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[Continued on next page]

(54) Title: NETWORK OPERATING SYSTEM

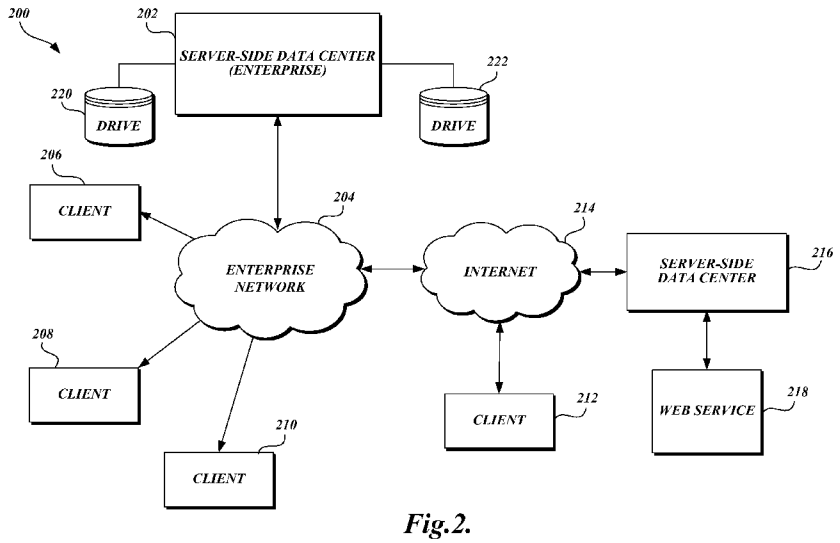


Fig.2.

(57) Abstract: Generally described, the present invention is directed to a network operating system that provides more effective ways of leveraging the connectivity of computer networks. In one embodiment, an XML virtual machine is implemented that accepts high-level application code written in an XML programming language as input. Functionality is provided to interpret or translate the application code written in an XML programming language into code that is suitable for execution across computer platforms. Moreover, the XML virtual machine supports the Model View Controller (MVC) design paradigm that facilitates true data abstraction from applications to a common data model. Multi-instance applications, with each instance potentially supporting multiple views, may be created and executed.

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RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

G06F 15/16(2006.01)i

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 8: G06F

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

Korean Utility Models and applications for Utility Models since 1975

Japanese Utility Models and applications for Utility Models since 1975

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

eKIPASS(KIPO internal) : 'network', 'operating', 'system', 'MVC', 'model view controller', 'design'

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 7254610 B1 (BRYAN C. TURNER et al.) 07 August 2007 See the abstract, figures 1-3, column 6, line 29 - column 10, line 29 and claims 1-28.	1-2
A	US 2003/0225829 A1(ARMANDO PENA et al.) 04 December 2003 See the abstract, figure 8, paragraphs [0069]-[0073], [0245]-[0249].	1-2
A	US 2002/0156929 A1(AMIR HEKMATPOUR) 24 October 2002 See the abstract, figure 4, paragraphs [0039]-[0062] and claims 1-35.	1-2
A	US 2006/0143182 A1(CHAD L. MEADOWS) 29 JUNE 2006 See the abstract, figures 1-7, paragraphs [0022]-[0075] and claims 1-27.	1-2

☐ 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

"E" earlier application or patent but 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 citation or other special reason (as specified)

"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

"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

"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

"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

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
08 MAY 2009 (08.05.2009)	**11 MAY 2009 (11.05.2009)**

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
Government Complex-Daejeon, 139 Seonsa-ro, Seo-gu, Daejeon 302-701, Republic of Korea

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/078171

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claims Nos.: 3
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

The claim is too broad to make meaningful search in that the matter for which protection is sought is not clearly defined. Namely, the claim 3 attempts to define the subject matter in terms of the result to be achieved which merely amounts to a statement of the underlying problem. Therefore, the technical features necessary for achieving this result shuld be added.

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required addtional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2008/078171

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 7254610 B1	07.08.2007	None	
US 2003/0225829 A1	04.12.2003	US 7490167 B2	10.02.2009
US 2002/0156929 A1	24.10.2002	US 6968346 B2 US 7483913 B2 US 2006/041582 A1	22.11.2005 27.01.2009 23.02.2006
US 2006/0143182 A1	29.06.2006	None	