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Evaluate data lake design for the accelerator control system

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Increasing precision in automation for modern particle accelerators not only creates a requirement to gather data from all devices but also demands scalable and high-performance data infrastructure with the capability of handling vast incoming device data. A well architected data lake is suitable for such a system which integrates real-time data acquisition, transient data caching, and long-term storage. This paper evaluates data lake architecture for an Accelerator Control System (ACS), focusing on two critical components of a data lake, data cache and long-term storage.

Footnotes

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