

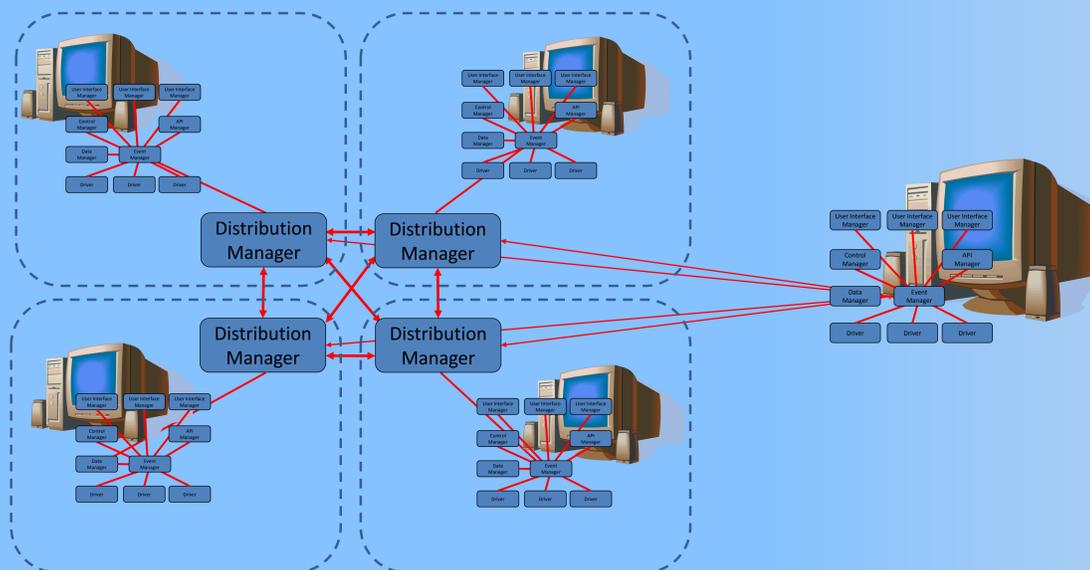
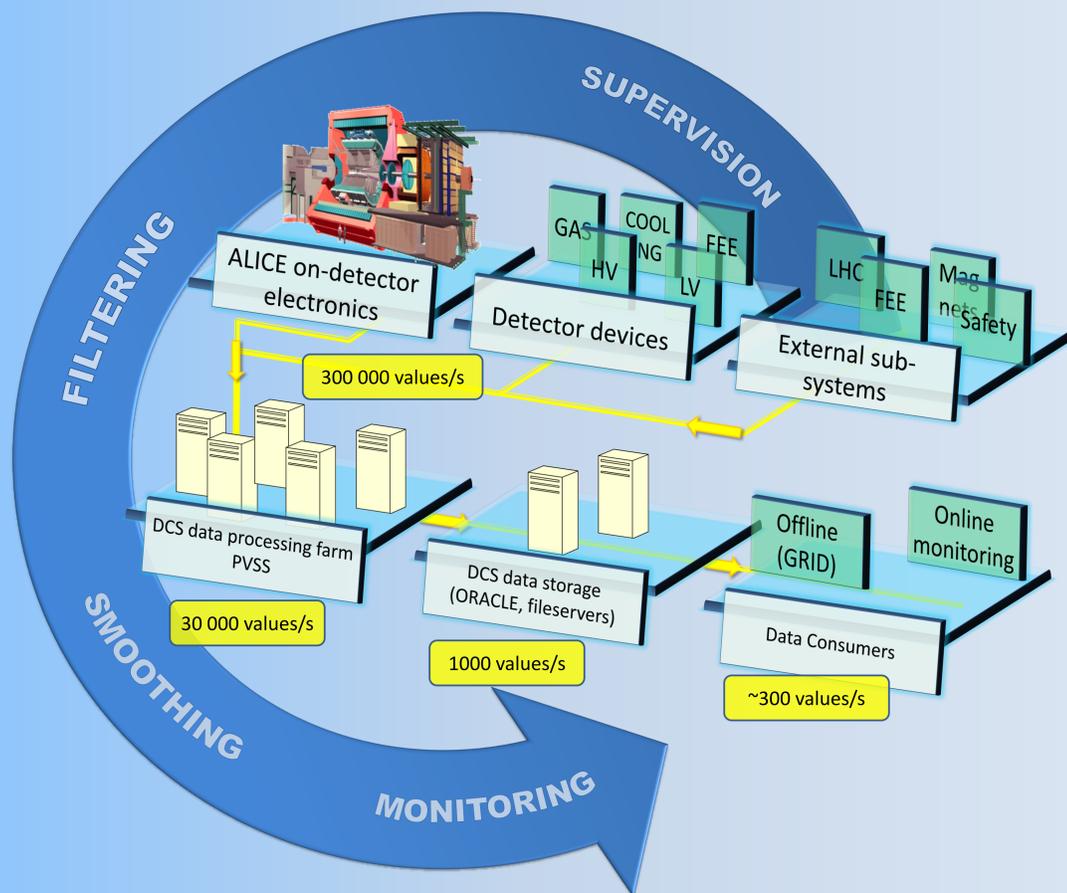
Managing information flows in ALICE

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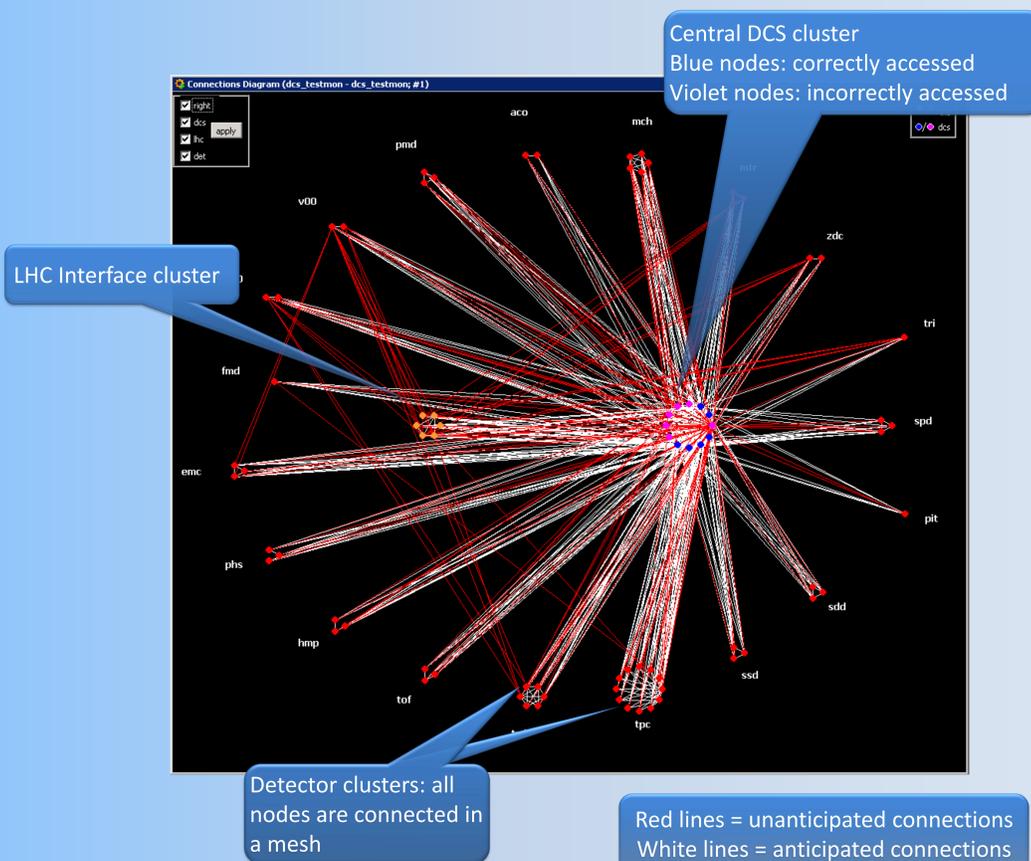
The ALICE DCS is the central collector for information from the detectors, as well as for data of general interest, like environmental data, the LHC beams data, technical services, radiation and magnetic field sensors.

Supervision : 1,000,000 parameters → 300,000 values/s
 Filtering : 300,000 values/s → 30,000 values/s
 Smoothing : 30,000 values/s → 1,000 values/s
 Online monitor : 1,000 values/s → 300 values/s



The ALICE DCS has been designed as a distributed system: each detector is a complete control system itself, built on several meshed or independent nodes. All the detectors nodes connect to the central servers; in this way, the central DCS can provide global data, keep the system synchronized and monitor possible interdependencies.

A PVSS tool has been developed to map and monitor the data flows between central systems and detectors, and between the detectors themselves. The aim is not only to prevent or block unauthorized connections, but mainly to understand the needs of the different users and the best way to provide them the data they need. It is able to compare a list of authorized connections with the actual connections, via simple control scripts. The authorization list can be maintained and updated from PVSS directly. An interactive graphical representation helps to assess the degree of interdependence between the systems and the optimal layout of the distributed connections.



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