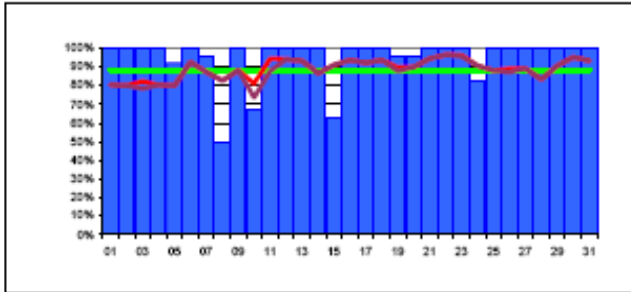




# Reliability Reports – July 2007

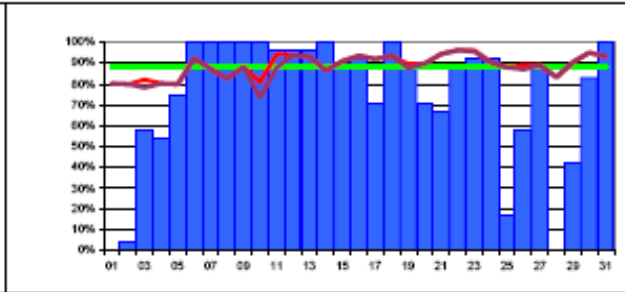
[http://lcg.web.cern.ch/LCG/MB/availability/site\\_reliability.pdf](http://lcg.web.cern.ch/LCG/MB/availability/site_reliability.pdf)

	CERN-PROD	FZK-LCG2	IN2P3-CC	INFN-T1	RAL-LCG2	SARA-MATRIX	TRIUMF-LCG2	Taiwan-LCG2	USCMS-FNAL WC1	PIC	BNL-LCG2
1	100%	0%	100%	83%	100%	100%	100%	0%	100%	100%	100%
2	100%	4%	100%	75%	100%	100%	100%	0%	100%	100%	100%
3	100%	58%	100%	100%	96%	100%	96%	0%	58%	100%	96%
4	100%	54%	100%	88%	100%	100%	100%	0%	58%	88%	96%
5	92%	75%	100%	58%	92%	100%	100%	50%	50%	63%	100%
6	100%	100%	100%	42%	75%	100%	100%	100%	100%	100%	100%
7	96%	100%	100%	0%	100%	100%	100%	100%	100%	100%	63%
8	50%	100%	100%	0%	96%	100%	100%	100%	100%	100%	63%
9	100%	100%	100%	0%	96%	92%	100%	100%	100%	100%	83%
10	67%	100%	88%		100%	21%	100%	92%	100%	100%	42%
11	100%	96%	100%	100%	100%	67%	100%	100%	100%	100%	75%
12	100%	96%	100%	92%	92%	75%	100%	100%	100%	100%	79%
13	100%	96%	100%	100%	100%	96%	88%	100%	75%	100%	71%
14	100%	100%	100%	100%	100%	92%	96%	100%	25%	100%	38%
15	63%	88%	100%	100%	100%	96%	100%	100%	100%	100%	54%
16	100%	92%	100%	96%	100%	96%	100%	100%	100%	100%	46%
17	100%	71%	100%	83%	100%	75%	92%	100%	100%	100%	92%
18	100%	100%	100%	79%	100%	100%	100%	100%	100%	100%	50%
19	96%	88%	96%	96%	100%	96%	96%	100%	100%	96%	21%
20	96%	71%	92%	100%	100%	63%	100%	100%	100%	100%	67%
21	100%	67%	100%	92%	100%	100%	100%	100%	100%	100%	79%
22	100%	88%	100%	88%	100%	96%	92%	100%	100%	100%	96%
23	100%	92%	100%	96%	100%	100%	96%	100%	100%	100%	75%
24	83%	92%	100%	96%	96%	100%	63%	100%	100%	100%	67%
25	100%	17%	100%	100%	100%	100%	88%	100%	100%	100%	63%
26	100%	58%	83%	100%	100%	100%	100%	100%	92%	88%	58%
27	100%	88%	46%	100%	100%	96%	100%	67%	100%	100%	83%
28	100%	0%	54%	100%	100%	100%	100%	71%	100%	100%	92%
29	100%	42%	54%	100%	100%	100%	100%	100%	100%	100%	100%
30	100%	83%	100%	100%	100%	100%	100%	100%	100%	71%	92%
31	100%	100%	100%	100%	100%	100%	88%	100%	100%	67%	71%
lity	95%	75%	94%	82%	98%	92%	97%	83%	92%	96%	75%



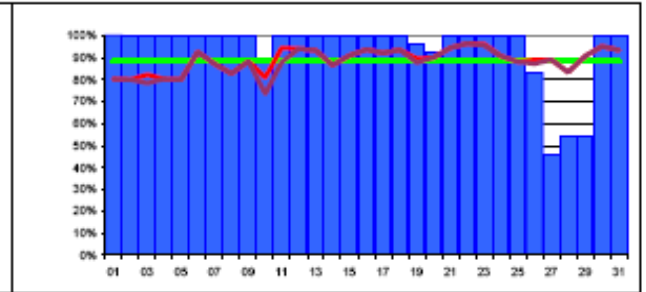
**CERN**

**95%**



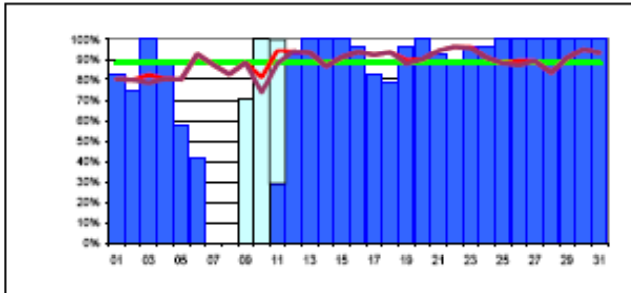
**GridKa/FZK**

**75%**



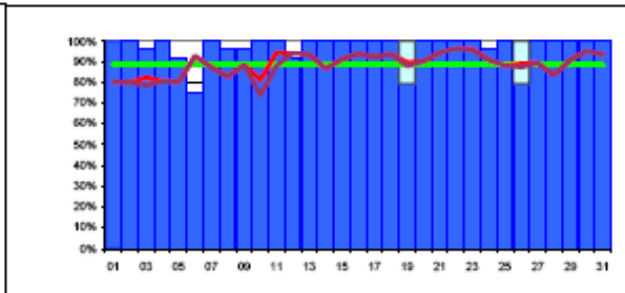
**IN2P3**

**94%**



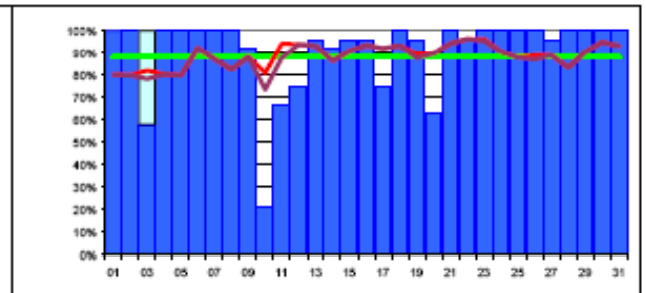
**INFN/CNAF**

**82%**



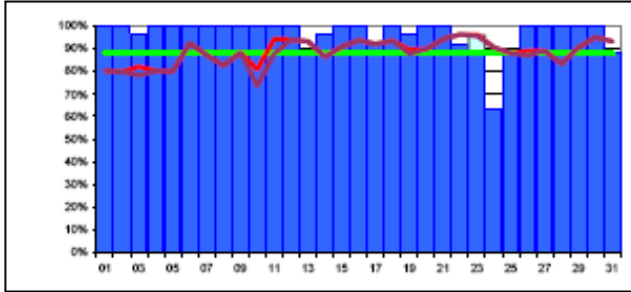
**RAL**

**98%**



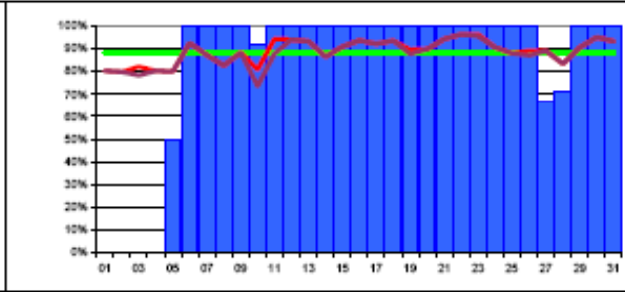
**SARA-NIKHEF**

**92%**



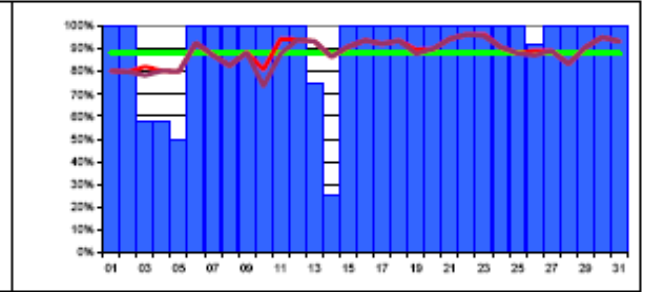
**TRIUMF**

**97%**



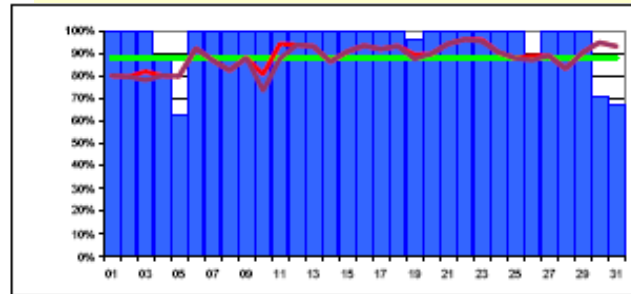
**ASGC**

**83%**



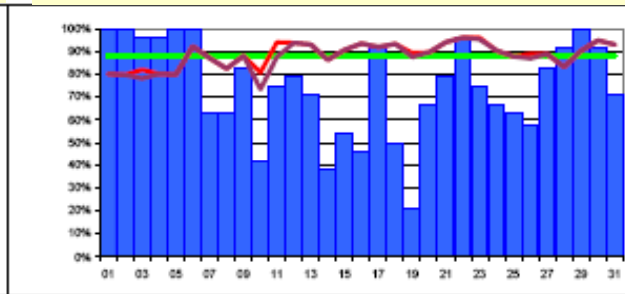
**FNAL**

**92%**



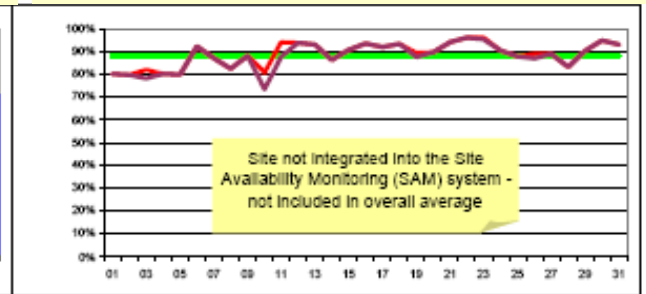
**PIC**

**96%**



**BNL**

**75%**



**NDGF**

**n/a**



# January 07 to July 07

Site	Jan 07	Feb 07	Mar 07	Apr 07	May 07	Jun 07	Jul 07
CERN	99	91	97	96	90	96	95
GridKa/FZK	85	90	75	79	79	48	75
IN2P3	96	74	58	95	94	88	94
INFN/CNAF	75	93	76	93	87	67	82
RAL	80	82	80	87	87	87	98
SARA-NIKHEF	93	83	47	92	99	75	92
TRIUMF	79	88	70	73	95	95	97
ASGC	96	97	95	92	98	80	83
FNAL	84	67	90	85	77	77	92
PIC	86	86	96	95	77	79	96
BNL	90	57*	6*	89	98	94	75
NDGF	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Reliability Target	88	88	88	88	88	91	91
Target + 90% target	5 + 5	6 + 3	4 + 1	7 + 3	6 + 3	3 + 2	7+2

The target of 91% for the best 8 sites not reached

7 Sites > 91% (target)

7+2 Sites > 82% (90% of target)

(in April 7, May 6, June 3)

(in April 7+3, May 6+3, June 3+2)

\* BNL: LCG/gLite CE probed by SAM but not installed with the SL4 upgrade



# Comparison with VO-Specific SAM Tests

## Site Reliability Summary - July 2007

	OPS	ALICE	ATLAS	CMS	LHCb
CERN-PROD	95%	0%	99%	99%	94%
BNL-LCG2	75%		75%		
FZK-LCG2	75%	0%	66%	78%	86%
IN2P3-CC	94%	4%	0%	99%	97%
INFN-T1	85%	8%	94%	20%	100%
NDGF-T1					
RAL-LCG2	99%	85%	100%	99%	93%
SARA-MATRIX	92%	13%	94%	99%	95%
TRIUMF-LCG2	97%		97%		
Taiwan-LCG2	83%	0%	84%	84%	
USCMS-FNAL-WC1	92%			100%	
pic	96%		100%	100%	95%

Description	SITE: Problem → Solution
SRM/MSS/DB	BNL: dCache time out errors → No solution yet (most of the unavailability) BNL: HPSS unstable several time → Restarted HPSS core server CERN: MSS backend used by SAM degraded → Performed database cleanup CNAF: CASTOR stager overload → Restarted CASTOR FZK: SE problems. Unable to mount SE disks → To be done. FZK: dCache gridftp doors problems → Restarted several times PIC: CASTOR time out errors → Changed a server that had problems SARA: dCache pools online when they should not be online → No solution provided SARA: postgres DB problems → Added cronjob to clean the DB TRIUMF: Problems with dCache and directory write permissions → cronjob fixes the ACLs
Other Services	CNAF: LSF farm problems. Master crashed. → Reconfigured and restarted FNAL: Gateway crashed and the backup was badly configured → Reconfigured and restarted FZK: Batch system out of resources → Added memory and disk space
Operational Issues	ASGC: Local Users filled the disk space where pool accounts are → Freed disk space ASGC: Conflict between SE and another PPS sites in GOCDB → SAM team helped BNL: Network latency caused issues with Nagios and HPSS → Upgraded old network hw CERN: BDII Upgrade failed → Upgrade redone CNAF: Wrong FTS upgrade → Upgrade redone PIC: External network problems → Fixed by the network provider PIC: DB backup procedure overloaded the whole SRM service → New solution needed TRIUMF: CE upgrade but errors in the config file → Config file fixed TRIUMF: SRM host certificate obtained but not installed → Certificate procedures need work
Tools, SAM, GOCDB	FNAL: CMS specific SAM tests confirmed availability while OPS were failing.
No Explanations	FZK: Several unexplained down times IN2P3: Few unexplained down times



## Summary – July 2007

- **Average 8 best sites:** Jul 93%      Jun:87%    May 94%    Apr 92%
  - **Average all sites:**      Jul 89%      Jun:80%    May 89%    Apr 89%
  - **Main Issues**
    - Infrastructure and Operational Issues are decreasing
    - SE Issues are still unsolved
    - SAM tests reliability is improved and monitored every month
    - VO-Specific tests confirm the results of the SAM tests
    - Other LCG Services (LSF, DBs, BDII, etc) seem better now
- Understand the problems of the VO-Specific tests  
(ALICE, ATLAS@IN2P3, CMS@CNAF)
- Quarterly Reports will include Site Reliability from 2007Q3