Contribution ID: **35** Type: **not specified**

Operating the 200 Gbps IRIS-HEP Demonstrator for ATLAS

Monday 4 November 2024 14:10 (30 minutes)

The ATLAS experiment is currently developing multiple analysis frameworks which leverage the Python data science ecosystem. We describe the setup and operation of the infrastructure necessary to support demonstrations of these frameworks. One such demonstrator aims to process the compact ATLAS data format PHYSLITE at rates exceeding 200 Gbps. Integral to this study was the analysis of network traffic and bottlenecks, worker node scheduling, disk configurations, and the performance of an S3 object store. The demonstration's performance was measured as the number of processing cores used by the demonstration tests scaled to over 2,000 and as the volume of data accessed in an interactive session approached 200 TB. The presentation will go over the findings and future updates related to the physical infrastructure that supports these demonstrators and what improvements to infrastructure will be made to be better prepared for the future.

Desired slot length

15 minutes

Speaker release

Yes

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