

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6140504

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
YOUNG-SIC JEONG	10/28/2015
SANG-KEUN YOO	10/28/2015
YONG-WOON KIM	10/21/2015
RECEIVING PARTY DATA	
Name:	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE
Street Address:	218, GAJEONG-RO, YUSEONG-GU
City:	DAEJEON
State/Country:	KOREA, REPUBLIC OF
Postal Code:	34129
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	16894167
CORRESPONDENCE DATA	
Fax Number:	(202)697-4306
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
Phone:	2022630809
Email:	info@kilepark.com
Correspondent Name:	KILE PARK REED & HOUTTEMAN PLLC
Address Line 1:	1101 30TH STREET, N.W.
Address Line 2:	SUITE 500
Address Line 4:	WASHINGTON, D.C. 20007
ATTORNEY DOCKET NUMBER:	HNG-0055-CA1-ET
NAME OF SUBMITTER:	JAE Y. PARK
SIGNATURE:	/JAE Y. PARK/
DATE SIGNED:	06/05/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).
Total Attachments: 6	
source=Decl_Assmt_HNG0055CA1#page1.tif	
source=Decl_Assmt_HNG0055CA1#page2.tif	

source=Decl_Assmt_HNG0055CA1#page3.tif
source=Decl_Assmt_HNG0055CA1#page4.tif
source=Decl_Assmt_HNG0055CA1#page5.tif
source=Decl_Assmt_HNG0055CA1#page6.tif

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION
 USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration is directed to:</p> <p><input checked="" type="checkbox"/> The attached application, or</p> <p><input type="checkbox"/> United States application or PCT international application number _____ filed on _____.</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>I have reviewed and understand the contents of the above-identified application, including the claims. I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.</p> <p>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.</p> <p>WHEREAS, <u>ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE</u> of <u>218, Gajeong-ro, Yuseong-gu, Daejeon 34129, Republic of Korea</u>, its heirs, successors, legal representatives and assigns (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefore in the United States of America and in any foreign countries.</p> <p>NOW, THEREFORE, to all whom it may concern, be it known that, for good and valuable consideration paid to the undersigned, the receipt of which is hereby acknowledged, I have sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefore in the United States of America, its territories, dependencies and possessions, and in any and all foreign countries;</p> <p>and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.</p>	

KILE PARK PLLC, WASHINGTON DC, USA

United States Patent and Trademark Office

I agree to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I agree to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

I agree to execute all papers and documents and to perform any act which may be necessary in connection with claims and provisions of the International Convention for the Protection of Industrial Property or similar agreements.

I agree to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by me if this Assignment and sale had not been made.

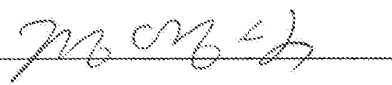
I hereby authorize and request the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, and hereby covenant that I have the full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I declare that all statements made in the above assignment of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C.1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

LEGAL NAME OF INVENTOR

Inventor: JEONG, Young-Sic

Date: October 28, 2015

Signature: 

Note: Use an additional form for each additional inventor.

KILE PARK PLLC, WASHINGTON DC, USA

United States Patent and Trademark Office

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION
USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration is directed to:</p> <p><input checked="" type="checkbox"/> The attached application, or</p> <p><input type="checkbox"/> United States application or PCT international application number _____ filed on _____.</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>I have reviewed and understand the contents of the above-identified application, including the claims. I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.</p> <p>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.</p> <p>WHEREAS, <u>ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE</u> of <u>21B, Gajeong-ro, Yuseong-gu, Daejeon 34129, Republic of Korea</u>, its heirs, successors, legal representatives and assigns (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefore in the United States of America and in any foreign countries.</p> <p>NOW, THEREFORE, to all whom it may concern, be it known that, for good and valuable consideration paid to the undersigned, the receipt of which is hereby acknowledged, I have sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefore in the United States of America, its territories, dependencies and possessions, and in any and all foreign countries;</p> <p>and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.</p>	

KILE PARK PLLC, WASHINGTON DC, USA

United States Patent and Trademark Office

I agree to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I agree to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

I agree to execute all papers and documents and to perform any act which may be necessary in connection with claims and provisions of the International Convention for the Protection of Industrial Property or similar agreements.

I agree to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) and any foreign patent(s) to the Assignees and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by me if this Assignment and sale had not been made.

I hereby authorize and request the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, and hereby covenant that I have the full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I declare that all statements made in the above assignment of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C.1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

LEGAL NAME OF INVENTOR

Inventor: YOO, Sang-Keun

Date: October 28, 2015

Signature: _____

유 상근

Note: Use an additional form for each additional inventor.

KILE PARK PLLC, WASHINGTON DC, USA

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION
USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration is directed to:</p> <p><input checked="" type="checkbox"/> The attached application, or</p> <p><input type="checkbox"/> United States application or PCT international application number _____ filed on _____.</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>I have reviewed and understand the contents of the above-identified application, including the claims. I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.</p> <p>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.</p> <p>WHEREAS, <u>ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE</u> of <u>218, Gaicong-ro, Yuseong-gu, Daejeon 34129, Republic of Korea</u>, its heirs, successors, legal representatives and assigns (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefore in the United States of America and in any foreign countries.</p> <p>NOW, THEREFORE, to all whom it may concern, be it known that, for good and valuable consideration paid to the undersigned, the receipt of which is hereby acknowledged, I have sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefore in the United States of America, its territories, dependencies and possessions, and in any and all foreign countries;</p> <p>and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.</p>	

KILE PARK PLLC, WASHINGTON DC, USA

United States Patent and Trademark Office

I agree to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I agree to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

I agree to execute all papers and documents and to perform any act which may be necessary in connection with claims and provisions of the International Convention for the Protection of Industrial Property or similar agreements.

I agree to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) and any foreign patent(s) to the Assignees and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by me if this Assignment and sale had not been made.

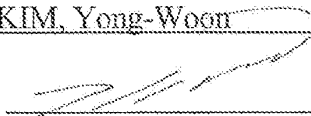
I hereby authorize and request the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, and hereby covenant that I have the full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I declare that all statements made in the above assignment of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C.1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

LEGAL NAME OF INVENTOR

Inventor: KIM, Yong-Woon

Date: October 21, 2015

Signature: 

Note: Use an additional form for each additional inventor.

KILE PARK PLLC, WASHINGTON DC, USA

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	
Filing Date	June 5, 2020
First Named Inventor	Young-Sic JEONG
Title	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
Art Unit	NYA
Examiner Name	NYA
Attorney Docket Number	HNG-0055-CA1-ET

SIGNATURE of Applicant or Patent Practitioner			
Signature	/Jae Y. Park/	Date (Optional)	2020-06-05
Name	JAE Y. PARK	Registration Number	62629
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the above-identified patent application.

I hereby appoint Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A or equivalent):

82727

Please recognize or change the correspondence address for the above-identified patent to:

The address associated with the above-mentioned Customer Number.

I am the Applicant:

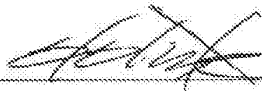
Inventor or Joint Inventor

Legal Representative of a Deceased or Legally Incapacitated Inventor

Assignee or Person to Whom the Inventor is Under an Obligation to Assign

Person Who Otherwise Shows Sufficient *Proprietary* Interest (e.g., a petition under 37 CFR 1.46 (b)(2) was granted in the application or is concurrently being filed with this document)

SIGNATURE of Applicant for Patent

Signature		Date	13-01-2015
Name	Ick-Chan LEE	Telephone	042-860-6904
Title	Director		
Applicant (Company) Name	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE		

NOTE: Signature - This form must be signed by the applicant or applicant's representative in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms for more than one signature, see below*.

*Total of 1 forms are submitted.

KILE PARK REED & HOUTTEMAN PLLC
WASHINGTON DC USA

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	HNG-0055-CA1-ET
		Application Number	
Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME		
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

Secrecy Order 37 CFR 5.2:

Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1					<input type="button" value="Remove"/>
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Young-Sic		JEONG		
Residence Information (Select One) US Residency <input type="radio"/> Non US Residency Active US Military Service					
City	Daejeon	Country of Residenceⁱ	KR		
Mailing Address of Inventor:					
Address 1	204-207, 29, Gyejok-ro 663beon-gil, Daedeok-gu				
Address 2					
City	Daejeon	State/Province			
Postal Code	34385	Countryⁱ	KR		
Inventor 2					<input type="button" value="Remove"/>
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Sang-Keun		YOO		
Residence Information (Select One) US Residency <input checked="" type="radio"/> Non US Residency Active US Military Service					
City	Sejong	Country of Residenceⁱ	KR		
Mailing Address of Inventor:					
Address 1	-1, Sinheungsaetteo 2-gil, Jochiwon-eup				
Address 2					
City	Sejong	State/Province			
Postal Code	30029	Countryⁱ	KR		
Inventor 3					<input type="button" value="Remove"/>
Legal Name					

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	HNG-0055-CA1-ET
		Application Number	
Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME		

Prefix	Given Name	Middle Name	Family Name	Suffix
	Yong-Woon		KIM	
Residence Information (Select One) US Residency <input checked="" type="radio"/> Non US Residency Active US Military Service				
City	Asan-si, Chungcheongnam-do	Country of Residence ⁱ	KR	
Mailing Address of Inventor:				
Address 1	101-403, 210, Gwangjang-ro, Baebang-eup			
Address 2				
City	Asan-si, Chungcheongnam-do	State/Province		
Postal Code	31471	Country ⁱ	KR	
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.				<input type="button" value="Add"/>

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
<input type="checkbox"/> An Address is being provided for the correspondence information of this application.			
Customer Number	32727		
Email Address	ipark@kilepark.com	<input type="button" value="Add Email"/>	<input type="button" value="Remove Email"/>
Email Address	info@kilepark.com	<input type="button" value="Add Email"/>	<input type="button" value="Remove Email"/>

Application Information:

Title of the Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME		
Attorney Docket Number	HNG-0055-CA1-ET	Small Entity Status Claimed	<input checked="" type="checkbox"/>
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	2	Suggested Figure for Publication (if any)	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	HNG-0055-CA1-ET
		Application Number	
Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME		

Publication Information:

<input type="checkbox"/>	Request Early Publication (Fee required at time of Request 37 CFR 1.219)
<input type="checkbox"/>	Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer number will be used for the Representative Information during processing.			
Please Select One:	<input checked="" type="radio"/> Customer Number	<input type="radio"/> US Patent Practitioner	<input type="radio"/> Limited Recognition (37 CFR 11.9)
Customer Number	82727		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	<input type="button" value="Remove"/>	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	14931213	2015-11-03
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.			<input type="button" value="Add"/>

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)¹ the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	HNG-0055-CA1-ET
		Application Number	
Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME		

Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ^j (if applicable)
10-2014-0151328	KR	2014-11-03	<input type="button" value="Remove"/>
10-2014-0151327	KR	2014-11-03	<input type="button" value="Remove"/>
10-2015-0011217	KR	2015-01-23	<input type="button" value="Remove"/>
10-2015-0093338	KR	2015-06-30	<input type="button" value="Remove"/>
10-2015-0145571	KR	2015-10-19	<input type="button" value="Remove"/>
10-2015-0153925	KR	2015-11-03	<input type="button" value="Remove"/>
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			<input type="button" value="Add"/>

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.

NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	HNG-0055-CA1-ET
		Application Number	
Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME		

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	HNG-0055-CA1-ET
		Application Number	
Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME		

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.			
Applicant	1	<input type="button" value="Remove"/>	
If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.			
<input type="button" value="Clear"/>			
<input checked="" type="radio"/> Assignee	Legal Representative under 35 U.S.C. 117	Joint Inventor	
Person to whom the inventor is obligated to assign.		Person who shows sufficient proprietary interest	
If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:			
▼			
Name of the Deceased or Legally Incapacitated Inventor: <input type="text"/>			
If the Applicant is an Organization check here. <input checked="" type="checkbox"/>			
Organization Name	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE		
Mailing Address Information For Applicant:			
Address 1	218, Gajeong-ro, Yuseong-gu		
Address 2			
City	Daejeon	State/Province	
Country	KR	Postal Code	34129
Phone Number		Fax Number	
Email Address			
Additional Applicant Data may be generated within this form by selecting the Add button. <input type="button" value="Add"/>			

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HNG-0055-CA1-ET
	Application Number	
Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME	

Assignee	1		
Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.			
<input type="button" value="Remove"/>			
If the Assignee or Non-Applicant Assignee is an Organization check here. <input checked="" type="checkbox"/>			
Organization Name	ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE		
Mailing Address Information For Assignee including Non-Applicant Assignee:			
Address 1	218, Gajeong-ro, Yuseong-gu		
Address 2			
City	Daejeon	State/Province	
Country i	KR	Postal Code	34129
Phone Number		Fax Number	
Email Address			
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. <input type="button" value="Add"/>			

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Jae Y. Park/	Date (YYYY-MM-DD)	2020-06-05		
First Name	JAE	Last Name	PARK	Registration Number	62629
Additional Signature may be generated within this form by selecting the Add button. <input type="button" value="Add"/>					

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	HNG-0055-CA1-ET
		Application Number	
Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME		

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:					
Filing Date:					
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME				
First Named Inventor/Applicant Name:	Young-Sic JEONG				
Filer:	Jae Y. Park/Darleen Nguyen				
Attorney Docket Number:	HNG-0055-CA1-ET				
Filed as Small Entity					
Filing Fees for Utility under 35 USC 111(a)					
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:					
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	75	75	
UTILITY SEARCH FEE	2111	1	330	330	
UTILITY EXAMINATION FEE	2311	1	380	380	
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				785

Electronic Acknowledgement Receipt

EFS ID:	39638957
Application Number:	16894167
International Application Number:	
Confirmation Number:	1083
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
First Named Inventor/Applicant Name:	Young-Sic JEONG
Customer Number:	82727
Filer:	Jae Y. Park/Darleen Nguyen
Filer Authorized By:	Jae Y. Park
Attorney Docket Number:	HNG-0055-CA1-ET
Receipt Date:	05-JUN-2020
Filing Date:	
Time Stamp:	16:00:17
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$785
RAM confirmation Number	E202065G00413857
Deposit Account	505622
Authorized User	Darleen Nguyen

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)
 37 CFR 1.20 (Post Issuance fees)
 37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		SpecClaimAbst_HNG0055CA1.pdf	142081	yes	19
			22d57aa3e7facc3306a4f97deaec63ff64fedec0		
Multipart Description/PDF files in .zip description					
	Document Description		Start		End
	Specification		1		17
	Claims		18		18
	Abstract		19		19
Warnings:					
Information:					
2	Drawings-only black and white line drawings	Drawings_HNG0055CA1.pdf	64218	no	2
			c03f60b2740e8b81e9a73e8c6aa2bb2c8112d564		
Warnings:					
Information:					
3	Oath or Declaration filed	Decl_Assmt_HNG0055CA1.pdf	3093946	no	6
			2779a059ca0f4383a42f12e6c4c850dd7dca2eada		
Warnings:					
Information:					
4	Transmittal of New Application	POA_Transmittal_HNG0055CA1.pdf	175268	no	1
			fe5ffaa6bd38ab982a2525b2f2540b231a36d76		
Warnings:					
Information:					
5	Power of Attorney	POA_ETRI_HNG0055CA1.pdf	1002006	no	1
			411f577ed16fed769c644d7734c9fc2420fa1208		

Warnings:					
Information:					
6	Application Data Sheet	ADS_HNG0055CA1.pdf	1256506	no	9
			0ee985d397cd777bb5334b5e7cbe5c7be7662686		
Warnings:					
Information:					
7	Fee Worksheet (SB06)	fee-info.pdf	35008	no	2
			955ab41ba088574f63bc0ca59578fffc95af32b7		
Warnings:					
Information:					
Total Files Size (in bytes):				5769033	
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>					

METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This is a continuation application based on currently pending U.S. Patent Application No. 14/931,213 filed November 3, 2015, the disclosure of which is incorporated herein by reference in its entirety. U.S. Patent Application No. 14/931,213 claims the priority benefit of Korean Patent Application Nos. 10-2014-0151328 filed November 3, 2014, 10-2014-0151327 filed November 3, 2014, 10-2015-0011217 filed January 23, 2015, 10-2015-0093338 filed June 30, 2015, 10-2015-0145571 filed October 19, 2015, and 10-2015-0153925 filed November 3, 2015 which are hereby incorporated by reference in their entirety into this application.

BACKGROUND OF THE INVENTION

1. Technical Field

[0002] Embodiments based on the concept of the present invention generally relate to a method for operating a relation server and a system using the method and, more particularly, to a method for operating a relation server and a system using the method, which manage relations between machines that are required in order to execute an externally received command.

2. Description of the Related Art

[0003] Recently, systems for connecting machines through a network and sharing information between the machines have been applied to various fields, such as health care, telemetry, smart homes, and smart cars, as well as household appliances and electronic devices.

[0004] Therefore, when various machines form collaborative relations, methods for managing the relations between the machines are required.

SUMMARY OF THE INVENTION

[0005] Accordingly, the present invention has been made keeping in mind the above problems occurring in the prior art, and an object of the present invention is to provide a method for operating a relation server and a system using the method, which manage relations between machines that are required in order to execute externally received commands.

[0006] In accordance with an aspect of the present invention to accomplish the above object, there is provided a method for operating a relation server, the relation server managing relations between machines, including generating, by the relation server, a capability set required to execute a command by analyzing the command, and grouping, by the relation server, machines that are to execute the command, among the machines, based on the generated capability set, and capability parameters and status parameters of respective machines that have been previously registered in the relation server or that are extractable by the relation server.

[0007] Each of the capability parameters may include sub-parameters related to at least one of a title of an executable process, an input parameter, an output parameter, a process processing time, process processing conditions, and executable functions.

[0008] Each of the status parameters may include sub-parameters related to at least one of a current active state, current availability or unavailability, a current process, a scheduled termination time for the current process state, a currently executed function, and a scheduled termination time of the currently executed function.

[0009] A machine profile including information about each of the machines may include a capability parameter and a status parameter, and the machine profile may further include at least one of a machine ID parameter, a user ID parameter, a group ID parameter, a machine operating system parameter, and a machine interface parameter.

[0010] The machine operating system parameter may include sub-parameters related to a type and a version of an operating system used by each of the machines.

[0011] The machine interface parameter may include sub-parameters related to interfaces and interface protocols between the machines, and interfaces and interface protocols between each machine and the relation server.

[0012] The method may further include forming relations between the grouped machines based on the capability set, capability parameters and status parameters of the respective grouped machines.

[0013] The relations may include information about the grouped machines and information about a task processing schedule of the grouped machines.

[0014] The method may further include generating, by the relation server, a relation profile based on the relations.

[0015] The relation profile may include at least one of a capability set parameter, grouped machine parameters, a work group ID parameter, a task description parameter, and a task processing schedule parameter.

[0016] The task processing schedule parameter may include sub-parameters related to at least one of a process start time of each process, process start conditions, machine IDs of allocated machines, functions that are used, a start time of each of the functions, a predicted process termination time, interface parameters, and process termination conditions.

[0017] The method may further include operating, by the relation server, the grouped machines according to a task processing schedule included in the relation profile.

[0018] The method may further include, after completing the execution of the command, releasing, by the relation server.

[0019] The method may further include requesting, by the relation server, an intervention of a user based on processes included in the relation profile.

[0020] The intervention of the user may include an approval or a selection of the user related to an execution of the process.

[0021] The method may further include re-grouping, by the relation server, the machines according to the approval or the selection of the user, and forming, by the relation server, new relations between the re-grouped machines.

[0022] The method may further include generating, by the relation server, a new relation profile based on the new relations.

[0023] In accordance with another aspect of the present invention to accomplish the above object, there is provided a system, comprising multiple machines, and a relation server for managing relations between the multiple machines, wherein the relation server generates a capability set required to execute a command by analyzing the command, and groups machines that are to execute the command, among the machines, based on the generated capability set, and capability parameters and status parameters of respective machines that have been previously registered in the relation server or that are extractable by the relation

server.

BRIEF DESCRIPTION OF THE DRAWINGS

[0024] The above and other objects, features and advantages of the present invention will be more clearly understood from the following detailed description taken in conjunction with the accompanying drawings, in which:

[0025] FIG. 1 is a conceptual diagram showing a system according to an embodiment of the present invention; and

[0026] FIG. 2 illustrates an embodiment of a scenario that can be applied to the system of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0027] Specific structural or functional descriptions related to embodiments based on the concept of the present invention and disclosed in the present specification are merely illustrated to describe embodiments based on the concept of the present invention, and the embodiments based on the concept of the present invention may be implemented in various forms and should not be interpreted as being limited to the above embodiments described in the present specification.

[0028] The embodiments based on the concept of the present invention may be modified in various manners and may have various forms, so that embodiments are intended to be illustrated in the drawings and described in detail in the present specification. However, it should be understood that those embodiments are not intended to limit the embodiments based on the concept of the present invention to specific disclosure forms and they include all changes, equivalents or modifications included in the spirit and scope of the present invention.

[0029] The terms such as “first” or “second” may be used to describe various components, but those components should not be limited by the terms. The terms are merely used to distinguish one component from other components, and a first component may be designated as a second component and a second component may be designated as a first component in

the similar manner, without departing from the scope based on the concept of the present invention.

[0030] It should be understood that a representation indicating that a first component is “connected” or “coupled” to a second component may include the case where the first component is connected or coupled to the second component with some other component interposed therebetween, as well as the case where the first component is “directly connected” or “directly coupled” to the second component. In contrast, it should be understood that a representation indicating that a first component is “directly connected” or “directly coupled” to a second component means that no component is interposed between the first and second components. Other representations describing relationships among components, that is, “between” and “directly between” or “adjacent to,” and “directly adjacent to,” should be interpreted in similar manners.

[0031] The terms used in the present specification are merely used to describe specific embodiments and are not intended to limit the present invention. A singular expression includes a plural expression unless a description to the contrary is specifically pointed out in context. In the present specification, it should be understood that the terms such as “include” or “have” are merely intended to indicate that features, numbers, steps, operations, components, parts, or combinations thereof that are described in the present specification are present, and are not intended to exclude a possibility that one or more other features, numbers, steps, operations, components, parts, or combinations thereof will be present or added.

[0032] Unless differently defined, all terms used here including technical or scientific terms have the same meanings as the terms generally understood by those skilled in the art to which the present invention pertains. The terms identical to those defined in generally used dictionaries should be interpreted as having meanings identical to contextual meanings of the related art, and are not interpreted as being ideal or excessively formal meanings unless they are definitely defined in the present specification.

[0033] FIG. 1 is a conceptual diagram showing a system according to an embodiment of the present invention.

[0034] Referring to FIG. 1, a system 100 according to an embodiment of the present invention may include multiple machines 101, 102, 105, and 106, and a relation server 104.

[0035] In FIG. 1, for the convenience of description, a user 103 is shown together with the

above components, and may be a user or a user terminal.

[0036] Although four machines 101, 102, 105, and 106 are illustrated in FIG. 1 by way of example, the technical scope of the present invention should not be construed as being limited to any specific number of machines included in the system 100.

[0037] Each of multiple machines 101, 102, 105, and 106 may have its own machine profile.

[0038] The machine profile means data including various types of information related to each machine 101, 102, 105, or 106. According to an embodiment, the machine profile may include at least one of the parameters of the machine profile presented in the following Table 1. Each of the machine profile parameters may include at least one sub-parameter.

[0039] In the present specification, the term “sub-parameter” may denote a parameter including detailed items for the corresponding parameter.

Table 1

Parameters of machine profile	Sub-parameters
Status	Current operation (active) state
	Current availability or unavailability (standby)
	Current process
	Scheduled termination time of current process
	Currently executed function
	Scheduled termination time of currently executed function
Capability	Title of process
	Input parameter
	Output parameter
	Process processing time
	Process processing condition(s)
	Function 1
	Function 2
	...
	Function n
Machine ID	-
User ID	-
Group ID	-

Machine operating system	Operating system type
	Operating system version
Machine interface	Interface protocol(s) between machines
	Interface parameter(s) between machines
	Interface protocol(s) between machines and relation server
	Interface parameter(s) between machines and relation server

[0040] Referring to Table 1, the sub-parameters of the status parameter may include the current active state of each of the machines 101, 102, 105, and 106, information about whether each of the machines 101, 102, 105, and 106 is currently available or unavailable (i.e. in a standby state), a current process, a scheduled termination time of the current process, the currently executed function, and the scheduled termination time of the currently executed function.

[0041] The currently executed function may denote the function that is currently being executed among various functions that are executed in order to perform a single process. For example, the currently executed function may be a function such as ‘washing’, ‘rinsing’, or ‘spin-drying’, performed for the process ‘laundrying’.

[0042] The sub-parameters of the capability parameter may include the title of a process, which can be processed by each of the machines 201, 202, 204, and 205, an input parameter, an output parameter, a process processing time, a process processing condition, and multiple functions related to the executable task (function 1, function 2, function 3, ..., function n). The input parameter may refer to information that is input in order to operate the corresponding machine, and the output parameter may refer to information that is output from the corresponding machine depending on the results of operation.

[0043] The machine ID parameter denotes a unique identifier allocated to each of the machines 101, 102, 105, and 106 to identify each of the machines 101, 102, 105, and 106.

[0044] The user ID parameter denotes a unique identifier allocated to a user who is capable of utilizing each of the machines 101, 102, 105, and 106.

[0045] The group ID parameter denotes a unique identifier allocated to a user group (e.g. members of a family, members of a specific company, etc.) that is capable of utilizing each of the machines 101, 102, 105, and 106.

[0046] The sub-parameters of the machine operating system (OS) parameter may include the

type and version of the OS that is used by each of the machines 101, 102, 105, and 106.

[0047] The sub-parameters of the machine interface parameter may include interface protocols between the machines 101, 102, 105, and 106, interface parameters between the machines 101, 102, 105, and 106, interface protocols between each machine 101, 102, 105, or 106 and the relation server 104, and interface parameters between each machine 101, 102, 105, or 106 and the relation server 104.

[0048] In accordance with an embodiment, the machine profile may be defined and implemented in the form of a schema having a hierarchical structure. That is, the machine profile may be defined and implemented as a data structure having a structure system such as that given in Table 1. In this case, the machine profile may further include a tag, indicating the last portion of each parameter (or machine profile), in the last portion of each parameter (or the last portion of the machine profile).

[0049] The system 100 of FIG. 1 is a centralized system in which the machines 101, 102, 105, and 106 are grouped by the relation server 104 and the sequence of the operations of the machines 101, 102, 105, and 106 is designated.

[0050] The relation server 104 may perform a grouping for the machines that have been previously registered in the relation server 104 or that are extractable (that is, capable of being selected) by a communication with the relation server 104 among various machines.

[0051] The relation server 104 may generate a capability set required to execute a command by analyzing the command input from the user 103, and may group the machines 101, 102, 105, and 106 based on the generated capability set and the machine profiles of the machines 101, 102, 105, and 106, for example, capability parameters and status parameters.

[0052] In the present specification, the term ‘analysis of a command’ may be used interchangeably with the term ‘analysis of a task corresponding to a command’.

[0053] According to an embodiment, the relation server 104 may form relations between the machines 101, 102, 105, and 106, based on the capability set, the capability parameters and the status parameters of the respective machines 101, 102, 105, and 106, and generate a relation profile based on the relations. The generated relation profile may be stored in the relation server 104 or a storage space associated with the relation server 104.

[0054] The term ‘relation’ in the present specification may mean a concept including not only machines (i.e. a machine group) associated to collaborate with each other on a process, but

also a task processing schedule (e.g. the sequence of operations, a task collaborative relation, etc.) required to allow the machines to perform the process.

[0055] According to an embodiment, the present invention may further include a procedure in which the relation server 104 analyzes the command using the data prestored in the relation server 104 or in the storage space associated with the relation server 104 when the relation profile is generated. In this case, the relation server 104 may form the relations between the machines 101, 102, 105, and 106 based on the analyzed command and the capability parameters and the status parameters of the respective machines 101, 102, 105, and 106 and may generate a relation profile based on the relations.

[0056] According to an embodiment, the relation server 104 may request an intervention of a user to the user 103 according to the processes included in the relation profile. The intervention of the user may include an approval or a selection of the user related to an execution of the processes. In this case, the user 103 may transmit a result of the approval for all of the processes or the selection for a part of the processes to the relation server 104, by responding to the request from the relation server 104. The said user intervention step may be performed at various times according to an embodiment. For example, the intervention of the user may be performed after the relation profile is generated or be performed before an addition work is conducted.

[0057] According to another embodiment, the relation server 140 may request the intervention of the user to the user 103 only when a process result of the processes included in the relation profile make a critical effect on the user 103.

[0058] The relation server 104 may re-group the machines 101, 102, 105, and 106 according to the intervention (e.g. the approval of the selection) of the user 103, and may generate a new relations of the re-grouped machines. And, the relation server 104 may generate a new relation profile according to the new relations.

[0059] According to an embodiment, relation profile may include at least one of the parameters presented in the following Table 2. Each of the parameters of the relation profile may include at least one sub-parameter.

[0060] The term “task” in the present specification may mean a set of processes (or functions) that need to be performed based on the results of analyzing the command input from the user 103. And, the term “relation profile” in the present specification may broadly mean data

representing relations formed to perform a task.

Table 2

Parameters of relation profile	Sub-parameters
Capability set	Capability 1
	...
	Capability n
Grouped machines	Machine ID 1
	...
	Machine ID n
Work group ID	-
Task description	-
Task processing schedule	Process 1
	Process start time
	Process start condition(s)
	Allocated machine ID
	Start time of function 1
	Function 1
	...
	Start time of function n
	function n
	Predicted termination time of process 1
	Interface parameter
	Termination condition(s) of process 1
	...
	Process n
	Process start time
	Process start condition(s)
	Allocated machine ID
	Start time of function 1
	function 1
	...
Start time of function n	

	Function n
	Predicted termination time of process n
	Interface parameters
	Termination condition(s) of process n

[0061] Referring to Table 2, the parameters of the relation profile may include a capability set parameter, grouped machine parameters, a work group ID parameter, a task description parameter, a task processing schedule parameter, etc.

[0062] The capability set parameter may include information about capability parameters, which are required for relevant task, and machines may be grouped based on the capability set parameters.

[0063] The grouped machine parameters may include information about the machine IDs (machine ID 1, ..., machine ID n) of machines grouped to perform the relevant task.

[0064] The work group ID parameter may denote the ID required to identify the entire group of the grouped machines.

[0065] The task description parameter may include various types of additional information related to the relevant task. For example, the task description parameter may include details about the tasks for the relevant task in the form of text.

[0066] The task processing schedule parameter may include relations (e.g. a processing sequence) between multiple processes (process 1, ..., process n) and sub-parameters related to the respective processes (process 1, ..., process n).

[0067] According to an embodiment, the sub-parameters of the task processing schedule parameter may include the process start time of each process, the start condition(s) of each process, the machine IDs of machines allocated, the functions used, the start time of each of the functions, the predicted termination time of the process, interface parameters, the termination condition(s) of the process, etc.

[0068] According to an embodiment, the relation profile may be defined and implemented in the form of a schema having a hierarchical structure. That is, the relation profile may be defined and implemented as a data structure having a structure system, such as that given in Table 2. In this case, the relation profile may further include a tag, indicating the last portion of each parameter (or the relation profile), in the last portion of each parameter (or the last portion of the relation profile).

[0069] In the present specification, the term “capability set” may be used as a concept having a level which is equivalent to the task. For example, work, that is, a capability set corresponding to a task, such as “housework” may be composed of processes (or functions) such as “cleaning”, “doing the dishes”, and “doing the laundry”.

[0070] According to an embodiment, the relation server 104 may list the machine ID parameters of the respective machines 101, 102, 105, and 106 grouped to execute the command and arrange the listed machine ID parameters according to the sequence of operations suitable for the execution of the command.

[0071] In this case, in the arrangement corresponding to the operation sequence, the status parameters of respective machines 101, 102, 105, and 106 may be taken into consideration. For example, when a relevant machine is found to be currently in an active state using the sub-parameters of the machine 101, 102, 105, or 106, the sequence of operations may be arranged in consideration of available times using the scheduled termination time parameter for the current active state.

[0072] For example, when a relevant machine is found to be currently in an available state using the sub-parameter indicating current availability or unavailability (standby state), among the sub-parameters of the machine 101, 102, 105, or 106, the operations of the machines may be arranged according to the sequence most suitable for the execution of the command.

[0073] According to the determined operation sequence, the relation server 104 may execute the command received from the user 103 by requesting each of the machines 101, 102, 105, and 106 to perform process.

[0074] In the system 100 of FIG. 1, the machines 101, 102, 105, and 106 may be entirely controlled by the relation server 104, and thus the machines 101, 102, 105, and 106 do not need to exchange data with each other.

[0075] The relation server 104 is not limited as to the location or form thereof as long as it is capable of communicating with the machines 101, 102, 105, and 106. For example, the relation server 104 may be implemented using a smart phone.

[0076] The machine profiles of the machines 101, 102, 105, and 106 may be previously registered in the relation server 104 and may be transmitted to the relation server 104 at the request of the relation server 104. According to an embodiment, when the machine profiles

are previously registered, the relation server 104 may fixedly store the capability parameters, machine ID parameters, user ID parameters, group ID parameters, machine operating system (OS) parameters, and machine interface parameters, and may update the status parameters while communicating with the machines 101, 102, 105, and 106.

[0077] The relation server 104 may always be maintained in the state in which it is capable of communicating with the machines 101, 102, 105, and 106 by setting interface protocols and protocol parameters to be used to communicate with the machines 101, 102, 105, and 106 using the machine profiles.

[0078] The method for operating the relation server 104 will be described in greater detail with reference to the scenario of FIG. 2.

[0079] FIG. 2 illustrates an embodiment of a scenario that can be applied to the system of FIG. 1.

[0080] Referring to FIGS. 1 and 2, it is assumed that, in FIG. 2, the first machine 101 is a movie search engine, the second machine 102 is a smart phone, the third machine 105 is a machine having a movie reservation function (e.g. a communication terminal in which a movie reservation application is installed), and the fourth machine 106 is a boiler control machine having a communication function.

[0081] The second machine 102 may receive a command, for example, a 'movie recommendation' command, from the user 103 at step S10. According to an embodiment, the command may be received via email, a social network service (SNS), or a messenger.

[0082] The second machine 102 may forward the command received from the user 103 to the relation server 104 at step S12.

[0083] The relation server 104 may analyze the received command at step S14, and may generate a capability set required to execute the command based on the results of the analysis and group the machines 101, 102, 105, and 106, which will execute the command, based on the generated capability set, at step S16. For example, the relation server 104 may group the machines that may perform processes or functions included in the capability set required to execute the command, based on the machine profiles of the respective machines 101, 102, 105, and 106.

[0084] The relation server 104 may form relations between the machines 101, 102, 105, and 106 based on the capability parameters and the status parameters of the respective grouped

machines 101, 102, 105, and 106 at step S18.

[0085] According to an embodiment, the relation server 104 may utilize machine profiles in which the capability parameters and the status parameters of the machines 101, 102, 105, and 106, which have been previously registered in the relation server 104, are included.

[0086] According to another embodiment, the relation server 104 may also use machine profiles acquired from a query that is transmitted from the relation server 104 to each of the machines 101, 102, 105, and 106.

[0087] The relation server 104 may generate a relation profile based on the relations formed between the machines 101, 102, 105, and 106 at step S20.

[0088] The relation server 104 may perform management so that the machines 101, 102, 105, and 106 perform required operations at required times depending on the relation profile.

[0089] For example, the relation server 104 may set the sequence of operations of the machines 101, 102, 105, and 106 based on the machine profiles (capability parameters, status parameters, etc.) of the respective machines 101, 102, 105, and 106, and may then arrange the machine IDs according to the set sequence and store the arranged machine IDs in the relation profile.

[0090] The relation server 104 may request the first machine 101 to search for movies using the stored relation profile at step S22.

[0091] In this case, the relation server 104 may request the first machine to search for movies based on information about movies that meet movie search conditions input by the user 103 (e.g. a movie title, a movie theater, a synopsis, a running time, or the like). According to an embodiment, the movie search conditions may be included in the command input from the user 103 at step S10.

[0092] The first machine 101 may transmit the found movie information to the user 103 via the relation server 104 and the second machine 102 at steps S24, S26, and S28.

[0093] The user 103 enters information about the determination to make a reservation (e.g. the selected movie, the selected movie theater, the movie start time, the number of tickets to be reserved, etc.) in response to the found movie information, and may deliver the information about the determination to make a reservation (reservation determination information) to the relation server 104 via the second machine 102 at steps S30 and S32.

[0094] The relation server 104 may transmit a reservation request to the third machine 105

based on the received reservation determination information at step S34.

[0095] The third machine 105 may reserve a movie corresponding to the reservation determination information, and may transmit a payment confirmation request to the user 103 via the relation server 104 and the second machine 102 at steps S36, S38, and S40.

[0096] The user 103 may transmit payment confirmation to the third machine 105 via the second machine 102 and the relation server 104 at steps S42, S44, and S46.

[0097] The third machine 105 may reserve the movie in response to payment confirmation from the user 103, and may provide notification of the results of the reservation to the user 103 via the relation server 104 and the second machine 102 at steps S48, S50, and S52.

[0098] The relation server 104 may transmit a request, which is required in order to obtain the selection or approval of work that can be additionally performed in compliance with the command of the user 103 transmitted at step S10, to the user 103 at step S54.

[0099] According to an embodiment, the relation server 104 may transmit information about a list of additional works, information about machines for processing the additional works, and information about the sequence (or schedule), in which the additional works are to be processed, to the user 103.

[00100] The user 103 may select and input additional works to be conducted, and may transmit a command for selecting the input additional works to the relation server 104 at step S56.

[00101] The relation server 104 may analyze the additional work selection command transmitted from the user 103 at step S58, generate a capability set required to execute the command based on the results of the analysis, and re-group the machines 101, 102, 105, and 106, which will collaborate in the performance of the additional works selected by the user 103, based on the generated capability set, at step S60.

[00102] The relation server 104 may form new relations between the machines 101, 102, 105, and 106 based on the capability parameters and the status parameters of the respective re-grouped machines 101, 102, 105, and 106 at step S62.

[00103] The relation server 104 may generate a new relation profile based on the newly formed relations at step S64.

[00104] Thereafter, the relation server 104 may perform management so that the corresponding machines perform required operations at required times based on the newly

generated relation profile.

[00105] For example, the relation server 104 may schedule the operation of a boiler so that the boiler is driven via the fourth machine 106 in accordance with the time at which the movie is to be terminated based on movie reservation information at step S66.

[00106] According to an embodiment, after the execution of the command has been completed, the relation server 104 may release the formed relations and delete the relation profile.

[00107] Although the present invention has been described with reference to the embodiments illustrated in the drawings, those skilled in the art will understand that various modifications and other equivalent embodiments are possible from the above embodiments. Therefore, the technical scope of the present invention should be defined by the technical spirit of the accompanying claims.

[00108] The method according to the embodiments may be implemented as a program that can be executed by various computer means. In this case, the program may be recorded on a computer-readable storage medium. The computer-readable storage medium may include program instructions, data files, and data structures solely or in combination. Program instructions recorded on the storage medium may have been specially designed and configured for the present disclosure, or may be known to or available to those who have ordinary knowledge in the field of computer software. Examples of the computer-readable storage medium include all types of hardware devices specially configured to record and execute program instructions, such as magnetic media, such as a hard disk, a floppy disk, and magnetic tape, optical media, such as compact disk (CD)-read only memory (ROM) and a digital versatile disk (DVD), magneto-optical media, such as a floptical disk, ROM, random access memory (RAM), and flash memory. Examples of the program instructions include machine language code, such as code created by a compiler, and high-level language code executable by a computer using an interpreter. The hardware devices may be configured to operate as one or more software modules in order to perform the operation of the present disclosure, and vice versa.

[00109] The method and system according to embodiments of the present invention are advantageous in that machines to execute a command may be grouped based on the capability parameters and the status parameters of machines, and optimal relations between the

machines grouped to execute the command may be formed.

[00110] As described above, although the embodiments have been described with reference to a limited number of embodiments and drawings, those skilled in the art will appreciate that various changes and modifications are possible from the above descriptions. For example, even if the above-described technologies are performed in a sequence differing from that of the described method, and/or components such as a system, a structure, a device, and a circuit are coupled or combined in a way differing from that of the described method or are replaced with or substitute other components or equivalents, suitable results can be achieved.

[00111] Therefore, it should be understood that other embodiments and examples and equivalents of the accompanying claims belong to the scope of the accompanying claims.

WHAT IS CLAIMED IS:

1. A method for operating a relation server, the relation server managing relations between machines, comprising:

generating, by the relation server managing relations between machines, a capability set required to execute a task by analyzing the task; and

grouping, by the relation server, machines that are to execute the task, among the machines, based on the generated capability set, and capability parameters and status parameters of respective machines that have been previously registered in the relation server or that are extractable by the relation server.

ABSTRACT

Disclosed herein are a method for operating a relation server and a system using the method. The method for operating the relation server for managing relations between machines includes generating, by the relation server, a capability set required to execute a command by analyzing the command, and grouping, by the relation server, machines that are to execute the command, among the machines, based on the generated capability set, and capability parameters and status parameters of respective machines that have been previously registered in the relation server or that are extractable by the relation server.

FIG. 1

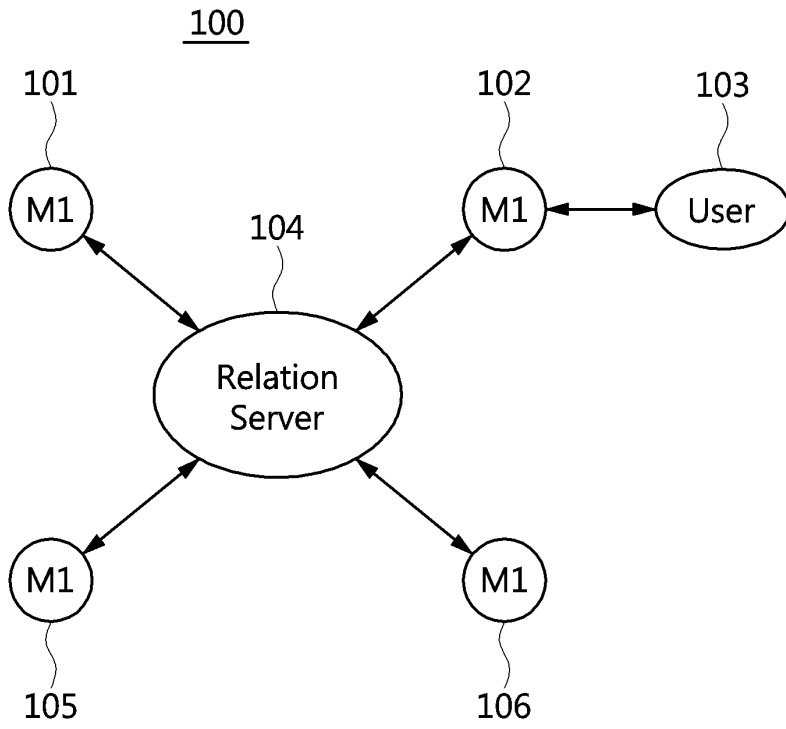
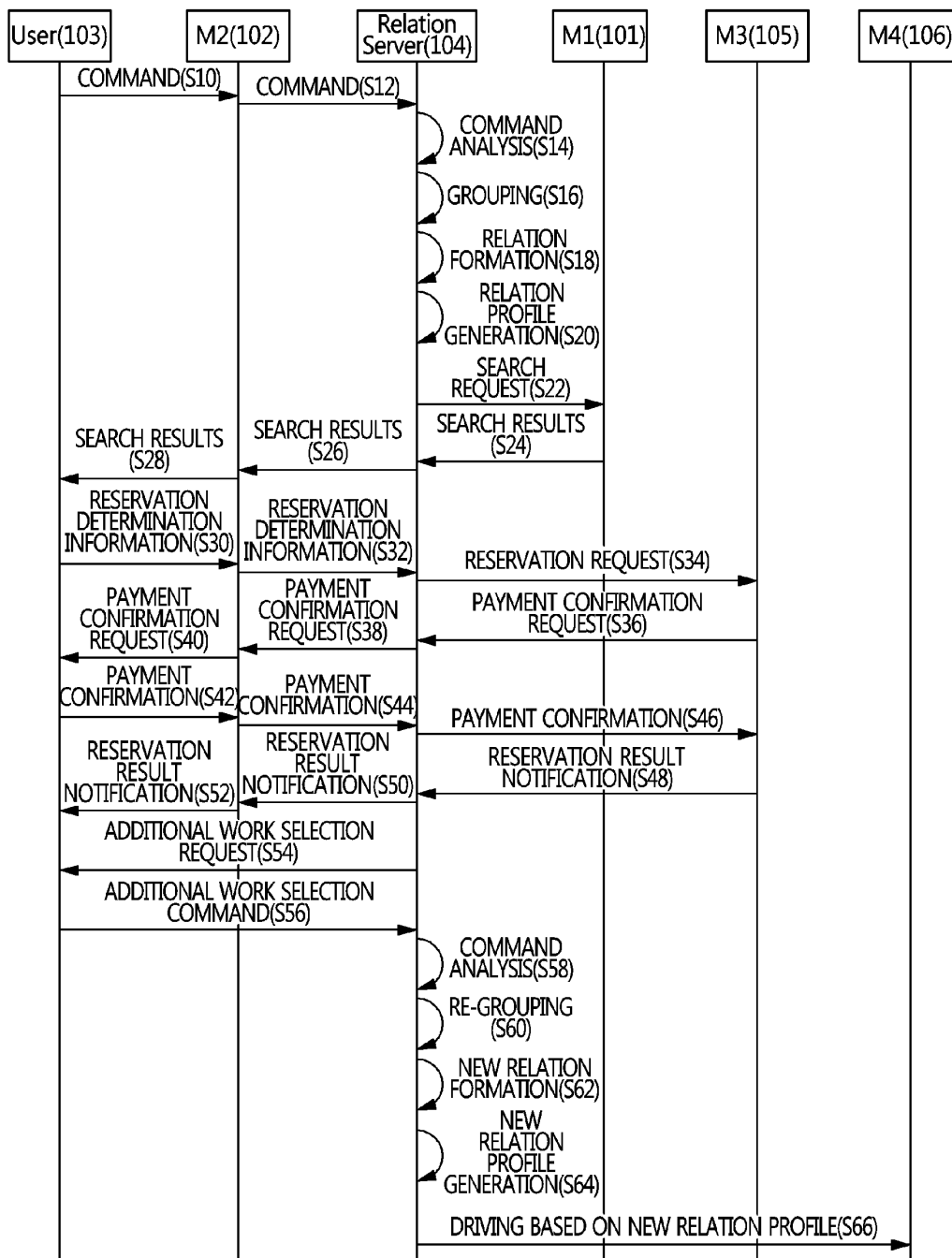


FIG. 2



COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION
 USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

<p>Title of Invention</p>	<p>METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME</p>
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration is directed to:</p> <p><input checked="" type="checkbox"/> The attached application, or</p> <p><input type="checkbox"/> United States application or PCT international application number _____ filed on _____.</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>I have reviewed and understand the contents of the above-identified application, including the claims. I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.</p> <p>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.</p> <p>WHEREAS, <u>ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE</u> of <u>218, Gajeong-ro, Yuseong-gu, Daejeon 34129, Republic of Korea</u>, its heirs, successors, legal representatives and assigns (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefore in the United States of America and in any foreign countries.</p> <p>NOW, THEREFORE, to all whom it may concern, be it known that, for good and valuable consideration paid to the undersigned, the receipt of which is hereby acknowledged, I have sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefore in the United States of America, its territories, dependencies and possessions, and in any and all foreign countries;</p> <p>and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.</p>	

KILE PARK PLLC, WASHINGTON DC, USA

United States Patent and Trademark Office

I agree to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I agree to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

I agree to execute all papers and documents and to perform any act which may be necessary in connection with claims and provisions of the International Convention for the Protection of Industrial Property or similar agreements.

I agree to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) and any foreign patent(s) to the Assignee and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by me if this Assignment and sale had not been made.

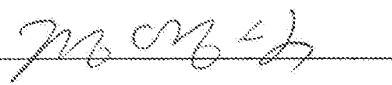
I hereby authorize and request the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, and hereby covenant that I have the full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I declare that all statements made in the above assignment of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C.1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

LEGAL NAME OF INVENTOR

Inventor: JEONG, Young-Sie

Date: October 28, 2015

Signature: 

Note: Use an additional form for each additional inventor.

KILE PARK PLLC, WASHINGTON DC, USA

United States Patent and Trademark Office

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION
USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration is directed to:</p> <p><input checked="" type="checkbox"/> The attached application, or</p> <p><input type="checkbox"/> United States application or PCT international application number _____ filed on _____.</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>I have reviewed and understand the contents of the above-identified application, including the claims. I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.</p> <p>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.</p> <p>WHEREAS, <u>ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE</u> of <u>21B, Gajeong-ro, Yuseong-gu, Daejeon 34129, Republic of Korea</u>, its heirs, successors, legal representatives and assigns (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefore in the United States of America and in any foreign countries.</p> <p>NOW, THEREFORE, to all whom it may concern, be it known that, for good and valuable consideration paid to the undersigned, the receipt of which is hereby acknowledged, I have sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefore in the United States of America, its territories, dependencies and possessions, and in any and all foreign countries;</p> <p>and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.</p>	

KILE PARK PLLC, WASHINGTON DC, USA

United States Patent and Trademark Office

I agree to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I agree to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

I agree to execute all papers and documents and to perform any act which may be necessary in connection with claims and provisions of the International Convention for the Protection of Industrial Property or similar agreements.

I agree to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) and any foreign patent(s) to the Assignees and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by me if this Assignment and sale had not been made.

I hereby authorize and request the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, and hereby covenant that I have the full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I declare that all statements made in the above assignment of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C.1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

LEGAL NAME OF INVENTOR

Inventor: YOO, Sang-Keun

Date: October 28, 2015

Signature: _____

유 상근

Note: Use an additional form for each additional inventor.

KILE PARK PLLC, WASHINGTON DC, USA

United States Patent and Trademark Office

COMBINED DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION
USING AN APPLICATION DATA SHEET (37 CFR 1.76) AND ASSIGNMENT

Title of Invention	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
<p>As the below named inventor, I hereby declare that:</p> <p>This declaration is directed to:</p> <p><input checked="" type="checkbox"/> The attached application, or</p> <p><input type="checkbox"/> United States application or PCT international application number _____ filed on _____.</p> <p>The above-identified application was made or authorized to be made by me.</p> <p>I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.</p> <p>I have reviewed and understand the contents of the above-identified application, including the claims. I am aware of the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.</p> <p>I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.</p> <p>WHEREAS, <u>ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE</u> of <u>218, Gaicong-ro, Yuseong-gu, Daejeon 34129, Republic of Korea</u>, its heirs, successors, legal representatives and assigns (hereinafter referred to as "ASSIGNEE") is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefore in the United States of America and in any foreign countries.</p> <p>NOW, THEREFORE, to all whom it may concern, be it known that, for good and valuable consideration paid to the undersigned, the receipt of which is hereby acknowledged, I have sold, assigned and transferred, and by these presents does sell, assign and transfer unto the Assignee the full and exclusive right to the said invention in the United States of America, its territories, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefore in the United States of America, its territories, dependencies and possessions, and in any and all foreign countries;</p> <p>and to any and all divisions, reissues, continuations, conversions and extensions thereof for the full term or terms for which the same may be granted.</p>	

KILE PARK PLLC, WASHINGTON DC, USA

United States Patent and Trademark Office

I agree to execute all papers necessary in connection with this application and any continuing, divisional, conversion or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

I agree to execute all papers necessary in connection with any interference which may be declared concerning this application or continuation, division, conversion or reissue thereof or Letter Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

I agree to execute all papers and documents and to perform any act which may be necessary in connection with claims and provisions of the International Convention for the Protection of Industrial Property or similar agreements.

I agree to perform all affirmative acts which may be necessary to obtain a grant of a valid United States of America patent(s) and any foreign patent(s) to the Assignees and to vest all rights therein hereby conveyed to said Assignee as fully and entirely as the same would have been held by me if this Assignment and sale had not been made.

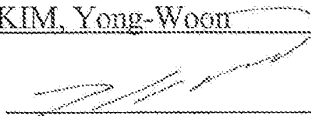
I hereby authorize and request the Patent and Trademark Office Officials in the United States of America and in any foreign countries to issue any and all Letters Patents resulting from said application or any continuing, divisional conversion or reissue applications thereof to the said Assignee, and hereby covenant that I have the full right to convey the entire interest herein assigned, and that I have not executed, and will not execute, any agreement in conflict herewith.

I declare that all statements made in the above assignment of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C.1001 and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

LEGAL NAME OF INVENTOR

Inventor: KIM, Yong-Woon

Date: October 21, 2015

Signature: 

Note: Use an additional form for each additional inventor.

KILE PARK PLLC, WASHINGTON DC, USA



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 7 columns: APPLICATION NUMBER, FILING or 371(c) DATE, GRP ART UNIT, FIL FEE REC'D, ATTY.DOCKET.NO, TOT CLAIMS, IND CLAIMS. Row 1: 16/894,167, 06/05/2020, 785, HNG-0055-CA1-ET, 1, 1

CONFIRMATION NO. 1083

FILING RECEIPT



82727
KILE PARK REED & HOUTTEMAN PLLC
JAE Y PARK
1101 30th Street, N.W.
Suite 500
Washington, DC 20007

Date Mailed: 06/16/2020

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Young-Sic JEONG, Daejeon, KOREA, REPUBLIC OF;
Sang-Keun YOO, Sejong, KOREA, REPUBLIC OF;
Yong-Woon KIM, Asan-si, KOREA, REPUBLIC OF;

Applicant(s)

ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE, Daejeon, KOREA, REPUBLIC OF;

Assignment For Published Patent Application

ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE, Daejeon, KOREA, REPUBLIC OF

Power of Attorney: The patent practitioners associated with Customer Number 82727

Domestic Priority data as claimed by applicant

This application is a CON of 14/931,213 11/03/2015 PAT 10701169

Foreign Applications (You may be eligible to benefit from the Patent Prosecution Highway program at the USPTO. Please see http://www.uspto.gov for more information.)

- REPUBLIC OF KOREA 10-2014-0151328 11/03/2014 No Access Code Provided
REPUBLIC OF KOREA 10-2014-0151327 11/03/2014 No Access Code Provided
REPUBLIC OF KOREA 10-2015-0153925 11/03/2015 No Access Code Provided
REPUBLIC OF KOREA 10-2015-0093338 06/30/2015 No Access Code Provided
REPUBLIC OF KOREA 10-2015-0145571 10/19/2015 No Access Code Provided
REPUBLIC OF KOREA 10-2015-0011217 01/23/2015 No Access Code Provided

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 06/12/2020

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/894,167**

Projected Publication Date: 09/24/2020

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER
Title 35, United States Code, Section 184
Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor

community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/894,167
---	--

APPLICATION AS FILED - PART I			SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
	(Column 1)	(Column 2)					
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)
BASIC FEE <small>(37 CFR 1.16(a), (b), or (c))</small>	N/A	N/A	N/A	75		N/A	
SEARCH FEE <small>(37 CFR 1.16(k), (l), or (m))</small>	N/A	N/A	N/A	330		N/A	
EXAMINATION FEE <small>(37 CFR 1.16(o), (p), or (q))</small>	N/A	N/A	N/A	380		N/A	
TOTAL CLAIMS <small>(37 CFR 1.16(i))</small>	1	minus 20 = *	x 50 =	0.00	OR		
INDEPENDENT CLAIMS <small>(37 CFR 1.16(h))</small>	1	minus 3 = *	x 230 =	0.00			
APPLICATION SIZE FEE <small>(37 CFR 1.16(s))</small>	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT <small>(37 CFR 1.16(j))</small>				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	785		TOTAL	

APPLICATION AS AMENDED - PART II					SMALL ENTITY		OR	OTHER THAN SMALL ENTITY		
	(Column 1)	(Column 2)	(Column 3)							
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	x	=	OR	x	=
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee <small>(37 CFR 1.16(s))</small>							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							OR		
TOTAL ADD'L FEE							OR	TOTAL ADD'L FEE		
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	MINUS	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)	
	Total <small>(37 CFR 1.16(i))</small>	*	Minus	**	=	x	=	OR	x	=
	Independent <small>(37 CFR 1.16(h))</small>	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee <small>(37 CFR 1.16(s))</small>							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM <small>(37 CFR 1.16(j))</small>							OR		
TOTAL ADD'L FEE							OR	TOTAL ADD'L FEE		
<p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.</p>										

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16894167
	Filing Date	2020-06-05
	First Named Inventor	Young-Sic JEONG
	Art Unit	NYA
	Examiner Name	NYA
	Attorney Docket Number	HNG-0055-CA1-ET

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	8060588		2011-11-15	Hyun-gyoo YOOK et al.	
	2	9319484		2016-04-19	Yoshifumi TANIMOTO	
	3	6993398		2006-01-31	Wei LI et al.	

If you wish to add additional U.S. Patent citation information please click the Add button. [Add](#)

U.S.PATENT APPLICATION PUBLICATIONS						Remove
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20140317261		2014-10-23	Kevin SHATZKAMER et al.	
	2	20140177605		2014-06-26	Hyoung Jin KWON et al.	
	3	20120054065		2012-03-01	Jung Sik SUNG et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button. [Add](#)

FOREIGN PATENT DOCUMENTS						Remove
--------------------------	--	--	--	--	--	------------------------

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16894167
	Filing Date	2020-06-05
	First Named Inventor	Young-Sic JEONG
	Art Unit	NYA
	Examiner Name	NYA
	Attorney Docket Number	HNG-0055-CA1-ET

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²ⁱ	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	10-2014-0109940	KR		2014-09-16			<input checked="" type="checkbox"/>
	2	2013/106204	WO		2013-07-18	Bradley Gene CALDER et al.		<input type="checkbox"/>
	3	10-2010-0129488	KR		2010-12-09	Pu Sik PARK et al.		<input checked="" type="checkbox"/>
	4	10-2004-0090600	KR		2004-10-26			<input checked="" type="checkbox"/>
	5	10-1406854	KR		2014-06-13			<input checked="" type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	MobileIron FAQ, October 13, 2013, https://www.mobileiron.com/en/resources/faq .	

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	<input type="text"/>	Date Considered	<input type="text"/>
--------------------	----------------------	-----------------	----------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16894167
	Filing Date	2020-06-05
	First Named Inventor	Young-Sic JEONG
	Art Unit	NYA
	Examiner Name	NYA
	Attorney Docket Number	HNG-0055-CA1-ET

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16894167
	Filing Date	2020-06-05
	First Named Inventor	Young-Sic JEONG
	Art Unit	NYA
	Examiner Name	NYA
	Attorney Docket Number	HNG-0055-CA1-ET

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Jae Y. Park/	Date (YYYY-MM-DD)	2020-06-25
Name/Print	JAE Y. PARK	Registration Number	62629

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	39822958
Application Number:	16894167
International Application Number:	
Confirmation Number:	1083
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
First Named Inventor/Applicant Name:	Young-Sic JEONG
Customer Number:	82727
Filer:	Jae Y. Park/Darleen Nguyen
Filer Authorized By:	Jae Y. Park
Attorney Docket Number:	HNG-0055-CA1-ET
Receipt Date:	25-JUN-2020
Filing Date:	05-JUN-2020
Time Stamp:	16:12:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	IDS_HNG0055CA1.pdf	678226 9637d0ccfb5d308ad13b8352e1cea7335de b2475	no	5

Warnings:

Information:	
Total Files Size (in bytes):	678226
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>	



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 4 columns: APPLICATION NUMBER (16/894,167), FILING OR 371(C) DATE (06/05/2020), FIRST NAMED APPLICANT (Young-Sic JEONG), ATTY. DOCKET NO./TITLE (HNG-0055-CA1-ET)

CONFIRMATION NO. 1083

82727
KILE PARK REED & HOUTTEMAN PLLC
JAE Y PARK
1101 30th Street, N.W.
Suite 500
Washington, DC 20007

PUBLICATION NOTICE



Title:METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME

Publication No.US-2020-0304588-A1

Publication Date:09/24/2020

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently https://portal.uspto.gov/pair/PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Includes details for application 16/894,167, inventor Young-Sic JEONG, and examiner TSENG, LEON Y.

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@kilepark.com
jpark@kilepark.com

DETAILED ACTION

1. Claim 1 has been examined and is rejected. Claim 1 remains pending in this application.

Notice of Pre-AIA or AIA Status

2. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Priority

3. Receipt is acknowledged of certified copies of papers required by 37 CFR 1.55.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 1 is rejected under 35 U.S.C. § 101 because the claimed invention is directed to an abstract idea without significantly more. The claim recites: a method for operating a relation server, the relation server managing relations between machines, comprising: **generating, by the relation server managing relations between machines, a capability set required to execute a task by analyzing the task; and grouping, by the relation server, machines that are to execute the task, among the machines, based on the generated capability set, and capability parameters and status parameters of respective machines that have been previously registered in the relation server or that are extractable by the relation server.**

The bolded limitations, as drafted, under broadest reasonable interpretation, cover performance of the limitation in the mind or with pen and paper but for the recitation of generic

computer components. That is, other than reciting “by the relation server”, nothing in the claim element precludes the step from practically being performed in the mind or with pen and paper. For example, a person can generate a capability set required to execute a task by analyzing the task (for example, if the task is to play a computer game, then a capability set required to play the computer game would be the system requirements for the computer game, and a person can figure that out in their mind) and group machines that are to execute the task, among the machines, based on the generated capability set, and capability parameters and status parameters of respective machines that have been previously registered or that are extractable (for example, a person can inspect all of the machines in a storage room and see if they meet the system requirements to play the game [the capability parameters], as well as check any maintenance tags attached to the machines [the status parameters], and group the machines in the storage room accordingly). If a claim limitation, under its broadest reasonable interpretation, covers performance of the limitation in the mind or with pen and paper but for the recitation of generic computer components, then it falls within the “Mental Processes” grouping of abstract ideas. Accordingly, the claim recites an abstract idea.

This judicial exception is not integrated into a practical application. In this case, the claim only recites a “relation server”. The relation server is recited at a high level of generality such that it amounts to no more than mere instructions to apply the exception using a generic computer component. Accordingly, the additional elements do not integrate the abstract idea into a practical application because it does not impose any meaningful limits on practicing the abstract idea. The claim is directed to an abstract idea.

The claim does not include additional elements that are sufficient to amount to significantly more than the judicial exception. As discussed above with respect to integration of the abstract idea into a practical application, the additional elements amount to no more than mere instructions to apply

the exception using a generic computer component. Mere instructions to apply an exception using a generic computer component cannot provide an inventive concept. The claim is not patent eligible.

Claim Rejections - 35 USC § 102

6. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a)(1) the claimed invention was patented, described in a printed publication, or in public use, on sale or otherwise available to the public before the effective filing date of the claimed invention.

8. Claim 1 is rejected under 35 U.S.C. 102(a)(1) as being anticipated by Li et al. (US 6,993,398, hereinafter Li; see IDS dated 6/25/2020).

Regarding claim 1, Li teaches a method (methods – Column 1, Line 41) for operating a relation server, the relation server managing relations between machines, comprising:

generating, by the relation server managing relations between machines (the present invention can be realized in hardware, software, or a combination of hardware and software. A visualization tool according to the present invention can be realized in a centralized fashion in one computer system, or in a distributed fashion where different elements are spread across several interconnected computer systems – Li Column 11, Lines 18-23), a capability set (in step S104, template programming is performed, which is the actual coding for the solution, including capability requirements and runtime logic – Li

Column 8, Lines 37-39) required to execute a task (Work/Operation: DM works according to the logic defined in the application, and it should respond to a device event or a user command to complete certain task – Li Column 8, Lines 5-7) by analyzing the task (at step S102, a requirement analysis is performed to find out required capabilities/components for the solution – Li Column 8, Lines 32-34); and grouping, by the relation server, machines that are to execute the task (at step S302, the process performs an analysis of the template so as to determine the required capabilities/components and to estimate the required processing power. At step S303, the process searches for required component – Li Column 8, Lines 58-62; at step S314, a dynamic device linking is performed – Li Column 9, Lines 25-26), among the machines, based on the generated capability set, and capability parameters and status parameters of respective machines (at step S307, candidate devices are filtered according to predetermined criteria, which include whether a device is the best, whether a device is satisfactory, whether a device is the cheapest, what location a device is in, etc. then, the process goes to step S311 – Li Column 9, Lines 6-10) that have been previously registered in the relation server or that are extractable by the relation server (at step S306, the process wait for devices to reply in DMML pages – Li Column 8, Lines 66-67; the DMML pages may involve: device capability description, device property description, device method description, event description, etc. – Li Column 9, Lines 3-5).

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious

over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP §§ 706.02(l)(1) - 706.02(l)(3) for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-l.jsp.

10. Claim 1 is rejected on the ground of nonstatutory double patenting as being unpatentable over claim 1 of U.S. Patent No. 10,701,169. Although the claims at issue are not identical, they are not patentably distinct from each other because claim 1 of the present application is merely a broader version of claim 1 of the patent, so claim 1 of the patent reads on claim 1 of the present application.

Conclusion

This is a CONTINUATION of applicant's earlier Application No. 14/931,213, now U.S. Patent No. 10,701,169. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application; in this case, claim 1 of Application No. 14/931,213, originally presented on 6/28/2018 and rejected on 11/2/2018, and claim 1 of the present application are **identical**; as such, the rejection of 11/2/2018 applies to claim 1 of the present application as well. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEON Y TSENG whose telephone number is (571)270-3682. The examiner can normally be reached on Monday to Friday 8:30 AM to 5:00 PM MST, with every other Friday off.


Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WING CHAN can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LEON Y TSENG/
Examiner, Art Unit 2441

/WING F CHAN/
Supervisory Patent Examiner, Art Unit 2441

<i>Search Notes</i> 	Application/Control No. 16/894,167	Applicant(s)/Patent Under Reexamination JEONG et al.
	Examiner LEON Y TSENG	Art Unit 2441

CPC - Searched*		
Symbol	Date	Examiner
H04L 67/303	10/10/2020	LYT

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
709	226	10/10/2020	LYT

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST Inventor and Assignee (Double Patenting) Search	10/10/2020	LYT
EAST Classification, Keyword, Classification-Limited Keyword Search	10/10/2020	LYT

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/LEON Y TSENG/ Examiner, Art Unit 2441	
---	--

Bibliographic Data

Application No: 16/894,167

Foreign Priority claimed: Yes No

35 USC 119 (a-d) conditions met: Yes No Met After Allowance

Verified and Acknowledged:

/LEON Y TSENG/

Examiner's Signature

Initials

Title:

METHOD FOR OPERATING RELATION SERVER AND SYSTEM
USING THE SAME

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
06/05/2020	709	2441	HNG-0055-CA1-ET
RULE			

APPLICANTS

ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE, Daejeon, KOREA, REPUBLIC OF

INVENTORS

Young-Sic JEONG, Daejeon, KOREA, REPUBLIC OF

Sang-Keun YOO, Sejong, KOREA, REPUBLIC OF

Yong-Woon KIM, Asan-si, KOREA, REPUBLIC OF

CONTINUING DATA

This application is a CON of 14931213 11/03/2015 PAT 10701169

FOREIGN APPLICATIONS

KOREA, REPUBLIC OF KR10-2014-0151328 11/03/2014

KOREA, REPUBLIC OF KR10-2014-0151327 11/03/2014

KOREA, REPUBLIC OF KR10-2015-0011217 01/23/2015

KOREA, REPUBLIC OF KR10-2015-0093338 06/30/2015

KOREA, REPUBLIC OF KR10-2015-0145571 10/19/2015

KOREA, REPUBLIC OF KR10-2015-0153925 11/03/2015

IF REQUIRED, FOREIGN LICENSE GRANTED**

06/12/2020

** SMALL ENTITY **

STATE OR COUNTRY

KOREA, REPUBLIC OF

ADDRESS

KILE PARK REED & HOUTTEMAN PLLC

JAE Y PARK

1101 30th Street, N.W.

Suite 500
Washington, DC 20007
UNITED STATES

FILING FEE RECEIVED

\$785

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16894167
	Filing Date	2020-06-05
	First Named Inventor	Young-Sic JEONG
	Art Unit	NYA
	Examiner Name	NYA
	Attorney Docket Number	HNG-0055-CA1-ET

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /L.Y.T/

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	8060588		2011-11-15	Hyun-gyoo YOOK et al.	
	2	9319484		2016-04-19	Yoshifumi TANIMOTO	
	3	6993398		2006-01-31	Wei LI et al.	

If you wish to add additional U.S. Patent citation information please click the Add button.

[Add](#)

U.S.PATENT APPLICATION PUBLICATIONS						Remove
Examiner Initial*	Cite No	Publication Number	Kind Code ¹	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear
	1	20140317261		2014-10-23	Kevin SHATZKAMER et al.	
	2	20140177605		2014-06-26	Hyoung Jin KWON et al.	
	3	20120054065		2012-03-01	Jung Sik SUNG et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

[Add](#)

FOREIGN PATENT DOCUMENTS						Remove
--------------------------	--	--	--	--	--	------------------------

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16894167
	Filing Date	2020-06-05
	First Named Inventor	Young-Sic JEONG
	Art Unit	NYA
	Examiner Name	NYA
Attorney Docket Number	HNG-0055-CA1-ET	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /L.Y.T/

Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²ⁱ	Kind Code ⁴	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T ⁵
	1	10-2014-0109940	KR		2014-09-16			×
	2	2013/106204	WO		2013-07-18	Bradley Gene CALDER et al.		<input type="checkbox"/>
	3	10-2010-0129488	KR		2010-12-09	Pu Sik PARK et al.		<input checked="" type="checkbox"/>
	4	10-2004-0090600	KR		2004-10-26			<input checked="" type="checkbox"/>
	5	10-1406854	KR		2014-06-13			<input checked="" type="checkbox"/>

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	MobileIron FAQ, October 13, 2013, https://www.mobileiron.com/en/resources/faq .	

If you wish to add additional non-patent literature document citation information please click the Add button

EXAMINER SIGNATURE

Examiner Signature	/LEON Y TSENG/	Date Considered	10/10/2020
--------------------	----------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16894167
	Filing Date	2020-06-05
	First Named Inventor	Young-Sic JEONG
	Art Unit	NYA
	Examiner Name	NYA
	Attorney Docket Number	HNG-0055-CA1-ET

¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	16894167
	Filing Date	2020-06-05
	First Named Inventor	Young-Sic JEONG
	Art Unit	NYA
	Examiner Name	NYA
	Attorney Docket Number	HNG-0055-CA1-ET

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Jae Y. Park/	Date (YYYY-MM-DD)	2020-06-25
Name/Print	JAE Y. PARK	Registration Number	62629

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	17	(jeong near2 young-sic).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L2	43	(yoo near2 sang-keun).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L3	118	(kim near2 yong-woon).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L4	16,315	(electronics near2 telecommunications).aanm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L5	5	L1 & L2 & L3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L6	19,698	709/226.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L7	17,246	h04l67/303.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03

L8	7	("20140317261" "20120054065" "20140177605" "20140317261" "20120054065" "20140177605").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L9	1,977	relation adj server	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L10	1,288	L9 & @ad<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L11	27	L10 & (L6 L7)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L12	6	(generat\$3 near5 (capability adj (list group set))) & (analy\$4 near5 (command order)) & @ad<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L13	0	((determin\$3 near5 (capabilit\$3 adj (list group set))) near20 (analy\$4 near5 (command order))) & @ad<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L14	34	(determin\$3 near5 (capabilit\$3 adj (list group set))) & (analy\$4 near5 (command order)) & @ad<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L15	18	((determin\$3 near5 capabilit\$3) near20 (analy\$4 near5 (command\$3 instruct\$3))) & @ad<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03

L16	122	((group\$3 near5 (machine device server)) near20 (determ\$3 near5 capabilit\$3)) & @ad<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L17	19,698	709/226.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L18	17,246	h04l67/303.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L19	17	L16 & (L17 L18)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L20	1,977	relation adj server	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L21	891	(generat\$3 near5 relation\$4 near5 (list group set profile)) & ((task\$3 process\$3) near5 (start\$3 begin\$4 execut\$3) near5 (tim\$3 schedul\$3 order\$3))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L22	10	L20 & L21	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L23	2	L22 & @ad<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03

L24	287,370	(task\$3 process\$3) near5 (tim\$3 schedul\$3 order\$3) near5 (parameter value setting option)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L25	240	L21 & L24	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L26	8	L22 & L24	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03
L27	2	L26 & @ad<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2020/10/10 15:03

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L28	82	(relation adj server).clm.	US-PGPUB; USPAT	OR	ON	2020/10/10 15:03
L29	26	((generat\$3 near5 relation\$4 near5 (list group set profile)) & ((task\$3 process\$3) near5 (start\$3 begin\$4 execut\$3) near5 (tim\$3 schedul\$3 order\$3))).clm.	US-PGPUB; USPAT	OR	ON	2020/10/10 15:03
L30	30,003	((task\$3 process\$3) near5 (tim\$3 schedul\$3 order\$3) near5 (parameter value setting option)).clm.	US-PGPUB; USPAT	OR	ON	2020/10/10 15:03
L31	4	L28 & L29 & L30	US-PGPUB; USPAT	OR	ON	2020/10/10 15:03
L32	3	L31 & ((form\$3 creat\$3 generat\$3) near10 (relation\$4 connect\$4) near10 (capabilit\$3 status)).clm.	US-PGPUB; USPAT	OR	ON	2020/10/10 15:03

10/10/2020 3:09:23 PM

C:\Users\ltseng\Documents\EAST\Workspaces\14931213 and 14931232.wsp

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)

Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL (Submitted Only via EFS-Web)

Application Number	16/894,167	Filing Date	2020-06-05	Docket Number (if applicable)	HNG-0055-CA1-ET	Art Unit	2441
First Named Inventor	Young-Sic JEONG			Examiner Name	Leon Y. TSENG		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application. Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

Other _____

Enclosed

Amendment/Reply

Information Disclosure Statement (IDS)

Affidavit(s)/ Declaration(s)

Other _____

MISCELLANEOUS

Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.

The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 505622

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Patent Practitioner Signature

Applicant Signature

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)

Approved for use through 07/31/2012. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	Jae Y. Park/	Date (YYYY-MM-DD)	2021-01-19
Name	JAE Y. PARK	Registration Number	62629

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16894167				
Filing Date:	05-Jun-2020				
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME				
First Named Inventor/Applicant Name:	Young-Sic JEONG				
Filer:	Jae Y. Park/Darleen Nguyen				
Attorney Docket Number:	HNG-0055-CA1-ET				
Filed as Small Entity					
Filing Fees for Utility under 35 USC 111(a)					
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:					
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
Extension-of-Time:					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
RCE- 1ST REQUEST	2801	1	680	680
Total in USD (\$)				680

Electronic Acknowledgement Receipt

EFS ID:	41677729
Application Number:	16894167
International Application Number:	
Confirmation Number:	1083
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
First Named Inventor/Applicant Name:	Young-Sic JEONG
Customer Number:	82727
Filer:	Jae Y. Park/Darleen Nguyen
Filer Authorized By:	Jae Y. Park
Attorney Docket Number:	HNG-0055-CA1-ET
Receipt Date:	19-JAN-2021
Filing Date:	05-JUN-2020
Time Stamp:	15:46:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$680
RAM confirmation Number	E20211IF46528119
Deposit Account	505622
Authorized User	Darleen Nguyen
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.21 (Miscellaneous fees and charges) 37 CFR 1.20 (Post Issuance fees)	

37 CFR 1.19 (Document supply fees)
 37 CFR 1.17 (Patent application and reexamination processing fees)
 37 CFR 1.16 (National application filing, search, and examination fees)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Response_FOA20201016_HNG0055CA1.pdf	78380 e7ea21dfc06ad7a20fe7bb62eaf9edfbcf0201	yes	7
Multipart Description/PDF files in .zip description					
	Document Description		Start		End
	Applicant Arguments/Remarks Made in an Amendment		6		7
	Claims		2		5
	Response After Final Action		1		1
Warnings:					
Information:					
2	Request for Continued Examination (RCE)	RCE_HNG0055CA1.pdf	697618 db33eea9712459c315a49bbf3359c089c50f ea23	no	3
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30623 e9e6d2ca1da8820f67922362075489083a8 2e610	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			806621		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

REMARKS

The above amendment is made, together with submission of a Request for Continued Examination, in response to the Final Office Action of October 16, 2020. Examiner's reconsideration is respectfully requested in view of the above amendment and the following remarks.

Claim 1 has been canceled, without prejudice, and new claims 2-21 have been added in this submission. The present amendment introduces no new matter, as support is found throughout the originally filed specification, claims and drawings.

Claims 2-21 are pending in the present application upon entry of the above amendment.

Rejections of Claim 1 under 35 U.S.C. §101 and §102

Claim 1 stands rejected under 35 U.S.C. 101 because the claimed invention is directed to an abstract idea without significantly more; and under 35 U.S.C. 102(a)(1) as being anticipated by Li et al. (US 6,993,398).

Claim 1 has been cancelled in this submission, without prejudice, eliminating any alleged conflicting subject matter, thereby rendering the rejections moot.

Examiner's withdrawal of the rejections under 35 U.S.C. §101 and §102 is respectfully requested.

Double Patenting Rejection

Claim 1 stands rejected on the grounds of nonstatutory double-patenting as being unpatentable over claim 1 of U.S. Patent No. 10,701,169.

Applicant has canceled claim 1, thereby rendering this rejection moot. Accordingly, Examiner's withdrawal of the double patenting rejection is respectfully requested.

New Claims 2-21

New claims 2-21 have been added. The new claims have been added to more

particularly define aspects of the present disclosure. The new claims have been carefully written to avoid any questions under 35 U.S.C. §112. Accordingly, it is believed that the new claims are in condition for allowance.

Conclusion

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued.

If the Examiner believes that a telephone conference with Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicant's attorney hereby authorizes that such fee be charged to Deposit Account No. 50-5622.

Respectfully submitted,

Date: January 19, 2021

By: /Jae Y. Park/
Jae Y. Park
USPTO Reg. No.: 62,629
Customer No. 82,727
Attorneys for Applicant(s)
Kile Park Reed & Houtteman PLLC
1101 30th Street NW
Suite 500
Washington, DC 20007
Tel. No.: 202-263-0809
Fax No.: 202-697-4306

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)
2. (New) A system, comprising:
multiple machines; and
a relation server for storing a relation profile including a task processing schedule parameter which defines a sequence of performing multiple processes, and for requesting selected machines of the multiple machines to perform the multiple processes,
wherein the relation server generates a new relation profile based on an intervention by a user in the relation profile,
wherein the task processing schedule parameter configures a start time of at least one process of the multiple processes, and
wherein the multiple machines includes at least one of a home appliance, a smart phone or a search engine.
3. (New) The system of claim 2, wherein:
a first machine of the multiple machines forwards a command received from the user to the relation server,
the relation server controls the selected machines for performing the multiple processes according to the command, and
the selected machine includes the first machine.
4. (New) The system of claim 3, wherein:
the command includes a reservation or a payment.
5. (New) The system of claim 3, wherein:

the relation profile includes a capability set parameter, and
the capability set parameter corresponds to information about capabilities required for performing the command.

6. (New) The system of claim 3, wherein:
the relation profile includes a group parameter, and
the group parameter corresponds to identities of machines required for performing the command.

7. (New) The system of claim 3, wherein:
the relation profile includes a group identity parameter, and
the group identity parameter corresponds to an identity of a group consisting of machines required for performing the command.

8. (New) The system of claim 3, wherein:
the relation profile includes a task description parameter,
the task description parameter corresponds to information related to the command, and
the information is saved in a form of text.

9. (New) The system of claim 2, wherein:
the task processing schedule parameter includes a sub-parameter configuring a start condition of at least one process of the multiple processes, or a sub-parameter configuring an allocated machine identity of at least one process of the multiple processes.

10. (New) The system of claim 2, wherein:
the relation server stores multiple machine profiles of the multiple machines.

11. (New) The system of claim 10, wherein:
at least one machine profile of the multiple machine profiles includes a status parameter,
and
the status parameter includes at least one sub-parameter of a current operation status

sub-parameter, a current availability sub-parameter, a current process sub-parameter, a scheduled termination time of current process sub-parameter, a current execution function sub-parameter, or a scheduled termination time of currently executed function sub-parameter.

12. (New) The system of claim 10, wherein:

at least one machine profile of the multiple machine profiles includes a capability parameter, and

the capability parameter includes at least one sub-parameter of a title of process sub-parameter, an input parameter sub-parameter, an output parameter sub-parameter, a process processing time sub-parameter, a process processing condition sub-parameter, or a function sub-parameter.

13. (New) The system of claim 10, wherein:

at least one machine profile of the multiple machine profiles includes a machine identity parameter.

14. (New) The system of claim 10, wherein:

at least one machine profile of the multiple machine profiles includes a user identity parameter, and

the user identity parameter corresponds to an identity of a user being capable of using a machine corresponding to the at least one machine profile.

15. (New) The system of claim 10, wherein:

at least one machine profile of the multiple machine profiles includes a group identity parameter, and

the group identity parameter corresponds to an identity of a user group being capable of using a machine corresponding to the at least one machine profile.

16. (New) The system of claim 9, wherein:

at least one machine profile of the multiple machine profiles includes an operating system parameter, and

the operating system parameter corresponds to a type of an operating system which is used by a machine corresponding to the at least one machine profile.

17. (New) The system of claim 9, wherein:

at least one machine profile of the multiple machine profiles includes an interface parameter, and

the interface parameter corresponds to an interface protocol between the relation server and a machine corresponding to the at least one machine profile.

18. (New) The system of claim 2, wherein:

the relation server saves information related to grouping the multiple machines.

19. (New) The system of claim 2, wherein:

the relation server generates a capability set required to execute a user command, and generates the task processing schedule parameter according to the capability set, a status parameter of at least one machine of the multiple machines, and a capability parameter of the at least one machine.

20. (New) The system of claim 2, wherein:

the intervention includes selecting some processes of the multiple processes.

21. (New) The system of claim 2, wherein:

the intervention includes approving the multiple processes.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 16/894,167

Filing Date: June 5, 2020

First Inventor: Young-Sic JEONG

Group Art Unit: 2441

Examiner: TSENG, LEON Y

Title: METHOD FOR OPERATING RELATION SERVER AND
SYSTEM USING THE SAME

Attorney Docket: HNG-0055-CA1-ET

SUBMISSION UNDER 37 C.F.R. §1.114

MS AF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This submission, in the form of an amendment with remarks, is filed under 37 C.F.R. §1.114 along with a Request for Continued Examination (RCE) and requisite fee. Grant of the Request, entry of the amendment, reconsideration of the claims, and allowance of the application are respectfully requested.

AMENDMENTS TO THE CLAIMS begin on page 2 of this paper; and
REMARKS begin on page 6 of this paper.

**TERMINAL DISCLAIMER TO OBTAIN A DOUBLE PATENTING
REJECTION OVER A "PRIOR" PATENT**Docket Number (Optional)
HNG-0055-CA1-ET

In re Application of: Young-Sic JEONG

Application No.: 16/894,167

Filed: June 5, 2020

For: METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME

The applicant, ELECTRONICS AND TELECOMMUNICATIONS E, owner of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of **prior patent** No. 10,701,169 as the term of said **prior patent** is presently shortened by any terminal disclaimer. The applicant hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the applicant does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the **prior patent**, "as the term of said **prior patent** is presently shortened by any terminal disclaimer," in the event that said **prior patent** later:

- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. The undersigned is the applicant. If the applicant is an assignee, the undersigned is authorized to act on behalf of the assignee.

I hereby acknowledge that any willful false statements made are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

2. The undersigned is an attorney or agent of record. Reg. No. 62629

/Jae Y. Park/

March 22, 2021

Signature

Date

Jae Y. Park

Typed or printed name

Attorney of Record

(202) 263-0809

Title

Telephone Number

- Terminal disclaimer fee under 37 CFR 1.20(d) included.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16894167			
Filing Date:	05-Jun-2020			
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME			
First Named Inventor/Applicant Name:	Young-Sic JEONG			
Filer:	Jae Y. Park/Darleen Nguyen			
Attorney Docket Number:	HNG-0055-CA1-ET			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
STATUTORY OR TERMINAL DISCLAIMER	2814	1	170	170
Total in USD (\$)				170

Electronic Acknowledgement Receipt

EFS ID:	42239500
Application Number:	16894167
International Application Number:	
Confirmation Number:	1083
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
First Named Inventor/Applicant Name:	Young-Sic JEONG
Customer Number:	82727
Filer:	Jae Y. Park/Darleen Nguyen
Filer Authorized By:	Jae Y. Park
Attorney Docket Number:	HNG-0055-CA1-ET
Receipt Date:	22-MAR-2021
Filing Date:	05-JUN-2020
Time Stamp:	16:54:32
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$170
RAM confirmation Number	E20213LG54554721
Deposit Account	505622
Authorized User	Darleen Nguyen

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)
 37 CFR 1.20 (Post Issuance fees)
 37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer Filed	TD_HNG0055CA1.pdf	156056	no	2
			64dc29d1bda4f108cc7be1c260ad434a9e3e0d1a		

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	30332	no	2
			e67723ec59c8038278f4a94d00b842a815456f5a		

Warnings:

Information:

Total Files Size (in bytes):	186388
-------------------------------------	--------

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Application Number * 16/894,167 *	Application/Control No. 16/894,167	Applicant(s)/Patent under Reexamination JEONG et al.	
	Examiner TSENG, LEON Y	Art Unit 2441	
Document Code - DISQ		Internal Document - DO NOT MAIL	

TERMINAL DISCLAIMER	<input type="checkbox"/> APPROVED	<input checked="" type="checkbox"/> DISAPPROVED
Date Filed: <u>22 March 2021</u>	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
/KIMBERLY R WHITE/ Technology Center: <u>OPLC</u> Telephone: <u>(571)272-6179</u> <u>The applicants' name is cut off on the TD. No additional fee is required with the resubmission.</u>

**TERMINAL DISCLAIMER TO OBTAIN A DOUBLE PATENTING
REJECTION OVER A "PRIOR" PATENT**Docket Number (Optional)
HNG-0055-CA1-ET

In re Application of: Young-Sic JEONG

Application No.: 16/894,167

Filed: June 5, 2020

For: METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME

The applicant, ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE, owner of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of **prior patent** No. 10,701,169 as the term of said **prior patent** is presently shortened by any terminal disclaimer. The applicant hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the applicant does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the **prior patent**, "as the term of said **prior patent** is presently shortened by any terminal disclaimer," in the event that said **prior patent** later:

- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. The undersigned is the applicant. If the applicant is an assignee, the undersigned is authorized to act on behalf of the assignee.

I hereby acknowledge that any willful false statements made are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

2. The undersigned is an attorney or agent of record. Reg. No. 62629

/Jae Y. Park/

Signature

March 23, 2021

Date

Jae Y. Park

Typed or printed name

Attorney of Record

Title

(202) 263-0809

Telephone Number

- Terminal disclaimer fee under 37 CFR 1.20(d) included.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	42258818
Application Number:	16894167
International Application Number:	
Confirmation Number:	1083
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
First Named Inventor/Applicant Name:	Young-Sic JEONG
Customer Number:	82727
Filer:	Jae Y. Park/Darleen Nguyen
Filer Authorized By:	Jae Y. Park
Attorney Docket Number:	HNG-0055-CA1-ET
Receipt Date:	23-MAR-2021
Filing Date:	05-JUN-2020
Time Stamp:	16:32:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
------------------------	----

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer Filed	Corrected_TD_HNG0055CA1.pdf	408354 <small>38910148b650737e19dff0c4a6ecd12a8d9911d4b</small>	no	2

Warnings:

Information:	
Total Files Size (in bytes):	408354
<p>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</p> <p><u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p>	

Application Number * 16/894,167 *	Application/Control No. 16/894,167	Applicant(s)/Patent under Reexamination JEONG et al.	
	Examiner TSENG, LEON Y	Art Unit 2441	
Document Code - DISQ		Internal Document - DO NOT MAIL	

TERMINAL DISCLAIMER	<input checked="" type="checkbox"/> APPROVED	<input type="checkbox"/> DISAPPROVED
Date Filed: <u>23 March 2021</u>	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:
/KIMBERLY R WHITE/ Technology Center: <u>OPLC</u> Telephone: <u>(571)272-6179</u> _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

82727 7590 03/31/2021
KILE PARK REED & HOUTTEMAN PLLC
JAE Y PARK
1101 30th Street, N.W.
Suite 500
Washington, DC 20007

EXAMINER

TSENG, LEON Y

ART UNIT PAPER NUMBER

2441

DATE MAILED: 03/31/2021

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Values: 16/894,167, 06/05/2020, Young-Sic JEONG, HNG-0055-CA1-ET, 1083

TITLE OF INVENTION: METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME

Table with 7 columns: APPLN. TYPE, ENTITY STATUS, ISSUE FEE DUE, PUBLICATION FEE DUE, PREV. PAID ISSUE FEE, TOTAL FEE(S) DUE, DATE DUE. Values: nonprovisional, SMALL, \$600, \$0.00, \$0.00, \$600, 06/30/2021

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

82727 7590 03/31/2021
KILE PARK REED & HOUTTEMAN PLLC
JAE Y PARK
 1101 30th Street, N.W.
 Suite 500
 Washington, DC 20007

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

_____ (Typed or printed name)
_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/894,167	06/05/2020	Young-Sic JEONG	HNG-0055-CA1-ET	1083

TITLE OF INVENTION: METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$600	\$0.00	\$0.00	\$600	06/30/2021

EXAMINER	ART UNIT	CLASS-SUBCLASS
TSENG, LEON Y	2441	709-226000

<p>1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).</p> <p><input type="checkbox"/> Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.</p> <p><input type="checkbox"/> "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. Use of a Customer Number is required.</p>	<p>2. For printing on the patent front page, list</p> <p>(1) The names of up to 3 registered patent attorneys or agents OR, alternatively, _____ 1</p> <p>(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. _____ 2</p> <p>_____ 3</p>
---	---

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE _____ (B) RESIDENCE: (CITY and STATE OR COUNTRY) _____

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. Fees submitted: Issue Fee Publication Fee (if required) Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

Electronic Payment via EFS-Web Enclosed check Non-electronic payment by credit card (Attach form PTO-2038)

The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

Applicant certifying micro entity status. See 37 CFR 1.29

Applicant asserting small entity status. See 37 CFR 1.27

Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 16/894,167, 06/05/2020, Young-Sic JEONG, HNG-0055-CA1-ET, 1083
Row 2: 82727, 7590, 03/31/2021, EXAMINER: TSENG, LEON Y
Row 3: KILE PARK REED & HOUTTEMAN PLLC, ART UNIT: 2441, PAPER NUMBER
Row 4: JAE Y PARK, DATE MAILED: 03/31/2021
Row 5: 1101 30th Street, N.W.
Row 6: Suite 500
Row 7: Washington, DC 20007

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 16/894,167	Applicant(s) JEONG et al.	
	Examiner LEON Y TSENG	Art Unit 2441	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to Terminal Disclaimer filed 3/23/2021.
 A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.
2. An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. The allowed claim(s) is/are 2-21. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

- a) All b) Some *c) None of the:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. 14/931,213.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Examiner's Amendment/Comment |
| 2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____. | 6. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material _____. | 7. <input type="checkbox"/> Other _____. |
| 4. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date. <u>3/12/2021</u> . | |

/LEON Y TSENG/ Examiner, Art Unit 2441	/WING F CHAN/ Supervisory Patent Examiner, Art Unit 2441
---	---

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/19/2021 has been entered.

Response to Amendment

2. Applicant's submission filed on 1/19/2021 has been entered. Claim 1 has been cancelled. Claims 2-21 have been added. Claims 2-21 remain pending in this application. Applicant's amendments to the claims have overcome each and every rejection under 35 U.S.C. §§ 101 and 102 previously set forth in the Final Office Action mailed 10/16/2020.

Terminal Disclaimer

3. The terminal disclaimer filed on 3/23/2021 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent 10,701,169 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Notice of Pre-AIA or AIA Status

4. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Priority

5. Receipt is acknowledged of certified copies of papers required by 37 CFR 1.55.

Allowable Subject Matter

6. Claims 2-21 are allowed.

The following is an examiner's statement of reasons for allowance: claims 2-21 are considered allowable since when reading the claims in light of the specification, as per MPEP §2111.01 or *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301,53 USPQ2d 1065, 1069 (Fed. Cir. 1999), none of the references of record alone or in combination disclose or suggest the combination of limitations specified in the independent claims: "storing a relation profile including a task processing schedule parameter which defines a sequence of performing multiple processes... requesting selected machines of the multiple machines to perform the multiple processes, wherein... generates a new relation profile based on an intervention by a user in the relation profile, wherein the task processing schedule parameter configures a start time of at least one process of the multiple processes".

When taken into context, the claim(s) as a whole was/were not disclosed in any prior art. The dependent claims are allowed as they depend upon an allowable independent claim. Examiner conducted a further search of the prior art, but found no new relevant references.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEON Y TSENG whose telephone number is (571)270-3682. The examiner can normally be reached on Monday to Friday 8:30 AM to 5:00 PM MST, with every other Friday off.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WING CHAN can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LEON Y TSENG/
Examiner, Art Unit 2441

/WING F CHAN/
Supervisory Patent Examiner, Art Unit 2441

<i>Examiner-Initiated Interview Summary</i>	Application No. 16/894,167	Applicant(s) JEONG et al.		
	Examiner LEON Y TSENG	Art Unit 2441	AIA (First Inventor to File) Status Yes	Page 1 of 1

All Participants (applicant, applicants representative, PTO personnel)	Title	Type
LEON Y TSENG	Examiner	Telephonic
JAY Y PARK	Attorney of Record	

Date of Interview: 12 March 2021

Issues Discussed:


Non-statutory Double Patenting

Examiner stated that a Terminal Disclaimer required to place the application in condition for allowability. Applicant agreed to file Terminal Disclaimer.

/LEON Y TSENG/ Examiner, Art Unit 2441	
<p>Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04</p> <p>Please further see: MPEP 713.04 Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b) 37 CFR § 1.2 Business to be transacted in writing</p>	

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

<i>Search Notes</i> 	Application/Control No. 16/894,167	Applicant(s)/Patent Under Reexamination JEONG et al.
	Examiner LEON Y TSENG	Art Unit 2441

CPC - Searched*		
Symbol	Date	Examiner
H04L 67/303	10/10/2020	LYT
H04L 67/2833	03/11/2021	LYT

CPC Combination Sets - Searched*		
Symbol	Date	Examiner


US Classification - Searched*			
Class	Subclass	Date	Examiner
709	226	03/11/2021	LYT

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST Inventor and Assignee (Double Patenting) Search	10/10/2020	LYT
EAST Classification, Keyword, Classification-Limited Keyword Search	03/11/2021	LYT
IP.com Search	03/11/2021	LYT
NPL Search (IP.com)	03/11/2021	LYT

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
ALL	ALL	03/11/2021	LYT


/LEON Y TSENG/ Examiner, Art Unit 2441	
---	--

Issue Classification 	Application/Control No. 16/894,167	Applicant(s)/Patent Under Reexamination JEONG et al.
	Examiner LEON Y TSENG	Art Unit 2441

CPC		
Symbol	Type	Version
H04L 67 2833	F	2013-01-01

CPC Combination Sets				
Symbol	Type	Set	Ranking	Version

/LEON Y TSENG/ Examiner, Art Unit 2441 (Assistant Examiner)	25 March 2021 (Date)	Total Claims Allowed: 20	
/WING F CHAN/ Supervisory Patent Examiner, Art Unit 2441 (Primary Examiner)	25 March 2021 (Date)	O.G. Print Claim(s) 2	O.G. Print Figure 2

Issue Classification 	Application/Control No. 16/894,167	Applicant(s)/Patent Under Reexamination JEONG et al.
	Examiner LEON Y TSENG	Art Unit 2441


INTERNATIONAL CLASSIFICATION			
CLAIMED			
H04L29/08		29	08

NON-CLAIMED			

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

CROSS REFERENCES(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				

/LEON Y TSENG/ Examiner, Art Unit 2441 (Assistant Examiner)	25 March 2021 (Date)	Total Claims Allowed: 20	
/WING F CHAN/ Supervisory Patent Examiner, Art Unit 2441 (Primary Examiner)	25 March 2021 (Date)	O.G. Print Claim(s) 2	O.G. Print Figure 2

Issue Classification 	Application/Control No. 16/894,167	Applicant(s)/Patent Under Reexamination JEONG et al.
	Examiner LEON Y TSENG	Art Unit 2441

Claims renumbered in the same order as presented by applicant
 CPA
 T.D.
 R.1.47

CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
-	1	9	10	18	19										
1	2	10	11	19	20										
2	3	11	12	20	21										
3	4	12	13												
4	5	13	14												
5	6	14	15												
6	7	15	16												
7	8	16	17												
8	9	17	18												

/LEON Y TSENG/ Examiner, Art Unit 2441 (Assistant Examiner)	25 March 2021 (Date)	Total Claims Allowed: 20	
/WING F CHAN/ Supervisory Patent Examiner, Art Unit 2441 (Primary Examiner)	25 March 2021 (Date)	O.G. Print Claim(s) 2	O.G. Print Figure 2

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1,183	relation adj profile	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:41
L2	44,614	((generat\$3 creat\$3 determin\$3) near20 ((task process) near5 (schedule list group set))) & (user near5 (intervention interven\$3 interrupt\$3 command\$3 order\$3)) & (@pd @ptad @prad @ad @rlad)<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:44
L3	19,677	709/226.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:45
L4	4,215	h04l67/2833.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:46
L5	7	1 & 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:46
L6	299	2 & (3 4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:49
L7	76	6 & ((configur\$3 set\$4) near5 (start\$3 begin\$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:49

L8	63	7 & ((sequenc\$3 order\$3 list\$3) near5 (process\$3 task\$3 command\$3))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:51
L9	24,256	((generat\$3 creat\$3 determin\$3) near20 ((task process) near5 (schedule list set))) & (user near5 (intervention interven\$3 interrupt\$3 command\$3)) & (@pd @ptad @prad @ad @rlad)<"20141103"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:55
L10	14,327	9 & ((sequenc\$3 list\$3) near5 (process\$3 task\$3))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:58
L11	4,453	10 & ((configur\$3 set\$4) near5 (start\$3 begin\$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:58
L12	20	11 & (3 4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 17:58
L13	2,042	relation adj server	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:01
L14	0	11 & 13 & 1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:01
L15	6	11 & 13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:01

L16	2	11 & 1	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:01
L17	1,084,823	(health adj care) healthcare telemetry (smart adj (home car appliance)) (household adj appliance)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:03
L18	378	11 & 17	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:04
L19	1	18 & (3 4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:04
L24	240	18 & ((machine device) near5 (relat\$3 relationship))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:09
L25	114	24 & ((server profile) near5 (relat\$3 relationship))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:09
L26	1	25 & (3 4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/03/11 18:12

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
-------	------	--------------	-----	------------------	---------	------------

L20	53	(((generat\$3 creat\$3 determin\$3) near20 ((task process) near5 (schedule list set))) near50 (user near5 (intervention interven\$3 interrupt\$3 command\$3))).clm.	US-PGPUB; USPAT	OR	ON	2021/03/11 18:05
L21	22	20 & ((sequenc\$3 list\$3) near5 (process\$3 task\$3)).clm.	US-PGPUB; USPAT	OR	ON	2021/03/11 18:06
L22	3	21 & ((configur\$3 set\$4) near5 (start\$3 begin\$4)).clm.	US-PGPUB; USPAT	OR	ON	2021/03/11 18:06
L23	1	22 & ((machine device) near5 (relat\$3 relationship)).clm.	US-PGPUB; USPAT	OR	ON	2021/03/11 18:08

3/11/2021 6:12:50 PM

C:\Users\ltseng\Documents\EAST\Workspaces\14931213 and 14931232.wsp

1 - 50

5,692,988 results

Top 1500 results

1. System for transactional processing between an information processing server and a plurality of workstations

A system for transactional processing between an information processing server (3) and a plurality of workstations (2) between which the jobs corresponding to activities constituting procedures are executed, the system including, on the server side, a scheduler module for scheduling the progress of...

CURRENT ASSIGNEES: BULL SA
US5596750 | US PATENTS | 21-JAN-1997

2. Method for requesting control and information processing apparatus for same

In an information processing apparatus, a selection unit selects one of a plurality of controller apparatuses to control a controlled apparatus, based on transmission rates of communication links between the controlled apparatus and the plurality of controller apparatuses. A requesting unit then...

CURRENT ASSIGNEES: FUJITSU LTD
US20146379100 | US APPLICATIONS | 25-DEC-2014

3. User interface for transaction processing system

A system of transactional processing between an information processing server and a plurality of workstations, constituted on the one hand by three files that reflect the states of progress of tasks assigned to the actor using this interface, that is, the "new" file (40), the "ongoing" file (50),...

CURRENT ASSIGNEES: BULL SA
JP272429182 | JAPAN PATENTS | 09-MAR-1998

4. Transaction processing system between information server and multiple workstations

CURRENT ASSIGNEES: BULL SA
JP252502882 | JAPAN PATENTS | 21-AUG-1996

5. Management apparatus and management method of information processing apparatus

A management apparatus includes: a unit to read configuration information of information processing apparatuses, which contains an attribute value of each of information processing apparatuses and a reference relationship between the information processing apparatuses, and log information containing...

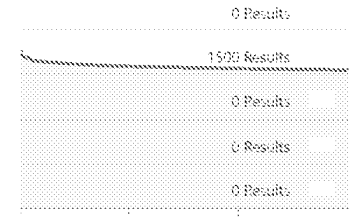
CURRENT ASSIGNEES: FUJITSU LTD
US10019679 | US PATENTS | 10-JUL-2018

6. Management apparatus and management method of information processing apparatus

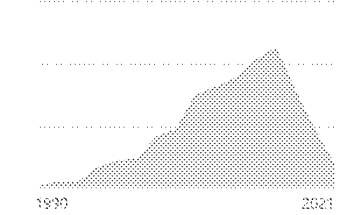
A management apparatus includes: a unit to read configuration information of information processing apparatuses, which contains an attribute value of each of information processing apparatuses and a reference relationship between the information processing apparatuses, and log information containing...

CURRENT ASSIGNEES: FUJITSU LTD
US20146297342 | US APPLICATIONS | 02-OCT-2014

Relevance



Publication Date



First Cur Assignees by Relevance

BULL SA (25)
FUJITSU LTD (75)
SERVICENOW INC (19)
INTEL BUSINESS MACHINES ... (75)
MICROSOFT CORP (100)
AMAZON TECH INC (24)
CASIO COMPUTER CO LTD (3)
COE BANK CORP (2)

Result #1

1. Relation management for machine socialization

This paper presents relation management for machine socialization. Machine socialization is making thing or machines to talk to and say what they do or need to each other follow each other, discuss with each other and collaborate with each other. Relation is an association between or among object...

IEEE Xplore | IEEE CONFERENCES | 01-JUL-2015 | 2015 17th International Conference on Advanced Communication Technology (ICACT) (Page(s): 247-250)

2. The TAARCA Project Specification

Since its introduction, the Grid computing paradigm has been widely adopted both in scientific and also in industrial areas. The main advantage of the Grid computing paradigm is the ability to enable, in a transparent way, the sharing and the coordination of several heterogeneous and large-scale...

181209730 | ARXIV.ORG | 23-DEC-2018

3. Yeast: a general purpose event-action system

Distributed networks of personal workstations are becoming the dominant computing environment for software development organizations. Many cooperative activities that are carried out in such environments are particularly well suited for automated support. Taking the point of view that such...

IEEE Xplore | IEEE PERIODICALS | 01-OCT-1995 | IEEE Transactions on Software Engineering

4. Case Studies

This chapter contains sections titled: Introduction Amoeba V-System Mach Chorus A Comparison of Amoeba, V-System, Mach, and Chorus Summary This chapter contains sections titled: Exercises Bibliography Pointers to Bibliographies on the Internet

IEEE Xplore | WILEY-IEEE EBCONS | 01-JAN-1996 | Wiley-IEEE Press 1996

5. Scheduling and Controlling Semantics for Distributed Resource Based Computing Engines

With the advent of autonomic and cloud computing, computation engines are getting redefined as dynamic configurations of heterogeneous, distributed resources. In this paper, we describe the operational semantics of scheduling and controlling of computation engines configured from component resources...

IEEE Xplore | IEEE CONFERENCES | 01-JUL-2009 | 2009 Third IEEE International Conference on Secure Software Integration and Reliability Improvement (Page(s): 47-56)

6. ARACNE - Advanced Reliable Architecture for Computer Networked Environments

This paper illustrates a comprehensive architectural approach aimed at globally managing complex service network environments. ARACNE is a comprehensive framework formed by a number of co-working modules and a set of paradigms and protocols. Some first implementation issues are presented as a...

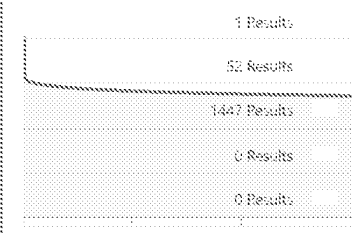
IEEE Xplore | IEEE CONFERENCES | 01-JAN-2005 | EUROCON 2005 - The International Conference on "Computer as a Tool"

7. Migrating from Microsoft SQL Server to IBM Informix

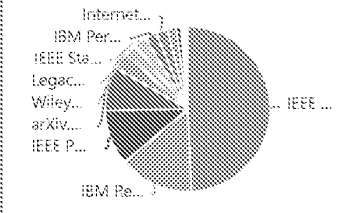
In this IBM® Redbooks® publication, we discuss considerations, and describe a methodology, for transitioning from Microsoft® SQL Server 2008 to the Informix® Dynamic Server. We focus on the topic area of data...

Top 1500 results

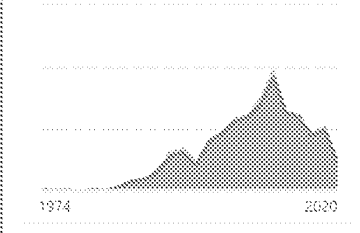
Relevance VIEW



Collections VIEW



Publication Date VIEW



More Visuals

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

82727 7590 03/31/2021
KILE PARK REED & HOUTTEMAN PLLC
JAE Y PARK
 1101 30th Street, N.W.
 Suite 500
 Washington, DC 20007

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

_____ (Typed or printed name)
_____ (Signature)
_____ (Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/894,167	06/05/2020	Young-Sic JEONG	HNG-0055-CA1-ET	1083

TITLE OF INVENTION: METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$600	\$0.00	\$0.00	\$600	06/30/2021

EXAMINER	ART UNIT	CLASS-SUBCLASS
TSENG, LEON Y	2441	709-226000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
 (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 KILE PARK REED & HOUTTEMAN PLLC
 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: **ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE**
 (B) RESIDENCE: (CITY and STATE OR COUNTRY) **DAEJEON, REPUBLIC OF KOREA**

Please check the appropriate assignee category or categories (will not be printed on the patent): Individual Corporation or other private group entity Government

4a. Fees submitted: Issue Fee Publication Fee (if required) Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

Electronic Payment via EFS-Web Enclosed check Non-electronic payment by credit card (Attach form PTO-2038)

The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 505622

5. Change in Entity Status (from status indicated above)

- Applicant certifying micro entity status. See 37 CFR 1.29
 Applicant asserting small entity status. See 37 CFR 1.27
 Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Jae Y. Park/ Date June 28, 2021
 Typed or printed name Jae Y. Park Registration No. 62629

Electronic Patent Application Fee Transmittal

Application Number:	16894167			
Filing Date:	05-Jun-2020			
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME			
First Named Inventor/Applicant Name:	Young-Sic JEONG			
Filer:	Jae Y. Park/Darleen Nguyen			
Attorney Docket Number:	HNG-0055-CA1-ET			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
PUBL. FEE- EARLY, VOLUNTARY, OR NORMAL	1504	1	0	0
UTILITY APPL ISSUE FEE	2501	1	600	600
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				600

Electronic Acknowledgement Receipt

EFS ID:	43101255
Application Number:	16894167
International Application Number:	
Confirmation Number:	1083
Title of Invention:	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
First Named Inventor/Applicant Name:	Young-Sic JEONG
Customer Number:	82727
Filer:	Jae Y. Park/Darleen Nguyen
Filer Authorized By:	Jae Y. Park
Attorney Docket Number:	HNG-0055-CA1-ET
Receipt Date:	28-JUN-2021
Filing Date:	05-JUN-2020
Time Stamp:	15:43:44
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$600
RAM confirmation Number	E20216RF44134782
Deposit Account	505622
Authorized User	Darleen Nguyen

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)
 37 CFR 1.20 (Post Issuance fees)
 37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	PartB_HNG0055CA1.pdf	249306 951c6067c2d3c9dcd277d6cbb04e1e194791e3aa	no	1

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	32098 e397d6f188a92a988e5d66a4f972fb94f5ddf11	no	2
---	----------------------	--------------	--	----	---

Warnings:

Information:

Total Files Size (in bytes):	281404
-------------------------------------	--------

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/894,167	08/03/2021	11082518	HNG-0055-CA1-ET	1083

82727 7590 07/14/2021
KILE PARK REED & HOUTTEMAN PLLC
JAE Y PARK
1101 30th Street, N.W.
Suite 500
Washington, DC 20007

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Young-Sic JEONG, Daejeon, KOREA, REPUBLIC OF;
ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE, Daejeon, KOREA, REPUBLIC OF;
Sang-Keun YOO, Sejong, KOREA, REPUBLIC OF;
Yong-Woon KIM, Asan-si, KOREA, REPUBLIC OF;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.



UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
16/894,167

RECEIPT DATE / TIME
12/14/2023 04:49:40 PM Z ET

ATTORNEY DOCKET #
HNG-0055-CA1-ET

Title of Invention

METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	11082518
CONFIRMATION #	1083	FILED BY	Tony Hwang
PATENT CENTER #	63621385	FILING DATE	06/05/2020
CUSTOMER #	82727	FIRST NAMED INVENTOR	Young-Sic JEONG
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	CHOONG WON CHO

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
BP23-269US1_POA.pdf	2	Power of Attorney	515 KB
BP23-269US1_3.73c.pdf	3	Assignee showing of ownership per 37 CFR 3.73	193 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
BP23-269US1_POA.pdf	AE8AC929869C60D0617A0C35DFBE9B798C09C098B01912DD D9041A15A39F6C3AAC9AF41374C01EAD808D980B4B0AC7D9 8C2848F1B3C7D33A03A139A8EFB54160

BP23-269US1_3.73c.pdf

6D6025AFDAE258A3E0D3418770CE65F9211ADF8975DD72405
27D65432EC524B30005143083C4570B59614038383A85D57BA8
A8643FDA337D1570F32CA2683EEE

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: KAIFI, LLC
Application No./Patent No.: 16/894,167 Filed/Issue Date: 06/05/2020
Titled: METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
KAIFI, LLC, a corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. The assignee of the entire right, title, and interest.
2. An assignee of less than the entire right, title, and interest (check applicable box):
- The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.
 - There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. The recipient, via a court proceeding or the like (e.g., bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

- A. An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

- B. A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: JEONG, YOUNG-SIC ET AL. To: ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE

The document was recorded in the United States Patent and Trademark Office at Reel 052855, Frame 0790, or for which a copy thereof is attached.

2. From: ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE To: KAIFI, LLC

The document was recorded in the United States Patent and Trademark Office at Reel 065842, Frame 0235, or for which a copy thereof is attached.

[Page 1 of 2]

This collection of information is required by 37CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA22313-1450**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

Additional documents in the chain of title are listed on a supplemental sheet(s).

As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Choong Won Cho/ _____

Signature

Choong Won Cho _____

Printed or Typed Name

2023-12-13 _____

Date

79,713 _____

Title or Registration Number

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	16/894,167
Filing Date	06/05/2020
First Named Inventor	Young-Sic JEONG
Title	METHOD FOR OPERATING RELATION SERVER AND SYSTEM USING THE SAME
Art Unit	2441
Examiner Name	LEON Y TSENG
Attorney Docket Number	BP23-269US1

SIGNATURE of Applicant or Patent Practitioner			
Signature	/Choong Won Cho/	Date (Optional)	
Name	Choong Won Cho	Registration Number	79,713
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

- I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 178942
- OR**
- I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

- The address associated with the above-mentioned Customer Number
- OR**
- The address associated with Customer Number:
- OR**

<input type="checkbox"/> Firm or Individual Name			
Address			
City	State	Zip	
Country			
Telephone	Email		

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

KAIFI, LLC

- Inventor or Joint Inventor (title not required below)
- Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

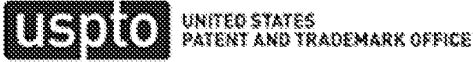
Signature	Date (Optional)	December 11, 2023
Name	Hanbum Cho	
Title	CEO	

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

ACKNOWLEDGEMENT OF LOSS OF ENTITLEMENT TO ENTITY STATUS DISCOUNT

APPLICATION #	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET #	REQUEST ID
16/894,167	06/05/2020	Young-Sic JEONG	BP23-269US1	146247

The entity status change request below filed through Patent Center on 01/09/2024 has been accepted.

Certifications

APPLICANT CHANGING TO REGULAR UNDISCOUNTED FEE STATUS

Signature

I certify, in accordance with 37 CFR 1.4(d)(4), that I am one of the signatories making the entity status change.

Signature	Name	Registration #
/CHOONG WON CHO/	CHOONG WON CHO	79713



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/894,167	06/05/2020	Young-Sic JEONG	BP23-269US1

CONFIRMATION NO. 1083

178942
BROADVIEW IP LAW, PC
6 Jenner
Suite 230
Irvine, CA 92618

POA ACCEPTANCE LETTER



Date Mailed: 01/10/2024

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/14/2023.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/cnguyen/



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/894,167	06/05/2020	Young-Sic JEONG	HNG-0055-CA1-ET

CONFIRMATION NO. 1083

POWER OF ATTORNEY NOTICE



OC000000066752068

82727
KILE PARK REED & HOUTTEMAN PLLC
JAE Y PARK
1101 30th Street, N.W.
Suite 500
Washington, DC 20007

Date Mailed: 01/10/2024

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 12/14/2023.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervned as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/cnguyen/