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## Deploying an IPv6-enabled grid testbed at GridKa

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GridKa, the German WLCG Tier-1 site hosted by Steinbuch Centre for Computing at Karlsruhe Institute of Technology, is a collaboration partner in the HEPiX-IPv6 testbed. A special IPv6-enabled gridftp server has been installed previously. In 2013, the IPv6 efforts will be increased. Already the installation of a new Mini-Grid site has been started. This Mini-Grid installation is planned as a dual-stack IPv4/IPv6 environment and will contain the current services of GridKa. Mainly the following EMI services BDII, Cream-CE, WorkerNode, dCache, xrootd as well as a Grid Engine job scheduler will be deployed. The Mini-Grid setup has initially been started with IPv4 only. Hence the IPv6 readiness of each service is to be evaluated.

There are several other initiatives analyzing the IPv6 readiness of WLCG software. There is EMI evaluating the middleware, the HEPiX-IPv6 working group evaluating the readiness of transport protocols, EGI IPv6 working group evaluating non-WLCG Grid middleware (e.g. unicore). Our testbed is meant to offer an installation basis for the initiatives in the Grid framework and enable them to use it with as little effort as possible.

The paper shows the setup of the IPv6 testbed in detail. It illustrates the IPv6 readiness of the different application and the services offered as well. It also highlights the problems that occurred during the deployment of the testbed and how these obstacles were overcome by thorough investigation and evaluation of all included programs.

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