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(54) Title: SMART INTEGRATION ENGINE AND METADATA-ORIENTED ARCHITECTURE FOR AUTOMATIC EII AND BUSINESS INTEGRATION

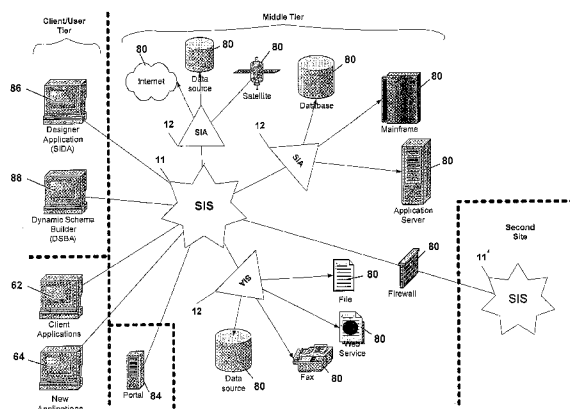


Figure 2

(57) Abstract: The present invention discloses systems and methods for automating the EII, using a smart integration engine based on metadata. On-line execution (i.e. data access, retrieval, or update) is automated by integrating heterogeneous data sources via a centralized smart engine based on metadata of all data sources managed in a metadata repository. The data-source assets are mapped to business metadata (terminology) giving programmers the ability to use business terms, and overcome technical terms. IT departments can use the business-level terms for easy and fast programming of all services "at the business level". The integration is performed by the engine (via pre-configuration) automatically, dynamically, and on-line, regardless of topology or technology changes, without user or administrator intervention. MDOA is a high-level concept in which the metadata maps the technical low-level terms to business high-level terms. MDOA is used for seamless integration of a fully-distributed organization with many data sources and technologies.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC: G06F 17/30(2006.01) USPC: 707/102,707/E17 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. : 707/102,707/E17 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.
Y	U.S. Patent Application Publication Number 2002/0184527A1 (Chun et al.,) Paragraphs 0005, 0009, 0025, 0027, 0032-0033, 0035-0037, 0038-0040, 0043, 0048, 0053, 0054, 0056, 0062, 0064, 0065, 0068, 0081, Figure 1, Figure 4, and Figure 3.	1-26
Y	U.S. Patent Number 6988109 (Stanley et al.,) 17 January 2006. Figure 15, Column 10 lines 13-39, column 10 lines 40-45, column 23 line 60 through column 24 line 10, Column 41 line 51 through Column 42 line 5, Column 10 lines 40-54, Column 27 lines 1-24, Column 10 lines 19-37, Figure 6, Column 25 lines 54-63, Column 24 line 49 through Column 25 line 14, Column 18 lines 40-48, Figure 15, Column 9 lines 66-67, Column 40 lines 20-25, and Column 21 lines 28-35.	1-26
Y	U.S. Patent Application Publication Number 2007/0239718A1 (Baxter et al.,) Paragraph 0081 and Paragraph 0072.	3
Y	U.S. Patent Application Publication Number 2008/0140494A1. Paragraph 0081 and Paragraph 0097.	11
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	U.S Patent Application Publication Number 2006/0294153A1 (Kumar et al.), Paragraphs 0018, 0027, 0062, and 0011.	23-24