

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
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PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference see form PCT/ISA/220		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/EP2018/077699	International filing date (day/month/year) 11.10.2018	Priority date (day/month/year) 13.10.2017
International Patent Classification (IPC) or both national classification and IPC INV. H04L29/08 H04W76/10		
Applicant NOKIA TECHNOLOGIES OY		

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 usually 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:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Fax: +49 89 2399 - 4465	Date of completion of this opinion see form PCT/ISA/210	Authorized Officer Koch, György Telephone No. +49 89 2399-0	
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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:
 - a. ☐ forming part of the international application as filed:
 - ☐ in the form of an Annex C/ST.25 text file.
 - ☐ on paper or in the form of an image file.
 - b. ☐ furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. ☐ furnished subsequent to the international filing date for the purposes of international search only:
 - ☐ in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - ☐ on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
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 forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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

1. Statement

Novelty (N)	Yes: Claims	<u>1-38</u>
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-38</u>
Industrial applicability (IA)	Yes: Claims	<u>1-38</u>
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1 Reference is made to the following document:

D1: US 2014/233380 A1 (KIM HYUNSOOK [KR] ET AL) 21 August 2014
(2014-08-21)

2 The present application does not meet the requirements of Article 33(1) PCT, the reasons being as follows:

2.1 Document **D1** discloses (the references in parentheses applying to this document), according to the essential features of **claim 1**, a method comprising:

forming, by a user equipment, a message including an indication of at least one session management capability supported by the user equipment (see in particular page 9, paragraph 148; page 11, paragraph 173; and figures 12, 16: *calculating, by a processor of a user equipment device, information indicating capability of supporting reflecting QoS by the user equipment*);

sending, by the user equipment, the message including the indication towards a session management function (see in particular page 9, paragraph 148; page 11, paragraph 174; and figures 12, 16: *transmitting, by the processor of the user equipment device, the calculated information indicating capability of supporting reflecting QoS by the user equipment to a network node device*);

and receiving, by the user equipment and from the session management function, a response indicative of whether the session management function and/or a corresponding network supports the at least one session management capability to enable the user equipment to operate in accordance with the at least one session management capability (see in particular page 9, paragraphs 149, 150; page 11, paragraphs 174, 175; and figures 12, 16: *receiving, by the processor of the user equipment device and*

from the network node device, an indication whether the reflective QoS should be applied based on an evaluation whether the reflective QoS is supported by the network node device).

The subject-matter of claim 1 differs from that disclosed in document D1 in that the message including the indication of the at least one session management capability supported by the user equipment is a session establishment message.

This difference, however, is a minor design variation relating to one of a plurality of options how the session management capability of the user equipment might be transmitted from the user equipment to the session management function and the inclusion of the session management capability supported by the user equipment in a session establishment message would lie within the design competence of the person skilled in the art who by applying this feature together with the features of document D1 would arrive in an **obvious** way at the subject-matter of claim 1.

Therefore, the subject-matter of **claim 1** does not involve an inventive step in the sense of Article 33(3) PCT.

- 2.2 Furthermore, the subject-matter of **claims 11, 21 and 22** substantially corresponds to that of claim 1 in terms of two similar apparatuses (i.e. the apparatuses adapted to perform the steps of method claim 1) and a medium (i.e. a non-transitory computer-readable medium including program code which when executed causes a computer to perform the steps of method claim 1). Hence the considerations with respect to lack of inventive step of claim 1 are equally applicable to these claims.

Therefore, the subject-matter of **claims 11, 21 and 22** does also not involve an inventive step in the sense of Article 33(3) PCT.

- 2.3 In addition, the subject-matter of **claim 24** relates to the same signalling flow as it is disclosed by claim 1 with a slight difference that claim 24 discloses these steps from the perspective of the session management function (i.e. the session management function receives the session establishment message from the user equipment and the session management function transmits the response to the user equipment). However, as document D1 explicitly discloses a network node device adapted to perform these steps (see in particular page 9, paragraphs 148-150; page 11, paragraphs 175, 176; and figures 12, 16), the considerations with respect to lack of inventive step of claim 1 are equally applicable to this claim.

Therefore, the subject-matter of **claim 24** does also not involve an inventive step in the sense of Article 33(3) PCT.

- 2.4 Furthermore, the subject-matter of **claims 30, 36 and 37** substantially corresponds to that of claim 24 in terms of two similar apparatuses (i.e. the apparatuses adapted to perform the steps of method claim 24) and a medium (i.e. a non-transitory computer-readable medium including program code which when executed causes a computer to perform the steps of method claim 24). Hence the considerations with respect to lack of inventive step of claim 24 are equally applicable to these claims.

Therefore, the subject-matter of **claims 30, 36 and 37** does also not involve an inventive step in the sense of Article 33(3) PCT.

- 2.5 Moreover, the additional features of dependent **claims 2-10, 12-20, 23, 25-29, 31-35 and 38** seem to relate to minor design details and/or implementation measures, which are known or directly derivable from the above-referred document or constitute normal practice of a person skilled in the art. Therefore, these claims either alone or in combination do not seem to add inventive significance to claims 1, 11, 22, 24, 30 and 37.

Re Item VII

Certain defects in the international application

- 1 The independent claims are not correctly cast in the two part form (Rule 6.3(b) PCT).
- 2 The claims do not contain reference signs placed in parentheses (Rule 6.2(b) PCT).
- 3 Contrary to the requirements of Rule 5.1(a)(ii) PCT, the most relevant prior art, i.e. document D1, is neither acknowledged by reference, nor briefly discussed in the introductory part of the description.

Re Item VIII

Certain observations on the international application

Although **claims 11 and 22** as well as **claims 30 and 37** have been drafted as separate independent claims, they relate effectively to the same subject-matter (i.e. an apparatus adapted to send a session establishment message and receive a corresponding response as well as an apparatus adapted to receive a session establishment message and send a corresponding response). As a consequence, said claims lack conciseness and do not meet the requirements of Article 6 PCT.