

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
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- (25) 申请语言: 中文
- (26) 公布语言: 中文
- (71) 申请人 (对除美国外的所有指定国): **华为技术有限公司 (HUAWEI TECHNOLOGIES CO., LTD.)** [CN/CN]; 中国广东省深圳市龙岗区坂田华为总部办公楼, Guangdong 518129 (CN)。
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- (74) 代理人: **北京龙双利达知识产权代理有限公司 (LONGSUN LEAD IP LTD.)**; 中国北京市海淀区丹棱街16号海兴大厦C座1108, Beijing 100080 (CN)。
- (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, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, MD, 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)。
- 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: 2012年4月5日

(54) Title: METHOD AND DEVICE FOR RECEIVING OR TRANSMITTING SHORT MESSAGE

(54) 发明名称: 用于接收或发送短消息的方法和装置

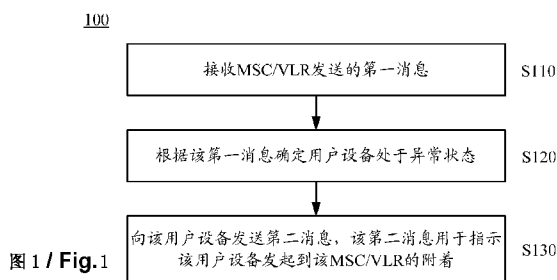


图1 / Fig.1

S110 RECEIVING A FIRST MESSAGE TRANSMITTED BY AN MSC/VLR
S120 DETERMINING THAT A USER EQUIPMENT IS IN AN ABNORMAL STATE ACCORDING TO THE FIRST MESSAGE
S130 TRANSMITTING A SECOND MESSAGE TO THE USER EQUIPMENT, WHEREIN THE SECOND MESSAGE IS USED TO INSTRUCT THE USER EQUIPMENT TO INITIATE ATTACHMENT TO THE MSC/VL

(57) Abstract: A method and device for receiving or transmitting a short message are provided in the invention. The method includes: receiving a first message transmitted by a Mobile Switch Center/Visitor Location Register (MSC/VLR) (S110); determining that an user equipment is in an abnormal state according to the first message (S120); transmitting a second message to the user equipment, wherein the second message is used to indicate the user equipment to initiate the attachment with the MSC/VLR (S130). The device includes a reception module, a first determination module and a transmission module. With the invention, through transmitting an information to the user equipment for indicating the user equipment to initiate the attachment with the MSC/VLR, the context of the user equipment can be built on the MSC/VLR, thereby solving the problem that the user equipment can not receive or transmit short messages when the user equipment is in the abnormal state because of the MSC/VLR being in fault, accordingly the reception or transmission of the short message can be achieved, the self-resuming ability of a network can be improved, and user experience is improved.

[见续页]



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(57) 摘要:

本发明公开了一种用于接收或发送短消息的方法和装置。该方法包括：接收移动交换中心/拜访位置寄存器（MSC/VLR）发送的第一消息（S110）；根据该第一消息确定用户设备处于异常状态（S120）；向该用户设备发送第二消息，该第二消息用于指示该用户设备发起到该 MSC/VLR 的附着（S130）。该装置包括接收模块、第一确定模块和发送模块。采用本发明，通过向用户设备发送指示该用户设备发起到 MSC/VLR 的附着的信息，能够在 MSC/VLR 上建立该用户设备的上下文，由此能够解决当由于 MSC/VLR 发生故障导致用户设备处于异常状态时无法接收或发送短消息的问题，从而能够实现短消息的接收或发送，并能够提高网络的自我恢复能力，提高用户体验。

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2011/073614

A. CLASSIFICATION OF SUBJECT MATTER

H04W4/14 (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: H04W4/14, H04W86/-

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)

CNABS; CNTXT; CNKI; VEN; MSC, VLR, MME, FAULT, ABNORMAL, ABNORMITY, CONTEXT, ABSENCE, SINGLE BOARD, RESET, UE, TELEPHONE, TERMINAL, USER TERMINAL, LAI, TMSI, IMSI, ATTACH, SHORT MESSAGE, SMS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CN101778348A (HUAWEI TECH CO., LTD.) 14 Jul.2010 (14.07.2010) Description paragraphs 67-82, 98-108, fig.3	1, 13, 16
A	CN101657025A (HUAWEI TECH CO., LTD.) 24 Feb. 2010 (24.02.2010) The whole description	1-19
A	WO2009015273A2 (ROAMWARE INC) 29 Jan.2009 (29.01.2009) The whole description	1-19
A	CN101933390A (TELEFONAKTIEBOLAGET ERICSSON L M) 29 Dec.2010 (29.12.2010) The whole description	1-19

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

<p>* Special categories of cited documents:</p> <p>“A” document defining the general state of the art which is not considered to be of particular relevance</p> <p>“E” earlier application or patent but published on or after the international filing date</p> <p>“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)</p> <p>“O” document referring to an oral disclosure, use, exhibition or other means</p> <p>“P” document published prior to the international filing date but later than the priority date claimed</p>	<p>“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</p> <p>“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</p> <p>“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</p> <p>“&” document member of the same patent family</p>
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<p>Date of the actual completion of the international search</p> <p style="text-align: center;">31 Dec.2011(31.12.2011)</p>	<p>Date of mailing of the international search report</p> <p style="text-align: center;">09 Feb. 2012 (09.02.2012)</p>
<p>Name and mailing address of the ISA/CN</p> <p>The State Intellectual Property Office, the P.R.China</p> <p>6 Xitucheng Rd., Jimen Bridge, Haidian District, Beijing, China 100088</p> <p>Facsimile No. 86-10-62019451</p>	<p>Authorized officer</p> <p style="text-align: center;">LIU, Shiru</p> <p>Telephone No. (86-10)62411317</p>

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CN2011/073614

Patent Documents referred in the Report	Publication Date	Patent Family	Publication Date
CN101778348A	14.07.2010	WO2010078783 A1	15.07.2010
CN101657025A	24.02.2010	WO2010020196 A1	25.02.2010
WO2009015273A2	29.01.2009	EP2183231 A2	12.05.2010
		US2009061860 A1	05.03.2009
		WO2009015273A9	15.07.2010
		WO2009015273 A3	12.03.2009
CN101933390A	29.12.2010	WO2009056932 A3	02.07.2009
		EP2215887 A2	11.08.2010
		WO2009056932 A2	07.05.2009
		US2010265884 A1	21.10.2010
		ZA201002545 A	29.06.2011

A. 主题的分类		
H04W4/14 (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: H04W4/14, H04W86/-		
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))		
CNABS; CNTXT; CNKI: MSC, VLR, 移动交换中心, 拜访位置寄存器, 移动管理设备, 移动管理实体, 移动管理装置, MME, 异常, 故障, 上下文丢失, 单板复位, 用户终端, 用户设备, 移动终端, 手机, 终端, LAI, TMSI, IMSI, 附着, 短消息, SMS		
VEN: MSC, VLR, MME, FAULT, ABNORMAL, ABNORMITY, CONTEXT, ABSENCE, SINGLE BOARD, RESET, UE, TELEPHONE, TERMINAL, USER TERMINAL, LAI, TMSI, IMSI, ATTACH, SHORT MESSAGE, SMS		
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	CN101778348A (华为技术有限公司) 14.7 月 2010 (14.07.2010) 说明书第 67-82 段, 第 98-108 段, 图 3	1, 13, 16
A	CN101657025A (华为技术有限公司) 24.2 月 2010 (24.02.2010) 说明书全文	1-19
A	WO2009015273A2 (ROAMWARE INC) 29.1 月 2009 (29.01.2009) 说明书全文	1-19
A	CN101933390A (爱立信电话股份有限公司) 29.12 月 2010 (29.12.2010) 说明书全文	1-19
<input type="checkbox"/> 其余文件在 C 栏的续页中列出。 <input checked="" type="checkbox"/> 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 31.12 月 2011 (31.12.2011)		国际检索报告邮寄日期 09.2 月 2012 (09.02.2012)
ISA/CN 的名称和邮寄地址: 中华人民共和国国家知识产权局 中国北京市海淀区蓟门桥西土城路 6 号 100088 传真号: (86-10)62019451		授权官员 刘世茹 电话号码: (86-10) 62411317

国际检索报告

关于同族专利的信息

国际申请号

PCT/CN2011/073614

检索报告中引用的 专利文件	公布日期	同族专利	公布日期
CN101778348A	14.07.2010	WO2010078783 A1	15.07.2010
CN101657025A	24.02.2010	WO2010020196 A1	25.02.2010
WO2009015273A2	29.01.2009	EP2183231 A2	12.05.2010
		US2009061860 A1	05.03.2009
		WO2009015273A9	15.07.2010
		WO2009015273 A3	12.03.2009
CN101933390A	29.12.2010	WO2009056932 A3	02.07.2009
		EP2215887 A2	11.08.2010
		WO2009056932 A2	07.05.2009
		US2010265884 A1	21.10.2010
		ZA201002545 A	29.06.2011