HEPiX Spring 2016 Workshop



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Using Docker container virtualization in DESY HPC environment

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Docker container virtualization provides an efficient and, after recent implementation of user namespaces, secure application portability across various environments and operating systems. An application inside a Docker container is packaged with all of its dependencies, has low overhead, can run on any infrastructure, whether it is a single machine, a cluster or a cloud. Container-based applications in high performance computing environment are not fully recognized yet and there is no native solution available.

The present talk describes implementation of container virtualization within DESY HPC cluster, including security issues, high-performance networking and I/O, integration with a resource management system.

Length of presentation (minutes, max. 20)

15

Author: YAKUBOV, Sergey (DESY)

Co-authors: SCHLUENZEN, Frank (DESY); STERNBERGER, Sven (DESY); KEMP, Yves (DESY)

Presenter: YAKUBOV, Sergey (DESY)

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