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High-Performance Serverless for HPC and Clouds



Serverless Functions & High Performance: Challenges, Restrictions, Opportunities



How does serverless performance look like? Can we measure it?



Can we make serverless invocations fast?



Can functions communicate efficiently in FaaS?



How can functions improve the efficiency of HPC systems?





How to make the programming model more efficient?

SeBS, the Serverless Benchmark Suite Understanding FaaS performance with a representative and standardized benchmark suite. Functions Platforms Languages







Building Serverless Services with FaaSKeeper.

Path from server-centric deployment to FaaS on the example of a complex service: ZooKeeper.



Serverless process: introducing new abstraction to improve data locality and integration.





Compute and storage coupled in a server. Persistent allocations. → Difficult scaling. Serverless

Disaggregated compute and storage. Flexible resource allocation. Scale down to zero. Larger VM allocations spcl/FaaSKeeper durability.

Paper preprint.





Denver, CO i am hpc

Software, documentation, datasets.

Entzürich