

## **Grids and Clouds Integration and Interoperability: an overview**

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Are grids and clouds different solutions to the same problems? Or are they simply different aspects of the same solution? Or maybe different solutions to different problems? Are they independent or complementary? Can they and should they be used together or is one a replacement for the other? Starting from the most accepted definitions of grids and clouds, this presentation describes the main differences and commonalities between the two models and the typical scenarios where grids and clouds can be used together or even merged into a common set of technologies and services. The talk gives an overview of the work being done in various contexts to make grids and clouds interoperable or integrable. Technological and operational aspects like virtualization, security, dynamic provisioning and standardization are briefly assessed. Finally the current work and future directions on cloud and grid integration explored by a number of projects like EGI, EMI and StratusLab in the context of European Research Infrastructures are introduced.