

Online & Offline Storage and Processing for the upcoming European XFEL Experiments

Tuesday, October 11, 2016 11:00 AM (15 minutes)

For the upcoming experiments at the European XFEL light source facility, a new online and offline data processing and storage infrastructure is currently being built and verified. Based on the experience of the system being developed for the Petra III light source at DESY, presented at the last CHEP conference, we further develop the system to cope with the much higher volumes and rates (~50GB/sec) together with a more complex data analysis and infrastructure conditions (i.e. long range InfiniBand connections). This work will be carried out in collaboration of DESY/IT, European XFEL and technology support from IBM/Research.

This presentation will shortly wrap up the experience of ~1 year runtime of the PetraIII system, continue with a short description of the challenges for the European XFEL experiments and the main section, showing the proposed system for online and offline with initial result from real implementation (HW & SW). This will cover the selected cluster filesystem GPFS including Quality of Service (QOS), extensive use of Flash subsystems and other new and unique features this architecture will benefit from.

Tertiary Keyword (Optional)

High performance computing

Primary Keyword (Mandatory)

Storage systems

Secondary Keyword (Optional)

Computing facilities

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Session Classification: Track 4: Data Handling

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