

BalticCloud: Leveraging Existing Grid Infrastructure with Cloud Virtualization.

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BalticGrid is a regional EU funded Grid project spanning Baltic states (Estonia, Latvia, Lithuania) and Belarus. The BalticGrid successfully provides computational and storage resources to the academical users of the region using solution built upon gLite middleware stack. As today there is a list of issues with the current service, issues that we propose to resolve using cloud technologies:

- * Suboptimal hardware resource usage - very often grid jobs request much fewer resources than the hardware they are running on provide
- * Security of the cluster/grid jobs - shared linux instance based work model allows for various attacks
- * Grid computational model is not suitable for OLTP applications, e.g. distributed databases
- * Difficulties collaborating with SMEs - gLite interfaces are often too complicated for the companies to use

Experiences from a proof-of-concept solution based on cluster resource virtualisation using Eucalyptus open-source cloud software infrastructure, the BalticCloud, will be presented.