



# GLUE 2 Storage Capacity Validation

16<sup>th</sup> May 2014



# Introduction

- ATLAS, CMS and LHCb have expressed some interest in using the storage capacity numbers published by the BDII if they are reliable
- The following slides present ongoing validation activities or possible strategies to prove the validity of BDII storage capacity numbers

# LHCb GLUE 2 storage validation

- BDII numbers are compared to those numbers published in DIRAC
  - DIRAC is using SRM queries

<http://wlcg-mon/dashboard/request.py/siteview#currentView=BDII+vs+SRM+LHCb+Storage>

Site Name	LHCb Total Disk	LHCb Used Disk	LHCb Total Tape	LHCb Used Tape	LHCb Total User Space	LHCb Used User Space
CBPF	OK=>BDII:65==>SRM:42	OK=>BDII:0==>SRM:1	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares
CERN	OK=>BDII:65==>SRM:65	OK=>BDII:50==>SRM:50	OK=>BDII:443==>SRM:443	OK=>BDII:429==>SRM:429	OK=>BDII:261==>SRM:300	OK=>BDII:174==>SRM:184
CERN-EOS	OK=>BDII:3100==>SRM:3100	OK=>BDII:3046==>SRM:3046	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares
CNAF	OK=>BDII:2284==>SRM:2284	OK=>BDII:1442==>SRM:1442	OK=>BDII:1015==>SRM:1015	OK=>BDII:272==>SRM:272	OK=>BDII:121==>SRM:121	OK=>BDII:78==>SRM:78
CSCS	OK=>BDII:110==>SRM:110	OK=>BDII:84==>SRM:84	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares
GRIDKA	OK=>BDII:2050==>SRM:2050	OK=>BDII:1290==>SRM:1290	OK=>BDII:135==>SRM:135	OK=>BDII:2==>SRM:2	OK=>BDII:80==>SRM:80	OK=>BDII:58==>SRM:58
IHEP	OK=>BDII:64==>SRM:64	OK=>BDII:51==>SRM:51	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares
IN2P3	OK=>BDII:1066==>SRM:1066	OK=>BDII:1026==>SRM:1026	OK=>BDII:27==>SRM:27	OK=>BDII:0==>SRM:0	OK=>BDII:87==>SRM:87	OK=>BDII:61==>SRM:61
Manchester	OK=>BDII:300==>SRM:300	OK=>BDII:74==>SRM:74	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares
PIC	OK=>BDII:730==>SRM:730	OK=>BDII:579==>SRM:579	OK=>BDII:12==>SRM:12	OK=>BDII:0==>SRM:0	OK=>BDII:60==>SRM:60	OK=>BDII:43==>SRM:43
RAL	OK=>BDII:199==>SRM:2179	OK=>BDII:149==>SRM:1778	OK=>BDII:2179==>SRM:199	OK=>BDII:1778==>SRM:149	OK=>BDII:199==>SRM:199	OK=>BDII:73==>SRM:73
RAL-HEP	OK=>BDII:455==>SRM:455	OK=>BDII:91==>SRM:91	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares	Missing_LHCb_shares
SARA	OK=>BDII:857==>SRM:857	OK=>BDII:849==>SRM:849	OK=>BDII:33==>SRM:33	OK=>BDII:0==>SRM:0	OK=>BDII:62==>SRM:62	OK=>BDII:51==>SRM:51

# LHCb GLUE 2 storage validation

- T1s and a selected list of T2s provided by Stefan Roiser included
- So far the comparison shows no difference
- We can open automatic tickets to the sites in case there is a mismatch
  - this hasn't happened for T1s since January 2014, T2s added only recently
- What else would LHCb need to trust BDII numbers and consider using them?

# ATLAS GLUE 2 storage validation

- ATLAS already runs a BDII vs SRM validator

[http://bourricot.cern.ch/dq2/accounting/bdii\\_vs\\_srm/](http://bourricot.cern.ch/dq2/accounting/bdii_vs_srm/)

## CERN

SITE	SPACETOKEN	SRM free	BDII free	SRM used	BDII used	SRM total	BDII total	BDII guaranteed	BDII installed
CERN-PROD	DATADISK	416.5	416.3	3783.5	3783.7	4200.0	4200.0	4200.0	4200.0
	DATATAPE	18.5	None	571.7	None	590.2	None	None	None
	EOSDATADISK	7.7	7.7	2.3	2.3	10.0	10.0	10.0	10.0
	EOSSCRATCHDISK	9.8	9.8	0.2	0.2	10.0	10.0	10.0	10.0
	GROUPDISK	113.4	113.4	786.6	786.6	900.0	900.0	900.0	900.0
	HOTDISK	25.5	None	4.5	None	30.0	None	None	None
	LOCALGROUPDISK	34.1	36.5	735.9	733.5	770.0	770.0	770.0	770.0
	MCTAPE	7.3	None	221.6	None	228.9	None	None	None
	SCRATCHDISK	97.7	98.7	152.3	151.3	250.0	250.0	250.0	250.0
	SPECIALDISK	37.7	None	2.3	None	40.0	None	None	None
CERN-PROD-RUCIOTEST	DATADISK	416.5	416.3	3783.5	3783.7	4200.0	4200.0	4200.0	4200.0

# ATLAS GLUE 2 storage validation

- To be checked whether this portal is actually maintained
  - In January 2014 a first attempt to have a look at this with Ale Di Girolamo
    - We discovered some of the sites listed were obsolete
    - This really requires some cleaning before we take it seriously
  - Moreover SRM queries are run every 10min, BDII queries are run once per day
    - It would be good to synchronise this!

# CMS GLUE 2 storage validation

- Started discussions with Nicolo Magini and Andrea Sciaba
- Proposal was to use site pledges published in CMS siteDB and compare them with BDII applying a certain tolerance
  - There are some issues interpreting the pledges
    - In some cases only federation pledges, in some cases pledges expressed in terms of disk, tape and local store
      - Mapping to BDII needs to be understood
- This task needs to be completed

# GLUE 2 storage validation using WLCG Accounting report

- Comparison done in March

<http://wlcg-mon/dashboard/request.py/siteview#currentView=WLCG+Accounting+vs+BDIIrch> 2014

- The idea is to follow up with T0 and T1 to understand better the differences
- Task to be completed

Show 200 entries

Copy Print Save View: WLCG Accounting vs Search...

Site Name	Installed Capacity CPU	WLCG CPU BDII	WLCG CPU REBUS	Total CPU REBUS	Installed Capacity Disk	WLCG Disk BDII	WLCG Disk REBUS	Total Disk REBUS	Installed Capacity Tape	WLCG Tape BDII	WLCG Tape REBUS	Total Tape REBUS
ASGC	36165	44508	22254	44508	4275	3071	515	5536	4000	0	0	3906
BNL	74000	48817856	0.0	74000	11300	41729	23777	10742	10000	0	0	8398
CC-IN2P3	67350	161984	56456	161986	7000	20865	5739	8795	11025	212	131	0
CERN	356000	245298	177868	332144	29100	7733	16386	32541	67400	65223	36329	0
CNAF	88050	144067	92253	211864	10252	10887	6342	14296	15800	5774	4142	7388
FNAL	58000	15533952	0	58000	11000	14741	0	9765	22000	16380	0	21484
KIT	106585	150781	8582	0	11000	14809	6789	9279	14400	45164	28070	45384
KR-KISTI-GSDC	14500	28054	0	28055	990	0	0	0	1040	0	0	0
NDGF	30900	24791	10231	342084	5129	9108	1339	6266	5464	5335	2406	5335
NL-T1	47296	99973	31153	128814	5362	8133	2355	7081	5593	0	0	0
RAL	90246	142397	0.0	96435	9667	9661	4567	10194	12122	10602	5592	11413
TRIUMF	70226	102413	0	104506	6420	10788	0	6330	5300	5190	0	5190
pic	31143	39004	18328	46994	3850	8050	0	0	5887	5977	0	0

Showing 1 to 13 of 13 entries

First Previous 1 Next Last



# Summary

- Finish validation of ATLAS and CMS storage numbers
- Contact T0 and T1 to understand accounting report numbers and differences with BDII
  - Is it due to an info provider issue or a problem in the site configuration?
- Report back in the next meeting