Reliability Reports – May 2007

http://lcg.web.cern.ch/LCG/MB/availability/site_reliability.pdf

SAM - Service Availability Monitoring Data

WLCG Tier-1s + CERN

May 2007   **Colour coding limits:**   *≥TARGET:*   **88%**

Reliability = Availability/Scheduled_Availability (Scheduled_Availability=(1-Scheduled_Down_Time); tests are not run while scheduled down)

*0.000*   *0.88*   *0.88*

CERN-PROD	FZK-LCG2	IN2P3-CC	INFN-T1	RAL-LCG2	SARA-MATRIX	TRIUMF-LCG2	Taiwan-LCG2	USCMS-FNAL-WC1	PIC	BNL-LCG2
100%	100%	100%	100%	100%	100%	96%	100%	96%	100%	92%
100%	92%	100%	96%	100%	100%	96%	96%	63%	100%	96%
100%	88%	92%	67%	100%	100%	100%	100%	0%	100%	96%
100%	92%	100%	100%	92%	100%	75%	100%	0%	100%	100%
96%	100%	100%	100%	100%	100%	100%	100%	0%	33%	100%
100%	96%	100%	100%	100%	100%	92%	96%	0%	0%	100%
100%	92%	100%	100%	100%	100%	75%	100%	0%	63%	96%
88%	96%	100%	100%	100%	100%	96%	100%	0%	96%	100%
83%	96%	79%	100%	100%	100%	88%	100%	83%	96%	100%
100%	92%	88%	83%	83%	100%	67%	100%	92%	100%	100%
100%	92%	96%	42%	71%	100%	100%	100%	92%	96%	100%
100%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%
100%	83%	100%	92%	96%	96%	92%	100%	100%	96%	100%
100%	75%	96%	96%	96%	79%	100%	100%	100%	83%	100%
100%	80%	100%	100%	93%	100%	100%	100%	100%	93%	100%
92%	83%	100%	83%	100%	100%	100%	100%	100%	100%	88%
100%	54%	100%	71%	100%	93%	100%	100%	100%	96%	92%
100%	58%	100%	92%	100%	92%	100%	100%	88%	100%	96%
100%	83%	100%	100%	100%	100%	100%	100%	96%	100%	96%
100%	71%	100%	100%	100%	100%	92%	100%	100%	100%	83%
96%	63%	100%	67%	100%	100%	100%	100%	100%	100%	100%
63%	29%	96%	92%	100%	96%	100%	100%	100%	100%	100%
54%	58%	100%	96%	100%	100%	100%	100%	100%	71%	100%
100%	92%	100%	100%	88%	100%	100%	100%	96%	54%	100%
83%	71%	100%	100%	0%	100%	100%	100%	100%	0%	100%
100%	46%	100%	88%	17%	100%	100%	92%	100%	0%	100%
100%	50%	100%	100%	96%	100%	100%	100%	100%	0%	96%
75%	100%	54%	58%	88%	100%	100%	100%	100%	46%	100%
58%	79%	21%	100%	79%	100%	100%	100%	83%	92%	100%
8%	100%	100%	21%	79%	100%	100%	100%	100%	71%	100%
79%	33%	100%	54%	4%	100%	88%	67%	100%	100%	100%
90%	79%	94%	87%	87%	99%	95%	98%	77%	77%	98%
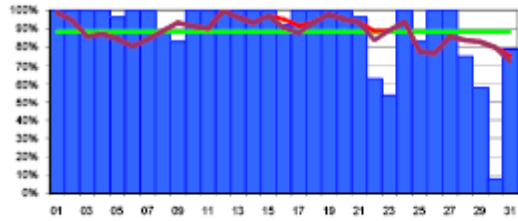
CERN   **90%**
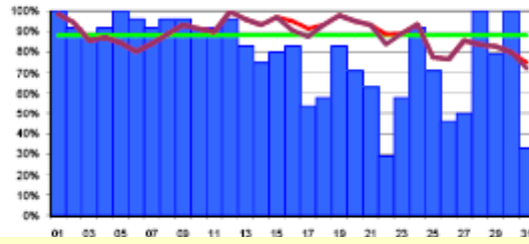
GridKa/FZK   **79%**
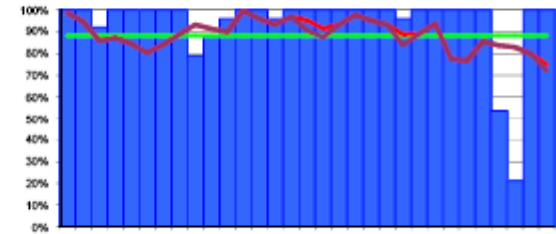
IN2P3   **94%**
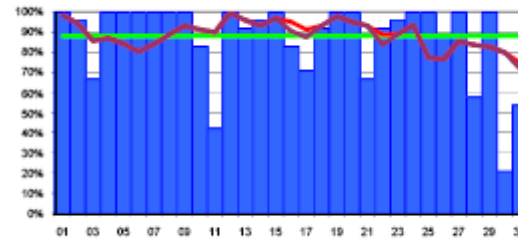
INFN/CNAF   **87%**
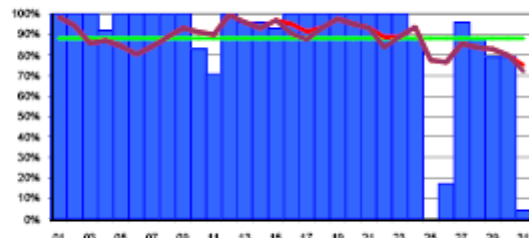
RAL   **87%**
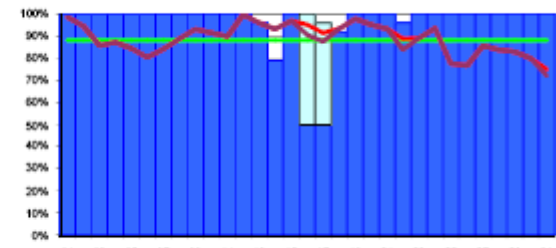
SARA-NIKHEF   **99%**
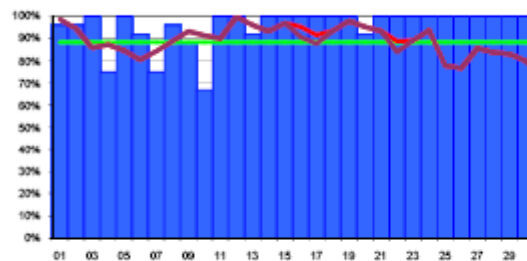
TRIUMF   **95%**
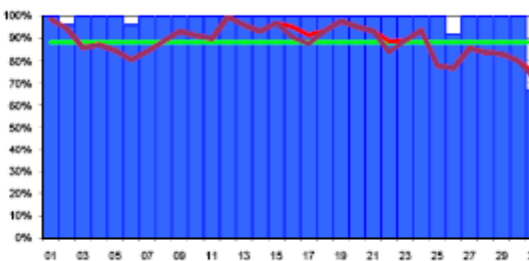
ASGC   **98%**

FNAL   **75%**

PIC   **77%**

BNL   **98%**

Site not integrated into the Site Availability Monitoring (SAM) system - not included in overall average
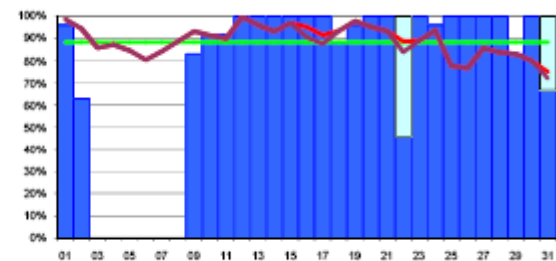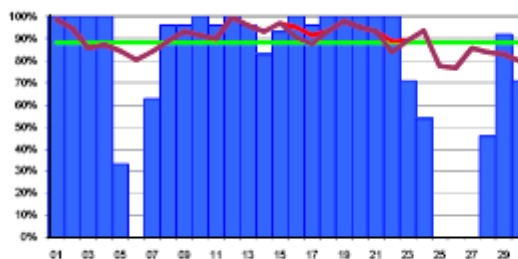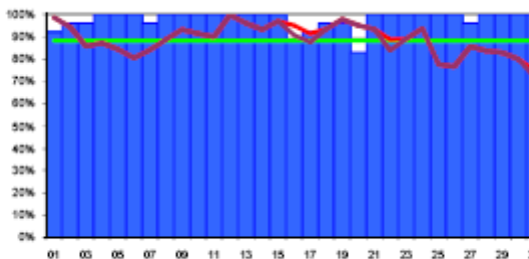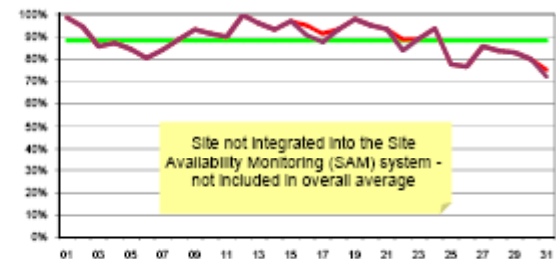
NDGF   **n/a**

Jan 07 to May 07

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

The target of 88% for the best 8 sites not reached

      6 Sites > 88% (target)   **(in April were 7)**

      6+2 Sites > 79% (90% of target)   **(in April were 7+3)**

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

Description	SITE: Problem → Solution
SRM/MSS/DB	**CERN, INFN: CASTOR overload or instabilities** **INFN: SRM servers timeouts** **FZK: SRM instability → SRM restarted** **PIC: Problems with STK robot and with dCache GridFTP doors** **BNL: dCache problems with load balancing and choice of the pools → rebalanced dCache cost model** **BNL: HPPS core server crashed → Restarted HPSS + GridFTP powered off → Restarted GridFTP** **RAL: CASTOR overloaded → dCache as temp SE, then CASTOR could recover** **TRIUMF: SRM blocked port 8443 not listening → restarted SRM** **SARA: Problems with the disks of the Oracle server**
BDII	**FZK: BDII timeouts with CERN and with DNS → Fixed DNS information** **IN2P3: Local Top-level BDII timeouts, re-indexed the database**
CE	**CERN: Problems with LCG-CE stability and scalability → Added 8 new CEs** **FZK: CE locked up for several days, probably overloaded → investigating** **RAL: CE overloaded → no solution yet** **TRIUMF: CE Gatekeeper connection problems → GK restarted** **INFN: CE problems with the LDAP service → Not understood. LDAP restarted**
Operational Issues	**FNAL: Configuration errors in the IS → Fixed the configuration** **FZK: Power cut of the administrative rack + CE locked for several days and sites admin absent** **PIC: Wrong manual CE configuration → Fixed the configuration** **PIC: Wrong patch to the top-level BDII → Introduced correct indexes in top-bdii db** **RAL: /temp full caused SAM to fail** **SARA: Migration of DNS servers caused several reverse lookup failures** **TRIUMF: Grid Canada CRL certificate expired all users and services with GC credentials were stopped because of this.**
SAM	**Several SAM unavailabilities on the 28-31/05 replica-mgmt tests failing** **ASGC: replica-management test fails because of wrong ACL permissions** **IN2P3: Problems with SAM and scheduled downtime not taken into account** **PIC: replica-management tests failed because of bad CloseSE configuration**

Summary – May 2007

- **Only 6 sites > 88%**   **Only 6+2 sites > 79%**
- **Average 8 best sites: 94%**   **Average all sites: 89%**

- **Main Issues are unchanged**
    - **CE overloaded at several sites**
    - **CASTOR overloads**
    - **dCache GridFTP problems**
    - **SAM instabilities may have affected the results of end of May**

- **Continue collecting reliability data at the Operations meeting**
    - **Please pass the message to your representatives at the Operations meeting.**
    - **Every down-time report should always indicate:**
        - **Day:**
        - **Reason:**
        - **Severity:**
        - **Solution:**