

### Grid Technology



# gLite->EMI2/UMD2 transition

### GDB September 2012





### **Clients/Services**



### Services:

- we gave a recommendation for emi-1
  - Baseline Services page
  - services with long term state
  - services without state
- relying on EGI staged rollout
  - overall a success
    - recently some incompatibilities observed
      - » CREAM-CE SL(6) ALICE
- Clients:
  - Started a validation for emi-1 WNs in spring
    - 6 sites, all experiments, the main SEs
  - Didn't end with a clear result





### The situation



- The infrastructure has not been keen to upgrade recently
  - Various reasons
    - ...some of them good
- Leaves us with obsolete and unsupported middleware on performing critical tasks
  - ...on obsolete OS (Feb 2012 for SL4 family)
  - Recent experience gives concrete examples of the risks
- The short/medium term does not offer a natural moment to upgrade
  - But we have to act to avoid future problems





## The situation

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- The good news...
  - A number of sites are running up to date middleware versions (and have shared their experience)
  - FTS 2.2.8 deployment is entirely EMI based
  - CREAM has been adopted and validated in the EMI release
    - No reasons not to upgrade...
  - DPM has a number of EMI deployments out there
  - ...etc
- Bad news…



### Not latest, not greatest...

gLite 3.2 is in the process of being retired

The following packages are also supported in SL5/32bits and are released as part of the gLite UI and gLite WN:



C ite > gLite 3.2 x C ite 3.2

Please check the table below to know the dates when each service will be retired.

gLite 3.2 is supported in SL5/64bits. Not all the node types are released yet in gLite 3.2, so please, check the list below to know which gLite services are available.

#### gLite 3.2

DPM client libraries and python bindings
 LFC client libraries and python bindings

· dCache client libraries

Updates page for gLite 3.2 sl5\_x86\_64

#### INTRODUCTION

OPEN COLLABORATION SOFTWARE LICENSE RELEASES

GLITE 3.2

UPDATES

**GLITE MIDDLEWARE** 

GLITE 3.1

SECURITY UPDATES STAGED ROLLOUT PREVIOUS RELEASES

WMS clients
 LB clients

Updates

Services

- SUPPORT CALENDAR

  - GFAL and lcg\_utils, including python bindings
    VOMS APIs

R3.2 SL5/X86\_64 R3.1 SL4/X86\_64

R3.1 SL4/I386

DOCUMENTATION

ADMIN & SERVICES

END USER CONTACT & SUPPORT

CONTACT

Please report any problem with the services, repositories or web pages using GGUS.

Services										
•	Service	Last Version	\$	Summary	♦ Platform	- Support	¢	End of Standard Updates	¢	End of Security Updates
glite-FTA_oracle		3.2.1-2.sl5	File Transfer Agent for Ora	cle	sl5_x86_64	Supported		30/04/2012		30/11/2012
glite-FTM		3.2.1-2.sl5	File Transfer Monitor		sl5_x86_64	Supported		30/04/2012		30/11/2012
glite-FTS_oracle		3.2.1-2.sl5	File Transfer Service for Or	acle	sl5_x86_64	Supported		30/04/2012		30/11/2012
glite-GLEXEC_wn		3.2.5-1	gLexec for the WN		sl5_x86_64	Supported		31/10/2011		30/11/2012
glite-LFC_mysql		1.8.0-1	gLite LCG File Catalog (LF	C) for MySQL	sl5_x86_64	Supported		30/04/2012		30/11/2012
glite-LFC_oracle		1.8.2-2	gLite LCG File Catalog (LF	C) for Oracle	sl5_x86_64	Supported		30/04/2012		30/11/2012
glite-SE_dpm_disk		1.8.2-3	gLite Disk Pool Manager (E	PM) Storage Element (SE) for Disk	sl5_x86_64	Supported		30/04/2012		30/11/2012
glite-SE_dpm_mysql		1.8.2-3	gLite Disk Pool Manager (E	PM) Storage Element (SE) for MySQL	sl5_x86_64	Supported		30/04/2012		30/11/2012
glite-UI		3.2.11-1	gLite User Interface (UI)		sl5_x86_64	Supported		31/10/2011		30/11/2012
glite-VOBOX		3.2.15-1	gLite VOBOX		sl5_x86_64	Supported		31/10/2012		30/04/2013
glite-WN		3.2.12-1	gLite Worker Node (WN)		sl5_x86_64	Supported		31/10/2011		30/11/2012
glite-APEL		3.2.5-0.sl5	gLite APEL Accounting Sof	tware	sl5_x86_64	Not Supported		31/10/2011		30/04/2012
glite-ARG	US	3.2.4-2	The EGEE Authorization S	ervice	sl5_x86_64	Not Supported		31/10/2011		30/04/2012
glite-BDII	site	3.2.11-1	Berkeley Database Index (I BDIIs	BDII), please use this nodetype for site level	sl5_x86_64	Not Supported		31/10/2011		30/04/2012
alite_RDII ton		3 2 12_1	Berkeley Database Index (I	3DII), please use this nodetype for top level	el5 v86 6/	Not		31/10/2011		30/07/2012



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Presentation Title - 5

# The EGI / WLCG message

- Obsolete middleware must be upgraded.
- "2" is better than "1"
  - EMI, UMD...
  - Much closer to how things will look post-EMI
- EGI will be following this up via NGIs.
- WLCG sites and experiments:
  - Balance between progress and stability
    - limited acceptance of risks
  - Unsupported software has risks and costs
  - Problems with WN & UI (ie the clients) need to be understood
    - Inc tarballs, Application area releases
      *Presentation Title 6*

Department

# GT

### Services

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- Not a request for panic mass-upgrades
- Validation by WLCG experiments has to start
  - the EGI rollout doesn't cover the experiments explicitely
- There is no perfect moment to wait for
  - the long shutdown isn't a vacation from computing
- gLite is obsolete
  - DPM/LFC have a couple of months
  - Clients have a couple of months
- The advantages
  - Supported software
  - More reliable software
  - Better performing software (including new features)





### Worker Node

- CERN**IT** Department
- A group of willing sites have agreed to install the EMI2/SL5/64bit WN and make queues available
  - SL6 will follow
- Uses the EMI testing repository
  - Updates can be immediately produced
    - Bypassing EMI release process
  - A full client release (tarball etc.) will happen after WN validation
  - At this point the infrastructure can start upgrading
- Problem: Coordination and effort

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**Presentation Title -**



### Status:



- Sites involved:
  - **DESY**: dCache, ATLAS and CMS
  - CERN: Castor and EOS, ATLAS and CMS
  - Rutherford: CASTOR, ATLAS and CMS ??
  - Brunel: DPM, CMS
  - INFN-Napoli: DPM, ATLAS
  - INFN-CNAF: STORM, ATLAS and CMS
- All work based on best effort
  - difficult to plan
  - experiments can start only after the sites have moved

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## Next Steps

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- Setup a page to track progress
  - get emi-2 / SL5 WNs verified
- Expand to services
- We need a more formal collaboration
  - this will increase overall efficiency
    - now individual sites and experiments cooperate locally
    - very difficult to get a reliable global view







### Post emi ????

- CERN**| T** Department
- Discussions on software lifecycle process is on-going
  - discussion of WLCG needs with EGI/EMI have started
  - a proposal prepared for the next WLCG-MB
- General approach
  - as much independence between PTs as possible
  - you need it, you provide it
    - there will be no one else ☺
    - support for batch systems, re-locatable clients etc.
    - this is already happening, but sharing is slow

