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- (30) 优先权:
201310027028.X 2013 年 1 月 18 日 (18.01.2013) 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, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

[见续页]

(54) Title: NETWORK ACCESS SYSTEM AND METHOD

(54) 发明名称: 网络接入系统及方法

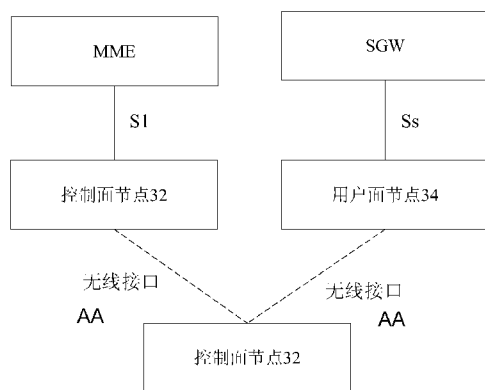


图 3 / Fig.3

32 Control plane node
34 User plane node
AA Wireless interface

(57) Abstract: Provided are a network access system and method. The system comprises a control plane node which is connected to terminal UE via a wireless interface, connected to a mobile management entity (MME) via an S1 interface, and set to process control plane data; and a user plane node which is connected to the UE via a wireless interface, connected to a serving gateway (SGW) via an Ss interface, and set to process user plane data. The present invention solves the problem in the related art that a core network is impacted because of frequent information interaction among nodes due to the fact that a user switches among cells, and then achieves the effects of reducing the information interaction among the nodes and reducing the impact on a core network signalling.

(57) 摘要: 本发明提供了一种网络接入系统及方法, 该系统包括: 控制面节点, 通过无线接口与终端 UE 连接, 通过 S1 接口与移动管理实体 MME 连接, 设置为处理控制面数据; 用户面节点, 通过无线接口与所述 UE 连接, 通过 Ss 接口与服务网关 SGW 连接, 设置为处理用户面数据, 通过本发明, 解决了相关技术中用户在小区间切换使得节点间信息交互频繁, 对核心网造成冲击的问题, 进而达到了减少了节点间信息的交互, 减少对核心网信令的冲击的效果。

**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 1 月 16 日

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2013/079992

A. CLASSIFICATION OF SUBJECT MATTER

See the extra sheet

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: LTE, MME, SGW, S1, Ss, S2, Xx, long term evolution, control plane node, user plane node, mobility management entity, serving gateway, switch+, information exchange, interface, link, macrocell, small-cell

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	CN 102075859 A (DATANG MOBILE COMMUNICATIONS EQUIPMENT CO., LTD.), 25 May 2011 (25.05.2011), the whole document	1-25
A	CN 102316602 A (ZTE CORP.), 11 January 2012 (11.01.2012), the whole document	1-25
A	CN 101577931 A (ZTE CORP.), 11 November 2009 (11.11.2009), the whole document	1-25
A	CN 101877915 A (ZTE CORP.), 03 November 2010 (03.11.2010), the whole document	1-25

☐ 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	
“E” earlier application or patent but published on or after the international filing date	“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
“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)	“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
“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	“&” document member of the same patent family

Date of the actual completion of the international search 15 October 2013 (15.10.2013)	Date of mailing of the international search report 31 October 2013 (31.10.2013)
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 ZHANG, Qi Telephone No.: (86-10) 62413298

International application No.
PCT/CN2013/079992

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

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CN2013/079992

CLASSIFICATION OF SUBJECT MATTER:

H04W 76/00 (2009.01) i

H04W 92/10 (2009.01) i

国际检索报告

国际申请号

PCT/CN2013/079992

A. 主题的分类

见附加页

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: 长期演进, LTE, 控制面节点, 用户面节点, 移动管理实体, MME, 服务网关, SGW, 切换, 信息交互, 接口, S1, Ss, S2, Xx, 链路, 宏蜂窝, 小蜂窝, long term evolution, control plane node, user plane node, mobility management entity, serving gateway, switch+, information exchange, interface, link, macrocell, small-cell

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
A	CN 102075859 A (大唐移动通信设备有限公司) 25.5 月 2011 (25.05.2011) 全文	1-25
A	CN 102316602 A (中兴通讯股份有限公司) 11.1 月 2012 (11.01.2012) 全文	1-25
A	CN 101577931 A (中兴通讯股份有限公司) 11.11 月 2009 (11.11.2009) 全文	1-25
A	CN 101877915 A (中兴通讯股份有限公司) 03.11 月 2010 (03.11.2010) 全文	1-25



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

15.10 月 2013 (15.10.2013)

国际检索报告邮寄日期

31.10 月 2013 (31.10.2013)

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

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张琦

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关于同族专利的信息

PCT/CN2013/079992

PCT/ISA/210 表(同族专利附件) (2009 年 7 月)

主题的分类:

H04W 76/00 (2009.01) i

H04W 92/10 (2009.01) i