Abstract

of attestation master's degree work

subject:

« Ontology-based Resource Matching in the Grid»

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The purpose of work

The aim of this paper is to study approaches to the selection of grid - the resources to analyze the features of ontologies to describe resources and user requests in grid systems, a comparative analysis of various models of resource planning.

Urgency of spent researches

The topic under consideration is undeniable urgency, because the Grid - Grid technology and global network are replaced by the already familiar with the Internet, its web-services as a means to a compatible use of computing power and storage. Scope of the technology is not limited to the Grid to solve complex scientific and engineering problems. Development of Grid gets into industry and business, claiming to be the universal infrastructure for data processing, which operates many services that not only allow us to solve specific application problems, but also offer services to find the necessary resources, gathering information about the status of resources, storage and data delivery. In this paper, and an analysis of the choice of grid resources based on existing works by contemporary scholars and researchers to provide an objective evaluation of these methods is useful for the future use of Grid resources in the Grid infrastructure as a whole.

Tasks solved in work

Reviewed the work is conceptual information about the existing selection methods of Grid resources done research work in this field, different approaches to this problem, an overview and comparison of existing systems, resource discovery, identified their

strengths and weaknesses. Emphasis was placed on the work of specialists from around the world, used material from many sources, which gives a broader view of the tasks that have been examined.

The achieved results

The result of this work is to analyze the problem of selecting Grid resources based on work in this area. Were considered especially the use of ontologies to describe resources and requests users of Grid systems. Made recommendations on the use of selection methods found resources. Reviewed work on the subject and conducted experiments are collected in the resolve issues when selecting Grid resources

Scientific novelty

Scientific novelty of the work is to analyze different models for resource planning, to draw conclusions about their strengths and weaknesses. The recommendations on the creation of ontological broker resources.

Practical value

The practical value of the work is to analyze the problem of searching Grid resources, which is useful for users of the system and further development of the Grid.

Conclusions

Degree work is devoted to analysis based on ontology existing planning tools Grid resources. Were considered especially the use of ontologies to describe resources and requests users of Grid systems. A comparative analysis of different models for resource planning, conclusions regarding their advantages and disadvantages. The recommendations on the creation of ontological resource broker.

Work on 122 pages contains 29 illustrations. By preparation of work the literature from 24 resources were used.

Keywords: Grid, ontology, resources, analysis, broker resources.