(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 August 2013 (22.08.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/122843 A1

(51) International Patent Classification:
G06F 9/06 (2006.01) *G06F 9/44* (2006.01)

(21) International Application Number:
PCT/US2013/025482

(22) International Filing Date:
11 February 2013 (11.02.2013)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
13/399,981 17 February 2012 (17.02.2012) US

(71) Applicant *(for all designated States except US)*: **MICROSOFT CORPORATION** [US/US]; One Microsoft Way, Redmond, Washington 98052-6399 (US).

(72) Inventors: **HARTZ, George E.**; c/o Microsoft Corporation, LCA - International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). **FUSARI, David**; c/o Microsoft Corporation, LCA - International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

— *with international search report (Art. 21(3))*

(54) Title: CONTEXTUALLY INTERACTING WITH APPLICATIONS

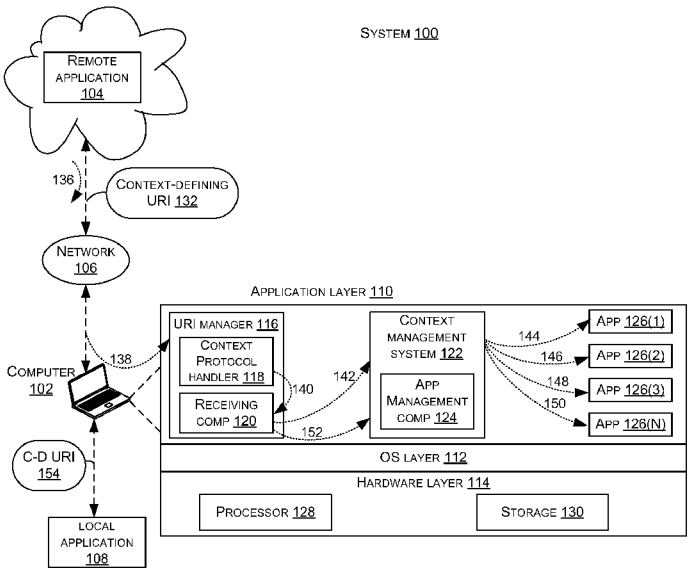

FIG. 1

(57) Abstract: The present discussion relates to contextually interacting with applications. One example can include a computer that has a set of applications installed thereon. This example can also include a URI manager configured to receive a context-defining URI, the URI manager can be configured to run a sub-set of the applications specified by the context-defining URI and to set a common context for the sub-set of the applications as specified by the context-defining URI.

WO 2013/122843 A1

CONTEXTUALLY INTERACTING WITH APPLICATIONS

BACKGROUND

[0001] Traditionally, computing scenarios involve users interacting with applications in isolation. More advanced scenarios involve multiple applications providing different functionalities relating to a common context. For example, a user, such as a clinician may utilize an imaging application and a records management application when diagnosing a patient. Context management systems can enable the lifecycle management of, and coordination of, disparate applications to a common context. The integration of applications into the common context is a complicated undertaking that tends to require a large amount of actions by the context management system and more notably, by the user.

SUMMARY

[0002] The present discussion relates to contextually interacting with applications. One example can include a computer that has a set of applications installed thereon. This example can also include a universal resource identifier (URI) manager configured to receive a context-defining URI. The URI manager configured to run a sub-set of the applications specified by the context-defining URI and to set a common context for the sub-set of the applications as specified by the context-defining URI.

[0003] Another example can receive information related to an entity. This example can generate a link, such as a context-defining URI, that specifies an application installed on a computer and a context for the application relating to the entity.

[0004] A further example can receive a context-defining URI that specifies an application to run and that defines a context for the application. This example can run the application and set the context of the application as defined by the context-defining URI.

[0005] The above listed examples are intended to provide a quick reference to aid the reader and are not intended to define the scope of the concepts described herein.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The accompanying drawings illustrate implementations of the concepts conveyed in the present application. Features of the illustrated implementations can be more readily understood by reference to the following description taken in conjunction with the accompanying drawings. Like reference numbers in the various drawings are used wherever feasible to indicate like elements. Further, the left-most numeral of each reference number conveys the Figure and associated discussion where the reference number is first introduced.

[0007] FIG. 1 shows a system upon which contextually interacting with application concepts can be employed in accordance with some implementations.

[0008] FIGS. 2-3 illustrate examples of use cases for contextually interacting with applications in accordance with some implementations of the present concepts.

[0009] FIGS. 4-5 illustrate examples of flowcharts of methods for contextually interacting with applications in accordance with some implementations of the present concepts.

DETAILED DESCRIPTION

OVERVIEW

[00010] This patent relates to enabling application launching under a common context. More specifically, a universal resource identifier (URI) can be utilized to automatically launch one or more applications. The URI can also establish a common context for the applications simply by the user activating the URI. The inventive concepts can enable a web, or other applications, such as a portal website, to be able to launch an application and select a context without having a complicated integration.

SYSTEM EXAMPLES

[00011] FIG. 1 shows a system 100 in which common context application launching can be implemented. In this case, system 100 includes a computer 102. The computer can communicate with a remote

application 104, such as a web application or a web portal, via a network 106. Computer 102 can also include a local application 108 that will be described in more detail below.

[00012] For purposes of explanation computer 102 can be characterized as including an application layer 110 that operates upon an operating system layer 112 that operates upon a hardware layer 114. The application layer 110 can include a URI manager 116. The URI manager can include or interact with a context protocol handler 118 and a receiving component 120. The application layer 110 can also include a context management system 122 that can include or interact with an application management component 124. The application layer can also include a number of applications. For purposes of explanation four applications 126(1)-126(N) are illustrated (the suffix "N" signifies that any number of applications could be included). The hardware layer 114 can include a processor 128 and storage 130, as well as additional hardware components, such as input/output devices, buses, graphics cards, etc., which are not illustrated or discussed here for sake of brevity.

[00013] The URI manager 116 can be configured to manage URIs received by computer 102. The URI manager's context protocol handler 118 can be configured to handle URI schemes on the computer 102 and specifically to handle context-defining URIs on behalf of the URI manager. In some cases, the context protocol handler 118 can be manifest as a dynamic-link library (DLL) or executable registered to handle the context-defining URI.

[00014] Viewed from one perspective, the context protocol handler 118 can be configured to operate in an isolated security environment to read information from the context-defining URI. The context protocol handler can convey the information to the receiving component 120 that is configured to operate at a level of privilege that allows communication with a context management system and an application management system. In one case, the context protocol handler 118 can communicate a message

containing information from the context-defining URI to receiving component 120. For instance, the information can relate to an application launch and/or context change information.

[00015] The receiving component 120 can be configured with sufficient privilege on computer 102 to be able to interact with the context management system 122 and/or the application management component 124. This configuration can allow the context protocol handler 118 to run in an isolated security environment. For example, in one instance the context protocol handler 118 may run in a protected mode of a graphical web browser, such as Internet Explorer®. The receiving component 120 can receive information from the context protocol handler 118 and can interact with the context management system 122 in order to trigger applications to securely launch.

[00016] The context management system 122 can be a mechanism for providing a shared state or context between a set of applications. The context management system can supply APIs that allows the applications to manipulate that shared state. For instance, the context management system can include APIs that inform the applications about changes to the context. Further, the context management system can include APIs that check with the various applications of the set to determine whether a particular context change is acceptable to the individual applications before the context change is actually implemented. For instance, if an individual application is already running in a different context and has unsaved data, changing the state may cause that unsaved data to be lost. The context management system can negotiate with the individual application to take actions to allow a safe context change. For example, the context management system can cause the application to save the present context of the individual application so that the application can safely change contexts to the context defined in the context-defining URI.

[00017] The application management component 124 can verify that taking a particular action relative to the shared context is allowed. For

instance, in some cases, an administrator may have defined what actions are authorized and/or which actions are not authorized. The application management component can access this authorization information and ensure that only authorized actions are actually allowed and prohibited actions are not allowed to occur. In some cases, the receiving component 120 can operate cooperatively with the application management component 124 to ensure that a launch request from the context-defining URI matches an authorized action.

[00018] The term "computer" or "computing device" as used herein can mean any type of device that has some amount of processing capability and/or storage capability. Processing capability can be provided by one or more processors (such as processor 128) that can execute data in the form of computer-readable instructions to provide a functionality. Data, such as computer-readable instructions, can be stored on storage 130 that can be internal or external to the computer. The storage can include any one or more of volatile or non-volatile memory, hard drives, flash storage devices, and/or optical storage devices (e.g., CDs, DVDs etc.), among others. As used herein, the term "computer-readable media" can include transitory and non-transitory computer-readable instructions. In contrast, the term "computer-readable storage media" excludes transitory instances. Computer-readable storage media includes "computer-readable storage devices". Examples of computer-readable storage devices include volatile storage media, such as RAM, and non-volatile storage media, such as hard drives, optical discs, and flash memory, among others.

[00019] Examples of computing devices can include traditional computing devices, such as personal computers, cell phones, smart phones, personal digital assistants, or any of a myriad of ever-evolving or yet to be developed types of computing devices. Further, aspects of system 100 can be manifest on a single computing device or distributed over multiple computing devices. For instance, in the latter case computer 102 can act as a client device and operate cooperatively with a server

computer over network 106. In another case, computer 102 may operate with cloud-based computing resources over network 106 and/or another network.

[00020] As introduced above, system 100 can enable common context application launching. In one such scenario, remote application 104 can generate context-defining URI 132 as indicated at 136. As will be explained below, when activated the context-defining URI 132 can cause one or more of applications 126(1)-126(N) to be run according to a context defined by the URI 132. For purposes of explanation, assume that context-defining URI 132 indicates to launch applications 126(1)-126(N) (or a sub-set thereof) and to set the context of each of these applications to hypothetical patient identification number 12345. For instance, assume that remote application 104 is running on a remote computer and is configured to process patient lab results. Assume further that remote application 104 is configured to provide notice to the patient's clinician whenever new lab results are ready. In one case, the remote application could generate a notification, such as an email that includes a template that reads "Dear Dr. _____: new lab results have been received for patient _____. Click on this link to automatically view the new lab results." The remote application can populate the first field with the requesting doctor's name (e.g., the doctor who requested the labs) and can populate the second field with the patient identification (e.g. 12345). Embedded within the link is the context-defining URI that can automatically open the applications and set the applications to patient identification 12345 when the clinician clicks the link.

[00021] In this configuration, the context-defining URI 132 is received at computer 102 by URI application manager 116 as indicated at 138. The URI manager's context protocol handler 118 is configured to handle URI schemas and can understand information contained in the context-defining URI 132. The context protocol handler 118 can communicate the message containing the information about the application launch and context to receiving component 120 as indicated at 140.

[00022] The receiving component 120 can be configured with sufficient privilege on computer 102 to be able to interact with the context management system 122 as indicated at 142. The receiving component 120 can interact with the context management system 122 in order to trigger applications 126(1)-126(N) to securely run as indicated at 144, 146, 148, and 150. The context management system 122 can know if individual applications are already running and as such don't need to be launched. In such cases, the context management system 122 can check with the individual applications to determine if a context change to patient identification number 12345 is acceptable. For instance, application 126(1) might be running and have unsaved data in another context (e.g., for another patient identification number) such that changing contexts would cause the unsaved data to be lost. The context management system 122 can negotiate with application 126(1) to take appropriate action to allow the context change. Once the context management system has resolved any context change issues, the applications can be automatically set to the show information for patient identification 12345. Thus, through a single action by the clinician of clicking the notification link, one or more applications can be automatically launched and set to the patient's context so that the clinician can instantly review the new lab results on his/her computer 102.

[00023] As mentioned above, in some implementations the receiving component 120 can also work with the application management component 124 as indicated at 152 to check whether the launch request of the context-defining URI 132 is authorized according to various authorization and/or security parameters.

[00024] In one implementation, the receiving component 120 may utilize an application trigger that is a request to the application management component 124 that the application management component start an application configured as part of its settings of the context management system. One such detailed example is described below.

[00025] In this example, the context management system 122 can be manifest as Vergence Launchpad® offered by Microsoft® Corporation. An example context-defining URI can be:

launchpad://epic/?Method=SetContext&itemsName=patient.id.mrn.clinic|patient.id.mrn.hospital&itemValues=123|456|&LaunchAppFirst=True&ContinueOnFail=False&AppTitle=Eureka&AllowContextChangeCancellation=true

[00026] This context-defining URI tells the "launchpad" component to start the application identified by "epic". Before doing so, launchpad sets two items into the common contextual data that "epic" has access to – two patient IDs, one from a clinic and one from the hospital, so epic knows which patient to view. This not only will allow the epic software to be launched and tuned to a patient by a URI, but that context will be shared by other applications.

[00027] In an alternative configuration, the context-defining URI may be a request to start an application context adapter ("bridge") that an administrator has installed, which can start and interact with one or more applications. For instance, the "bridge" protocol handler may be registered to launch a Vergence bridge to interact with an application:

bridge://crm/?InitiateFollowupWorkflow=true&patient.id.mrn.hospital=12345

[00028] This context-defining URI tells the context management system 122 to launch the "crm" bridge, with a parameter passed to the bridge to tell the CRM system to start a patient follow-up workflow. This illustrates the ability to security launch a more sophisticated local script that can start and control a locally-installed application.

[00029] In the above discussion, the context-defining URI 132 is generated remotely from computer 102 and sent to the computer 102. However, such need not be the case. For instance, local application 108 can generate a similar context-defining URI designated at 154. The local application 108 may or may not be one of applications 126(1)-126(N) that

are managed by context management system 122 and application management component 124. In this example, local application 108 can generate context-defining URI 154 that can be configured to cause one or more applications to operate under a common context. The context-defining URI 154 can be received by the context protocol handler 118 and handled in a similar manner to that described above relative to context-defining URI 132.

[00030] In summary the present applications can provide a secure mechanism to interact with a context management system through the use of a fire-and-forget context-defining URI. As more applications are moving to the web, there are significant disconnects in business workflows because otherwise a web application cannot launch, send data to, or otherwise interact with applications installed on the client workstation or terminal server. This makes the integration of cloud-hosted applications or portals, as an example, much more difficult.

USE CASE EXAMPLES

[00031] FIG. 2 illustrates a use case scenario for contextually interacting with applications. This scenario involves a pad type computer 202, but is applicable to other types of computers. In this scenario, pad type computer 202, belongs to a clinician 204. For purposes of explanation, the scenario is explained via 'instance 1' and a subsequent 'instance 2'. Starting with instance 1, the clinician is using a web-based electronic record manager 206 to review information about an individual patient. In this example, the patient is listed as John Smith with a unique identifier in the form of 'patient ID' as indicated at 208. Further, the web-based electronic record manager 206 is displaying lab results at 210 for the patient. In this example, the lab results relate to a 'liver function panel'. Further, the web-based electronic record manager indicates at 212 that 'new images are available'. In this example, assume that the image viewer is a local application that is installed on the pad-type computer 202. Assume further that the clinician wishes to view the images and taps/touches the 'click here'

icon as indicated at 214. (The clinician may alternatively use other selection methods, such as voice or gesture, among others). The 'click here' icon can include, and/or be associated with, a context-defining URI as introduced above relative to FIG. 1, but which need not be evident to the user. Further, the pad type computer 202 can include a URI manager 216 that can manage handling of the context-defining URI.

[00032] As evidenced in instance 2, the click by the clinician launched local imaging application 220 that is running on the pad type computer 202. Further, without any effort by the user/clinician, the local imaging application 220 is set to the same context as the web-based electronic records manager 206 (e.g., the local imaging application is displaying the new images for patient ID SM12345). In this example, the new images 222 are from the date 2012-12-27. In this example, the context relates to the patient ID, but this only one example. In another example, the context could relate to patient ID and date so that context is set to show the lab results and the images obtained from the patient on the same day. In summary, a single user action can cause multiple applications to operate in a common context for the user. In this case, one application is a web-application and one is a remote application. However, the present concepts are applicable to other scenarios, such as making multiple local applications operate according to a common context. One such example is described below relative to FIG. 3.

[00033] FIG. 3 shows another use case scenario for contextually interacting with applications. This scenario involves a smart phone type computer 302, but is applicable to other types of computers. This scenario continues with the example introduced above relating to a clinician and his/her patient, but of course could relate to other scenarios in the medical context or scenarios outside of the medical context. In this scenario, the clinician receives a notification about the patient via the smart phone type computer 302. In this example, the notification is an email notification 304 received in instance 1. The email indicates at 306 that new results are

available for John Smith who has patient ID SM12345. The email also includes a user activatable URI 308 that reads 'click here to view the new results'. Note also that the smart phone type computer 302 can include a URI manager 316 that can manage handling of context-defining URIs as will be evidenced in instance 2. Assume that the clinician activates the user activatable context-defining URI 308.

[00034] Instance 2 shows two applications launched on smart phone type computer 302 by the URI manager 316 as a result of the clinician activating context-defining URI 308. In this case, the applications include a lab records application 318 and an imaging application 320. Both applications are set to the context of Patient ID SM12345 as indicated at 322 and 324, respectively. In the case of the lab records application 318, the context causes the application to present a liver function panel 326 for the context defined in the context-defining URI 308 (e.g., patient ID SM12345). In the case of the imaging application 320, the context causes the application to present image 328 for the context defined in the context-defining URI. Accordingly, the clinician can quickly review recent information about his/her patient John Smith (e.g., patient ID SM12345) simply by clicking on the context-defining URI 308 and without any understanding of the context defining elements of the context-defining URI or the functionality provided by the URI manager 316. The clinician simply clicks the context-defining URI and without taking any other actions can view the labs for the patient in the lab records application 318 and the images in the imaging application 320. The URI manager 316 can handle launching the applications and/or changing the context of the applications without causing data loss and cause the context to be displayed in both applications for the clinician. In summary, these use case scenarios can be applied to any other type of user besides a clinician. The present techniques can allow the user, through activation of the context-defining URI to automatically launch one or more applications and to automatically set the context of those applications for the user's convenience.

METHOD EXAMPLES

[00035] FIG. 4 illustrates a flowchart of a technique or method 400 for contextually interacting with applications.

[00036] At block 402, the method can receive information related to an entity. For instance, the information can be a triggering event related to an entity. In one example described above, the entity can be a patient. In that example when new lab results are obtained, that information can function as a trigger relative to the patient.

[00037] At block 404, the method can generate a link that specifies an application installed on a computer and a context for the application relating to the entity. In some implementations, the link can be manifest as a context-defining URI. The context-defining URI can cause the application to run on the computer to present information about the entity (e.g., in this case the patient). The context-defined in the URI can automatically set the application to present data about the entity when the context-defining URI is activated (e.g., the application is set to the context of the entity).

[00038] FIG. 5 illustrates a flowchart of a technique or method 500 for contextually interacting with applications.

[00039] At block 502, the method can receive a URI that specifies an application to run and that defines a context for the application. In some cases, the URI can be received on a computer upon which the application is installed.

[00040] At block 504, the method can run the application and set the context of the application as defined by the URI. In some configurations, the method can determine whether running the application is authorized on the computer. For instance, an administrator of the computer may have manually defined what actions are authorized on the computer and which actions are not authorized. Alternatively or additionally, the administrator may have defined actions which are prohibited on the computer. The method can ensure that only authorized actions are actually implemented. In other implementations, the URI can be examined to determine whether to

implement instructions conveyed by the URI. For instance, if the URI contains a valid authorization (e.g., signature) from a trusted source, the URI instructions may be implemented with or without regards to authorizations established for the computer. Stated another way, the authorization accompanying the URI and/or the trustworthiness of the source can be evaluated in determining whether to implement the URI.

[00041] In some implementations, the method can check whether the application is already running. If the application is not already running and running the application is authorized, then the application can be launched.

[00042] In an instance where the application is already running the method can determine whether setting the context as defined by the URI should be allowed. For instance, if changing the context will cause data loss, then the context change may be delayed. The method can take various actions, such as by negotiating with the application until the context change can be safely made.

[00043] The order in which the example methods are described is not intended to be construed as a limitation, and any number of the described blocks or acts can be combined in any order to implement the methods, or alternate methods. Furthermore, the methods can be implemented in any suitable hardware, software, firmware, or combination thereof, such that a computing device can implement the method. In one case, the method is stored on one or more computer-readable storage media as a set of instructions such that execution by a computing device causes the computing device to perform the method.

CONCLUSION

[00044] Although techniques, methods, devices, systems, etc., pertaining to contextually interacting with applications are described in language specific to structural features and/or methodological acts, it is to be understood that the subject matter defined in the appended claims is not necessarily limited to the specific features or acts described. Rather, the

specific features and acts are disclosed as exemplary forms of implementing the claimed methods, devices, systems, etc.

CLAIMS

1. At least one computer-readable storage medium having instructions stored thereon that, when executed by a processor, cause the processing device to perform acts, comprising:

receiving information related to an entity; and,

generating a link that specifies an application installed on a computer and a context for the application relating to the entity.

2. The computer-readable storage medium of claim 1, wherein the receiving information comprises receiving a triggering event.

3. The computer-readable storage medium of claim 1, wherein the generating a link comprises generating a universal resource identifier (URI).

4. The computer-readable storage medium of claim 1, further comprising sending the link to the computer.

5. The computer-readable storage medium of claim 1, embodied as a computer-readable storage device that is included on a remote computer that also includes the processor.

6. A system, comprising:

a computer having a set of applications installed thereon; and,

a universal resource identifier (URI) manager configured to receive a context-defining URI, the URI manager configured to run a sub-set of the applications specified by the context-defining URI and to set a common context for the sub-set of the applications as specified by the context-defining URI.

7. The system of claim 16, wherein the URI manager comprises a context protocol handler configured to operate in an isolated security environment to read information from the context-defining URI and convey the information to a receiving component that is configured to operate at a level of privilege that allows communication with a context management system and an application management system.

8. The system of claim 17, wherein the receiving component is configured to operate cooperatively with the application management system to determine whether actions defined in the context-defining URI are allowed on the computer.

9. The system of claim 17, wherein the set of applications are managed applications that are managed by the context management system.

10. The system of claim 16, wherein the computer comprises another application that is not part of the set of applications and wherein the another application is configured to generate the context-defining URI.

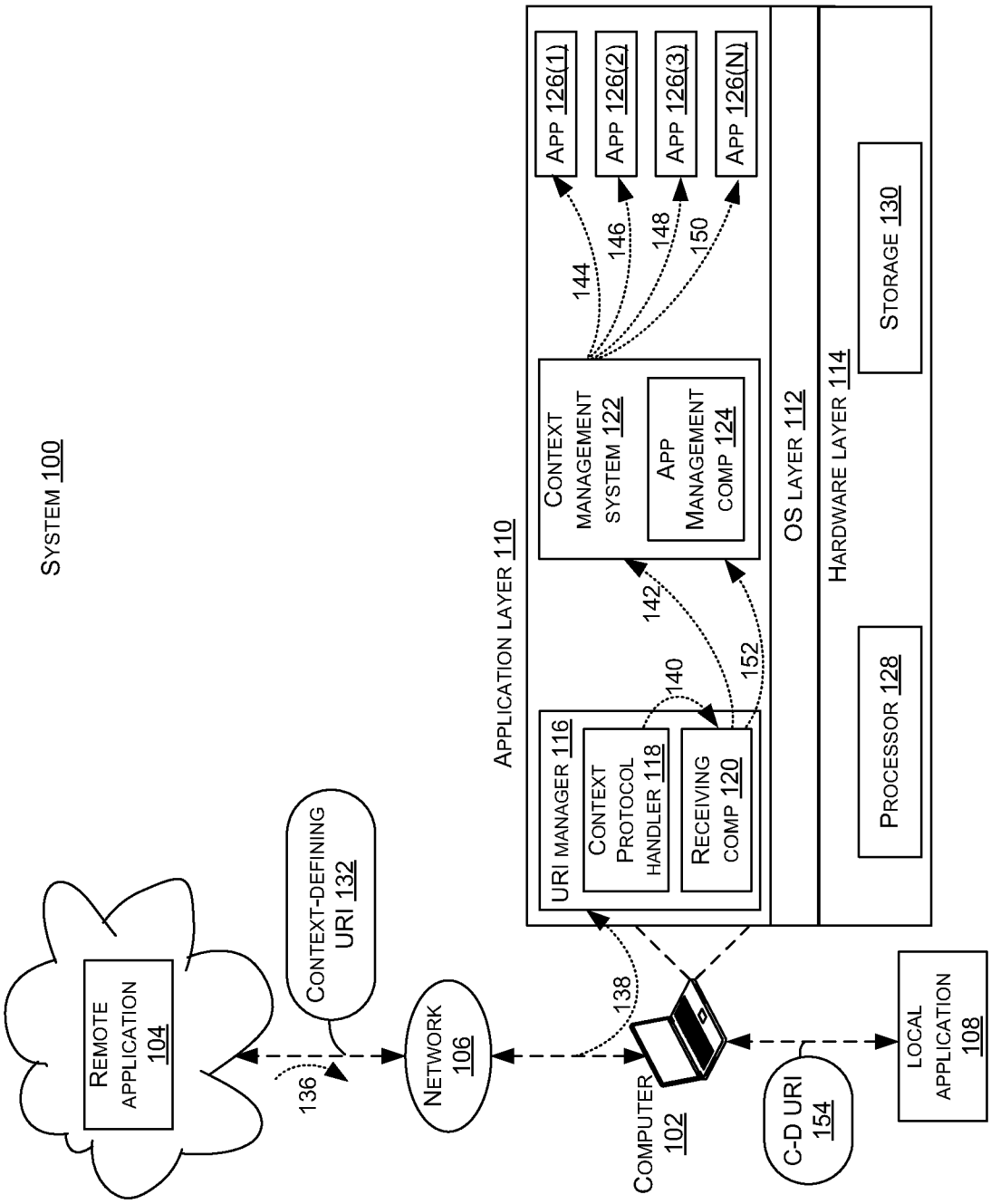
SYSTEM 100
REMOTE APPLICATION 104
CONTEXT-DEFINING URI 132
136
NETWORK 106
138
COMPUTER 102
C-D URI 154
LOCAL APPLICATION 108
APPLICATION LAYER 110
URI MANAGER 116
CONTEXT PROTOCOL HANDLER 118
RECEIVING COMP 120
CONTEXT MANAGEMENT SYSTEM 122
APP MANAGEMENT COMP 124
OS LAYER 112
HARDWARE LAYER 114
PROCESSOR 128
STORAGE 130
APP 126(1)
APP 126(2)
APP 126(3)
APP 126(N)
140
142
144
146
148
150
152

FIG. 1

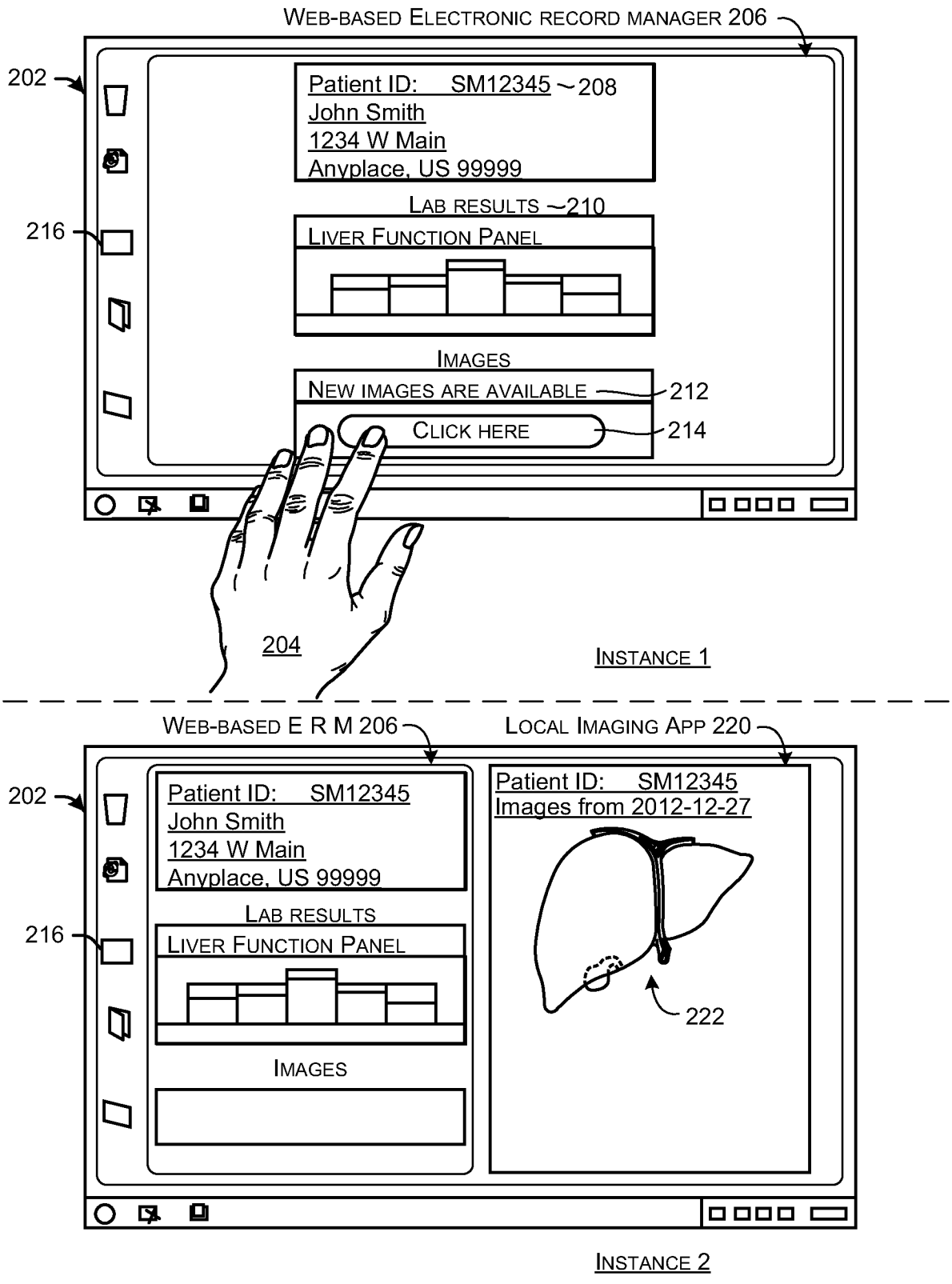
WEB-BASED ELECTRONIC RECORD MANAGER 206
202
216
Patient ID: SM12345 208
John Smith
1234 W Main
Anyplace, US 99999
LAB RESULTS 210
LIVER FUNCTION PANEL
IMAGES
NEW IMAGES ARE AVAILABLE 212
CLICK HERE 214
204
INSTANCE 1
WEB-BASED E R M 206
LOCAL IMAGING APP 220
202
216
Patient ID: SM12345
John Smith
1234 W Main
Anyplace, US 99999
LAB RESULTS
LIVER FUNCTION PANEL
IMAGES
Patient ID: SM12345
Images from 2012-12-27
222
INSTANCE 2

FIG. 2

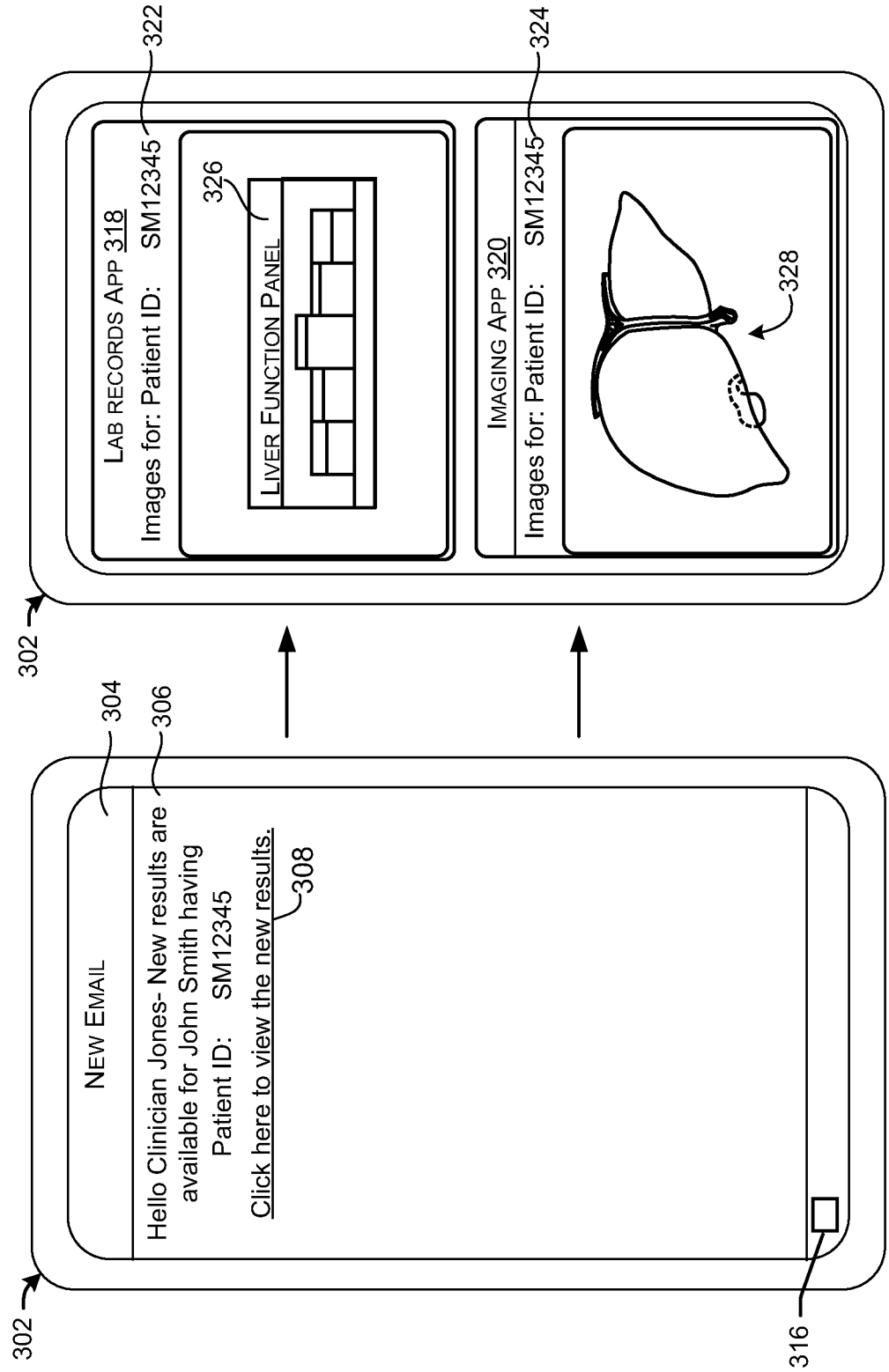
302
NEW EMAIL
304
306
Hello Clinician Jones- New results are available for John Smith having Patient ID: SM12345
Click here to view the new results.
308
316
INSTANCE 1
302
LAB RECORDS APP 318
Images for: Patient ID: SM12345
322
326
LIVER FUNCTION PANEL
IMAGING APP 320
Images for: Patient ID: SM12345
324
328
INSTANCE 2

FIG. 3

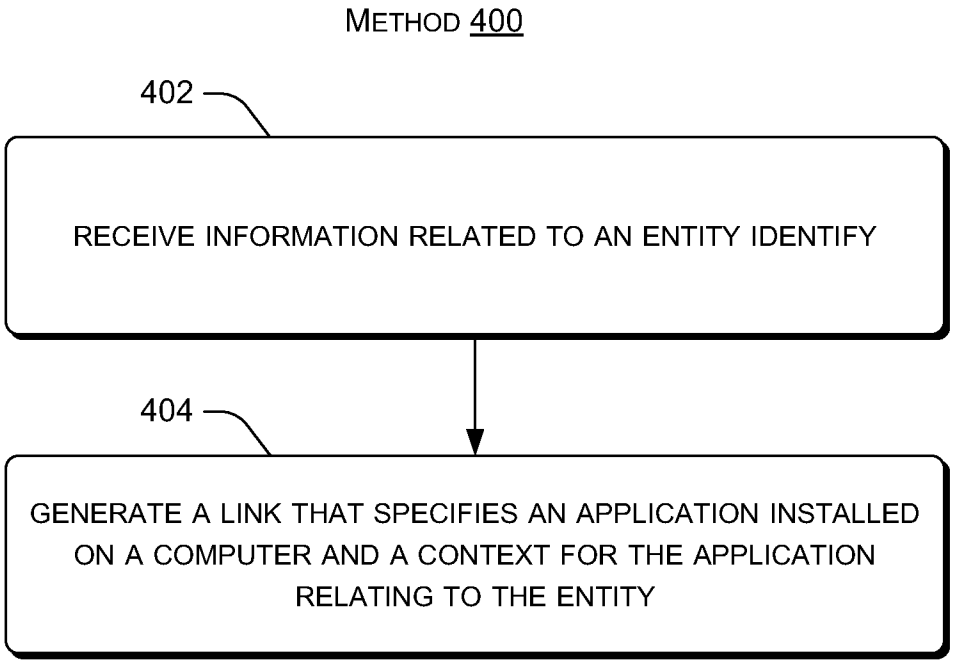
METHOD 400
402
RECEIVE INFORMATION RELATED TO AN ENTITY IDENTIFY
404
GENERATE A LINK THAT SPECIFIES AN APPLICATION INSTALLED ON A COMPUTER AND A CONTEXT FOR THE APPLICATION RELATING TO THE ENTITY

FIG. 4

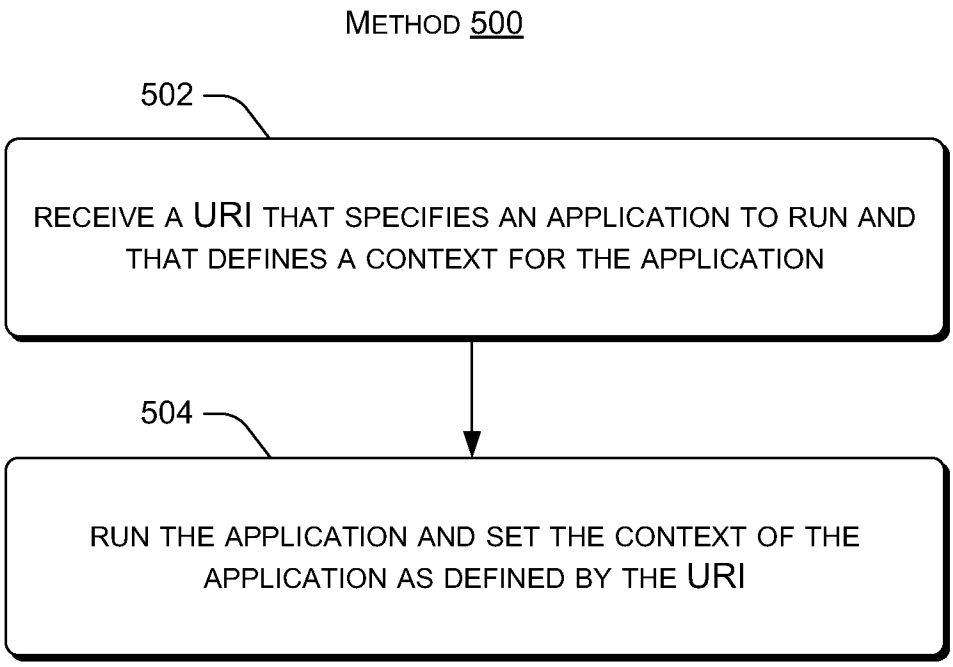
METHOD 500
502
RECEIVE A URI THAT SPECIFIES AN APPLICATION TO RUN AND THAT DEFINES A CONTEXT FOR THE APPLICATION
504
RUN THE APPLICATION AND SET THE CONTEXT OF THE APPLICATION AS DEFINED BY THE URI

FIG. 5

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/025482

A. CLASSIFICATION OF SUBJECT MATTER

G06F 9/06(2006.01)i, G06F 9/44(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G06F 9/06; G06F 15/16; G06F 15/173; G06F 12/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: universal resource identifier, context, interact;

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 7895262 B2 (NIELSEN HENRIK FRYSTYK et al.) 22 February 2011 See column 7, line 53 - column 8, line 64; claims 1, 17, and figure 2.	1-10
A	US 2011-0161419 A1 (CHUNILAL RATHOD YOGESH) 30 June 2011 See paragraph [0340] - paragraph [0346]; claims 83, 94, and figures 18-20.	1-10
A	US 2008-0183826 A1 (NOTANI RANJIT) 31 July 2008 See paragraph [0031] - paragraph [0035]; claims 7-8 and figures 4-7.	1-10
A	US 7873710 B2 (KILEY KEVIN J. et al.) 18 January 2011 See column 13, line 33 - column 14, line 16; claim 1, and figure 7.	1-10

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents,such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
24 April 2013 (24.04.2013)	**29 April 2013 (29.04.2013)**
Name and mailing address of the ISA/KR Korean Intellectual Property Office 189 Cheongsa-ro, Seo-gu, Daejeon Metropolitan City, 302-701, Republic of Korea Facsimile No. 82-42-472-7140	Authorized officer BOK, Jin Yo Telephone No. 82-42-481-5113

Form PCT/ISA/210 (second sheet) (July 2009)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2013/025482

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 7895262 B2	22.02.2011	AT 375060 T	15.10.2007
		CN 1703048 A	30.11.2005
		CN 1703048 B	12.10.2011
		CN 1703048 C0	30.11.2005
		DE 602005002679 D1	15.11.2007
		DE 602005002679 T2	24.07.2008
		EP 1601164 A1	30.11.2005
		EP 1601164 B1	03.10.2007
		JP 04993876 B2	18.05.2012
		JP 2005-339555 A	08.12.2005
		KR 10-1109251 B1	30.01.2012
		KR 10-2006-0046184 A	17.05.2006
		US 2005-0267772 A1	01.12.2005
US 2011-0161419 A1	30.06.2011	CA 2615659 A1	10.05.2007
		EP 1920393 A2	14.05.2008
		US 2010-0030734 A1	04.02.2010
		US 2011-0078018 A1	31.03.2011
		US 2011-0078128 A1	31.03.2011
		US 2011-0078129 A1	31.03.2011
		US 2011-0078583 A1	31.03.2011
		US 2011-0082881 A1	07.04.2011
		US 2011-0113094 A1	12.05.2011
		US 2011-0125906 A1	26.05.2011
		US 2011-0145279 A1	16.06.2011
		US 2011-0153413 A1	23.06.2011
		US 2011-0153759 A1	23.06.2011
		US 2011-0154220 A1	23.06.2011
		US 2011-0161314 A1	30.06.2011
		US 2011-0161319 A1	30.06.2011
		US 2011-0162038 A1	30.06.2011
		US 2011-0225293 A1	15.09.2011
		US 2011-0231363 A1	22.09.2011
		US 2011-0231489 A1	22.09.2011
		US 2011-0276396 A1	10.11.2011
		US 2012-0011238 A1	12.01.2012
		US 2012-0016858 A1	19.01.2012
		US 2012-0102172 A1	26.04.2012
		US 2012-0158517 A1	21.06.2012
		US 7991764 B2	02.08.2011
		US 8073839 B2	06.12.2011
		US 8103691 B2	24.01.2012
		WO 2007-052285 A2	10.05.2007
		WO 2007-052285 A8	10.05.2007
US 2008-0183826 A1	31.07.2008	None	
US 7873710 B2	18.01.2011	US 2008-0189360 A1	07.08.2008
		US 2012-042006 A1	16.02.2012

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2013/025482

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
		WO 2008-098082 A2	14.08.2008
		WO 2008-098082 A3	14.08.2008