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## Distributed data management on Belle II

*Monday, November 4, 2019 11:30 AM (15 minutes)*

The Belle II experiment started taking physics data in March 2019, with an estimated dataset of order 60 petabytes expected by the end of operations in the mid-2020s. Originally designed as a fully integrated component of the BelleDIRAC production system, the Belle II distributed data management (DDM) software needs to manage data across 70 storage elements worldwide for a collaboration of nearly 1000 physicists. By late 2018, this software required significant performance improvements to meet the requirements of physics data taking and was seriously lacking in automation. Rucio, the DDM solution created by ATLAS, was an obvious alternative but required tight integration with BelleDIRAC and a seamless yet non-trivial migration. This contribution describes the work done on both DDM options, the current status of the software running successfully in production and the problems associated with trying to balance long-term operations cost against short term risk.

### Consider for promotion

Yes

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