

# Agent Based Services for Negotiation, Monitoring and Reconfiguration of Cloud Resources

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**Abstract.** When interoperability and portability of applications across heterogeneous Clouds are supported, autonomous services, which can automatically manage discovery, negotiation and monitoring of Cloud resources, represent an added value for users within the sky computing paradigm. We present the design and the prototype implementation of an Agency that can access the computing utility market of Cloud computing, on behalf of the user, to maintain always the best resources configuration that satisfies the application requirements. This system is being designed and developed within the research activities of the FP7 mOSAIC project. It is in charge to provision the collection of Cloud resources, from different providers, that continuously meets the requirements of users applications. According to the available offers, it generates a service-level agreement that represents the result of resource negotiation and booking with available providers. The user is able to delegate to the Agency the monitoring of resource utilization, the necessary checks of the agreement fulfillment and eventually re-negotiations.