storage Management

SM/DM-TEG topics

Topics in the **SM-TEG** (*as from the original mandate*):

- ✦ [SM.1] Experiment IO/usage patterns (and so performance requirements for storage)
- ✦ [SM.2] Requirements on future storage systems, and how storage will evolve
- ✦ [SM.3] Separation of archives and disk pools/caches
- ✦ [SM.4] Storage system interfaces to Grid (SRM status?)
- ✦ [SM.5] Filesystems/protocols (standards?)
- ✦ [SM.6] Security/access controls (TBD: to be discussed with the Security TEG)
- ✦ [SM.7] (as site-run services:) storage management interfaces, performance measurements, monitoring, etc

✦ Topics in the **DM-TEG** (*as from the original* mandate*):

- ✦ [DM.1] Review of DM demonstrators from Summer 2010
- ✦ [DM.2] Dataset management and Data placement (policy-based or dynamic)
- ✦ [DM.3] Data federation strategies
- ✦ [DM.4] Transfers and WAN access protocols (HTTP, xrootd, gsiftp)
- ✦ [DM.5] Data transfer management (FTS)
- ✦ [DM.6] Understanding data accessibility and security requirements/needs
- ✦ [DM.7] POOL
- ✦ [DM.8] ROOT, PROOF frameworks
- ✦ [DM.9] Management of namespaces
- ✦ [DM.10] Management of catalogues (LFC, future directions)

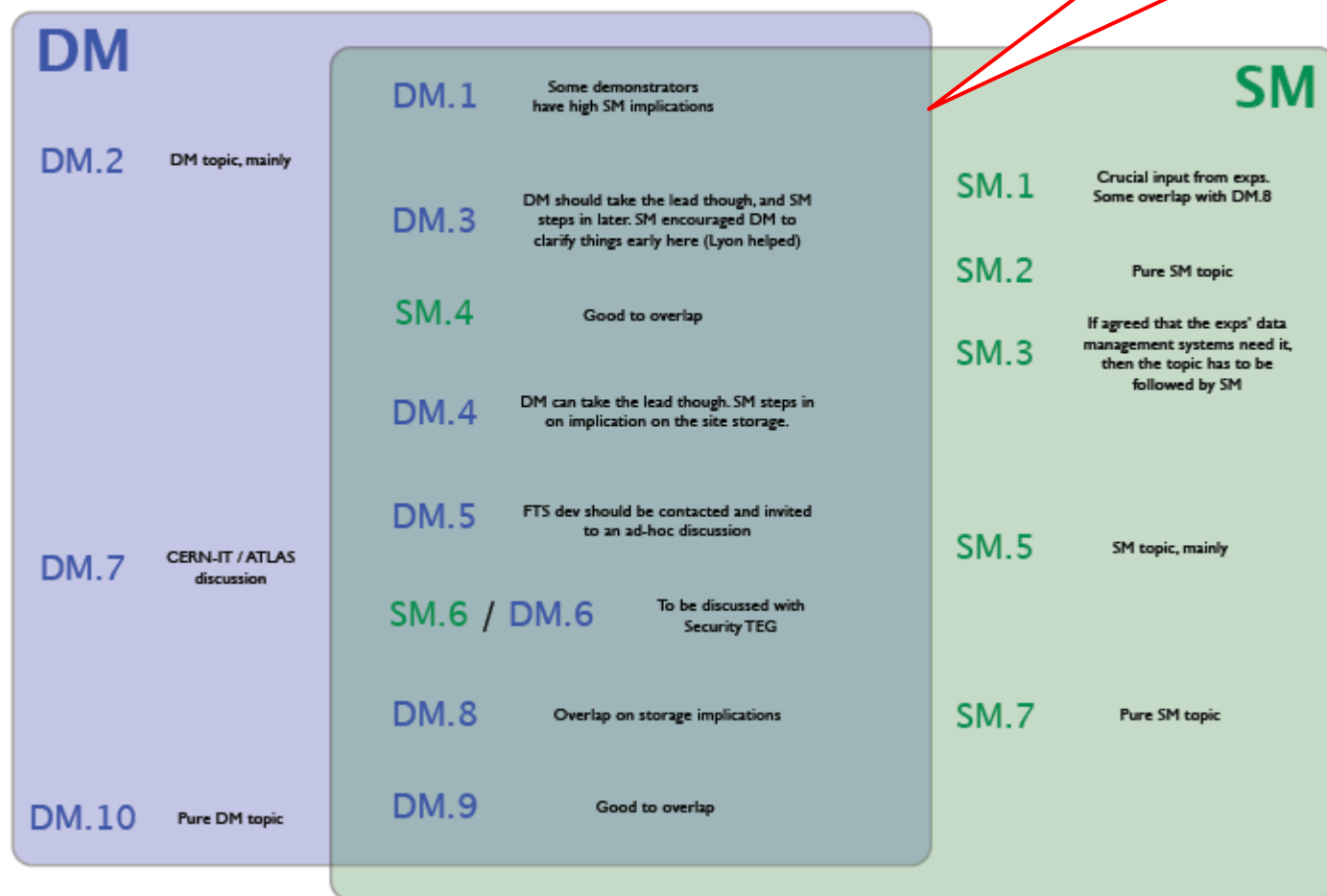
(*) roughly, since DM already presented and re-elaborated the list

Rapprochement entre
Storage et Data
Management.
Ces 2 TEGs ont
beaucoup de sujets
communs.

TEG Storage Management

Affectation des responsabilités (TEG leader) pour les sujets communs

Reshuffling of {SM,DM}-TEG topics



TEG Storage Management



What's done and what's next

- ✦ digestion and approval of the mandate
- ✦ definition of membership, guarantee a careful balance
- ✦ organizational bits (twiki, Indico, etc), plus collection of personal profiles of the members
- ✦ definition of (brief) set of general questions on SM personal viewpoints (see "list 1")
- ✦ collection and digestion, before the kick-off meeting
- ✦ kick-off meeting
- ✦ definition of boundaries with DM-TEG, definition of work plans with them
- ✦ Lyon workshop on data federation
- ✦ definition of a unique list of joint DM/SM questions to LHC exps (see "list 2")
- ✦ information gathering phase from **ALICE**, ad-hoc meeting
- ✦ information gathering phase from **CMS**, ad-hoc meeting
- ✦ information gathering phase from **LHCb**, ad-hoc meeting
- ✦ information gathering phase from **ATLAS**, ad-hoc meeting
- ✦ digestion of the exps' feedback, and synthesis
- ✦ on each sub-topic, the "responsible" TEG elaborates a way to proceed
- ✦ potentially large (to be parallelized) homework for different subsets of members
- ✦ from each subset: feedback collection, digestion, synthesis
- ✦ work on coherence, first steps towards a draft report, including risk management analysis
- ✦ aim to have a statement on "where we are" by/at the Amsterdam TEGs week
- ✦ post-Amsterdam wrap-up: work on "the future" over Feb-Mar
- ✦ ...

← We are here

TEG Security



Risks				
Threat	Likelihood	Impact	Risk	
Misused identities	5	5	25	
Compromised identities	5	4	20	
Attack propagation between WLCG sites	4	5	20	
Exploitation of a serious OS vulnerability	4	4	16	
Threats originating from trust services	3	4	12	
Negative publicity on a non-event	2	4	8	
Insecure configuration leading to undesirable access	3	2	6	
Insufficient protection of information leading to sensitive data leakage	3	2	6	
Incidents on resources not bound by WLCG policies	1	5	5	
Exploitation of a serious VO/middleware software vulnerability	2	2	4	
Data removal/corruption/alteration	1	3	3	
DoS from an external organisation	1	1	1	





Publicity & Traceability

- Publicity
 - Aggravating factor for all previously mentioned risks
 - Media interest needs to be handled with care (and training!)
 - Negative impact is not necessarily linked with severity of incident
 - The accuracy of the information being reported often not relevant
- Traceability
 - Fine-grained traceability is necessary and an essential component of WLCG security.
 - It is only possible to achieve a reasonable level of traceability by implementing a form of Unix identity switching
 - The AAI on the WN subtask will review different technical possibilities and implementations, in terms of security, performance impact, development and maintenance costs.
 - The result of this work will be presented during GDBs.

Authentication & Authorization Infrastructure (AAI) on the WN



Traceability (2)

- User payloads should be separated on the WN
 - Avoid interference → allow for quick identification of involved DN
 - Otherwise need to rely on time-based circumstantial evidence
 - May need to ban multiple users
 - Need to be able to exclude Trojan horses or time bombs
 - Data ownership?
- Possible technologies
 - Glxec → currently needs a proxy
 - Investigate if that could be relaxed for the time being
 - ALICE plugin will check payload signature instead
 - Sudo → how to determine the target account?
 - Virtual machines → when will most sites be ready for that?
 - One account per job slot → only Condor supports it
 - SELinux → not evident



Longer term

- Use of general-purpose proxies on the WN is questionable
 - Cf. AliEn plans
- Relation between payload and user?
 - Payload may have been tampered with
 - Signed payloads would be verifiable
 - Cf. AliEn plans
- Data ownership, restrictions?
 - Cf. AliEn token model

TEG Security / Delegation



The issue of full delegation vs.
accountability/traceability

Why do we need the user proxy for a pilot payload ?

- ▶ Because we don't want to fully trust the VO ?
- ▶ But we already rely on the VO to provide the correct proxy!
- ▶ How much does the presence of a proxy actually prove?
- ▶ At the same time the presence of a proxy is a risk...

We rather need something better.

TEG Security / Delegation



A proposal: Explicit/Definite Delegation

Signed Grid jobs (in ALICE we are working on that)

This should be...

- ▶ a lot easier
 - ▶ in development / maintenance (one concept from users to sites)
 - ▶ in operation (no callbacks or add-ons / externals)
- ▶ explicit, so there is proof in the end what was submitted
- ▶ without any other permission delegated/passed on
- ▶ gLExec could easily support this (generally green light)

TEG Operations and tools



Introduction

- Five areas of work identified
 - WG1: Monitoring
 - WG2: Support tools, Underlying Services and WLCG Operations
 - WG3: Application Software Management
 - WG4: Operational Requirements on Middleware
 - WG5: Middleware Configuration, Deployment and Distribution

TEG Operations and tools



Priorities from the MB

- Discussions at the last MB have asked
“Operations TEG to provide a clear strategy on Availability Reporting which takes account of the needs of all the stakeholders (at least experiments, sites and funding agencies) and reduces the duplication which currently exists”
- *“The Experiments agreed to continue their contributions in the Operations TEG who will provide an update at the GDB meeting on 14 Dec 2011”*

TEG Operations and tools



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TEG Operations and tools



Siteview - Gridmap x Site Status Board x +

dashb-ssb.cern.ch/dashboard/request.py/siteview?site=T1_FR_CCIN2P3#fullscreen=false

Help Login Site Status for the CMS sites, v0.14.0_rc5

Index Expanded Table

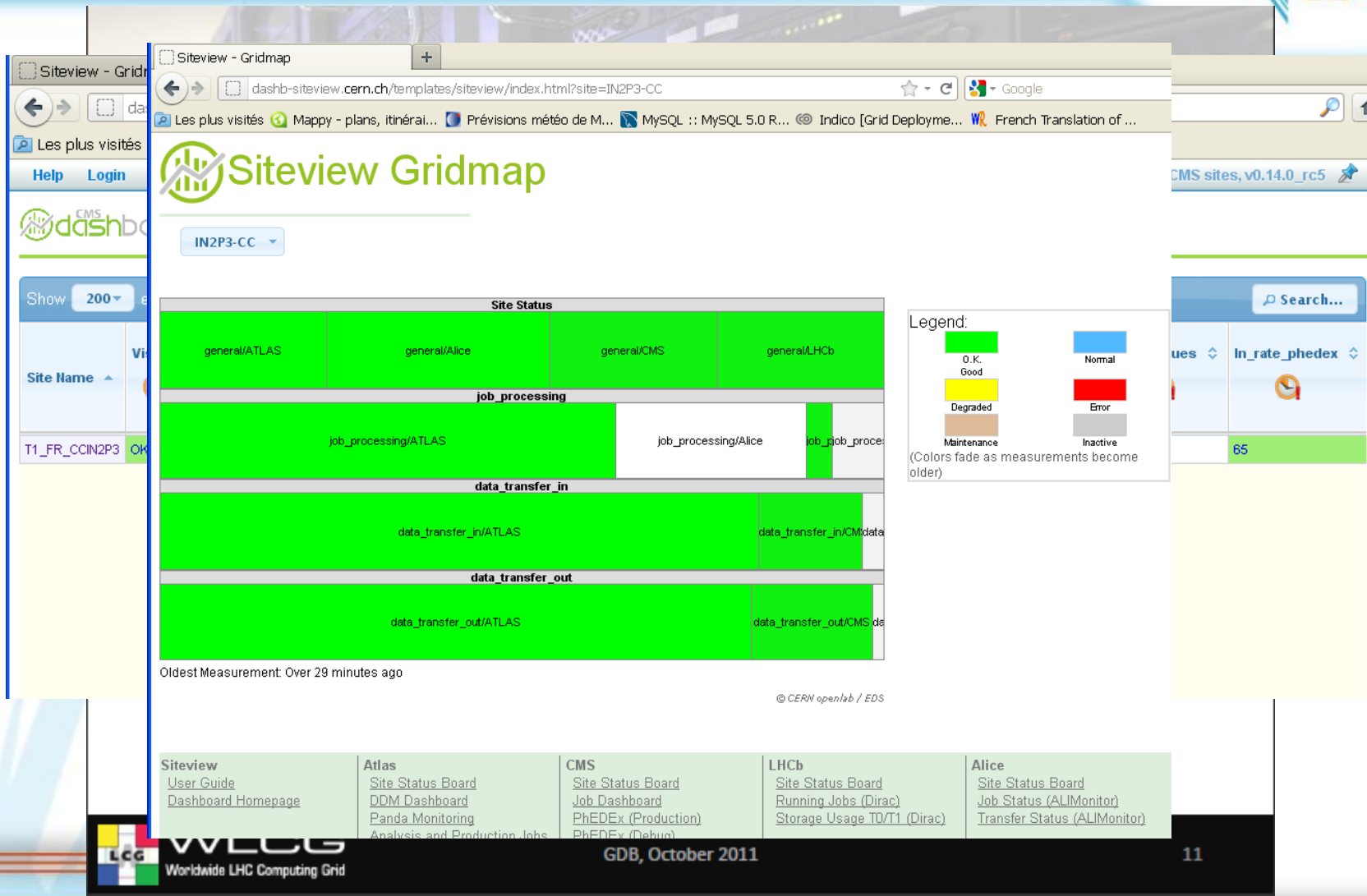
Show 200 entries Copy Print Save view: default Search...

Site Name	Visible	JobRobot	SAM TESTS		Production	Analysis	Site usage		Commissioned Links (expand this column)	Under investigation	SiteIssues	In_rate_phedex
			CE	SRM			Running	Pending				
T1_FR_CCIN2P3	OK	100%(200)	OK	OK	100%(335)	100%(3)	110	130	3/5 combined	mark	info	65

ex.html

production but would need to be validated

TEG Operations and tools

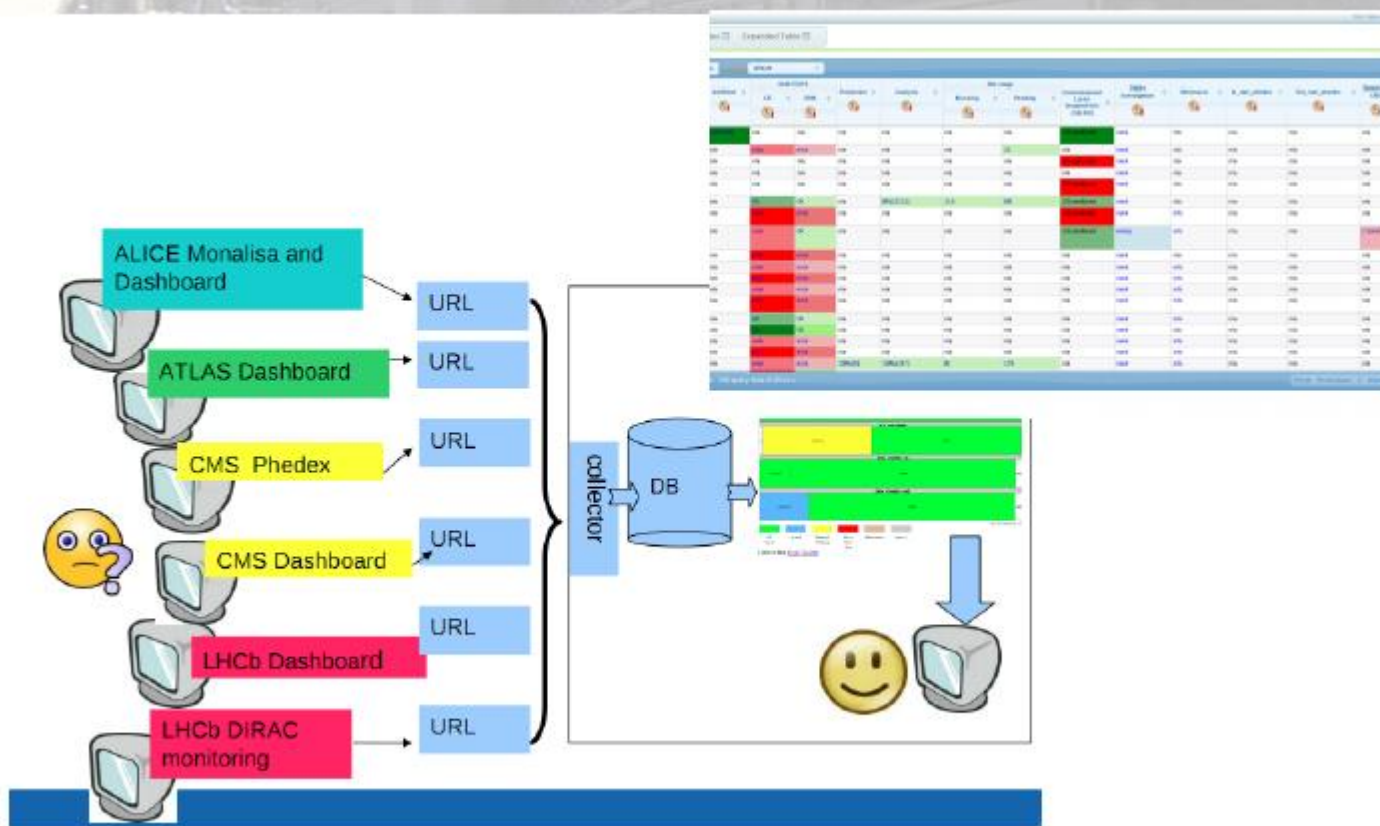


ex.html

TEG Operations and tools



SSB and SiteView



TEG Operations and tools



Site Monitoring: proposal

- We miss the equivalent of the today's SSB experiment views tailored for sites
- **Proposal** to use the SSB framework to provide this functionality as well
 - Advantages: many metrics already in the SSB for ATLAS and CMS
 - No duplication of effort nor issues of consistency
 - Need to agree on a few common metrics between experiments
 - Relevant from a site perspective
 - Some development needed in SSB to facilitate the visualization
 - Some commitment needed from experiment and sites
 - Experiment (support): define and inject metrics, validation
 - Sites: validation, feedback





Participation du CC



- RAPPEL: description des TEGs sur le wiki LCG France
 - <http://lcg.in2p3.fr/wiki/index.php/TEG>
- TEG Storage
 - Yvan Calas
 - Loïc Tortay
 - Fabio Hernandez
- TEG Data Management
 - Jean-Yves ?
 - Qq'un HSM (HPSS) ?
- TEG Workload Management
 - Pierre Girard (Cloud/Virtualisation)
 - Qq'un des opérations du CC ?
- TEG Databases
 - Osman Aidel

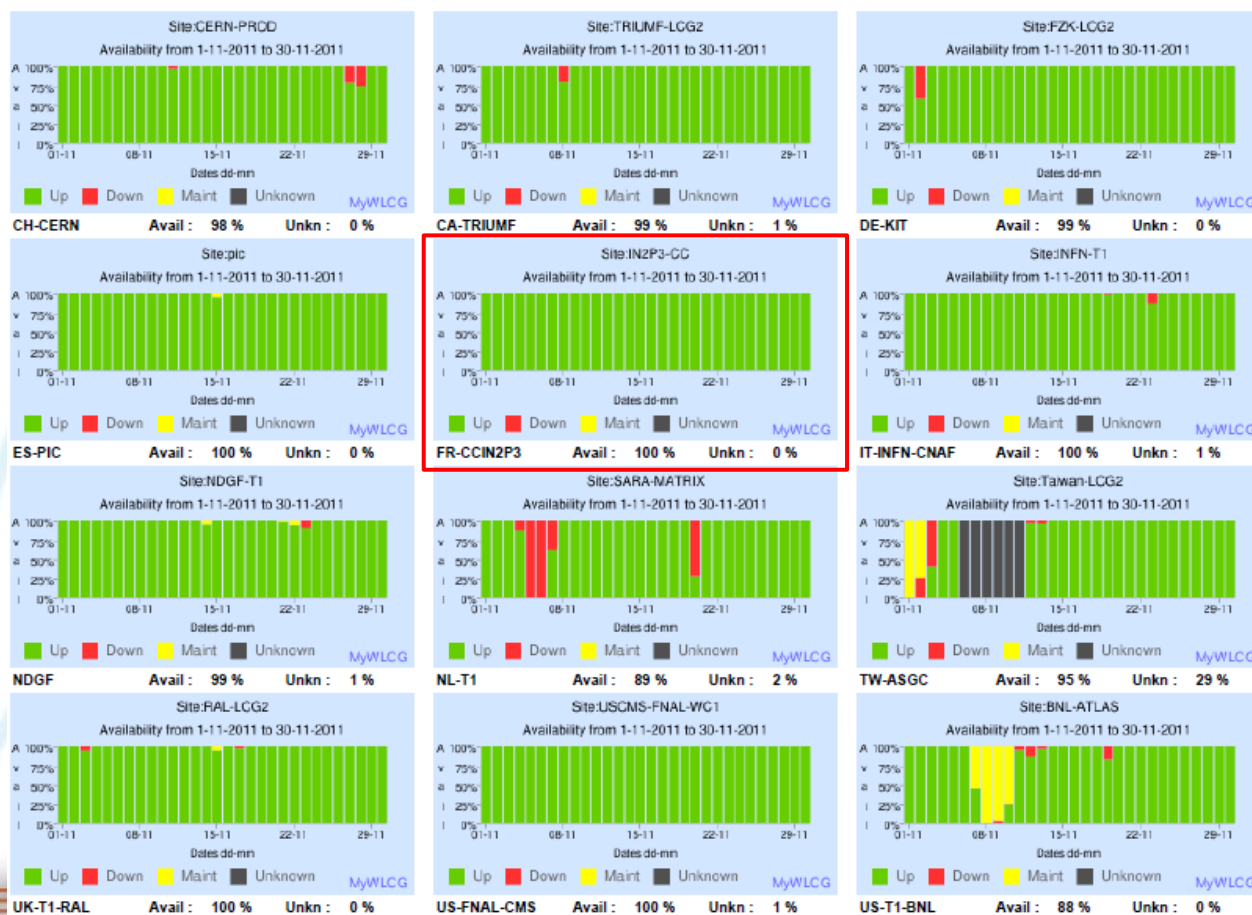


Résultats du site

OPS/Novembre 2011



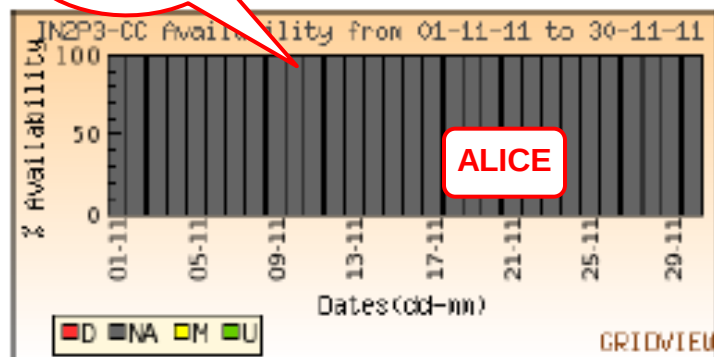
■ http://gvdev.cern.ch/GRIDVIEW/downloads/Reports/201111/wlwg/Tier1_Summary_Nov2011.pdf



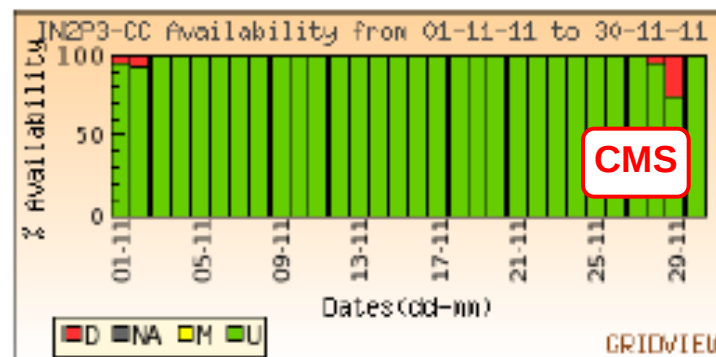
Disponibilités des VOs pour novembre 2011

Fin des LCG-
CES et pas
de SE

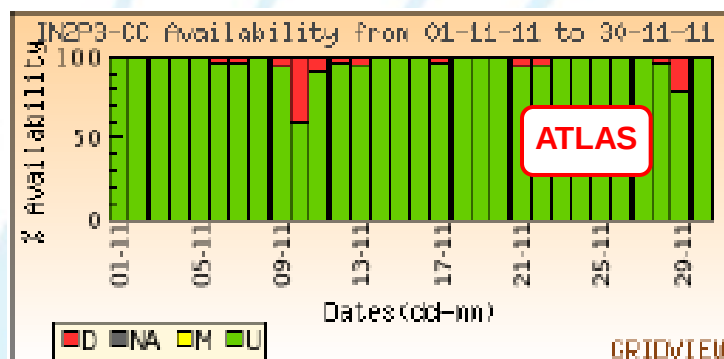
Les CREAM ne sont
pas pris en compte



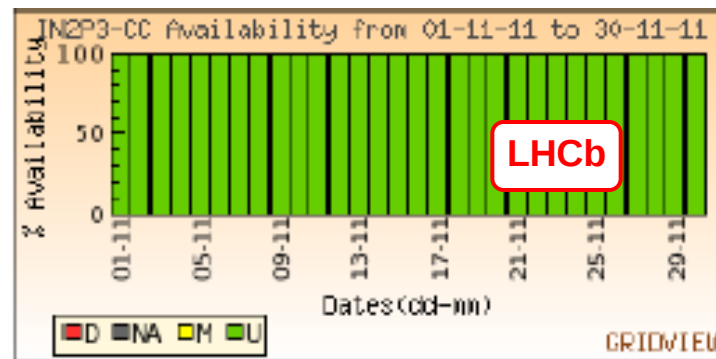
FR-CCIN2P3 Avail: N/A Unkn: 100 %



FR-CCIN2P3 Avail: 99 % Unkn: 0 %



FR-CCIN2P3 Avail: 97 % Unkn: 0 %



FR-CCIN2P3 Avail: 100 % Unkn: 0 %



Dossiers en cours

■ CREAM GEs

- Quelques problèmes identifiés
 - Purge des jobs, table MySQL avec 4 000 000 d'entrées, passage des job requirements à GE
- Statut des jobs
 - Tout le support doit y avoir accès
 - Christelle a fait passer la demande des DNS à inclure
 - Interrogation des CEs depuis une UI
 - Glite-ce-job-list <CE>
 - Glite-ce-job-status <job-id>
 - Glite-ce-job-status -all ...

```
girardpi@ccage019(0)# glite-ce-job-status -a -L 0 -s DONE-OK --from '2011-12-15 11:25:00' --endpoint  
ccccreamceli10.in2p3.fr  
2011-12-15 11:44:43,169 WARN - No configuration file suitable for loading. Using built-in configuration
```

```
***** JobID=[https://ccccreamceli10.in2p3.fr:8443/CREAM014725926]  
Status    = [DONE-OK]  
ExitCode  = [0]
```

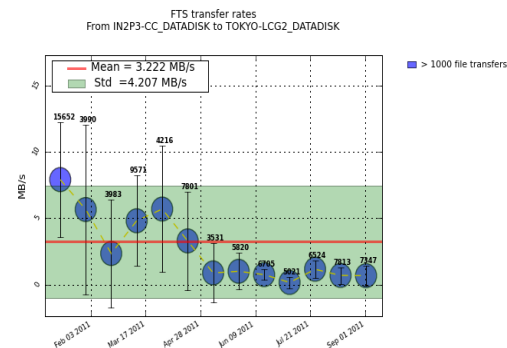
```
***** JobID=[https://ccccreamceli10.in2p3.fr:8443/CREAM535953290]  
Status    = [DONE-OK]  
ExitCode  = [0]
```

```
***** JobID=[https://ccccreamceli10.in2p3.fr:8443/CREAM617789867]  
Status    = [DONE-OK]  
ExitCode  = [0]
```

```
***** JobID=[https://ccccreamceli10.in2p3.fr:8443/CREAM894582743]  
Status    = [DONE-OK]  
ExitCode  = [0]
```

■ Problèmes réseaux

- Avec les sites étrangers qui ne sont pas sur LHCOPN
- Impact sur ATLAS et CMS
 - https://ggus.eu/ws/ticket_info.php?ticket=75983
 - https://ggus.eu/ws/ticket_info.php?ticket=75919
 - https://ggus.eu/ws/ticket_info.php?ticket=75397
 - https://ggus.eu/ws/ticket_info.php?ticket=74268
 - https://ggus.eu/ws/ticket_info.php?ticket=71864
- EN COURS
 - CCIN2P3/RENATER ont entamé la procédure d'ouverture de ticket à GEANT
 - Travail d'investigation avec Fabio depuis IHEP



- “Whole node” job
 - CMS et ATLAS
 - Mise en place de workers dédiés en production
 - 5 workers 8 coeurs normaux
 - 5 workers 8 coeurs virtuels
 - 1 CREAM de test
 - cccreamceli01.in2p3.fr
 - Suivi par Sébastien (?)



- Aujourd'hui
 - Statut et avenir de la LAF
- Prochaine T1/AF
 - Infrastructure de virtualisation de production
 - Jacques Garnier
 - Point sur les Pledges 2011
 - Promis juré craché...



■ A venir

- LHCOPN/LHCONE, LBL, 30-31 January 2012
- OGF 34, Oxford, 11-14 March 2012
- HEPiX Spring Meeting, Prague, 23-27 April 2012
- ISGC, Taipei, 26 February - 2 March 2012
- EGI User Forum, Munich, 19-23 March
- WLCG Workshop, NYC, 19-20th May 2012
- CHEP2012, NYC, 21-25th May 2012
- EGI Technical Forum, Prague, September 2012
- HEPiX Fall Meeting, IHEP, October 2012