

The Design and Progress of the Network and Computing System for HEPS

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High Energy Photon Source(HEPS) will produce huge amount of data. Efficiently storing, analyzing, and sharing this huge amount of data presents a significant challenge for HEPS.

HEPS Computing and Communication System(HEPSCC), has designed and established a network and computing system. A dedicated machine room and high speed network have been ready for production. A computing architecture is designed in three types, including Openstack, Kubernetes, and Slurm. Additionally, HEPSCC developed two software for the data management and analysis, DOMAS and Daisy. DOMAS is aimed for automating the organization, transfer, storage, distribution and sharing of the scientific data for HEPS experiments. Daisy is a data analysis software framework with a highly modular C++/Python architecture. Some data analysis algorithms have been integrated into Daisy successfully most of which were validated at the beamlines of BSRF (Beijing Synchrotron Radiation Facility) for the real-time data processing.

Alternate track

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Yes

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