

# Experience with the CMS online DB and prospects for the future

*Monday 6 June 2011 16:00 (30 minutes)*

CMS has chosen to use an online DB located at IP5 both for security reasons and to be able to take data even without GPN connection.

The online DB (OMDS) is accessed by various applications for data acquisition configuration (through OCI libraries via TStore), detector slow control (via PVSS) and monitoring via java or c++ libraries.

It also contains offline conditions data which are needed for high level trigger system which is running a simplified version of the event reconstruction program on a cluster of few hundreds of machines.

A caching system based on Frontier allows to reduce the load on the DB for this application similarly to what is used in the offline DB.

A web based monitoring allows to display the run list and most of the monitoring information. This tool makes use of caches in order to reduce the load on the DB.

Many other applications rely on the DB: storage manager, elog, access control packages.

Streaming is used to duplicate data for analysis access via lxplus for the detector experts.

So far the OMDS has collected about 1.5 TB of data per year.

Heavy use of the query optimization through appropriate indexes and partitioning is used in the largest accounts.

Partitioning will allow archiving of old data if space limitation or performance become an issue.

The experience with the online DB during 2010 data-taking is discussed and prospects for the future.

## Proposed speaker

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