



WLCG – Worldwide LHC Computing Grid

Grid Operations Procedures and Tools

WLCG Workshop, Prague
March 22nd, 2009

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Aims



- Improve the reliability and availability of sites and services
- Security



Finding problems



- Central monitoring – SAM
 - In the process of moving to Nagios
- Site fabric monitoring
 - Nagios is now provided, with a configuration tool: so no excuses!
- Putting Multi Level Monitoring in place
 - Exchange of monitoring data site level monitoring and “central” level monitoring



Reporting of problems



- If you think it's a grid infrastructure issue, use GGUS (*Global Grid User Support*) - <https://www.ggus.org>
 - **If it isn't in *GGUS*, it isn't a problem!**
(*for grid operations*)
 - Alarm & team tickets
 - Direct routing to sites
 - LHCOPN now covered



Escalation



- This applies to tickets both from sites and VOs
 - *GGUS*
 - You can now escalate your own tickets within GGUS
 - *Daily WLCG operations meeting*
 - Bring it here first. This meeting will decide if it needs to go further
 - *(Grid Deployment Board (GDB))*
 - *(Management Board)*



Downtimes



- All production site or service downtimes *must* be entered into the GOC database (GOCDDB) - <https://goc.gridops.org/downtime>
 - Even transparent interventions!
 - “*But I don’t see why anything should go wrong...*”
 - Called “At Risk” in the GOCDDB
 - Notifications of downtimes are now user defined
 - RSS or e-mail or both
 - Flexible rules to determine which notifications you see
 - https://cic.gridops.org/index.php?section=vo&page=SDnotification_v2



Scheduled vs Unscheduled



- The GOCDDB now does this automatically:
 - Classed as **scheduled** if:
 - Downtime < 4 hrs AND notification > 24 hours before
 - Downtime > 4 hrs AND notification > 1 week
 - All other downtimes will be classed as **unscheduled**
 - And effect availability and reliability accordingly



Site Configuration



- We know a significant fraction of issues arise from site mis-configuration
 - ➔ VO ID cards
(<https://cic.gridops.org/index.php?section=vo&page=idcardupdate>)
- Experiments should try to put all their site config needs in there
 - If it's not possible, let us know



Other site procedures & policies



- Operational Procedure Manual
<https://edms.cern.ch/document/840932>
- Grid Policy on the Handling of Personal Logged Information
<https://edms.cern.ch/document/840299>
- Accounting requirements for sites:
<https://edms.cern.ch/document/726137>



Operational security procedures



- EGEE Incident Response Procedure
<https://edms.cern.ch/document/867454>
- Grid Security Policy <https://edms.cern.ch/document/428008/>
- Grid Acceptable Use Policy <https://edms.cern.ch/document/428036>
- Grid Site Operations Policy <https://edms.cern.ch/document/819783>
- Audit Requirements <https://edms.cern.ch/document/428037>
- Proxy lifetime limits
osct.web.cern.ch/osct/op-notices/proxy-lifetime-02-11-2007.txt
- OSCT approved policies: <http://osct.web.cern.ch/osct/policies.html>
- OSCT procedures:
<https://twiki.cern.ch/twiki/bin/view/LCG/OSCTProcs>