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OPTIMIZING THE WORK OF THE WEB SERVER

Работа посвящена вопросам оптимизации работы веб-сервера.

Therefore, how to choose a high performance web server to improve the users experience has been very necessary. The three current mainstream web servers are Apache2, Nginx, IIS. This article will compare the performance of Apache2, Nginx and Nginx+Apache2.

Apache2 is the most widely used web server software in the world. Nginx is a lightweight web server / reverse proxy server and email (IMAP / POP3) proxy server. Nginx+Apache2 server model is divided into front-end load scheduling and back-end services.

This experiment decided to use ab performance testing tools to test mathematics department website. The mathematics department website contains a large number of pictures and texts to ensure the accuracy of the test and mathematics department server can switch between the three server models, In the testing process, the total number of requests is fixed to 50, and the number of concurrent starts from 5, and the interval is 5, it will be added to 50.The test command is ab -n 50 -c 5 http://math.gsu.by/. The result of the test is shown in Figure 1 below.

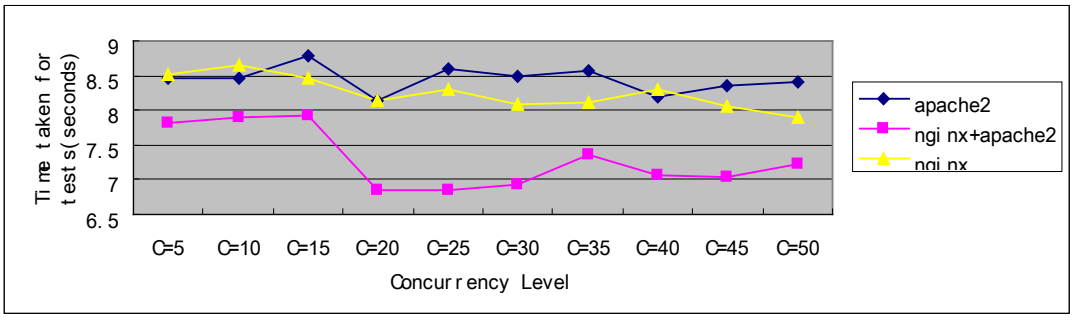

Figure 1 – Compare the configurations of the web-servers

First, we compare the performance of Apache2 and Nginx server. From Figure 1-1, we can clearly see that the time spent testing Nginx server is less than the time spent testing Apache2 server, so the Nginx server's response speed is faster in practical experience. Comparing Apache2 and Nginx server with Nginx+Apache2 server, we can see from the figure that the test time of the Nginx+Apache2 server is obviously smaller than the other 2 servers, so in these three types of servers it is the fastest response and the best user experience. By using several different load balancing technologies through reverse proxy, the availability and flexibility of the network can be improved.