Title: TRANSPARENT TCP CONNECTION FAILOVER

Abstract: Methods of transparent connection failover allowing a remote computer (i.e., a client), to continue to use a network connection to communicate with one of at least two or more other computers (i.e., the backup servers) over a network, when one of the other computers (i.e., the primary server) fails. With the mechanisms of this invention, there is no need for the client to establish a new connection to a backup server when the primary server fails. The failover is preferably executed within a bridge layer between the TCP layer and the IP layer of the server's TCP/IP stack. No modifications are required to the network infrastructure, the client's TCP/IP stack, the client application or the server application. The methods support active or semiaactive replication of the server application, and do not require rollback of the application during failover. The invention also provides mechanisms for bringing up new backup servers.
SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.
INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/18313

A. CLASSIFICATION OF SUBJECT MATTER
IPC: G06F 11/00 (2007.01)
USPC: 714/11,12,13
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)
U.S.: 714/4,10,11,12,13,15,18;370/216,221;709/221,223,224

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

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>US 6061807 A (ALBERT et al) 9 May 2000 (09.05.2000), abstract.</td>
<td>1-96</td>
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See patent family annex.

Further documents are listed in the continuation of Box C.

Date of the actual completion of the international search
13 November 2006 (13.11.2006)

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18 FEB. 2006

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## INTERNATIONAL SEARCH REPORT

**International application No.**
PCT/US04/18313

### C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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