

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference EIE150015PCT	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/CN2015/074315	International filing date ( <i>day/month/year</i> ) 16 March 2015 (16.03.2015)	Priority date ( <i>day/month/year</i> )	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)			

<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>																								
<p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<p align="center">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 19 September 2017 (19.09.2017)</p>
	<p>Authorized officer</p> <p align="center"><b>Lingfei Bai</b></p> <p>e-mail: pct.team2@wipo.int</p>

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To: 100020 China 20th Floor, East Tower, World Financial, Centre, No.1 Dongsanhuan Zhonglu., Chaoyang District, Beijing  KING & WOOD MALLESONS
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## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference <b>EIE150015PCT</b>	Date of mailing <i>(day/month/year)</i> <b>18 December 2015</b>	
<b>FOR FURTHER ACTION</b> See paragraph 2 below		
International application No. <b>PCT/CN2015/074315</b>	International filing date <i>(day/month/year)</i> <b>16 March 2015</b>	Priority date <i>(day/month/year)</i>
International Patent Classification (IPC) or both national classification and IPC <b>H04W 36/22(2009.01)i</b>		
Applicant <b>TELEFONAKTIEBOLAGET L M ERICSSON (PUBL) et al</b>		

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

**2. FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/ <b>STATE INTELLECTUAL PROPERTY OFFICE OF THE P.R.CHINA China 6, Xitucheng Rd., Jimen Bridge, Haidian District, Beijing 100088</b>	Date of completion of this opinion <b>11 December 2015</b>	Authorized officer  <b>WEI,Ling</b>
Facsimile No. <b>(86—10) 62019451</b>	Telephone No. <b>(86-10)61648263</b>	

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/CN2015/074315

Box No. I      Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
  - the international application in the language in which it was filed.
  - a translation of the international application into \_\_\_\_\_ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a)).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
  - a. (means)
    - on paper
    - in electronic form
  - b. (time)
    - in the international application as filed
    - together with the international application in electronic form
    - subsequently to this Authority for the purposes of search
4.  In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

**PCT/CN2015/074315**

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	<u>1-34</u>	YES
	Claims	<u>None</u>	NO
Inventive step (IS)	Claims	<u>None</u>	YES
	Claims	<u>1-34</u>	NO
Industrial applicability (IA)	Claims	<u>1-34</u>	YES
	Claims	<u>None</u>	NO

2. Citations and explanations :

[1] Reference is made to the following document:

[2] D1: US2014241153A1

[3] Novelty and Inventive Step:

[4] D1 is considered to be the prior art document closest to the present invention, D1 discloses (see description, paragraphs [0019]-[0038], figures 1-9): FIG.1 illustrates a 3G communication network with a traffic offload and transport solution in accordance with certain embodiments. This communication network includes user equipment (UE) 110, mobile network operator (MNO) backhaul 114 (corresponding to a first service provisioning network operated by a first network operator, the first network operator is a mobile network operator), policy charging and rules function (PCRF) 138, the gateway 122 is responsible for the interworking between the core network 120 and external packet switched networks. IP/MPLS route 142 provides a mechanism to create a virtual link or communication path (corresponding to the second network). Traffic steering reduces the need to distribute data center and PDN service centers. The GGSN PGW of gateway 122 can steer data traffic via next hop routing on the Gi/SGi side to selectively apply PDN service policies for egress packets. This can be implemented by applying a traffic steering mechanism at the gateway 122 with steering policies either locally configured or dynamically provisioned per subscriber (corresponding to traffic steering information for the traffic from the second mobile network, based at least on the traffic steering information, a traffic steering policy for the traffic from the second mobile network). Upon determining that a packet needs to go via a specific service domain, the gateway 122 applies appropriate next hop routing method. Otherwise, the next hop routing takes the packet directly to the Internet peering point (corresponding to steers the traffic from the second mobile network based on the traffic steering policy). The MME checks the authorization of the UE 110 to camp on the service provider's Public Land Mobile Network (PLMN), this offload solution also provides for monetization and rendering value added services to the traffic (corresponding to services provided by the second service provisioning network are value added services), preventing the MNO from simply being a bit-pipe.

[5] 1. Claim 1 differs from D1 in that: a second mobile network operated by a second network operator, informing the traffic steering policy to a traffic controller of the first service provisioning network.

[6] Claim 10 differs from D1 in that: generating traffic steering information based at least on requirements from the mobile network.

[7] Therefore, the subject matter of claims 1-9, 10-14, and the corresponding claims 15-23, 24-28 is novel in the sense of PCT Article 33(2).

[8] The problem to be solved by claims 1 and 10 may be regarded as how to generate traffic steering information and how to inform the traffic steering policy. However, the distinguishing technical feature is commonly practice for a person skilled in the art.

[9] Hence, it would be obvious for a person skilled in the art to combine D1 and the common knowledge to arrive at the technical solution of claims 1, 10. Therefore, the subject matter of claims 1, 10, and the corresponding claims 15, 24 does not involve an inventive step in the sense of PCT Article 33(3).

[10] 2. Claims 2-9, 11-14 are directly or indirectly dependent on claims 1, 10. Claims 16-23, 25-28 are corresponding to the claims 2-9, 11-14 respectively. The part of the additional features is disclosed by D1 (see the same reference), the other part of the additional features is common technical means to the person

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

**PCT/CN2015/074315**

**Box No. V**

**Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability;  
citations and explanations supporting such statement**

skilled in the art. Therefore, the subject matter of claims 2-9, 11-14, 16-23, 25-28 does not involve an inventive step in the sense of PCT Article 33(3).

[11] 3. Claims 29-32 set for an apparatus, claims 33-34 set for a computer program, basing on the explanation of claim 1-9, 10-14. Therefore, the subject matter of claims 29-34 is novel in the sense of PCT Article 33(2), but does not involve an inventive step in the sense of PCT Article 33(3).

[12] **Industrial Applicability**

[13] The technical solution of claims 1-34 is industrially applicable in the technical field of communication, and said claims therefore satisfy the criteria set out in PCT Article 33(4).