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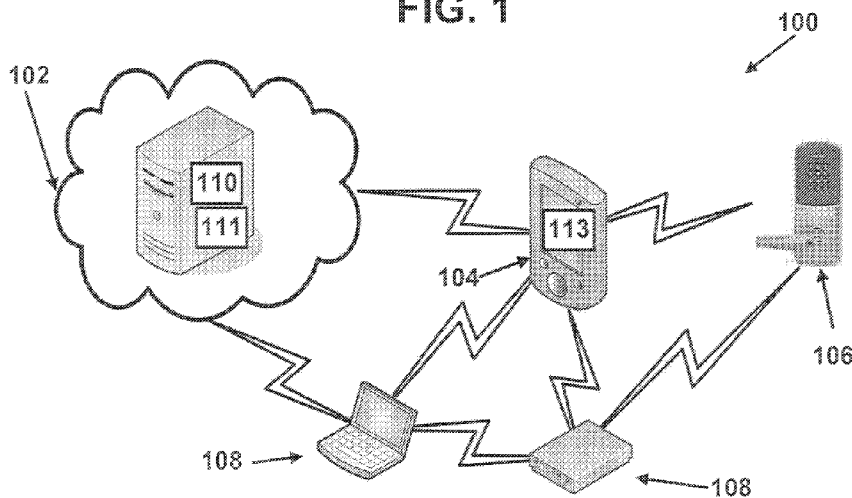
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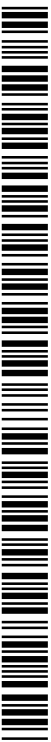
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(54) Title: OPERATION COMMUNICATION SYSTEM

FIG. 1



(57) Abstract: An operation communication system is provided including a server, a mobile device, and a reader device. The server and the reader device communicate data with one another via the mobile device. The mobile device may communicate with the reader device via Bluetooth, for example. The mobile device may communicate with the server via the Internet, for example. Associated methods, devices and apparatuses are also provided.



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US13/55455

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - H04W 4/02 (2014.01)
USPC - 455/456.3

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC(8) : H04W 4/02; G06Q 20/00; G06F 15/16 (2014.01)
USPC : 455/456.3; 715/714; 705/017

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

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

MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google/ GooglePatents; IEEE; ProQuest.
Keywords: mobile, reader, cloud, low power, Bluetooth, policy, credential

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2011/0202415 A1 (CASARES, W et al.) 18 August 2011; Abstract; paragraphs [0043], [0054], [0090], [0094].	1-4, 7, 8, 10-12, 15, 16, and 18
----- Y		5, 6, 9, 13, 14, 17, 19, and 20
Y	US 2012/0095791 A1 (STEFIK, M et al.) 19 April 2012; Abstract; paragraphs [0066], [0125], [0136], [0145].	5, 6, 9, 13, 14, 17, 19, and 20
A	US 2002/0002507 A1 (HATAKEYAMA, K) 3 January 2002; whole document.	1-20

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	"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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent but published on or after the international filing date	"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
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search
28 February 2014 (28.02.2014)

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US13/55455

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

- 1. [] Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2. [] Claims Nos.: because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. [] Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fee must be paid.

Group I: Claims 1-20 are directed toward a system, method, and apparatus for personalizing a user interface configuration and transmitting it from a mobile device to a reader.

Group II: Claims 21-40 are directed toward a method, system, and apparatus for determining whether a mobile device is permitted to access a reader.

The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

---See Supplemental Page---

- 1. [] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. [] As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. [] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. [X] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-20

Remark on Protest

- [] The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
[] The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
[] No protest accompanied the payment of additional search fees.

-***-Continued from Box III-***-

The special technical features of Group I, personalizing a user interface configuration, transmitting the personalized user interface from a mobile device to a reader device, and utilizing the personalized user interface on the reader device, are not present in Group II; the special technical features of Group II, transmitting a reader identification from a reader device to a mobile device, transmitting the reader identification and a mobile device identification from the mobile device to a server, determining at the server whether the mobile device is permitting to access the reader device, and transmitting a grant/deny message from the server to the mobile device and from the mobile device to the reader device, are not present in Group I.

The common technical feature shared by Groups I and II is a mobile device and a reader device communicating wirelessly. However, this common feature is previously disclosed by US 2010/0089109 A1 to Bliding et al. (hereinafter 'Bliding'). Bliding discloses a mobile device and a reader device communicating wirelessly (wireless key device 100, which may be any mobile terminal (mobile device) equipped with Bluetooth, communicates with wireless lock device 140 (reader device) over Bluetooth (wireless communication), paragraphs [0110]-[0112]).

Since the common technical feature is previously disclosed by the Bliding reference, this common feature is not special and so Groups I and II lack unity.