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Event Streaming Service for ATLAS Event Processing

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The ATLAS Event Streaming Service (ESS) is an approach to preprocess and deliver data for Event Service (ES) that has implemented a fine-grained approach for ATLAS event processing. The ESS allows one to asynchronously deliver only the input events required by ES processing, with the aim to decrease data traffic over WAN and improve overall data processing throughput. A prototype of ESS is developed to deliver streaming events to fine-grained ES jobs. Based on it, an Intelligent Data Delivery Service (IDDS) is under development to separate the "cold format" and the processing format of the data, which opens the opportunity to include the production systems of other HEP experiments.

Here we will present the ESS architecture, features and capabilities, and its applications for the ATLAS Event Service. We will also describe the motivations for IDDS system and its advantages.

Consider for promotion

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