

Improving testing procedures for prompt data processing at CMS

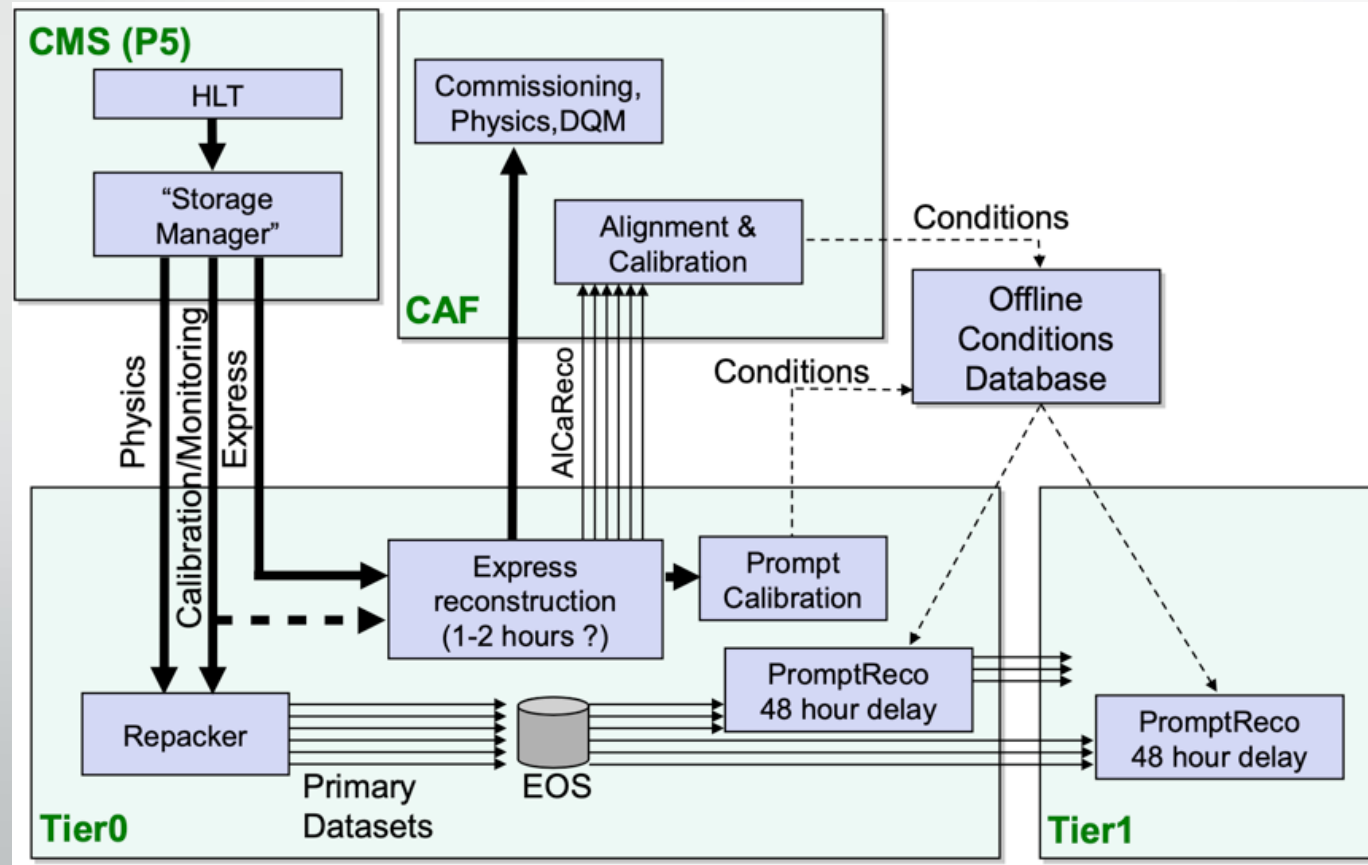
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Tier-0 responsibilities

- workflow configuration
- output data placement
- prompt reconstruction of the data
- bookkeeping for the most sensitive data in the CMS Experiment

Data flow scheme



Current State

- Python syntax tests
- To Replay
- Some outdated unit tests (not currently in use)

Current State

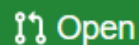
Test	Executing time	Errors that it can find
Python syntax tests	Very quickly (in minutes)	Syntax errors
Gap		
Replay	Much time (many hours)	All types of errors

Goal

Test	Executing time	Errors that can be found
Python syntax tests	Very quickly (in minutes)	Syntax errors
Unit tests	Pretty quickly (in minutes)	Unit errors (wrong initialization, logic error, etc)
Small functional test	Much time (hour or some)	Many types of big scale errors
Replay	Much time (many hours)	All types of errors

First changes

Replay Request to test limitation on lumisections #4850



ItyTell wants to merge 3 commits into `dmwm:master` from `ItyTell:master`

```
41 + setInjectLimit(tier0Config, 10)
```

```
42 +
```

```
27 + | | | --> InjectLimit - Maximum number of lumis to be injected into the system
```

```
28 + | | | | from the SM database (default is unlimited) (used for small functional test)
```

```
55 +         if injectLimit:
```

```
56 +             sql += " AND CMS_STOMGR.FILE_TRANSFER_STATUS.LS < {injectLimit}".format(injectLimit = injectLimit)
```