Software Agents as Resource Brokers in Grid

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1 Abstract

It is a widely held belief that software agents will become the next revolution in information technology. One of the areas where they are expected to play an important role is the Grid. Claims to this effect, as well as research results can be found in work of B. diMartino, O. Rana, B. Prasad and others. In our work we have taken a different approach to these researchers and proposed that agent teams should be utilized for resource brokering and management. In this way, software agents become the "brain" for the Grid "brawn." The aim of the presentation will be to outline the assumptions underlying our work, introduce our system and discuss how agents representing users interact with the agent teams, and how the high-level intelligent infrastructure can utilize the actual Grid middleware to execute a job. Current state of the project will be illustrated through a live system demonstration.