

ABSTRACT

The thesis is presented in 31 pages. It contains 2 appendixes and bibliography of 4 references. Five figures and 1 table are given in the thesis.

The goal of the thesis is to develop mathematical and software tools for server load balancing to improve web server performance and profitability.

In the thesis, existing solutions are analyzed, server load balancing at various levels - network, transport and software. Selected level for solving the problem is transport.

Horizontally scalable server load balancer has been built.

Server loading simulating system has been designed and developed.

Server load balancer testing was performed by simulation.

Keywords: server, load balancing, balancer, QS, simulation, horizontal scaling.

