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GLUE2 publication monitoring

This twiki tracks the effort of monitoring the quality of the GLUE 2 information published in the WLCG information system. Ongoing efforts are already looking into the information published by the information providers to detect bugs in the middleware that should be fixed by the middleware developers.

This twiki collects the monthly reports that evaluate the results of running glue-validator against WLCG sites.

Reports

- July 2013
- June 2013
- May 2013

Known Issues

Bug deleting GLUE 2 entries

As described in [BUG:101237](#), the BDII fails to delete old GLUE 2 entries due to a bug in the code. This causes a pollution of GLUE 2.0 obsolete objects in the Information System. A workaround to this problem is to restart all resource BDIIs in the site, then remove the contents of `/var/lib/bdii/gip/cache/gip/site-urls.conf-glue2` in the site BDII and restart the site BDII. Due to this bug, the glue-validator raises many E002 errors.

Misconfiguration of load balanced services

It has been noted that sites fail to properly declare load balanced services in the information system. All machines behind an alias, must be declared as site resources using the machine hostname. For example, using YAIM for a load balanced site BDII:

```
BDII_REGIONS="CE SE TOPBDII SITEBDII_1 SITEBDII_2"

...
SITEBDII_BDII_1_URL="ldap://<bdii1-hostname>:2170/mds-vo-name=resource,o=grid"
SITEBDII_BDII_2_URL="ldap://<bdii2-hostname>:2170/mds-vo-name=resource,o=grid"

SITE_BDII_HOSTNAME=<service-alias>
```

This means that we should see the GLUE2ServiceID and GLUE2EndpointID with the real hostnames of the machines and the GLUE2EndpointURL with the DNS alias.

Failed hostname -f

When the command `hostname -f` fails to be executed in a machine, GLUE2ServiceID and GLUE2EndpointID are wrongly generated. It has been observed that in most cases this is a temporary failure and then the command works again and the IDs can be properly generated. Due to [BUG:101237](#), these wrong entries stay in the system and are never deleted. The command below shows this problem for site BDIIs:

```
ldapsearch -LLL -x -h lcg-bdii -p 2170 -b GLUE2GroupID=grid,o=glue '(&(objectClass=GLUE2Endpoint)
```

This issue was reported in [BUG:101562](#) and a fix has been released in EMI 2 and EMI 3.

Huge amount of information published by GLUE2ApplicationEnvironment

MAY-22-2013:

In GLUE 2.0, we are currently publishing ~195.000 DNs:

```
ldapsearch -LLL -x -h lcg-bdii -p 2170 -b o=glue dn | grep dn: | wc -l
194834
```

In GLUE 1.3, we are currently publishing ~68.000 DNs:

```
ldapsearch -LLL -x -h lcg-bdii -p 2170 -b o=grid dn | grep dn: | wc -l
67760
```

When trying to understand this difference, we have realized that GLUE 2 is publishing ~ 135.000 GLUE2ApplicationEnvironment DNs:

```
ldapsearch -LLL -x -h lcg-bdii -p 2170 -b o=glue '(objectClass=GLUE2ApplicationEnvironment)' dn | wc -l
134987
```

These objects sum up ~120MB of information when the real information is actually contained in one attribute, GLUE2ApplicationEnvironmentAppName. Collecting only this information is 11MB:

```
ldapsearch -LLL -x -h lcg-bdii -p 2170 -b o=glue '(objectClass=GLUE2ApplicationEnvironment)' GLUE2ApplicationEnvironmentAppName | wc -l
120000
ldapsearch -LLL -x -h lcg-bdii -p 2170 -b o=glue '(objectClass=GLUE2ApplicationEnvironment)' > appname | wc -l
110000
-rw-r--r--. 1 root root 120M May 22 09:54 appenv
-rw-r--r--. 1 root root 11M May 22 09:53 appname
```

It should also be noted that due to [BUG:101237](#), there are ~18.000 obsolete GLUE2ApplicationEnvironment objects, out of which ~1.700 objects are not publishing at all the creation time:

```
ldapsearch -LLL -x -h lcg-bdii -p 2170 -b o=glue '(&(objectClass=GLUE2ApplicationEnvironment)!(GLUE2ApplicationEnvironmentAppName))' | wc -l
17778
ldapsearch -LLL -x -h lcg-bdii -p 2170 -b o=glue '(&(objectClass=GLUE2ApplicationEnvironment)!(GLUE2ApplicationEnvironmentAppName))' | wc -l
1665
```

GluePolicy/GLUE2ComputingShare attributes

The following table explains how the GluePolicy and GLUE2ComputingShare attributes are defined by the information providers. Note that there is a more detailed table for PBS available in the [CREAM Sys Admin guide](#).

Glue 1.3 attribute	GLUE 2.0 attribute	PBS/Torque queue attribute
GluePolicyMaxWallClockTime	GLUE2ComputingShareDefaultWallTime (*)	resources_default.walltime if defined, otherwise resources_max.walltime (seconds, or [[HH:]MM:]SS)
GluePolicyMaxObtainableWallClockTime	GLUE2ComputingShareMaxWallTime (*)	resources_max.walltime (seconds, or [[HH:]MM:]SS)
GluePolicyMaxCPUTime		

	GLUE2ComputingShareDefaultCPUTime (*)	$\min(\text{resources_default.cput}, \text{resources_default.pcpu})$ if defined, $\min(\text{resources_max.cput}, \text{resources_max.pcpu})$ otherwise (seconds, or [[HH:]MM:]SS)
GluePolicyMaxObtainableCPUTime	GLUE2ComputingShareMaxCPUTime (*)	$\min(\text{resources_max.cput}, \text{resources_max.pcpu})$ (seconds, or [[HH:]MM:]SS)
GluePolicyMaxTotalJobs	GLUE2ComputingShareMaxTotalJobs	max_queueable
GluePolicyMaxRunningJobs	GLUE2ComputingShareMaxRunningJobs	max_running
GluePolicyMaxWaitingJobs	GLUE2ComputingShareMaxWaitingJobs	max_queueable - max_running
GluePolicyMaxSlotsPerJob	GLUE2ComputingShareMaxSlotsPerJob	resources_default.procct if defined, else resources_max.procct
GluePolicyAssignedJobSlots	GLUE2ComputingShareAssignedJobSlots	np (from pbsnodes -a -s)

- For PBS/Torque, the queue configuration is retrieved using `qstat -Q -f` in most cases.
 - ◆ See [lcg-info-dynamic-scheduler-pbs](#) code for more details.
 - ◆ See [PBS queue attributes](#) documentation.
- For LSF, the queue configuration is retrieved using `bqueues -l` in most cases but in order to calculate the values, a complex computation is needed in many cases due to the nature of LSF.
 - ◆ See [info-dynamic-scheduler-lsf](#) code for more details.
 - ◆ See [LSF queue attributes](#) documentation.
- For SGE, the queue configuration is retrieved using `qconf -sq opsgrid | egrep "(h_rt|h_cpu)"` and the results are transformed in seconds by the info provider.
- (*)Known Issue: Time is published in hours in GLUE 1.3 (should be minutes) and in minutes in GLUE 2 (should be seconds). See this [BUG:101076](#) and the documented [CREAM Known Issue](#) for more details.

GLUE 1 and GLUE 2 mismatch

The following YAIM variables are used for both GLUE 1 and GLUE 2:

- `CE_LOGCPU`: Total number of cores/hyperthreaded CPUs in the SubCluster
- `CE_PHYSCPU`: Total number of real CPUs/physical chips in the SubCluster

However the definitions in GLUE 2 are:

- `GLUE2ExecutionEnvironmentLogicalCPUs`: The number of logical CPUs in one Execution Environment instance, i.e. typically the number of cores per Worker Node
- `GLUE2ExecutionEnvironmentPhysicalCPUs`: The number of physical CPUs in one ExecutionEnvironment instance, i.e. the number of sockets per Worker Node

This means that in GLUE 2 we are currently publishing wrong information according to the definition of these variables. This has been tracked by the CREAM developers on his list of known issues.

Field Work

The following tables track tickets opened to sites to follow up on incorrect values published in the information system. Some of these issues are related to bugs in the information providers and some of them are due to misconfigurations in the sites. The tables below try to summarise the findings related to wrong storage and computing information to find common patterns in case of misconfigurations and to make sure information providers are fixed when a bug is found.

Apart from the BDII, the following sources of information have been used:

- CMS Site Status Board [↗](#) - Documentation (Check CMS sites names to WLCG site names translation [↗](#))
- ATLAS storage information: SRM vs BDII [↗](#)
- LHCb queues [↗](#)

General Storage

GGUS ticket	Summary	Cause	Affected Service	Affected GLUE Attributes	Affected site
GGUS:87570 ↗	Strange space values	Not known yet. No reaction from the site	DPM	Unknown	TR-03-METU
GGUS:90219 ↗	Negative used space	Not known yet. Seems to be a bug in the DPM Information Providers	DPM	GlueSAStateUsedSpace: -3987365412	UKI-LT2-RHUL
GGUS:90319 ↗	Strange space values	Investigations are ongoing. Seems to be caused by an upgrade of the information providers (old static ldfil file)	dCache	GlueSAUsedOnlineSize: 0 GlueSAStateUsedSpace: 999999 GlueSAReservedOnlineSize: 0 GlueSATotalOnlineSize: 0	INFN-ROMA1-CMS
GGUS:90321 ↗	Negative free space	Not known yet. No reaction from the site	StoRM	GlueSAFreeOnlineSize	INFN-T1
GGUS:90325 ↗	Strange space values	Now known yet. No reaction from the site	StoRM	GlueSETotalOnlineSize: 51147657 GlueSEUsedOnlineSize: 0 GlueSAStateUsedSpace: 0 GlueSATotalOnlineSize: 1400000	INFN-BARI
GGUS:90328 ↗	Strange space values	Not known yet. Seems to be a bug in StoRM	StoRM	GlueSETotalOnlineSize: 105011 GlueSEUsedOnlineSize: 0	UKI-SOUTHGRID-BRIS-HEP

General Computing

GGUS ticket	Summary	Cause	Affected Service	Affected GLUE Attributes	Affected Site
GGUS:88754 ↗	Empty Value	Not specified but fixed by the site	CREAM PBS	GlueCEPolicyMaxCPUTime: 0 GlueCEPolicyMaxWallClockTime: 0	IN2P3
GGUS:88772 ↗	999999999 Value	Due to GGUS:82902 ↗ . For LSF it will be fixed in EMI 2 Update 8 scheduled for end January 2013	CREAM LSF	GlueCEPolicyMaxCPUTime: 999999999	UK
GGUS:88773 ↗	999999999 Value	Due to GGUS:82902 ↗ . For LSF it will be fixed in EMI 2 Update 8 scheduled for end January 2013	CREAM LSF	GlueCEPolicyMaxCPUTime: 999999999	INFN
GGUS:88781 ↗	999999999 Value	Site manually setting MaxCPUTime=MaxWallClockTime. Fixed after LHCb requested it.	CREAM LSF	GlueCEPolicyMaxCPUTime: 999999999	UK
GGUS:88822 ↗	999999999 Value	Fixed manually but also suffering from GGUS:82902 ↗	CREAM SGE	GlueCEPolicyMaxCPUTime: 999999999	UK
GGUS:89847 ↗	Unexpected value	Not known yet. No reaction from the site.	Unknown	Unknown	RO
GGUS:89857 ↗	999999999 Value	Fixed manually but also suffering from GGUS:82902 ↗	CREAM SGE	GlueCEPolicyMaxCPUTime: 999999999	FZ

Site BDII not published as part of the site

Site	GGUS ticket	Comments
IN-DAE-VECC-02	GGUS:93809 ↗	✓
INDIACMS-TIFR	GGUS:93808 ↗	✓ site BDII now published as part of the site. Stop publishing top BDII as part of the site (in fact publishing CERN top BDII)
NO-NORGRID-T2	GGUS:93810 ↗	✓
praguelcg2	GGUS:93197 ↗	✓ Publishing CERN top level BDII as the site top level BDII
SE-SNIC-T2	GGUS:93835 ↗	✓
T2_Estonia	GGUS:93801 ↗	✓
UKI-LT2-IC-HEP	GGUS:94096 ↗	✓
ru-Moscow-SINP-LCG2	GGUS:99498 ↗	⚠

GLUE2ComputingShareMaxCPUTime

Campaign to fix LHCb sites that are publishing the default 9999999 in the LHCb queues dashboard [↗](#). Note that this is a recurring problem and this is now dynamically tracked in the Monitoring Dashboard [↗](#).

Also note that as requested in GGUS:97721 [↗](#), CREAM developers will implement a change in the info provider to distinguished unlimited from undefined values.

Site	GGUS ticket	Comments
BG01-IPP	GGUS:94621 ↗	✓ OK after fixing configuration error in the batch system configuration
GRISU-UNINA	GGUS:94718 ↗	✓ OK after fixing configuration error. Missing resources_max.cput and resources_default.cput
INFN-T1	-	✓ Published value in BDII is correct: wrong value in the LHCb dashboard is now up to date
INFN-TRIESTE	GGUS:94554 ↗	

		<ul style="list-style-type: none"> ✔ LHCb pointing to wrong queue. The correct queue publishes non default values
RUG-CIT	-	<ul style="list-style-type: none"> ✔ Published value in BDII is correct: wrong value in the LHCb dashboard is now up to date
SARA-MATRIX	GGUS:94619 ↗	<ul style="list-style-type: none"> ✔ No limits. For LHCb limit has been configured as requested: LHCb dashboard was pointing to a queue that was in fact not supported for LHCb
UA-KNU	GGUS:94720 ↗	<ul style="list-style-type: none"> ✔ OK after fixing configuration error. Missing resources_max.cput and resources_default.cput: LHCb dashboard has removed this queue since in fact it is not supported for LHCb
UKI-LT2-IC-HEP	GGUS:95315 ↗	<ul style="list-style-type: none"> ✔ LHCb pointing to the wrong queue. The correct queue publishes non default values
UKI-LT2-QMUL	GGUS:94510 ↗	<ul style="list-style-type: none"> ✔ OK after upgrading to EMI 3
UKI-NORTHGRID-SHEF-HEP	GGUS:94618 ↗	<ul style="list-style-type: none"> ✔ OK after fixing configuration error. Missing resources_max.cput and resources_default.cput
UNI-DORTMUND	GGUS:94717 ↗	<ul style="list-style-type: none"> ✔ Testing CE published as 'Production' used by LHCb. The production CE publishes correct Max CPU times
UNINA-EGEE	GGUS:94719 ↗	<ul style="list-style-type: none"> ✔ OK after fixing configuration error. Missing resources_max.cput and resources_default.cput
RU-SPbSU	GGUS:94620 ↗	<ul style="list-style-type: none"> ✔ OK after fixing configuration error in /etc/lrms/pbs.conf. Hostname was not defined

Operating System information

Campaign to get LHCb sites to publish coherent OS name, version and releases. The relevant GLUE attributes are:

GLUE 1.3	GLUE 2.0
GlueHostOperatingSystemRelease	GLUE2ExecutionEnvironmentOSVersion
GlueHostOperatingSystemName	GLUE2ExecutionEnvironmentOSName
GlueHostOperatingSystemVersion	NA
NA	GLUE2ExecutionEnvironmentOSFamily ↗

For SL, the following `version - release` has to be respected:

- SL 4 series - Beryllium
- SL 5 series - Boron
- SL 6 series - Carbon

The instructions on how to publish OS information has been described by EGI in the HOWTO05 [↗](#) manual.

Site	GGUS ticket	comments
BMEGrid	GGUS:94840 ↗	✔ Fixed wrong OS Name + version
CY-01-KIMON	GGUS:94854 ↗	✔ Fixed inconsistent OS release + Version
GRISU-UNINA	GGUS:94855 ↗	✔ Fixed inconsistent OS release + Version
IFJ-PAN-BG	GGUS:94856 ↗	✔ Fixed inconsistent OS release + Version
INFN-CATANIA	GGUS:94857 ↗	✔ Fixed inconsistent OS release + Version
INFN-FERRARA	GGUS:94841 ↗	✔ Fixed wrong OS Name + version
INFN-NAPOLI-ATLAS	GGUS:94842 ↗ and GGUS:94858 ↗	✔ Wrong OS Name + version and Inconsistent OS release + Version
INSU01-PARIS	GGUS:94859 ↗	⚠ release is wrong
PSNC	GGUS:94860 ↗	✔ Fixed inconsistent OS release + Version

RAL-LCG2	GGUS:94861 ↗	✔ Fixed inconsistent OS release + Version
RO-07-NIPNE	GGUS:94862 ↗	✔ Inconsistent OS release + Version
RO-11-NIPNE	GGUS:94864 ↗	✔ Fixed inconsistent OS release + Version
RO-15-NIPNE	GGUS:94865 ↗	✔ Fixed inconsistent OS release + Version
RU-SPbSU	GGUS:94844 ↗	✔ Wrong OS Name + version
Ru-Troitsk-INR-LCG2	GGUS:94866 ↗	✔ Fixed inconsistent OS release + Version
TECHNION-HEP	GGUS:94867 ↗	✔ Fixed inconsistent OS release + Version
UA-KNU	GGUS:94845 ↗	✔ Fixed wrong OS Name
UKI-LT2-Brunel	GGUS:94868 ↗	✔ Fixed inconsistent OS release + Version
UKI-LT2-QMUL	GGUS:94869 ↗	✔ Fixed inconsistent OS release + Version
UKI-NORTHGRID-LANCS-HEP	GGUS:94870 ↗	✔ Fixed inconsistent OS release + Version
UKI-NORTHGRID-MAN-HEP	GGUS:94871 ↗	✔ Fixed inconsistent OS release + Version
UKI-SCOTGRID-ECDF	GGUS:94873 ↗	✔ Inconsistent OS release + Version
UKI-SOUTHGRID-BHAM-HEP	GGUS:94879 ↗	✔ Fixed wrong OS release
UNINA-EGEE	GGUS:94874 ↗	✔ Fixed inconsistent OS release + Version

Storage Service and Share Capacity

TotalSize <> ReservedSize + FreeSize + UsedSize

Some storage services are publishing storage capacity size attributes in such a way that $TotalSize = ReservedSize + FreeSize + UsedSize$ will never match. The glue-validator has applied the following workarounds taking into account each storage service:

- All: even if some attribute is missing, the calculation is done with the published attributes.
- DPM: `ReservedSize` is always equal to `TotalSize` in space tokens. Therefore, `ReservedSize` is not used in the calculation.
- dCache: For online capacity, the numbers always match although `ReservedSize` is not published. For nearline capacity, `FreeSize` is not published, so it is not possible to make the numbers match (although this number is not published because $Free = Total - Used$).
- StoRM: For online capacity, the numbers always match. There are some issues with nearline capacity. In general, there is no need for any workaround in the StoRM case.

Site	GGUS ticket	comments
pic	GGUS:95668 ↗	✔ dCache. pic confirms numbers > 1 million GB (*) or < 1000 GB are correct.
UKI-SCOTGRID-GLASGOW	GGUS:95816 ↗	✔ DPM. OK after understanding how DPM is calculating numbers
UKI-SCOTGRID-ECDF	GGUS:95817 ↗	✔ DPM. OK after understanding how DPM is calculating numbers
praguelcg2	GGUS:96326 ↗	⚠ DPM: wrong numbers for unreserved space, which is a known DPM issue
INFN-T1	GGUS:95665 ↗	⚠ StoRM. This is a known StoRM issue tracked in GGUS:95666 ↗
RUG-CIT	GGUS:95666 ↗	⚠ StoRM. Values > 1 million GB (*) are correct. Nearline storage seems to be a problem. See GGUS:95666 ↗
TR-03-METU	GGUS:95667 ↗	✔ DPM. Wrong service capacity numbers have been fixed

(*) Note that glue-validator was checking whether the storage capacity was higher than 1 million GB instead of 1 billion GB.

Capacity > 1 billion GB

Site	GGUS ticket	comments
INFN-PISA	GGUS:96486 ↗	❑ incorrect values in the YAIM variable
CSCS-LCG2	GGUS:96489 ↗	❑ Site thought values should be published in bytes instead of GB
UNI-FREIBURG	GGUS:96490 ↗	❑ Fixed value in /etc/dcache/info-provider.xml

444444 waiting jobs

Check the following EGI manual [↗](#) for more details. The table below contains the list of batch system related GLUE attributes that are dynamically modified by the batch system information providers, and whether they are known to be properly calculated and actually updated by the information providers:

Info Provider	GLUE 1 attribute	GLUE 2 attribute
info dynamic scheduler ↗	GlueCEStateTotalJobs	GLUE2ComputingShareTotalJobs
	GlueCEStateRunningJobs	GLUE2ComputingShareRunningJobs
	GlueCEStateWaitingJobs	GLUE2ComputingShareWaitingJobs
	GlueCEStateEstimatedResponseTime	GLUE2ComputingShareEstimatedAverageWaitingTime
	GlueCEStateWorstResponseTime	GLUE2ComputingShareEstimatedWorstWaitingTime
	GlueCEStateFreeJobSlots	GLUE2ComputingShareFreeSlots
	NA	GLUE2ComputingShareUsedSlots
info dynamic LSF ↗	GlueCEPolicyMaxObtainableCPUTime	GLUE2ComputingShareDefaultCPUTime
	GlueCEPolicyMaxCPUTime	GLUE2ComputingShareMaxCPUTime
	GlueCEPolicyMaxObtainableWallClockTime	GLUE2ComputingShareDefaultWallTime
	GlueCEPolicyMaxWallClockTime	GLUE2ComputingShareMaxWallTime
	GlueCEPolicyMaxTotalJobs	GLUE2ComputingShareMaxTotalJobs
	GlueCEPolicyMaxRunningJobs	GLUE2ComputingShareMaxRunningJobs
	GlueCEPolicyMaxWaitingJobs	GLUE2ComputingShareMaxWaitingJobs
	GlueCEPolicyMaxSlotsPerJob	GLUE2ComputingShareMaxSlotsPerJob
	NA	GLUE2ComputingShareMaxMainMemory
NA	GLUE2ComputingShareMaxVirtualMemory	
info dynamic PBS ↗	GlueCEPolicyMaxObtainableCPUTime	GLUE2ComputingShareDefaultCPUTime
	GlueCEPolicyMaxCPUTime	GLUE2ComputingShareMaxCPUTime
	GlueCEPolicyMaxObtainableWallClockTime	GLUE2ComputingShareDefaultWallTime
	GlueCEPolicyMaxWallClockTime	GLUE2ComputingShareMaxWallTime
	GlueCEPolicyMaxTotalJobs	GLUE2ComputingShareMaxTotalJobs
	GlueCEPolicyMaxRunningJobs	GLUE2ComputingShareMaxRunningJobs
	GlueCEPolicyMaxWaitingJobs	GLUE2ComputingShareMaxWaitingJobs
	GlueCEPolicyMaxSlotsPerJob	GLUE2ComputingShareMaxSlotsPerJob
	NA	GLUE2ComputingShareMaxMainMemory
NA	GLUE2ComputingShareMaxVirtualMemory	
info dynamic	GlueCEPolicyMaxObtainableCPUTime	GLUE2ComputingShareDefaultCPUTime
	GlueCEPolicyMaxCPUTime	GLUE2ComputingShareMaxCPUTime

SGE ↗	GlueCEPolicyMaxObtainableWallClockTime	GLUE2ComputingShareDefaultWallTime
	GlueCEPolicyMaxWallClockTime	GLUE2ComputingShareMaxWallTime
	GlueCEPolicyMaxTotalJobs	GLUE2ComputingShareMaxTotalJobs
	GlueCEPolicyMaxRunningJobs	GLUE2ComputingShareMaxRunningJobs
	GlueCEPolicyMaxWaitingJobs	GLUE2ComputingShareMaxWaitingJobs
	GlueCEPolicyMaxSlotsPerJob	GLUE2ComputingShareMaxSlotsPerJob
	NA	GLUE2ComputingShareMaxMainMemory
	NA	GLUE2ComputingShareMaxVirtualMemory

SITE	GGUS ticket	comments
CERN-PROD	GGUS:96529 ↗	✅ Some variables were not published by the LSF info provider. This has been fixed in the code for a future release and directly in the production CEs.
UKI-SCOTGRID-DURHAM	GGUS:96530 ↗	✅ This was a transient error, it's fixed now
UKI-SCOTGRID-GLASGOW	GGUS:96528 ↗	✅ The site was missing the directory where ERT/WRT calculations are stored. This is normally created by YAIM, but for some reason this wasn't created. After manual creation, it published proper values.
UKI-SOUTHGRID-RALPP	GGUS:96531 ↗	✅ lcg-info-dynamic-scheduler-pbs was not installed in the CLUSTER node that was running on a different host than the CREAM CE. CREAM developers will make sure this is properly documented in the CLUSTER installation notes.

Publishing Domain called 'resource'

This problem seems to be related to a bug in a quattor template.

SITE	GGUS ticket	comments
BEgrid-ULB-VUB	GGUS:18121 ↗	✅
BEIJING-LCG2	GGUS:98120 ↗	✅
IN2P3-CPPM	GGUS:98118 ↗	✅
IN2P3-IPNL	GGUS:98116 ↗	✅
IN2P3-IRES	GGUS:98114 ↗	✅
IN2P3-LAPP	GGUS:99359 ↗	✅
IN2P3-LPSC	GGUS:98117 ↗	✅
M3PEC	GGUS:98112 ↗	✅
MSFG-OPEN	GGUS:98113 ↗	✅
OBSPM	GGUS:98111 ↗	✅
RWTH-Aachen	GGUS:98119 ↗	✅
UNIV-LILLE	GGUS:98115 ↗	✅

Site Monitoring

25.11.2013: Follow up of the status of sites with Errors raised by glue-validator validating against the GLUE2 profile.

SITE	GGUS ticket	comments
Australia-ATLAS	GGUS:99115 ↗	✅ Upgraded - E002: +4000 obsolete entries (app env objects)
BEIJING-LCG2	GGUS:99116 ↗	✅ Upgraded - E002: 4 obsolete entries (WMS)

BEgrid-ULB-VUB	GGUS:99117 ↗	▲ Not upgraded but obsolete entries gone - E002: 6 obsolete entries (CREAM)
Belgrid-UCL	GGUS:98995 ↗ GGUS:98996 ↗	<ul style="list-style-type: none"> ✓ Upgraded - E002: 19 obsolete entries (app env objects) ✓ Condor queue. GLUE1 OK but GLUE2 incorrect. Sys admin wrote info provider for GLUE 2 and now correct. E022, E023 and E024: Default values are published. 3 shares affected in the same CREAM CE
CA-ALBERTA-WESTGRID-T2	GGUS:98987 ↗ GGUS:98989 ↗	<ul style="list-style-type: none"> ✓ Upgraded - E002: 901 obsolete entries (app env objects) E022, E023 and E024: Default values are published. 4 shares affected in the same CREAM CE
CA-MCGILL-CLUMEQ-T2	GGUS:99118 ↗	<ul style="list-style-type: none"> ✓ Reconfigured CEs - E022, E023 and E024: Default values are published. 5 shares affected in the same CREAM CE
CA-SCINET-T2	GGUS:99119 ↗ GGUS:98997 ↗	<ul style="list-style-type: none"> E002: +1000 obsolete entries (app env objects) E022, E023 and E024: Default values are published. 3 shares affected in the same CREAM CE
CA-VICTORIA-WESTGRID-T2	GGUS:99121 ↗	<ul style="list-style-type: none"> ✓ Upgraded - E002: +2000 obsolete entries (app env objects)
CSCS-LCG2	GGUS:99129 ↗	<ul style="list-style-type: none"> ▲ Due to ARC validity problem - E002: 38 obsolete entries
CYFRONET-LCG2	GGUS:99135 ↗	<ul style="list-style-type: none"> ✓ VOBOX no longer runs resource BDII. E002: 4 obsolete entries (several services)
FZK-LCG2	GGUS:99136 ↗	<ul style="list-style-type: none"> ✓ Upgraded - E002: 4 obsolete entries
GRIF	GGUS:98990 ↗	<ul style="list-style-type: none"> E002: 168 obsolete entries (objects from several CREAM CEs and RTEs)
IEPSAS-Kosice	GGUS:99137 ↗	<ul style="list-style-type: none"> ✓ Upgraded - E002: +1000 obsolete entries (app env objects)
IFIC-LCG2	GGUS:99138/GGUS:98998 ↗ GGUS:99139/GGUS:98999 ↗	<ul style="list-style-type: none"> ✓ Upgraded - E002: 33 obsolete entries ✓ /var/tmp/info-dynamic-scheduler-generic deleted - E022, E023 and E024: Default values are published. 32 shares affected
IL-TAU-HEP	GGUS:99140 ↗	<ul style="list-style-type: none"> ✓ var/tmp/info-dynamic-scheduler-generic was missing. E022, E023 and E024: Default values are published. 12 shares affected
IN2P3-IRES	GGUS:99141 ↗	<ul style="list-style-type: none"> E002: 10 obsolete entries (several services)
IN2P3-LPC	GGUS:99142 ↗	<ul style="list-style-type: none"> ✓ Upgraded - E002: +1000 obsolete entries (app env objects)
INFN-BARI	GGUS:99143 ↗	<ul style="list-style-type: none"> ✓ Upgraded and decommissioned old CEs - E002: 11 obsolete entries (app env objects)
INFN-CATANIA	GGUS:99144 ↗	<ul style="list-style-type: none"> ✓ Upgraded - E002: 6 obsolete entries (several services)
INFN-CNAF-LHCB	GGUS:99145 ↗ GGUS:99146 ↗	<ul style="list-style-type: none"> ✓ Upgraded - E002: +1000 obsolete entries (app env objects) ✓ CE upgraded - E022, E023 and E024:

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		Default values are published. 6 shares affected
INFN-FRASCATI	GGUS:99147 ↗	✅ Upgraded - E002: +2000 obsolete entries (app env objects)
INFN-MILANO-ATLASC	GGUS:99149 ↗ GGUS:99150 ↗	✅ Upgraded - E002: +300 obsolete entries (app env objects) ✅ A lot of manual config for Condor. Some files needed by info providers were missing - E023 and E024: Default values are published. 10 shares affected
INFN-NAPOLI-ATLAS	GGUS:99151 ↗ GGUS:99152 ↗	✅ Upgraded - E002: +1000 obsolete entries (app env objects) ✅ "ldap" user missing from maui - E022, E023 and E024: Default values are published. 12 shares affected
INFN-PISA	GGUS:99153 ↗	✅ CE upgraded - E022, E023 and E024: Default values are published. 6 shares affected
KR-KISTI-GCRT-01	GGUS:99154 ↗	✅ Upgraded - E002: 3 obsolete entries (site BDII)
KR-KISTI-GSDC-01	GGUS:99155 ↗	✅ Upgraded - E002: 3 obsolete entries (site BDII)
NCP-LCG2	GGUS:99156 ↗	E002: 6 obsolete entries (several services)
NDGF-T1	GGUS:99157 ↗	⚠ Validity is very short for many objects (60s)
NIHAM	GGUS:99158 ↗	✅ Missing lrms_backend_cmd in /etc/lrms/scheduler.conf because in yaim command not all the config targets were specified at once. E023 and E024: Default values are published. 3 shares affected
NIKHEF-ELPROD	GGUS:99159 ↗	✅ Upgraded - E002: +500 obsolete entries (app env objects)
PSNC	GGUS:99160 ↗	✅ Upgraded - E002: 36 obsolete entries (several services)
RAL-LCG2	GGUS:99161 ↗ GGUS:99162 ↗	✅ Upgraded - E002: 15 obsolete entries (several services) ✅ Condor, ARC and CREAM, lots of manual configuration and tuning. E022, E023 and E024: Default values are published. 30-70 shares affected
RO-07-NIPNE	GGUS:99163 ↗	✅ Upgraded - E002: +200 obsolete entries (app env objects)
RRC-KI	GGUS:99164 ↗	✅ Upgraded - E002: +1000 obsolete entries (app env objects)
SFU-LCG2	GGUS:99165 ↗	✅ emi-torque-utils had to be reinstalled. E022, E023 and E024: Default values are published. 4 shares affected
SIGNET	GGUS:99166 ↗ GGUS:99167 ↗	✅ Upgraded - E002: 5 obsolete entries (app env objects) ✅ Obsolete CE - E022, E023 and E024: Default values are published. 2 shares affected
TECHNION-HEP	GGUS:99168 ↗	

		<ul style="list-style-type: none"> ✔ var/tmp/info-dynamic-scheduler-generic was missing. E022, E023 and E024: Default values are published. 12 shares affected
TR-03-METU	GGUS:99169 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: 6 obsolete entries (app env objects)
TR-10-ULAKBIM	GGUS:99170 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: 11 obsolete entries (app env objects)
UB-LCG2	GGUS:99171 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: 2 obsolete entries (app env objects)
UKI-LT2-IC-HEP	GGUS:99172 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: 3 obsolete entries (app env objects)
UKI-LT2-RHUL	GGUS:99173 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: +2000 obsolete entries (app env objects)
UKI-LT2-UCL-HEP	GGUS:99174 ↗ GGUS:99176 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: +900 obsolete entries (app env objects) ✔ Upgraded to SL6 and fixed. E022, E023 and E024: Default values are published. 3 shares affected
UKI-NORTHGRID-LANCS-HEP	GGUS:99177 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: 11 obsolete entries (app env objects)
UKI-NORTHGRID-LIV-HEP	GGUS:99178 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: +4000 obsolete entries (app env objects)
UKI-NORTHGRID-MAN-HEP	GGUS:98994 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: obsolete entries (app env objects)
UKI-SCOTGRID-ECDF	GGUS:99179 ↗ GGUS:99180 ↗	<ul style="list-style-type: none"> ⚠ Old service to be decommissioned E002: +2000 obsolete entries (app env objects) E022, E023 and E024: Default values are published. 13 shares affected
UKI-SOUTHGRID-RALPP	GGUS:100480 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: +1000 obsolete entries (app env objects)
UNIBE-LHEP	GGUS:99182 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: +2000 obsolete entries (app env objects)
ifae	GGUS:99183 ↗	<ul style="list-style-type: none"> ✔ Fixed site configuration. E022, E023 and E024: Default values are published. 18 shares affected
pic	GGUS:99184 ↗	<ul style="list-style-type: none"> ✔ Problem when batch system is also used by non grid users that are unknown to the CE and crashes. E022, E023 and E024: Default values are published. 210 shares affected
praguelcg2	GGUS:99185 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: +1000 obsolete entries (app env objects)
ru-Moscow-FIAN-LCG2	GGUS:99187 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: 3 obsolete entries (several services)
ru-PNPI	GGUS:99188 ↗	<ul style="list-style-type: none"> ✔ Upgraded - E002: 6 obsolete entries (several services)

Storage Share IDs

The following table tracks GGUS tickets opened to LHCb Tier 1 sites who publish many Storage Shares. Sometimes it is difficult to understand what type of storage has been allocated in the share and why so many

shares need to be defined.

Site	GGUS tickets	comments
FZK-LCG2	GGUS:99750 ↗	Storage Share names come from dCache configuration. Explanations from Paul Millar
SARA-MATRIX	GGUS:99809 ↗	✔ Confirmed share names and updated them in the dashboard script
IN2P3-CC	GGUS:99875 ↗	✔ Confirmed share names and updated them in the dashboard script
INFN-T1	GGUS:99888 ↗	✔ Confirmed share names and updated them in the dashboard script
RAL-LCG2	GGUS:99889 ↗	✔ Confirmed share names and updated them in the dashboard script

Missing Mapping Policy objects

The following table tracks GGUS tickets opened to sites who do not publish the mapping policy for computing shares. This doesn't allow to query computing shares allocated for a particular VO, which is something needed to monitor the Max CPU time attribute for the LHCb VO.

Site	GGUS tickets	comments
IN2P3-CPPM	GGUS:100223 ↗	Problem with the quattor configuration
GRIF	GGUS:100222 ↗	Same as above
IN2P3-LAPP	GGUS:100221 ↗	Same as above
IN2P3-CC-T2		

Cleaning SW Tags

The following table tracks GGUS tickets opened to sites whose CEs are preventing VO managers to clean SW tags for their VO.

Site	GGUS tickets	comments
LHCb		
pic	GGUS:101037 ↗	✔ SW tags published in a CE not allocated for LHCb. They are deleted now
UKI-SCOTGRID-ECDF	GGUS:101038 ↗	
BG03-NGCC	GGUS:101039 ↗	✔ No LHCb tags defined in the CE according to the sys admin since the LHCb VO is not supported at the site
ATLAS		
CA-MCGILL-CLUMEQ-T2	GGUS:101041 ↗	✔ SW tags coming from a test CE have been deleted by the site
CYFRONET-LCG2	GGUS:101042 ↗	✔ tags seem to be deleted now by the site
RO-07-NIPNE	GGUS:101043 GGUS:106312	✔ atlas tags are published and CE is accessible for ATLAS. Alessandro could try again to delete the tags ✔ Not sure where tags are published as they are not published by their CE (unless it's tbit01.nipne.ro, but it's refusing Alessandro's attempts). Sys admin deleted the tags.
UKI-LT2-QMUL	GGUS:101044 ↗	✔ site reconfigured the common tags area. Alessandro checked that there were no tags
INFN-ROMA2	GGUS:101049 ↗	✔ Site was in downtime for a long time. Tags could be deleted now
TUDresden-ZIH	GGUS:101150 ↗	✔ SW tags could be eventually deleted
BG03-NGCC	GGUS:106313 ↗	✔ Alessandro has just tried and cannot remove the tags from their CE (ce02.ngcc.acad.bg). The sys admin has deleted the tags
ITEP	GGUS:106314 ↗	

		✔ Cannot remove the tags, get "system error in unlink" even if using uberftp to remove the tag file. Sys admin has deleted the tags
UKI-NORTHGRID-LANCS-HEP CMS	GGUS:106316 ↗	✔ Cannot remove the tags, get "system error in unlink" even if using uberftp to remove the tag file. Sys admin confirmed permissions of the tag area were 'root' instead of 'sgmatlas'. He has now deleted the SW tags
BelGrid-UCL	GGUS:106813 ↗	✔ Tags deleted by the site
INDIACMS-TIFR	GGUS:106814 ↗	✔ Correct role given to Christoph and tags deleted
INFN-PADOVA	GGUS:106815 ↗	✔ Christoph deleted the tags after the site made sure he could do it with the correct role
Kharkov-KIPT-LCG2	GGUS:106816 ↗	✔ Tags deleted by the site
Ru-Troitsk-INR-LCG2	GGUS:106817 ↗	✔ Tags probably deleted by the site
TW-NCUHEP	GGUS:106818 ↗	⚠
UKI-LT2-RHUL	GGUS:106819 ↗	✔ Tags deleted by the site
UKI-NORTHGRID-SHEF-HEP	GGUS:106820 ↗	✔ Tags deleted by the sys admin

T1 Storage Deployment

This table tracks GGUS tickets opened to T1s to be able to publish in the BDII coherent storage types and versions and supported VO's as tracked in the Dashboard [↗](#).

Site	GGUS tickets	comments
CERN	None, contact by mail	⚠ Requested to have a more compact EOS versioning syntax and to remove the "unknown" string from the Castor release
RAL	GGUS:106480 ↗	✔ Requested to publish meaningful version. Fixed the versioning in the dashboard scripts that were not able to parse correctly ":"
BNL-ATLAS	GGUS:106483 ↗	✔ Requested to publish storage version. BNL answered that the Classic SE should not be taken into account. Removed from table.
USCMS-FNAL-WC1	GGUS:106504 ↗	✔ Requested to publish storage version. FNAL confirms Classic SE doesn't need to be taken into account

BDII vs SRM Storage Capacity

ATLAS

This table tracks GGUS tickets opened to ATLAS sites who publish different storage capacity values in the BDII and in SRM. This is monitored in the Dashboard [↗](#). The SRM values are taken from Bourricot [↗](#) and the BDII values are taken using the following queries:

Example for GlueSATotalOnlineSize (the same query is also used for GlueSAFreeOnlineSize, GlueSATotalNearlineSize and GlueSAFreeNearlineSize):

```
ldapsearch -LLL -x -h SITE-BDII:PORT -b mds-vo-name=SITE-NAME,o=grid -o nettimeout=10
' (& (objectClass=GlueSA) (GlueChunkKey=GlueSEUniqueID=SE)
(| (GlueSALocalID=SPACETOKEN) (GlueSALocalID=SPACETOKEN:*) (GlueSALocalID=atlas:SPACETOKEN))) '
GlueSATotalOnlineSize | grep GlueSATotalOnlineSize:
```

The SPACETOKEN names are taken from AGIS [↗](#) looking at each DDM Endpoint.

The following known issues have been identified:

- For dCache sites there are no TAPE space tokens so the comparison script should use BDII online

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attributes instead of BDII nearline attributes (See FZK-LCG2 ticket)

- SRM XML files older than 2 days are not taken into account. This explains the differences detected at many sites. Many tickets have been closed due to this reason since the comparison doesn't make sense if SRM values are obsolete.
- Comparison script is run every day at 23:30 little after the SRM XML files are re-generated. Like this the comparison is done as soon as possible.

Site	GGUS tickets	comments
Australia-ATLAS	GGUS:107916 ↗	✔ XML older than 2 days and SRM reporting 0. Fixed automatically for SRM reporting 0.
BEIJING-LCG2	GGUS:107917 ↗	✔ XML older than 2 days
CA-ALBERTA-WESTGRID-T2	GGUS:107918 ↗	✔ Difference of 4 and 2. Site not serving the ATLAS experiment but ACBR for ATLAS still published in the BDII
CA-SCINET-T2	GGUS:107919 ↗	✔ XML older than 2 days and difference of 2. Fixed automatically when comparison script in sync with SRM values generation. BDII publishes 0 for HOTDISK which is not used any more. Shouldn't it be removed from the BDII then?
CYFRONET-LCG2	GGUS:107920 ↗	✔ XML older than 2 days
DESY-HH	GGUS:107921 ↗	✔ Fixed the comparison script since it was comparing the wrong space token
DESY-ZN	GGUS:107922 ↗	✔ Difference of 3. Fixed automatically when comparison script in sync with SRM values generation.
FZK-LCG2	GGUS:107923 ↗	✔ Wrong BDII attributes were used
GoeGrid	GGUS:107924 ↗	✔ XML older than 2 days
GRIF	GGUS:107925 ↗	✔ XML older than 2 days
IFIC-LCG2	GGUS:107926 ↗	✔ Very different values. Fixed automatically in the next check. Probably due to mismatch in the time SRM and BDII values are taken.
IN2P3-CC	GGUS:107927 ↗	✔ BDII publishes 0. See FZK-LCG2 as it is related to the same issue.
IN2P3-CPPM	GGUS:107928 ↗	✔ Difference of 3. Fixed automatically when comparison script in sync with SRM values generation.
IN2P3-LPC	GGUS:107929 ↗	✔ Very different values. Fixed automatically when comparison script in sync with SRM values generation.
IN2P3-LPSC	GGUS:107930 ↗	✔ XML older than 2 days
INFN-ROMA1	GGUS:107931 ↗	✔ XML older than 2 days
INFN-T1	GGUS:107932 ↗	⚠ Very different values (only in tape. It could be due to the StoRM bug)
NCG-INGRID-PT	GGUS:107933 ↗	✔ XML older than 2 days
NDGF-T1	GGUS:107934 ↗	✔ BDII publishes 0. See FZK-LCG2 as it is related to the same issue.
pic	-	⚠ AGIS points to <code>srmatlas.pic.es</code> instead of <code>srm.pic.es</code> where correct values seem to be published for ATLAS space tokens. To be checked with ATLAS
RAL-LCG2	GGUS:107935 ↗	⚠ Very different values
RRC-KI	GGUS:107936 ↗	✔ Difference of 2. Fixed automatically in the next check. Probably due to mismatch in the time SRM and BDII values are taken.
UKI-SCOTGRID-GLASGOW	GGUS:107973 ↗	✔ Very different values. It has been solved automatically. Probably due to mismatch in the time SRM and BDII

		values are taken.
--	--	-------------------

LHCb

Site	GGUS tickets	comments
CBPF	GGUS:105572	
CERN	-	Different numbers in CASTOR because a small part of the capacity has been put in maintenance. This is somehow reflected on the bdi accounting, but not on the SRM one

This topic: EGEE > GLUEMonitoring

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