Object Migration Pattern: Towards Stateful Web Services in Grid Environments*

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Abstract. *There is a real demand to migrate existing software architectures and business process implementations towards modern Service Oriented Architectures. In practice, however, Web Services are the most used technology for implementations of such Service Oriented Architectures. Recently, developments in this area are often combined with the advantages of Grid computing through the use of Open Grid Services Architecture concepts. This leads to stateful Web Services that are quite similar to stateful objects in Object Oriented Systems. In this paper, we formalize details of an Object Migration Pattern that provides aspects on how an existing Object Oriented System can be migrated through the use of Open Grid Services Architecture concepts to a completely heterogenous and distributed system that characterize modern Grids. This pattern lays the foundation to provide advanced tooling for the recently proposed Web Service Resource Framework and thus allows an effective use of Grid resources such as supercomputers or clusters via dedicated services.*

* This work is partially funded by the UniGrids project under EC grant IST-2002-004279, duration: July 2004 - June 2006.