Title: AN IMPROVED NETWORK SERVER

Abstract: An event-driven system (101) that provides scheduling and resource allocation for an internet server (110). A cost-benefit model and user preferences are used to prioritize and schedule tasks. The present invention improves or optimizes a network server's (110) performance by prioritizing tasks according to their importance, cost, and the system owners desires. The tasks are scheduled and resources (for example memory) are allocated to the tasks in accordance with their priority. Interlayer communication is used to provide a faster way to move data and to provide feedback as to the current state of a particular header. Header parsing and peeking provides a way to make decisions earlier rather than waiting for the necessary information to bubble up to a higher layer. A thin thread model is used to handle tasks. The progress of the thin threads relative to each other is monitored and controlled.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPCC? :G00F 14/14
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database consulted during the international search (name of database and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.

X US 6,154,769 A (CHERKASOVA et al.) 28 November 2000, see col. 1, line 65 to col. 5, line 58. 1-14
A US 5,341,477 A (PITKIN et al.) 23 August 1994, see col. 2, line 35 to col. 9, line 38. 1-14
A US 5,774,660 A (BRENDEL et al.) 30 June 1998, see col. 2, line 59 to col. 18, line 42. 1-14
A US 5,812,768 A (PAGE et al.) 22 September 1998, see the whole reference. 1-14
A US 6,029,175 A (CHOW et al.) 22 February 2000, see the whole reference. 1-14

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"D" earlier document published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibitions or other means

"P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search 15 MARCH 2002
Date of mailing of the international search report 8 APR 2002

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT
Washington, D.C. 20231
Facsimile No. (703) 506-9230

Authorized officer ZARNI MAUNG
Telephone No. 703-506-8900

Form PCT/ISA/910 (second sheet) (July 1998)