

(12) 按照专利合作条约所公布的国际申请

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2013 年 12 月 19 日 (19.12.2013)



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- (30) 优先权:
201310207977.6 2013 年 5 月 28 日 (28.05.2013) CN
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- (81) 指定国 (除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW。
- (84) 指定国 (除另有指明, 要求每一种可提供的地区保护): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (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,

[见续页]

(54) Title: METHOD AND SYSTEM FOR PROMPTING SIGNAL COVERED AREA

(54) 发明名称: 一种提示有信号区域的方法及系统

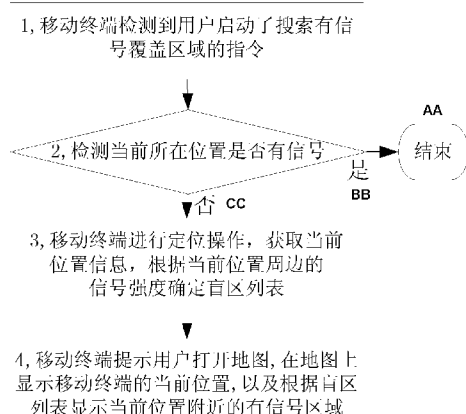


图 1 / FIG. 1

- 1 A mobile terminal detects an instruction of a user for starting search of a signal covered area
2 Detect whether the current location is covered with a signal
3 The mobile terminal performs a positioning operation, obtains information about the current location, and determines a dead zone list according to the signal strength around the current location
4 The mobile terminal prompts the user to open a map, displays the current location of the mobile terminal on the map, and displays a signal covered area near the current location according to the dead zone list
AA End
BB Yes
CC No

(57) Abstract: A method and a system for prompting a signal covered area, relating to the field of mobile communications. The disclosed method for prompting a signal covered area comprises: when detecting an instruction of a user for seeking a signal covered area, a mobile terminal performing a positioning operation, obtaining information about a current location of the mobile terminal, and determining, according to the signal strength around the current location of the mobile terminal, a list of dead zones around the current location; and the mobile terminal prompting the user to open a map, displaying the current location of the mobile terminal on the map, and displaying a signal covered area near the current location according to the dead zone list. Further disclosed is a system for prompting a signal covered area. The technical solution of the application can be applied to a mobile terminal, and can assist a terminal user in rapidly finding a nearby signal covered area when the mobile terminal is located at an area where there is no signal coverage, so as to improve the user experience.

(57) 摘要: 一种提示有信号区域的方法及系统, 涉及移动通讯领域。本发明实施例公开的提示有信号区域的方法包括: 移动终端检测到用户搜索有信号覆盖区域的指令时, 进行定位操作, 获取本移动终端的当前位置信息, 根据移动终端的当前位置周边的信号强度, 确定当前位置周边的盲区列表; 移动终端提示用户打开地图, 并在地图上显示出本移动终端的当前位置, 以及根据所述盲区列表显示当前位置附近的有信号区域。本发明实施例还公开了一种提示有信号覆盖区域的系统。本申请技术方案可应用于移动终端上, 能够在移动终端处于无信号覆盖区域时, 帮助终端用户快速找到附近的有信号覆盖区域, 以提升用户体验。



RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

根据细则 4.17 的声明:

- 关于申请人有权申请并被授予专利(细则 4.17(ii))
- 发明人资格(细则 4.17(iv))

本国际公布:

- 包括国际检索报告(条约第 21 条(3))。

- 在修改权利要求的期限届满之前进行, 在收到该修改后将重新公布(细则 48.2(h))。
- 根据申请人的请求, 在条约第 21 条(2)(a)所规定的期限届满之前进行。

(88) 国际检索报告公布日期: 2014 年 4 月 24 日

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2013/080045**A. CLASSIFICATION OF SUBJECT MATTER**

H04W 16/18 (2009.01) 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)

IPC: H04W, H04Q, H04L

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)

CNPAT, CNKI, WPI, EPODOC, GOOGLE: signaled, coverage, blind area, mobile, hint+, remind+, search+, signal, wireless, district?, orientation, position, blind+, map+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN 102202421 A (YULONG COMPUTER TELECOMMUNICATION SCIENTIFIC (SHENZHEN) CO., LTD.), 28 September 2011 (28.09.2011), description, paragraphs [0005]-[0017] and [0027]-[0063], and figures 1-4	1, 2, 6, 7
A	CN 102611747 A (BEIJING ZHONGYING HUACHUANG MOBILE TECHNOLOGY CO., LTD.), 25 July 2012 (25.07.2012), the whole document	1-10
A	CN 102781071 A (HUAWEI TECHNOLOGIES CO., LTD.), 14 November 2012 (14.11.2012), the whole document	1-10
A	US 2011/0317662 A1 (CHOI, W.J. et al.), 29 December 2011 (29.12.2011), the whole document	1-10

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* 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 08 February 2014 (08.02.2014)	Date of mailing of the international search report 06 March 2014 (06.03.2014)
Name and mailing address of the ISA/CN: State Intellectual Property Office of the P. R. China No. 6, Xitucheng Road, Jimenqiao Haidian District, Beijing 100088, China Facsimile No.: (86-10) 62019451	Authorized officer YANG, Ying Telephone No.: (86-10) 82245553

International application No.
PCT/CN2013/080045

Form PCT/ISA/210 (patent family annex) (July 2009)

国际检索报告

国际申请号
PCT/CN2013/080045

A. 主题的分类

H04W 16/18 (2009.01) i

按照国际专利分类(IPC)或者同时按照国家分类和 IPC 两种分类

B. 检索领域

检索的最低限度文献(标明分类系统和分类号)

IPC: H04W, H04Q, H04L

包含在检索领域中的除最低限度文献以外的检索文献

在国际检索时查阅的电子数据库(数据库的名称, 和使用的检索词(如使用))

CNPAT,CNKI,WPI,EPODOC,GOOGLE: 提示,提醒,搜索,有信号,覆盖,区域,定位,位置,盲区,地图, mobile, hint+, remind+, search+, signal, wireless, district?, orientation, position, blind+, map+

C. 相关文件

类 型*	引用文件, 必要时, 指明相关段落	相关的权利要求
X	CN102202421A (宇龙计算机通信科技(深圳)有限公司) 28.9 月 2011 (28.09.2011) 说明书第[0005]-[0017],[0027]-[0063]段及附图 1-4	1,2,6,7
A	CN102611747A (北京中盈华创移动技术有限公司) 25.7 月 2012(25.07.2012) 全文	1-10
A	CN102781071A (华为技术有限公司) 14.11 月 2012(14.11.2012) 全文	1-10
A	US2011/0317662A1 (CHOI, Woo-Jin 等) 29.12 月 2011(29.12.2011) 全文	1-10

☐ 其余文件在 C 栏的续页中列出。

☒ 见同族专利附件。

* 引用文件的具体类型:

“A” 认为不特别相关的表示了现有技术一般状态的文件

“E” 在国际申请日的当天或之后公布的在先申请或专利

“L” 可能对优先权要求构成怀疑的文件, 或为确定另一篇引用文件的公布日而引用的或者因其他特殊理由而引用的文件(如具体说明的)

“O” 涉及口头公开、使用、展览或其他方式公开的文件

“P” 公布日先于国际申请日但迟于所要求的优先权日的文件

“T” 在申请日或优先权日之后公布, 与申请不相抵触, 但为了理解发明之理论或原理的在后文件

“X” 特别相关的文件, 单独考虑该文件, 认定要求保护的发明不是新颖的或不具有创造性

“Y” 特别相关的文件, 当该文件与另一篇或者多篇该类文件结合并且这种结合对于本领域技术人员为显而易见时, 要求保护的发明不具有创造性

“&” 同族专利的文件

国际检索实际完成的日期
08.2 月 2014(08.02.2014)

国际检索报告邮寄日期
06.3 月 2014 (06.03.2014)

ISA/CN 的名称和邮寄地址:
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中国北京市海淀区蓟门桥西土城路 6 号 100088
传真号: (86-10)62019451

受权官员

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电话号码: (86-10) **82245553**

关于同族专利的信息

PCT/CN2013/080045

04.01.2012