

ABSTRACT

master's degree attestation work

on a theme:

“GRID and Cloud Computing”

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Actuality of work

To date there is parallel development of GRID and Cloud Computing used in modern e-Infrastructure. Clouds are on the stage of establishment, because arose up in 2007. Therefore services of Cloud Computing are now offered only by some large leading companies. And GRID (the first system was built in 2004) already became the usual form of construction of the up-diffused calculations for different industries of e-Science and business. Now quality and amount of services and services of GRID pass ahead Cloud Computing. It is related to that a GRID - infrastructure is supported and develops scientists, that know exactly, what they require for one or another scientific aims.

The GRID user communities more often experimented with interfaces that is given by the commercial providers of clouds and would like to provide the same easy to use and flexible, but without loss of efficiency, speed of data transmission, management, and cost (free), that they had in the e- infrastructure without clouds. Therefore, the possibility of convergence of Grid and Cloud is an urgent problem.

The purpose of work

The aim is to study the Grid and Cloud followed by the possibility of their integration. The study and comparison of their properties. Determination of safety, reliability separately in these technologies. As well as the impact of their association on the issue of safety and reliability. Generate possible scenarios combining Grid and cloud for further development.

The problems solved in the paper:

1. Research Grid and cloud computing.
2. Comparison of properties of Grid and Cloud.
3. Technical comparison technology.
4. Investigation of possible ways of integrating

The results achieved

Solving the problem posed in the paper, the author defends:

1. Conclusions regarding the provision of safe services, and services.
2. Conclusions to ensure portability and interoperability of these systems before and after integration.
3. Possible scenarios for the unification of the investigated technologies.
4. Recommendations for updating the e-infrastructure.

The scientific novelty of the work

The scientific novelty of the work lies in the fact that:

- Identified and prepared for further processing case of integrating Grid and Cloud in EGI.
- The requirements for the safe provision of services and services related to globalization.
- Prepared by summarizing information for Ukrainian consumers of services and Grid services that they have to switch to a hybrid.

The practical value of work

The practical value of this work is that set forth the possible ways of transition from a pure hybrid grid for potential users who are justified in this research work. We found security vulnerabilities and provide recommendations to address these problems.

Findings

- Focus on current association with Grid and Cloud.
- The question of security portabelnosti, interoperability in Grid and Cloud.
- Study the example of EGI possible way of convergence.
- Summarized information for potential users to upgrade to Grid Cloud.

The work contains 117 p., 24 fig., 34 sources.

Keywords: GRID, CLOUD, SECURITY, CONVERGENCE, INTEROPERABILITY.