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The CMS Condition Database system

The Condition Database plays a key role in the CMS computing infrastructure. The complexity of the detector and the variety of the sub-systems involved are setting tight requirements for handling the Conditions. In the last two years the collaboration has put an effort in the re-design of the Condition Database system, with the aim to improve the scalability and the operability for the data taking starting in 2015. The re-design has focused in simplifying the architecture, using the lessons learned during the operation of the previous data-taking period. In the new system the relational features of the database schema are mainly exploited to handle the metadata (Tag and Interval of Validity), allowing for a limited and controlled set of queries. The bulk condition data (Payloads) are stored as unstructured binary data, allowing the storage in a single table with a common layout for all of the condition data types. In this presentation, we describe the full architecture of the system, including the services implemented for uploading payloads and the tools for browsing the database. Furthermore, the implementation choices for the core software will be discussed.

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