

Reliability Reports – Jan 2007

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

SAM - Service Availability Monitoring Data

January 2007

Colour coding limits: \geq TARGET: 88%

90% OF TARGET: 79%

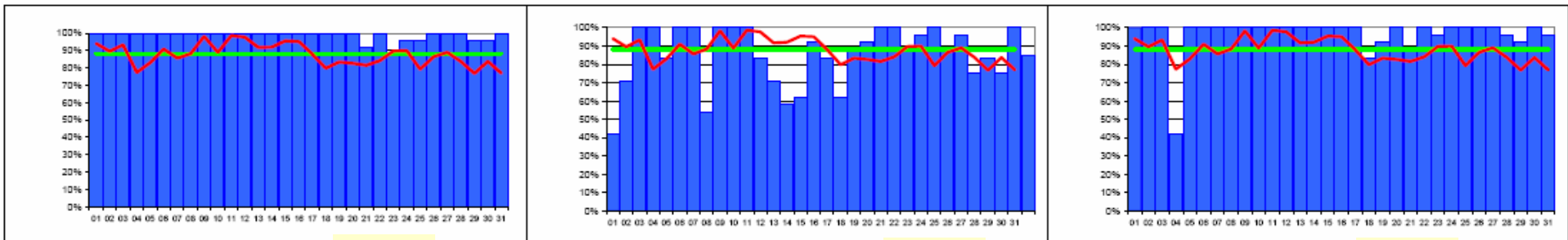
WLCG Tier-1s + CERN

: reliability and availability as agreed in WLCG MB on 11 July 2006 (scheduled interruptions are excluded when calculating reliability)

CERN-PROD	FZK-LCG2	IN2P3-CC	INFN-T1	RAL-LCG2	SARA-MATRIX	TRIUMF-LCG2	Taiwan-LCG2	USCMS-FNAL-WC1	PIC	average availability	target	BNL-LCG2	NDGF
100%	42%	100%	100%	100%	100%	100%	100%	96%	96%	94%	88%	100%	0%
100%	71%	100%	100%	46%	100%	100%	100%	96%	79%	89%	88%	92%	0%
100%	100%	100%	67%	67%	100%	100%	100%	92%	100%	93%	88%	100%	0%
100%	100%	42%	54%	54%	96%	8%	100%	96%	100%	77%	88%	100%	0%
100%	83%	100%	100%	33%	100%	0%	100%	96%	100%	83%	88%	100%	0%
100%	100%	100%	100%	42%	100%	58%	100%	100%	100%	91%	88%	100%	0%
100%	100%	100%	100%	42%	100%	4%	100%	96%	100%	86%	88%	100%	0%
100%	54%	100%	100%	67%	100%	58%	100%	96%	96%	88%	88%	100%	0%
100%	100%	100%	96%	92%	100%	100%	100%	92%	100%	98%	88%	100%	0%
100%	100%	100%	100%	100%	46%	83%	100%	63%	100%	89%	88%	88%	0%
100%	100%	100%	100%	96%	54%	92%	100%	100%	96%	94%	88%	100%	0%
100%	83%	100%	100%	100%	100%	96%	100%	100%	100%	98%	88%	96%	0%
100%	71%	100%	100%	67%	100%	92%	100%	96%	83%	92%	88%	100%	0%
100%	58%	100%	100%	63%	100%	100%	100%	96%	100%	92%	88%	96%	0%
100%	63%	100%	100%	96%	100%	100%	100%	92%	100%	96%	88%	100%	0%
100%	92%	100%	100%	88%	100%	92%	100%	100%	79%	95%	88%	96%	0%
100%	83%	100%	67%	92%	100%	96%	96%	96%	75%	88%	88%	63%	0%
100%	63%	83%	88%	46%	100%	63%	92%	42%	75%	77%	88%	92%	0%
100%	88%	92%	96%	67%	96%	75%	88%	63%	58%	84%	88%	96%	0%
100%	92%	100%	0%	100%	100%	79%	100%	96%	42%	83%	88%	100%	0%
92%	100%	88%	0%	96%	100%	67%	100%	96%	92%	82%	88%	67%	0%
100%	100%	100%	38%	96%	100%	92%	83%	83%	92%	84%	88%	42%	0%
88%	88%	96%	58%	88%	96%	92%	100%	88%	96%	90%	88%	100%	0%
96%	96%	88%	42%	100%	100%	92%	96%	79%	96%	89%	88%	92%	0%
96%	100%	100%	0%	54%	96%	100%	79%	46%	100%	79%	88%	100%	0%
100%	88%	100%	25%	67%	96%	92%	92%	58%	92%	83%	88%	100%	0%
100%	96%	100%	8%	96%	100%	96%	100%	88%	96%	89%	88%	100%	0%
100%	75%	96%	96%	92%	100%	96%	100%	58%	8%	84%	88%	100%	0%
96%	83%	92%	96%	100%	58%	83%	63%	29%	42%	77%	88%	100%	0%
96%	75%	92%	100%	100%	71%	67%	96%	50%	83%	78%	88%	33%	0%
100%	100%	96%	96%	100%	42%	71%	79%	46%	92%	77%	88%	25%	0%
99%	85%	96%	75%	79%	92%	79%	96%	81%	86%	87%	88%	90%	0%

average (all sites) — 87% — target 88%

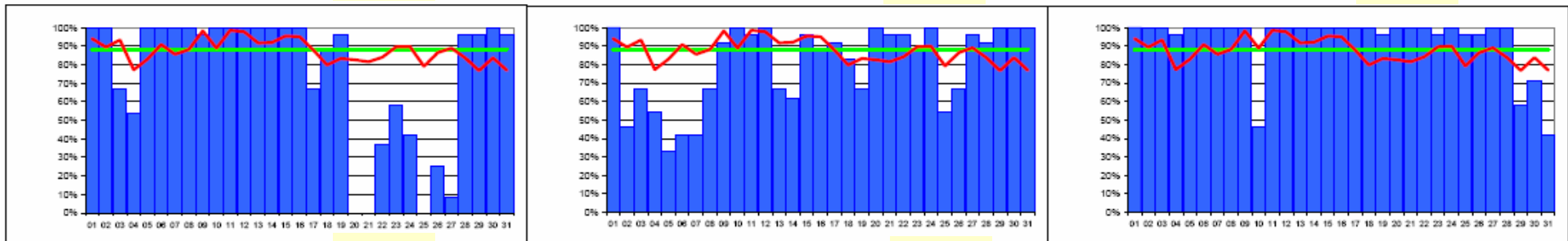
site average colour coding: < 90% of target ≥ 90% of target ≥ target



CERN-PROD average 99% **99%**

FZK-LCG2 average 85% **85%**

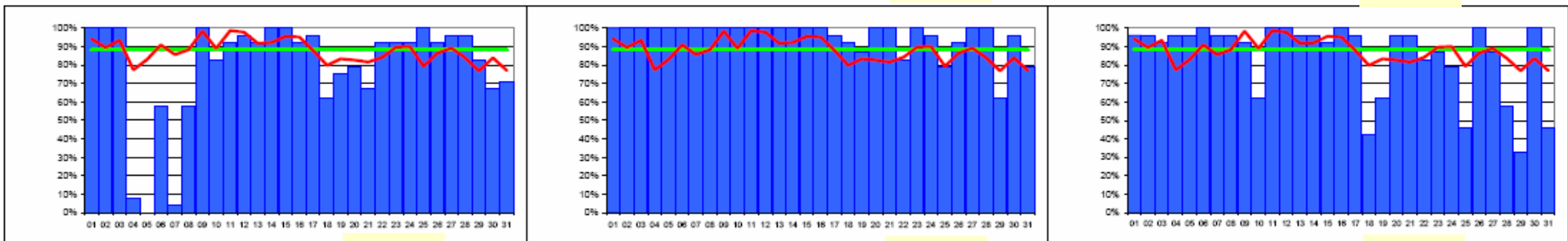
IN2P3-CC average 96% **96%**



INFN-T1 average 75% **75%**

RAL-LCG2 average 80% **80%**

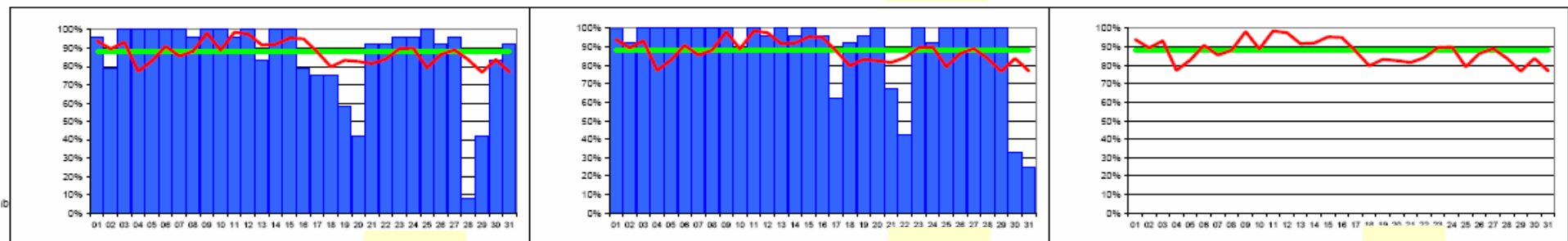
SARA-MATRIX average 93% **93%**



TRIUMF-LCG2 average 79% **79%**

Taiwan-LCG2 average 96% **96%**

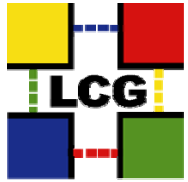
USCMS-FNAL-WC1 average 84% **84%**



PIC average 86% **86%**

BNL average 90% **90%**

NDGF average n/a **n/a**



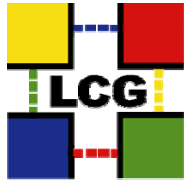
Targets and Site Reports

- **The target of 88% the best 8 sites is getting closer**
 - 5 Sites > 88% (target)
 - 5+4 Sites > 79% (90% of target)
 - Best result ever, but the targets is not that high yet and will be raised to 91% and 93 % in 2007
- **We will start adding them to QR reports**
 - Having a Service we have to increase monitoring and targets and reduce milestones in the QR report.
 - Done once checked the SAM and GridView values
- **Asked all Tier-0 and Tier-1 sites to report on their SAM tests failures**
 - All reports are in the document attached to the agenda
- **Not always clear in the report if the issues is fixed or not fixed**



Summary of Issues and Solutions Reported

Problem Description	Fixed	Not fixed yet
SAM info not found (30 days passed)	IN2P3: but found info elsewhere	NDGF: not reporting SARA: not found SAM results
BDII overload/timeout	TRIUMF: installed their site BDII	FZK: BDII timeout RAL: BDII timeout
MSS	BNL: dCache down for upgrade	RAL, PIC: dCache gridftp doors issues (upgrade 1.7 should fix it) CNAF: CASTOR sporadic failures
Load Problems, increasing hardware	ASGC: Possible BDII and CE overload (manual restart) FNAL: batch and FS scaling problems (gatekeeper replaced)	INFN: LFC dedicated hardware, CASTOR increase pool size PIC: CE overload, add 2 CES
Not understood	BNL: timing certificates and AFS tokens (manual fix for now)	IN2P3: proxy expired + LFC timeout PIC: Possible SAM false positive
Operations Issues (all Fixed)	INFN: CASTOR config issues FZK: dCache config issues RAL: faulty script executed ASGC: endpoint and NFS config, host certificate expired SARA: File system full on SAM tests BNL: FTS info in Globus different than in BDII db	



Conclusions

- **Not outstanding issues if the upgrades planned go well**
 - Individual site BDII seem needed (decided at Operations)
 - dCache Upgrade 1.7 solves gridftp doors issue
 - Hardware improvements helped in many cases
- **Sites reliability and SAM reliability seems to have improved**
 - few false positives or periods without tests
- **Next target is 91%**
- **Future upgrades could have an impact**
 - SL4, gLite 3.1, SRM 2.2, etc

Proposal

- **Check/report the information weekly**
 - Proposal: report to the weekly Operations Meeting (as from JT suggestion) in the weekly report
- **Summary included to the Quarterly Reports**