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Sustainable Cooling Solutions : A Case Study of the LHCb Datacenter

Friday 19 July 2024 09:15 (15 minutes)

With the LHCb experiment upgraded at CERN to handle 14 TeV proton-proton collisions, demand for data processing surged, requiring a redesigned acquisition chain. The LHCb Datacenter, powered by 3MW, 4000 nodes, and 200 Data Acquisition machines, is pivotal. This paper explores sustainability and performance optimization in the Datacenter, emphasizing eco-friendly cooling solutions like freecooling, minimizing energy use and costs. Additionally, we examine how liquid cooling can further reduce environmental impact by reusing waste heat for heating nearby areas, enhancing overall sustainability and energy efficiency.

Alternate track

I read the instructions above

Yes

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