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ocket No.: YOR920010641US1

U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office

JUN 0.4 2002 1 10211	· · · · · · · · · · · · · · · · · · ·	
To the Honorable Commissioner of Fatents and Trademarks: P	Please record the attached original documents or copy thereof.	
. Name of conveying party(ies):	2. Name and address of receiving party(100).	
1) Liang-Jie ZHANG 2) Rama Kalyani Tirumala AKKIRAJU	Name: International Business Machines Corporation	
3) Henry CHANG 4) Tian-Jy CHAO	Address: New Orchard Road	
Additional names(s) of conveying party(ies)		
. Nature of conveyance:		
✓ Assignment✓ Merger✓ Change of Name	City: Armonk State/Prov.: NY	
☐ Other ☐ 1) 03/27/02; 2) 03/27/02; 3) 03/28/02;	Country: USA ZIP: 10504	
4) 03/27/02; 5) 03/27/02; 6) 03/27/02; Execution Date: 7) 03/27/02; 8) 03/28/02.	Additional name(s) & address(es) ☐ Yes ☒ No	
4. Application number(s) or patent numbers(s):	the data of the application is: 1) 03/27/02;	
4. Application number(s) or patent numbers(s). If this document is being filed together with a new application.	the execution date of the application is: 1) 03/27/02; 3) 03/28/02; B. Patent No.(s) 4) 03/27/02;	
Patent Application No. Filing date	5) 03/27/02; 6) 03/27/02;	
10/107,837 March 28, 2002	7) 03/27/02; 8) 03/28/02;	
/11/2002 GTDN11 00000091 090457 10107837		
FC:581 40.00 CH Additional numbers		
5. Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of applications and patents involved:	
Name: Frederick E. Cooperrider, Esq.	7. Total fee (37 CFR 3.41):\$ 40.00	
Registration No. 36,769	 Enclosed - Any excess or insufficiency should be credited or debited to deposit account 	
Address: McGinn & Gibb, PLLC	△ Authorized to be charged to deposit account	
8321 Old Courthouse Road, Suite 200	8. Deposit account number:	
City: Vienna State/Prov.: VA	09-0457	
ZIP: 22182-3817	(Attach duplicate copy of this page if paying by deposit account)	
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9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is		
of the original document.	Date	
Frederick E. Cooperrider	Signature 7	
Name of Person Signing Total number of pages inclu	uding cover sheet, attachments, and	

Mail documents to be recorded with required cover sheet information to:

- 5) Jen-Yao CHUNG
- 6) David B. FLAXER
- 7) Jun-jang JENG
- 8) Pooja YADAV

PATENT REEL: 012964 FRAME: 0483

(IBM Docket No.: YOR920010641US1)

ASSIGNMENT

Whereas, we

Inventor and City

(1) County of	Liang-Jie Zhang Westchester	City of Cortlandt Manor and State of New York
(2)	Rama Kalyani Tirumala Akkiraju	City of Yorktown Heights
County of	Westchester	and State of New York
(3)	Henry Chang	City of Scarsdale
County of	Westchester	and State of New York
(4)	Tian-Jy Chao	City of Bedford
County of	Westchester	and State of New York
(5)	Jen-Yao Chung	City of Yorktown Heights
County of	Westchester	and State of New York
(6)	David B. Flaxer	City of Accord
County of	Ulster	and State of New York
(7)	Jun-jang Jeng	City of Armonk
County of	Westchester	and State of New York
(8)	Pooja Yadav	City of Charlotte
County of	Mecklenburg	and State of North Carolina

have invented certain improvements in

METHOD AND STRUCTURE FOR FEDERATED WEB SERVICE DISCOVERY SEARCH OVER MULTIPLE REGISTRIES WITH RESULT AGGREGATION

Dates That Inventors Signed the Declaration and have executed, respectively, a United States patent application therefor on

(1)
$$\sqrt[3]{27/2002}$$
, (2) $\sqrt[3]{27/2002}$, (3) $\sqrt[03]{28/2002}$, (4) $\sqrt[03/27/2002$, (5) $\sqrt[03/27/2002$, (6) $\sqrt[03/27/2002$, (7) $\sqrt[03/27/2002$, and (8) $\sqrt[03/28/2002$.

Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York, 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, we the above named hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

City Date	(1) Signed at Yorktown Heights on 3/27/02	signature (Liang-Jie Zhang) inventor
City	(2) Signed at	n 2 4 1.
Date	on $3/27/2002$	signature (Rama Kalyani Tirumala Akkiraju) inventor
City	(3) Signed at	
Date	on	signature (Henry Chang) inventor
City	(4) Signed at	
Date	on 3/27/2002	signature (Tian-Jy Chao) inventor
City	(5) Signed at	
Date	on	signature (Jen-Yao Chung) inventor
City	(6) Signed at	
Date	on 3/27/2000	signature (David B. Flaxer) inventor
City	(7) Signed at	
Date	on 3/27/12	signature (Jun-jang Jeng) inventor
City	(8) Signed at	
Date	on	signature (Pooja Yadav) inventor

City	(1) Signed at	
Date	on	signature (Liang-Jie Zhang) inventor
City	(2) Signed at	
Date	on	signature (Rama Kalyani Tirumala Akkiraju) inventor
City	(3) Signed at	
Date	on	signature (Henry Chang) inventor
City	(4) Signed at	
Date	on	signature (Tian-Jy Chao) inventor
City Date	(5) Signed at on 3/27/02	signature (Jen-Vao Chung) inventor
City	(6) Signed at	
Date	on	signature (David B. Flaxer) inventor
City	(7) Signed at	
Date	on	signature (Jun-jang Jeng) inventor
City	(8) Signed at	·
Date	on	signature (Pooja Yadav) inventor

City	(1) Signed at	
Date	on	signature (Liang-Jie Zhang) inventor
City	(2) Signed at	
Date	on	signature (Rama Kalyani Tirumala Akkiraju) inventor
City	(3) Signed at	
Date	(3) Signed at on 3/28/2007	signature (Henry Chang) inventor
City	(4) Signed at	
Date	on	signature (Tian-Jy Chao) inventor
City	(5) Signed at	
Date	on	signature (Jen-Yao Chung) inventor
City	(6) Signed at	
Date	on	signature (David B. Flaxer) inventor
City	(7) Signed at	
Date	on	signature (Jun-jang Jeng) inventor
City	(8) Signed at	
Date	on	signature (Pooja Yadav) inventor

(IBM Docket No.: YOR920010641US1)

City	(1) Signed at		
Date	on	signature (Liang-Jie Zhang) înventor	·Number
City	(2) Signed at		
Date	on	signature (Rama Kalyani Tirumala Akkiraju) inventor	
City	(3) Signed at		
Date	on	signature (Henry Chang) inventor	
City	(4) Signed at		
Date	ón	signature (Tian-Jy Chao) inventor	
City	(5) Signed at		
Date	on	signature (Jen-Yao Chung) inventor	
City	(6) Signed at		
Date	on	signature (David B. Flaxer) inventor	
City	(7) Signed at		
Date	on	signature (Jun-jang Jeng) inventor	
City	(8) Signed at	Contraction of the second	
Date	on	signature (Pooja Yaday) inventor	

Page 2 of &