

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 January 2008 (31.01.2008)

PCT

(10) International Publication Number
WO 2008/014285 A3

(51) International Patent Classification:
G06F 15/16 (2006.01) G06F 15/173 (2006.01)

(21) International Application Number:
PCT/US2007/074260

(22) International Filing Date: 24 July 2007 (24.07.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/491,875 24 July 2006 (24.07.2006) US

(71) Applicant (for all designated States except US):
RAYTHEON COMPANY [US/US]; 870 Winter Street,
Waltham, Massachusetts 02421-1449 (US).

(71) Applicant and

(72) Inventor: **STALLINGS, Jared D.** [US/US]; 20722 E.
38th Place, Denver, CO 80249 (US).

(74) Agent: **GLENN H. LENZEN, JR.**; Kutak Rock LLP,
1801 California Street, Suite 3100, Denver, Colorado
80202-2626 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, **BR**, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, **HR**, HU, **ID**, IL, IN, IS, **JP**, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
9 October 2008

(54) Title: METHOD OF SYNCHRONIZING EXECUTION OF STATE TRANSITION COMMANDS IN A CLUSTER OF MESSAGE ORIENTED MIDDLEWARE SERVERS

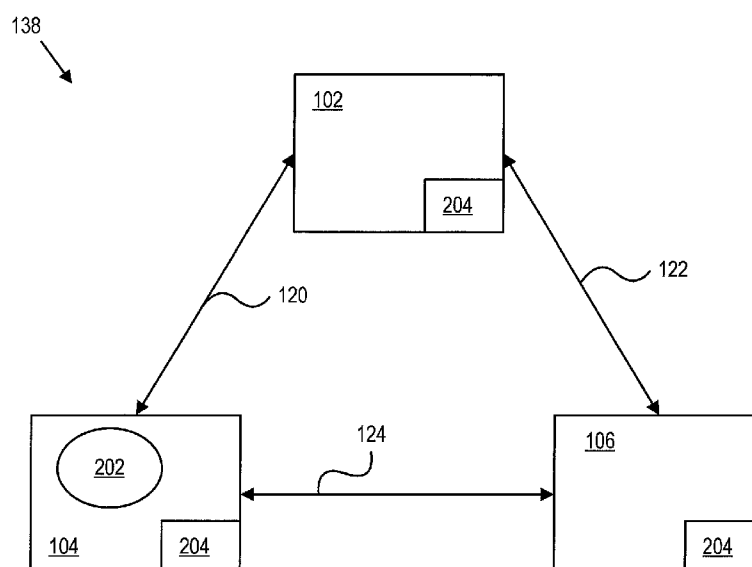


FIG. 3

(57) Abstract: A method of synchronizing execution of state transition commands in a cluster (138) of MOM servers (102, 104, 106) includes providing a lock transferable among the servers (102, 104, 106) and a lock manager (204) on each server (102, 104, 106). A server receiving a state transition command executes a state transition command handling process. A server (102, 104, 106) receiving a request lock command from another server (102, 104, 106) executes a received lock request process (1200). A server (102, 104, 106) receiving an engage lock command from another server (102, 104, 106) executes an engage lock request process (1300).

WO 2008/014285 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT7US07/74260

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **G06F 15/16**(2006.01),15/173(2006.01)

USPC: 709/206,223,224

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. : 709/206, 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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2005/0240667 A1 (Koegel) 27 October 2005 (27. 10.2005), paragraphs [0078-0086] and [0094-0097].	1
A	US 2005/0240654 A1 (Wolber et al) 27 October 2005 (27. 10 2005), paragraphs [0086-0094].	1



Further documents are listed in the continuation of Box C.

D

See patent family annex.

* 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 cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent published on or after the international filing date	"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 in the art
"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 (s specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition 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

04 June 2008 (04.06.2008)

Date of mailing of the international search report

23 JUL 2015

Name and mailing address of the ISA/US

Mail Stop PCT, Attn ISA/US
Commissioner for Patents
P O Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Quang N Nguyen

Telephone No. (571) 272-3886

