WLCG critical services update

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Introduction

- WLCG maintains a list of services used by the experiments at the Tier-0, rated by impact and urgency
  - **Impact** is the amount of “damage” made by a service unavailability to operations or to people
  - **Urgency** is the delay after which the full impact is reached
  - Both are rated in a scale from 1 to 10, where each number has a specific meaning
  - Full details at https://twiki.cern.ch/twiki/bin/view/LCG/WLCGCritSvc

Criticality update

- This information is used by the Tier-0 people to understand how important each service is for each experiment and prioritise them accordingly
- The last update was done two years ago and a new update is required before Run2 starts
- Experiments sent their updates and they have been discussed with the Tier-0 in a dedicated meeting
  - Agenda and minutes at http://indico.cern.ch/event/357668/

General remarks

- Experiment services are expected to run behind load-balanced aliases to avoid single points of failure
  - The Tier-0 will provide assistance
  - It will take long to achieve and it should be seen as a long term project
- Configuration management services (Puppet, etc.) will profit from a business continuity plan
- Experiments can raise ALARM tickets when they think it is appropriate independently of urgency/impact ratings
  - No misuse ever happened in the past
- Most IT services are on “best effort” but this was never an issue
- The Tier-0 plans to produce SIRs after each ALARM ticket
  - A “post-mortem” analysis would be conducted in any case

Databases

- Oracle was the only service with piquet support during data taking
- Need to understand if and for what it will be required during Run2
  - Anyway Oracle Piquet support will not start at the beginning of Run2
  - DB-on-demand services have grown from being “nice to have” to being essential to both experiment and Grid services
    - The service is being improved with a new management interface and detailed monitoring
    - A SLA will be written at some point
    - More effort is needed

Common changes

- gLiteWMS and LFC do not exist any more
- Savannah and CVS have been replaced by JIRA, GIT and SVN
- The Agile Infrastructure services are introduced and supersede the old “VO box” service
- The Castor disk-only endpoints have been replaced by EOS
- CVMFS is now critical for everybody
  - The release nodes are implicitly included in the Stratum0 criticality
  - The Stratum1 is not very critical because it exists at other sites as well
- Added Xrootd redirectors for CMS and ATLAS
- Vidyo and Indico have a big impact on people

Other highlights from the experiments

- ALICE
  - GIT and JIRA are used to start new productions
- ATLAS
  - Slightly increased criticality for WLCG network, offline databases, AFS, batch system and EOS
  - Lower importance of BDII
- CMS
  - Lower impact for FTS at CERN, as PhEDEx will be able to automatically switch to other instances
- LHCb
  - The Oracle online DB will be merged with the offline DB
    - It greatly increases the urgency for the Point 8 → Meyrin network and for the offline DB
    - It removes the dependency on Oracle streaming
  - Much lower criticality for AFS
  - Critical dependence on DB-on-demand

Conclusions

- The new version of the WLCG critical services map is almost final
  - Only a few details still need to be clarified
  - The changes are not drastic and are mostly common for all the experiments
- The meeting was very useful to clarify the expectations of the experiments and the Tier-0 on several topics
- For the future
  - Extend to the Tier-1 and the Tier-2, if it is considered useful
  - There are critical services not hosted at CERN