Abstract

Of master's certification on:

" Modern methods and tools for state monitoring of Grid Networks for using on Grid

portals"

Marina Shpakauskas

Relevance

A management of the modern Grid is impossible without the effective monitoring systems . Success of functioning of the Grid at implementation of tasks of users and at planning of loading of calculable resources in a great deal depends on the choice of the monitoring system.

Monitoring of the high perfomance components is important task for providing of high-performance work of cluster. A monitoring function is needed on different levels, from ability to define the state of server.

Objective

The aim of this work is to study the existent systems and organization of the monitoring system which will be able to consider monitoring from different parties.

The solved problems

To achieve this goal in the work was to:

- research of possibilities of the existent systems, exposure of their advantages and defects;
- an analysis of requirements which are produced to the system of monitoring;
- adjusting of the monitoring system with the use of one of most known and by subsequent integration of one system in other

Achieved

Having decided to put in work tasks, the author defends:

- the validity of choice of monitoring tools;

- a set of recommendation in relation to adjusting of monitoring system. **Scientific**

novetly

Scientific novetly of the work is as follows:

1) Methodology of association of two systems of monitoring is worked out in single for expansion of functionality

2) Develop of recommendation in relation to adjusting of the Grid Networks monitoring system.

The practical value of

On the basis of the offered tools step-by-step instruction is worked out in relation to adjusting of the monitoring system. A script is created for the system configuration.

Findings

From data of work next conclusions are formed:

In the conditions of height of computer centers and economy on a personnel a requirement in the effective instruments of monitoring of calculable resources becomes important as never.

In the presented work methodology of association of two systems of monitoring is worked out in one for expansion of functionality. Both systems are widely used by different computer centers.

It is necessary for achievement of the best indexes of functioning of the systems and networks:

- productivity
- reliability

- availability
- fault-tolerance
- scalability
- flexibility
- efficiency

According to this work a report was prepared at the "System Analysis and Information Technologies 2010" Conference on "Data and metadata in the Semantic Grid". The article "Monitoring of Multiservise computer networks by Nagios " was published in the "Electronics and Communications" journal

The work contains 117 pp, 34 fig., 1 table, 18 sources