

# Support Tools, Underlying Services, WLCG Operations: status, issues and outlook

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- All the details were given at the previous meeting
  - Only addition is about batch systems
- Here we summarize the areas of improvement and their impact
  - Hint at possible solutions whenever possible
  - The impact shown in the slides is tentative and can be redefined during this meeting!

Impact	Improvement area
5	The whole GGUS stack (web frontend, Remedy system and Oracle DB) should be fail-safe
5	Convince the entities funding GGUS of its sophisticated use by WLCG to ensure sustainability of our development priorities
5	Interfaces among different ticketing systems should become more reliable and consistent (or the number of systems reduced)
5	Consolidate request trackers (Savannah, Trac, JIRA, ...) and provide adequate support

- No critical shortcomings
  - But unavailability of these tools is highly inconvenient
- The main goal should be to reduce inefficiencies due to technical problems in the ticketing systems
  - Inefficiencies can waste time and manpower
- Possible solutions
  - Invest more effort on ticketing systems support?
  - Reduce number of systems?

Impact	Improvement area
5	The CPU benchmarking data should be more accurate
5	Storage accounting and its visualisation must be further developed
5	The messaging infrastructure should be more reliable and its usage extended
1	The Accounting Portal should have a better API and show more users data

- Having accurate accounting data is as important as is difficult
  - Rather correlated with similar issues for information system
- Solutions
  - Run HS06 benchmarks in a regular and automated way?
    - Possibly done also by the experiments themselves?

Impact	Improvement area
5	Provide an easy way to define new service types
5	Provide a reliable way to publish VO-specific service downtime information (in GOCDB or elsewhere)
1	Make broadcasts and downtime notifications more reliable
1	Provide a better integration of GOCDB and OIM through a uniform interface
1	The GOCDB/OIM information should be better kept up to date

- Tools are generally good
- Only minor improvements are needed
  - On reliability
  - User friendness
- Solutions
  - Re-check requirements and implement what is missing?



- Overview
  - Scalable, free and supported batch systems are essential
  - Solutions adopted in WLCG suffer from some limitations
    - Torque/Maui shows scalability limits
    - (S)GE has an uncertain future
    - More performant solutions are expensive
- Areas of improvement
  - Investigate new technologies and provide adequate support
    - SLURM and Condor most promising candidates
    - Site surveys done in EGI, could be done at a WLCG level

Impact	Improvement area
5	Improve the security of the messaging services
5	Improve the scalability of the messaging services
5	Improve the reliability and the availability of the messaging services
5	Improve the stability of the information services
5	Improve the validity of the information
5	Improve the accuracy of the information
5	Provide a long term solution for a scalable and open source batch system

- Messaging services require further development to really become production-quality
  - Normal as they are still relatively new
- The information system should become at the same time more robust and more trustworthy
- Solutions
  - Ensure continuing development is properly funded?
  - Put in place stronger validation tools and procedures?
  - For batch systems, form a WLCG working group to choose the best alternative and ensure support?

Impact	Improvement area
5	Establish a proper channel to reach the T2 sites from experiments
5	Strengthen the WLCG central operations
5	Reduce the need for experiment contact persons while improving the quality of the link between experiments and sites where needed
1	Make better and more consistent use of VO cards to express requirements to sites

- WLCG Operations are effective but manpower-intensive and error prone
- Relations with T2 sites too weak, largely delegated to experiments
- Solutions
  - Have a stronger central WLCG operations team?
  - Intensify communications with T2's?