

Towards Real-World Applications of ServiceX, an Analysis Data Transformation System

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One of the biggest challenges in the High-Luminosity LHC (HL- LHC) era will be the significantly increased data size to be recorded and analyzed from the collisions at the ATLAS and CMS experiments. ServiceX is a software R&D project in the area of Data Organization, Management and Access of the IRIS- HEP to investigate new computational models for the HL- LHC era. ServiceX is an experiment-agnostic service to enable on-demand data delivery specifically tailored for nearly-interactive vectorized analyses. It is capable of retrieving data from grid sites, on-the-fly data transformation, and delivering user-selected data in a variety of different formats. New features will be presented that make the service ready for public use. An ongoing effort to integrate ServiceX with a popular statistical analysis framework in ATLAS will be described with an emphasis of a practical implementation of ServiceX into the physics analysis pipeline.

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