Integration of Cloud and Grid Middleware at D-Grid Resource Centre Ruhr

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Starting in 2007 commercial providers introduced Cloud Computing as new technology. Like Grid Computing, this technology enables users to utilize remote resources and services, not only but also for submitting jobs or storing data.

In direct comparison to current Grid middlewares, Cloud middlewares already incorporate virtualization of network, storage, and compute resources in their software stack.

For evaluation of Cloud Computing and the integration into the D-Grid software stack, the D-Grid Resource Center Ruhr, a D-Grid and LCG site with about 2,000 cores and 100 TByte storage, has been transformed into an OpenNebula Cloud.

The paper will on the one hand present experiences made and on the other hand identify missing elements for the integration with D-Grid.