

# Conditions evolution of an experiment in mid-life, without the crisis (in ATLAS)

*Tuesday 10 July 2018 11:00 (15 minutes)*

The ATLAS experiment is approaching mid-life: the long shutdown period (LS2) between LHC Runs 1 and 2 (ending in 2018) and the future collision data-taking of Runs 3 and 4 (starting in 2021). In advance of LS2, we have been assessing the future viability of existing computing infrastructure systems. This will permit changes to be implemented in time for Run 3. In systems with broad impact such as the conditions database, making assessments now is critical as the full chain of operations from online data-taking to offline processing can be considered: evaluating capacity at peak times, looking for bottlenecks, identifying areas of high maintenance, and considering where new technology may serve to do more with less.

We have been considering changes to the ATLAS conditions database related storage and distribution infrastructure based on similar systems of other experiments. We have also examined how new technologies may help and how we might provide more RESTful services to clients. In this presentation, we give an overview of the identified constraints and considerations, and our conclusions for the best way forward: balancing preservation of critical elements of the existing system with the deployment of the new technology in areas where the existing system falls short.

**Authors:** FORMICA, Andrea (Université Paris-Saclay (FR)); GALLAS, Elizabeth (University of Oxford (GB)); ROE, Shaun (CERN); RINALDI, Lorenzo (Universita e INFN, Bologna (IT))

**Presenter:** RINALDI, Lorenzo (Universita e INFN, Bologna (IT))

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