



Contribution ID: 66

Type: **Oral**

## Transitioning CMS to Rucio Data Management

*Tuesday 5 November 2019 16:45 (15 minutes)*

Following a thorough review in 2018, the CMS experiment at the CERN LHC decided to adopt Rucio as its new data management system. Rucio is emerging as a community software project and will replace an aging CMS-only system before the start-up of LHC Run 3 in 2021. Rucio was chosen after an evaluation determined that Rucio could meet the technical and scale needs of CMS. The data management system for CMS needs to manage the current data sample (approximately 200 PB of data with 1 PB of transfers per day) and have a development path suitable for LHC Run 4 (2026) data rates, which are expected to be 50 times larger.

This contribution will detail the ongoing CMS adoption process as we replace our legacy system with Rucio, focusing on the challenges of integrating Rucio into an established set of experimental tools and procedures. This will include the migration of metadata, the construction of interfaces to the rest of the CMS computing tools, scale tests, operations, monitoring, and the plan to gradually turn over primary responsibility for the management of data to Rucio. A description of CMS user data management with Rucio will also be provided.

### Consider for promotion

Yes

**Author:** VAANDERING, Eric (Fermi National Accelerator Lab. (US))

**Presenter:** VAANDERING, Eric (Fermi National Accelerator Lab. (US))

**Session Classification:** Track 4 –Data Organisation, Management and Access

**Track Classification:** Track 4 –Data Organisation, Management and Access