



- (51) **International Patent Classification:**  
G06F 17/30 (2006.01)
- (21) **International Application Number:**  
PCT/US2013/043699
- (22) **International Filing Date:**  
31 May 2013 (31.05.2013)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**  
61/654,788 1 June 2012 (01.06.2012) US
- (71) **Applicant:** STAPLES, INC. [US/US]; 500 Staples Drive, Framingham, MA 01702 (US).
- (72) **Inventors; and**
- (71) **Applicants :** KRISHNAN, Pavitra [IN/US]; 12004 Ambassador Drive, Westborough, MA 01581 (US). BRIDWELL, William, Jeffrey [US/US]; 11 Metcalf Street, Roslindale, MA 02131 (US). BOMMASAMUDRA, Chandra, Shekar [IN/US]; 37 Stoney Hill Road, Shrewsbury, MA 01545 (US).
- (74) **Agents:** BOHN, Michel, E. et al.; PATENT LAW WORKS LLP, 201 S. Main Street, Suite 250, Salt Lake City, UT 84111 (US).
- (81) **Designated States** (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, 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, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

- (88) **Date of publication of the international search report:**  
13 February 2014

(54) **Title:** DEFINING AND MAPPING APPLICATION INTERFACE SEMANTICS

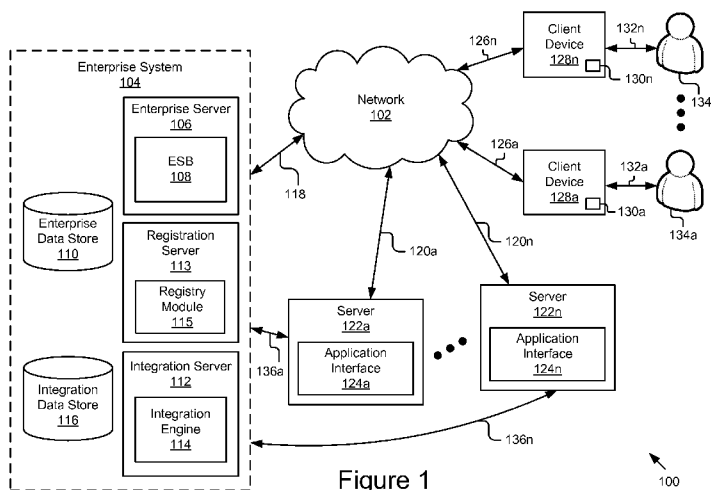


Figure 1

(57) **Abstract:** An example implementation includes a system having one or more processors, a definition module, a data store, and a workflow module. The definition module is executable by the one or more processors to determine a first semantic element for a first operation included in a first application interface representing a first service and a second semantic element for a second operation included in a second application interface representing a second service, such as an enterprise service bus. The definition module may further determine a mapping of the first semantic element with the second semantic element. The data store is configured to store the mapping of the first semantic element with the second semantic element by the definition module. The workflow module is executable by the one or more processors to integrate the first application interface with the second service based on the mapping.

WO 2013/181588 A3

## INTERNATIONAL SEARCH REPORT

PCT/US2013/043699 20.12.2013

International application No.

PCT/US2013/043699

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - G06F17/30 (2013.01)

USPC - 707/763

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 9/46, 17/30 (2013.01)

USPC -707/763, 769, 770

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

CPC - G06F 9/46, 17/30 (2013.01)

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

Orbit, Google Patents, Google Scholar

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 456 249 B1 (PHAM et al) 09 December 1998 (09.12.1998) entire document	1-39
Y	WO 00/65486 A (LAI et al) 02 November 2000 (02.11.2000) entire document	1-39
Y	US 2012/0054147 A1 (GOETZ et al) 01 March 2012 (01.03.2012) entire document	2,15, 28
Y	US 2010/0333073 A1 (MILLS) 30 December 2010 (30.12.2010) entire document	5, 6, 18, 19, 31, 32
Y	US 2011/0125776 A1 (ROSHEN et al) 26 May 2011 (26.05.2011) entire document	5, 6, 8, 9, 18, 19, 21, 22, 31, 32, 34, 35
Y	US 2010/0005061 A1 (BASCO et al) 07 January 2010 (07.01.2010) entire document	7,10,20,23,33,36

 Further documents are listed in the continuation of Box C.

\* 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 another 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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

16 December 2013

Date of mailing of the international search report

20 DEC 2013

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:

Blaine R. Copenheaver

PCT Helpdesk: 571-272-4300

PCT OSP: 571-272-7774