(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 8 March 2001 (08.03.2001)

PCT

(10) International Publication Number WO 01/16739 A3

(51) International Patent Classification⁷: G06F 9/50, 9/46

(21) International Application Number: PCT/US00/24236

(22) International Filing Date: 31 August 2000 (31.08.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

09/387,576 31 August 1999 (31.08.1999) US

- (71) Applicant: ACCENTURE LLP [US/US]; 1661 Page Mill Road, Palo Alto, CA 94304 (US).
- (72) Inventor: BOWMAN-AMUAH, Michel, K.; 6426 Peak Vista Circle, Colorado Springs, CO 80918 (US).
- (74) Agent: HICKMAN, Paul, L.; Hickman Coleman & Hughes, LLP, P.O. Box 52037, Palo Alto, CA 94303-0746 (US).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

(88) Date of publication of the international search report: 20 September 2001

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.

(54) Title: SYSTEM, METHOD AND ARTICLE OF MANUFACTURE FOR LOAD BALANCING REQUESTS AMONG SERVERS

(57) Abstract: A system, method and article of manufacture are provided for distributing incoming requests amongst server components for optimizing usage of resources. Incoming requests are received and stored. An availability of server components is determined and a listing of available server components is compiled. A determination is made as to which server component on the listing of available server components is most appropriate to receive a particular request. Each particular request is sent to the selected server component determined to be most appropriate to receive the particular request.

INTERNATIONAL SEARCH REPORT

national Application No PCT/US 00/24236

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F9/50 G06F G06F9/46 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) IPC 7 G06F 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 practical, search terms used) EPO-Internal, INSPEC, PAJ, IBM-TDB, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category ° US 5 892 946 A (LINARES MELISSA A ET AL) 1,2,7,8, χ 13,14 6 April 1999 (1999-04-06) 6,12,18 Α column 3, line 64 -column 4, line 44 column 5, line 10 - line 62 column 7, line 4 - line 45 1,3,5-7,US 5 257 369 A (SKEEN MARION ET AL) χ 9,11-13. 26 October 1993 (1993-10-26) 15,17,18 column 5, line 1 - line 60 column 27, line 32 -column 28, line 19 Patent family members are listed in annex. Further documents are listed in the continuation of box C. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but "A" document defining the general state of the art which is not cited to understand the principle or theory underlying the considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date 'L' document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or document published prior to the international filing date but later than the priority date claimed in the art. "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 04/04/2001 22 March 2001 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2

1

NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl, Fax: (+31–70) 340–3016

Michel, T

INTERNATIONAL SEARCH REPORT

Ii lational Application No PCT/US 00/24236

	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	RECTED MULTIPLE 1,3,7,9, 13,15 BULLETIN,US,IBM 5 (1996-05-01), FRANK S) 7) 1,3,4,7, 9,10,13, 15,16 2,5,8, 11,14,17 3, line 15 SYSTEMS INC) 1,0 BRUCE ET AL) 5,11,17 utilization of Relevant to claim No. 1,3,7,9, 13,15 2,8,4,7 9,10,13, 15,16 2,5,8, 11,14,17 5,11,17			
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Helevant to claim No.			
X	"OBJECT REQUEST BROKER-DIRECTED MULTIPLE SERVER OBJECT" IBM TECHNICAL DISCLOSURE BULLETIN,US,IBM CORP. NEW YORK, vol. 39, no. 5, 1 May 1996 (1996-05-01), page 59 XP000584056 ISSN: 0018-8689 the whole document				
X	US 5 459 837 A (CACCAVALE FRANK S) 17 October 1995 (1995-10-17)	9,10,13, 15,16			
Υ					
	column 1, line 60 -column 3, line 15	22,21,21			
Υ	EP 0 817 020 A (SUN MICROSYSTEMS INC)	2,8,14			
A	7 January 1998 (1998-01-07) column 2, line 4 - line 20	5,11,17			
Υ	US 5 881 238 A (EMMES DAVID BRUCE ET AL) 9 March 1999 (1999-03-09) column 6, line 5 - line 47	5,11,17			
A	DIWAN S ET AL: "Adaptive utilization of communication and computational resources in high-performance distributed systems: the EMOP approach" PROCEEDINGS. THE SEVENTH INTERNATIONAL SYMPOSIUM ON HIGH PERFORMANCE DISTRIBUTED COMPUTING (CAT. NO.98TB100244), PROCEEDINGS THE SEVENTH INTERNATIONAL SYMPOSIUM ON HIGH PERFORMANCE DISTRIBUTED COMPUTING, CHICAGO, IL, USA, 28-31 JULY 1998, pages 2-9, XP002163646 1998, Los Alamitos, CA, USA, IEEE Comput. Soc, USA ISBN: 0-8186-8579-4 abstract; figure 2 page 8, paragraph 4.2	1-18			

1

INTERNATIONAL SEARCH REPORT

Information on patent family members

I. national Application No
PCT/US 00/24236

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5892946 A	06-04-1999	AU 6978196 A EP 0850447 A JP 2000500255 T WO 9710547 A	01-04-1997 01-07-1998 11-01-2000 20-03-1997
US 5257369 A	26-10-1993	AT 163483 T AU 648113 B AU 8602491 A AU 8953091 A CA 2052803 A DE 69128952 D DE 69128952 T EP 0485252 A JP 3023225 B JP 4299758 A KR 9704519 B MX 9101699 A WO 9207324 A US 5966531 A US 5557798 A US 5339392 A	15-03-1998 14-04-1994 11-06-1992 20-05-1992 23-04-1998 01-10-1998 13-05-1992 21-03-2000 22-10-1992 28-03-1997 05-06-1992 30-04-1992 12-10-1999 17-09-1996 16-08-1994
US 5459837 A	17-10-1995	NONE	
EP 0817020 A	07-01-1998	NONE	
US 5881238 A	09-03-1999	US 5603029 A	11-02-1997