Electronic Acknowledgement Receipt

EFS ID:	33713873
Application Number:	15287706
International Application Number:	
Confirmation Number:	8691
Title of Invention:	ROAMING IN A WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Customer Number:	22918
Filer:	Han-Wei Chen/Christine Ortt
Filer Authorized By:	Han-Wei Chen
Attorney Docket Number:	110729-8052.US01
Receipt Date:	13-SEP-2018
Filing Date:	06-OCT-2016
Time Stamp:	15:22:36
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Oath or Declaration filed	Declaration_Assignment_signed_110729-8052US01.pdf	540319 98f835ef8ea8fa0ef02cc57b08e6fb10e6c78db1	no	2

Warnings:

Information:	
Total Files Size (in bytes):	540319

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/08a (03-15)
Approved for use through 07/31/2016. OMB 0651-0031
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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15287706
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1					

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20110299422	A1	2011-12-08	KIM, et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	15287706
	Filing Date	2016-10-06
	First Named Inventor	Peiman Amini
	Art Unit	2464
	Examiner Name	Kan Yuen
	Attorney Docket Number	110729-8052.US01

	1	

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	15287706
	Filing Date	2016-10-06
	First Named Inventor	Peiman Amini
	Art Unit	2464
	Examiner Name	Kan Yuen
	Attorney Docket Number	110729-8052.US01

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☑ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

✓ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2018-09-16
Name/Print	Han-Wei (Harvey) Chen	Registration Number	75350

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	15287706
Filing Date:	06-Oct-2016
Title of Invention:	ROAMING IN A WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Filer:	Han-Wei Chen/Christine Ortt
Attorney Docket Number:	110729-8052.US01

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	240	240
		Total in USD ($)		**240**

Electronic Acknowledgement Receipt

EFS ID:	33745001
Application Number:	15287706
International Application Number:	
Confirmation Number:	8691
Title of Invention:	ROAMING IN A WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Customer Number:	22918
Filer:	Han-Wei Chen/Christine Ortt
Filer Authorized By:	Han-Wei Chen
Attorney Docket Number:	110729-8052.US01
Receipt Date:	17-SEP-2018
Filing Date:	06-OCT-2016
Time Stamp:	17:34:15
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$240
RAM confirmation Number	091818INTEFSW17345200
Deposit Account	500665
Authorized User	Christine Ortt

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	2018-09-17_IDS_110729-8052US01.pdf	1038424 885822b007bbe54416a4f0df0287da84334 9a259	no	4
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30382 35ed95ab5b881722d011f6d5ad8a45476a4 82465	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1068806		

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New Applications Under 35 U.S.C. 111

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New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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United States Patent and Trademark Office
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,706	10/06/2016	Peiman Amini	110729-8052.US01	8691

7590 09/14/2018

PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER	
YUEN, KAN	
ART UNIT	PAPER NUMBER
2464	
NOTIFICATION DATE	DELIVERY MODE
09/14/2018	ELECTRONIC

NOTICE REQUIRING INVENTOR'S OATH OR DECLARATION

☑ An inventor's oath or declaration in compliance with 37 CFR 1.63 or substitute statement in compliance with 37 CFR 1.64 executed by or with respect to each inventor has not yet been submitted.

The inventor's oath or declaration or substitute statement dated _____ is defective. The inventor's oath or declaration does not comply with 37 CFR 1.63 or the substitute statement does not comply with 37 CFR 1.64 because it:

☐ does not include a statement that the person executing the oath or declaration or substitute statement believes the named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application for which the oath or declaration is being submitted.

☐ does not state that the application was made or was authorized to be made by the person executing the oath or declaration or substitute statement.

☐ does not acknowledge that any willful false statement made in such oath or declaration or substitute statement is punishable under section 1001 of title 18 by fine or imprisonment of not more than 5 years, or both.

☐ does not identify the person executing the oath or declaration or substitute statement by his or her legal name.

☐ does not identify the application to which the oath or declaration or substitute statement is directed.

☐ Other: _____

The substitute statement dated _____ does not comply with 37 CFR 1.64 because it:

☐ does not identify the inventor with respect to whom the statement applies.

☐ does not identify the relationship to the non-signing inventor.

☐ does not identify the circumstances permitting execution of the statement.

☐ was signed by someone other than the applicant.

☐ Other: _____

An oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each inventor MUST be filed **no later than the date on which the issue fee is paid.** See 35 U.S.C. 115(f). Failure to timely comply will result in ABANDONMENT of this application. This period for reply is not extendable under 37 CFR 1.136(a).

Questions relating to this Notice should be directed to the Application Assistance Unit at 571-272-4200.

(571)-272-4200 or 1(888)-786-0101
Patent Publication Branch
Office of Data Management

To: patentprocurement@perkinscoie.com,,
From: PAIR_eOfficeAction@uspto.gov
Cc: PAIR_eOfficeAction@uspto.gov
Subject: Private PAIR Correspondence Notification for Customer Number 22918

Sep 19, 2018 04:11:38 AM

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The following USPTO patent application(s) associated with your Customer Number, 22918 , have new outgoing correspondence. This correspondence is now available for viewing in Private PAIR.

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Application	Document	Mailroom Date	Attorney Docket No.
15287706	M327	09/14/2018	110729-8052.US01

To view your correspondence online or update your email addresses, please visit us anytime at https://sportal.uspto.gov/secure/myportal/privatepair.

If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov with 'e-Office Action' on the subject line or call 1-866-217-9197 during the following hours:

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Thank you for prompt attention to this notice,

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PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

PRINTER RUSH
(PTO ASSISTANCE)

Application: 15287706	Examiner: Yuen	GAU: 2464
From: Bernice Crittenden	Location: RTFM	Creation Date: 09/20/2018

Week Date: 9/3/2018

DOC CODE	DOC DATE	MISCELLANEOUS
[ ] 1449		[ ] Continuing Data
[X] IDS	09/17/2018	[ ] Foreign Priority
[ ] CLM		[ ] Document Legibility
[ ] IIFW/FWCLM		[ ] Fees
[ ] SRFW		[ ] Petition (TC)
[ ] DRW		[ ] Other
[ ] OATH		
[ ] 312		
[ ] SPEC		

[RUSH] Message:

Please respond to the 09-17-2018 IDS.

Thank you,
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[XRUSH] Response:

Initials: _____

Examiner: PUBS contact - James Leija, (703) 756-1197
NOTE: This form will be included as part of the official USPTO record with the response document coded as XRUSH.
REV: AUG 16

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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,706	10/06/2016	Peiman Amini	110729-8052.US01	8691

22918 7590 10/03/2018
PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER
YUEN, KAN

ART UNIT	PAPER NUMBER
2464	

NOTIFICATION DATE	DELIVERY MODE
10/03/2018	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentprocurement@perkinscoie.com

Corrected ***Notice of Allowability***	**Application No.** 15/287,706	**Applicant(s)** Amini et al.	
	Examiner KAN YUEN	**Art Unit** 2464	**AIA Status** Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to 9/17/2018.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 1-13,15-38 (Renumbered 1-37 Respectively) . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____.
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file areply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/KAN YUEN/
Primary Examiner, Art Unit 2464

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (03-15)
Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15287706
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20110299422	A1	2011-12-08	KIM, et al.	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /K.Y/

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(Not for submission under 37 CFR 1.99)

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Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

	1	

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature	/KAN YUEN/	Date Considered	09/25/2018

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☑ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

✓ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2018-09-16
Name/Print	Han-Wei (Harvey) Chen	Registration Number	75350

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /K.Y/

Privacy Act Statement

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PRINTER RUSH
(PTO ASSISTANCE)

Application: 15287706	Examiner: Yuen	GAU: 2464
From: Bernice Crittenden	Location: RTFM	Creation Date: 09/20/2018

Week Date: 9/3/2018

DOC CODE	DOC DATE	MISCELLANEOUS
[ ] 1449		[ ] Continuing Data
[X] IDS	09/17/2018	[ ] Foreign Priority
[ ] CLM		[ ] Document Legibility
[ ] IIFW/FWCLM		[ ] Fees
[ ] SRFW		[ ] Petition (TC)
[ ] DRW		[ ] Other
[ ] OATH		
[ ] 312		
[ ] SPEC		

[RUSH] Message:

Please respond to the 09-17-2018 IDS.

Thank you,
BC

[XRUSH] Response:

The IDS has been considered and initialed.

09/25/2018

Initials: /K.Y/

Examiner: PUBS contact - James Leija, (703) 756-1197
NOTE: This form will be included as part of the official USPTO record with the response document coded as XRUSH.
REV: AUG 16

TP Link Ex. 1004
Page 248

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From: PAIR_eOfficeAction@uspto.gov
Cc: PAIR_eOfficeAction@uspto.gov
Subject: Private PAIR Correspondence Notification for Customer Number 22918

Oct 03, 2018 04:11:44 AM

Dear PAIR Customer:

PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247
UNITED STATES

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Application	Document	Mailroom Date	Attorney Docket No.
15287706	NOA	10/03/2018	110729-8052.US01
	1449	10/03/2018	110729-8052.US01

To view your correspondence online or update your email addresses, please visit us anytime at https://sportal.uspto.gov/secure/myportal/privatepair.

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Thank you for prompt attention to this notice,

UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	15/287,706	Filing Date	2016-10-06	Docket Number (if applicable)	110729-8052.US01	Art Unit	2464
First Named Inventor	Peiman Amini			Examiner Name	Kan Yuen		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

- ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ☐ Other _____

☒ Enclosed

- ☐ Amendment/Reply
- ☒ Information Disclosure Statement (IDS)
- ☐ Affidavit(s)/ Declaration(s)
- ☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☒ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 500665

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

Applicant Signature

PTO/SB/30EFS (02-18)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Signature of Registered U.S. Patent Practitioner			
Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2018-11-28
Name	Han-Wei Chen	Registration Number	75350

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(Not for submission under 37 CFR 1.99)

Application Number	15287706
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	9001767	B1	2015-04-07	GATEWOOD, et al.	
	2	9179495	B1	2015-11-03	SCHERZER, et al.	
	3	9832796	B2	2017-11-28	MEHTA	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20050048963	A1	2005-03-03	KUBLER, et al.	
	2	20080025208	A1	2008-01-31	CHAN	
	3	20080080414	A1	2008-04-03	THUBERT, et al.	

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	Examiner Name	Kan Yuen
	Attorney Docket Number	110729-8052.US01

	4	20080247317	A1	2008-10-09	WEIL, et al.	
	5	20090046655	A1	2009-02-19	ZHAO, et al.	
	6	20090252127	A1	2009-10-08	RANGARAJAN, et al.	
	7	20100118830	A1	2010-05-13	STEPHENSON, et al.	
	8	20100246416	A1	2010-09-30	SINHA, et al.	
	9	20110081903	A1	2011-04-07	CAI, et al.	
	10	20110286404	A1	2011-11-24	ABRAHAM, et al.	
	11	20120020319	A1	2012-01-26	SONG, et al.	
	12	20120224481	A1	2012-09-06	BABIARZ, et al.	
	13	20120294200	A1	2012-11-22	WANG, et al.	
	14	20130194948	A1	2013-08-01	MALLIK, et al.	

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	15	20140233412	A1	2014-08-21	MISHRA, et al.	
	16	20140270306	A1	2014-09-18	LUNA, et al.	
	17	20150018028	A1	2015-01-15	UPLENCHWAR, et al.	
	18	20150029067	A1	2015-01-29	DONALDSON, et al.	
	19	20150049616	A1	2015-02-19	COWAN, et al.	
	20	20150264614	A1	2015-09-17	STAGER, et al.	
	21	20150334750	A1	2015-11-19	MEHTA	
	22	20160007273	A1	2016-01-07	PANG, et al.	
	23	20160142163	A1	2016-05-19	SIROTKIN	
	24	20160192203	A1	2016-06-30	GOKTURK, et al.	
	25	20160212755	A1	2016-07-21	CAO, et al.	

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	26	20160286374	A1	2016-09-29	PATIL, et al.	
	27	20160366632	A1	2016-12-15	CUI, et al.	
	28	20170048913	A1	2017-02-16	TEYEB, et al.	
	29	20170070919	A1	2017-03-09	CHANDOK, et al.	
	30	20170125920	A1	2017-05-04	SPIEL, et al.	
	31	20170127295	A1	2017-05-04	BLACK, et al.	
	32	20170127325	A1	2017-05-04	VIKBERG, et al.	
	33	20170164260	A1	2017-06-08	SHI, et al.	
	34	20170164323	A1	2017-06-08	MARKHOVSKY, et al.	
	35	20170215091	A1	2017-07-27	LING	
	36	20170238189	A1	2017-08-17	NOLAN, et al.	

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	37	20170251410	A1	2017-08-31	COMSTOCK	
	38	20170325243	A1	2017-11-09	YASUKAWA, et al.	

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	1	"WLAN High Availability", Technical white paper; Hewlett-Packard Development Company, L.P., Oct. 2014, 8 pages	

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Examiner Name	Kan Yuen
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CERTIFICATION STATEMENT

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Name/Print	Han-Wei Chen	Registration Number	75350

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Technical white paper

WLAN high availability

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Overview

In a large-sized WLAN, ACs are required to provide uninterrupted services when single points of failure occur. Users have different requirements for failure detection speed, switchover time, redundancy ratio, usability, performance, and costs. The HP WLAN high availability technology provides device-level and service-level high availability to meet different network requirements:

- As shown in Table 1, device-level high availability has the following backup features:
  - **1+1 fast backup**—Two ACs back up each other. When the primary AC fails, the backup AC takes place immediately to provide WLAN services.
  - N+1 backup—One AC backs up multiple ACs.
  - N+N backup—Each AC acts as the backup AC for the other ACs.
  - VRRP —The primary AC and the backup AC form a VRRP group and use one virtual IP address to provide services.

Table 1. Backup methods characters

Item	1+1 fast backup	N+1 backup	N+N backup	VRRP backup
Focus	Reliability	Maintainability	Flexibility	Reliability
Feature	AC failure detection and primary and backup AC switchover in subseconds	One backup AC for multiple primary ACs. All APs connect to their respective primary AC as long as the primary AC operates correctly.	Easy and flexible, and can meet the requirements of most scenarios.	Two ACs form one VRRP group to provide one virtual IP address.
Availability	High	Middle	Middle	High
Maintainability	High	High	Middle	High
Flexibility	Middle	Low	High	Middle
Load balancing	Supported	Not supported	Supported	Supported
Heartbeat detection	Supported	Not supported	Not supported	Not supported
Cost	High	Low	Low	High
Performance	High	Middle	Low	Middle

- Service-level high availability has the following failover features:
  - 802.1X stateful failover.
  - Portal stateful failover.
  - DHCP stateful failover.

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WLAN high availability implementation

Fundamental high availability technologies

This section describes fundamental high availability technologies.

AP connection priority

You can configure the AP connection priority for an AC. The priority value is in the range of 0 to 7. A larger value represents a higher priority. An AP prefers to connect to an AC with higher priority.

AC selection

AC selection is performed in the following descending order:

1. An AC that has APs with manually configured serial IDs.
2. An AC with higher AP connection priority
3. An AC with a lower load.
   The load of an AC is determined by the numbers of supported and online APs and clients.
4. The first discovered AC.

Dual-link

Dual-link enables an AP to establish LWAPP tunnels with a primary and a backup AC. The primary AC provides services for the AP. When the primary AC fails, the backup AC becomes the new primary AC to provide services.

Together with the heartbeat detection function, the backup AC can immediately detect primary AC failure and become the primary AC to provide services. The heartbeat detection function requires the two ACs to be in the same Layer 2 network.

VRRP

VRRP is an error-tolerant protocol. It enables hosts on a LAN to communicate with the external network when the gateway fails.

VRRP has the following benefits:

- Simplified network management.
  VRRP avoids single points of failure and simplifies the configuration on hosts. When the master in the VRRP group on a multicast or broadcast LAN fails, another router in the VRRP group takes over. The switchover is complete without causing dynamic route recalculation, route re-discovery, gateway reconfiguration on the hosts, or traffic interruption.
- Strong adaptability.
  VRRP packets are encapsulated in IP packets and support all kinds of upper-layer protocols.
- Low cost.
  Only masters send periodic VRRP advertisements.

VRRP can be used to realize portal stateful failover, 802.1X stateful failover, and AC virtualization backup in WLAN high availability.

1+1 fast backup

An AP establishes LWAPP tunnels with a primary AC and a backup AC. The primary AC provides services for the AP. When the primary AC fails, the backup AC can detect the failure in subseconds, and it becomes the new primary to provide services without service interruption.

1+1 fast backup uses the heartbeat detection mechanism. It has a higher redundancy ratio (1:1) but occupies more system resources.

HP recommends using one AC as the backup AC to simplify maintenance. You can also configure the two ACs to balance load for each other to meet specific requirements.

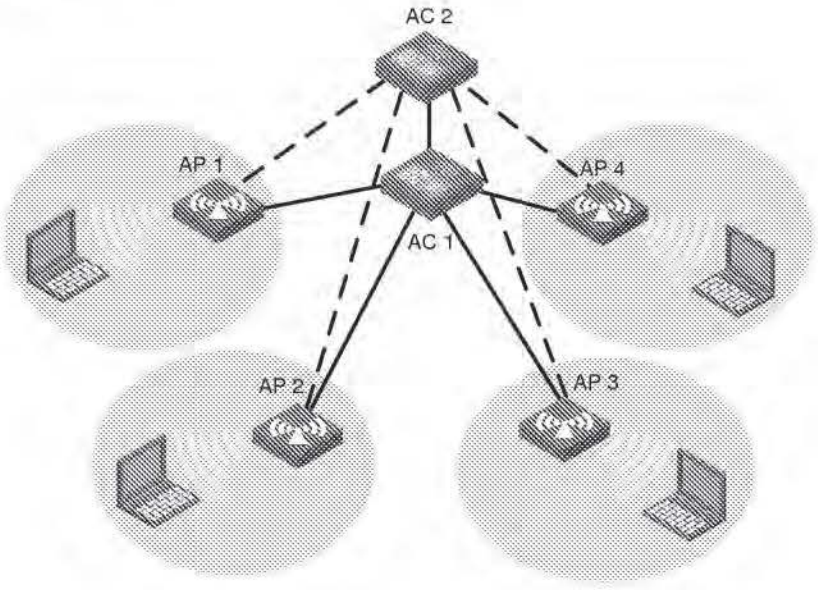
As shown in Figure 1, AC 1 is the primary AC for all APs. 1+1 fast backup operates as follows:

1. The APs select AC 1 as the primary AC because AC 1 has higher AP connection priority.
2. When the primary AC fails, the APs connect to the backup AC.

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3. When the primary AC recovers, the APs connect to the primary AC

Figure 1. Network diagram



N+1 backup

A backup AC can back up a maximum of four primary ACs. The backup AC provides services only when a primary AC fails. When the primary AC recovers, all APs switch back to the primary AC automatically.

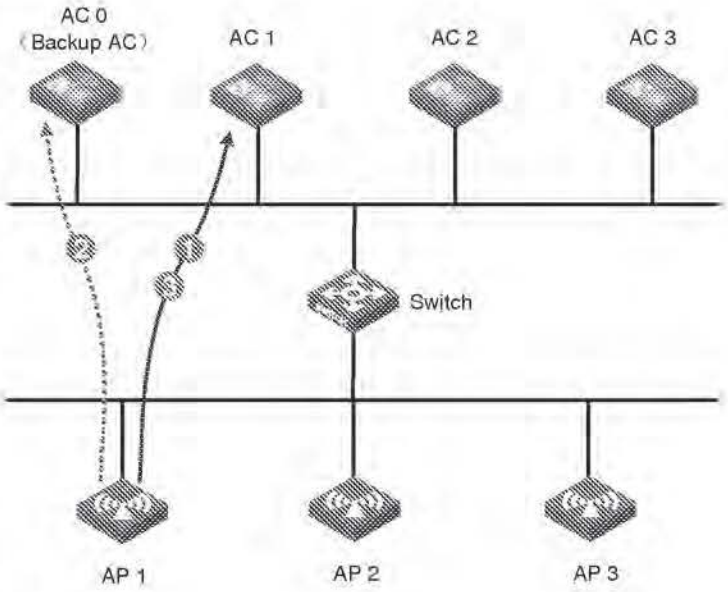
1+1 backup is the same as 1+1 fast backup except that 1+1 backup does not support heartbeat detection.

As shown in Figure 2, AC 1, AC 2, and AC 3 are the primary AC for AP 1, AP 2, and AP 3, respectively. AC 0 is the backup AC for the other three ACs. N+1 backup operates as follows:

1. AP 1, AP 2, and AP 3 use AC 1, AC 2, and AC 3 as their primary AC, respectively because the ACs are configured with different AP connection priorities.
2. When AC 1 fails, AP 1 switches to AC 0.
3. When AC 1 recovers, AP 1 switches back to AC 1.

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Figure 2. Network diagram



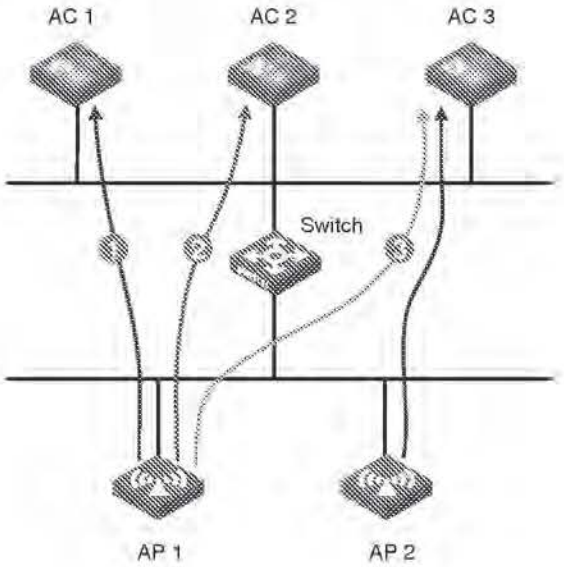
N+N backup

Each AC acts as the backup AC for the other ACs. APs select an optimum AC as the primary AC. When the primary AC fails, the APs select another AC to connect to. When the primary AC recovers, the APs do not switch back to the primary AC.

As shown in Figure 3, AC 1, AC 2, and AC 3 provide services for all APs. N+N backup operates as follows:

1. All ACs have the same priority, so AP 1 can select an AC to connect to. Assume AP 1 selects AC 1.
2. When AC 1 fails, AP 1 selects AC 2.
3. When both AC 1 and AC 2 fail, AP 1 connects to AC 3.
4. When AC 1 recovers, AP 1 does not switch back to AC 1.

Figure 3. Network diagram



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Portal stateful failover

Stateful failover supports hot backup of services on two devices. Stateful failover can be configured on key devices to avoid service interruptions caused by single point failures. When operating correctly, the two devices synchronize service information. If one device fails, the other device takes over the services.

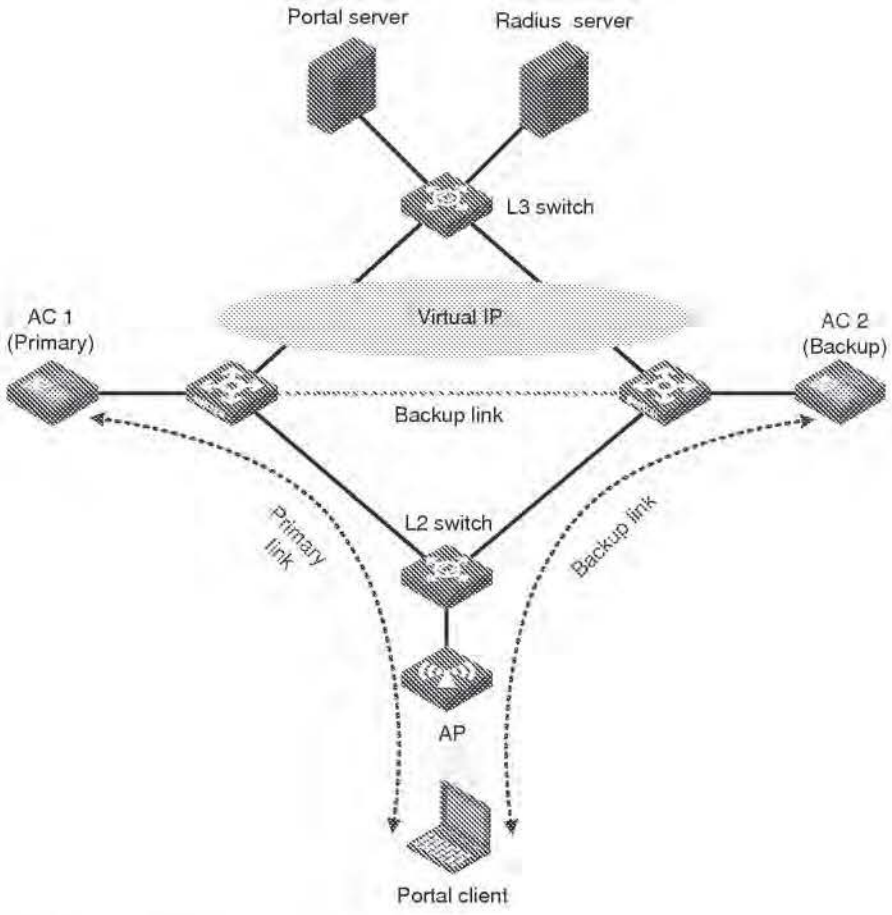
Portal stateful failover supports local and remote portal server, and local user and remote AAA server.

To implement stateful failover for portal, configure VRRP for traffic switchover. You can also configure 1+1 fast backup between the two ACs.

For a remote portal server, HP recommends that you use portal stateful failover with 1+1 fast backup, and enable VRRP on the Layer 3 interfaces that connect the ACs to the switches.

As shown in Figure 4, when portal stateful failover is enabled, the ACs back up their portal online user information through the failover link. If either AC fails, the other can guarantee data communication of the online portal users and perform portal authentication for new portal users.

Figure 4. Network diagram



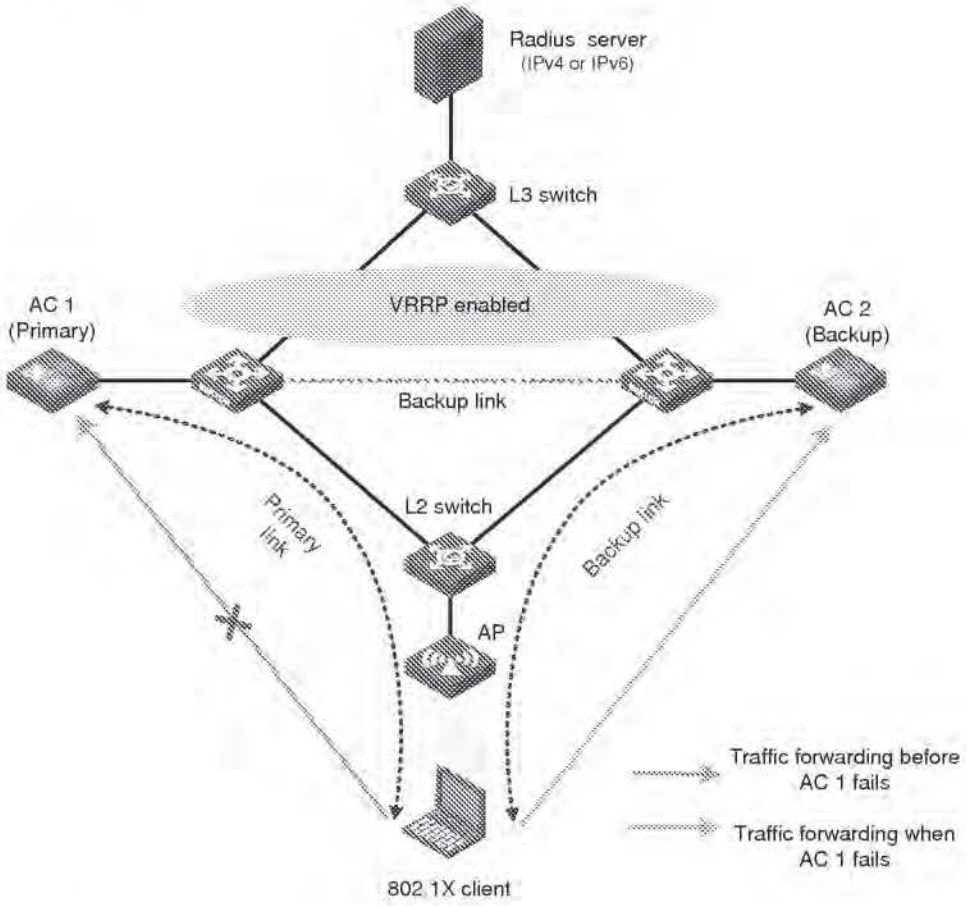
802.1X stateful failover

802.1X stateful failover backs up client information, client status information, and client authentication information between two ACs. This ensures that the backup AC can immediately use backup information to provide WLAN services without service interruption.

Use 802.1X stateful failover together with the VRRP for communication with the RADIUS server with one virtual IP address, and 1+1 fast backup for fast failure detection in subseconds.

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Figure 5. Network diagram



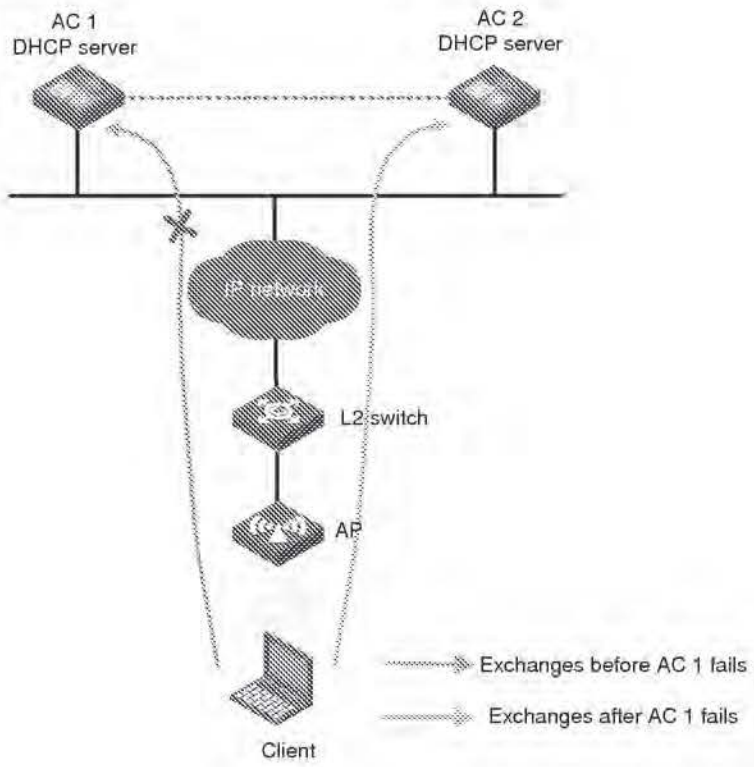
DHCP stateful failover

DHCP stateful failover enables real-time synchronization of address allocation and lease extension information between two ACs that operate as DHCP servers. When one AC fails, the other AC takes over to provide address allocation and lease extension services for clients.

If the ACs and clients are not on the same subnet, a DHCP relay agent is required, and you must specify both ACs on the relay agent. When the interface receives request messages from clients, the relay agent forwards them to both ACs.

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Figure 6. Network diagram



VRRP for WLAN

VRRP for WLAN enables two ACs to form one VRRP group to provide one virtual IP address for APs and clients, and synchronize AP and client information between the two ACs in real time. When one AC fails, VRRP automatically switches services to the backup AC. The APs and clients still use the virtual IP address to access the external network without any service interruption

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5998-7000, October 2014

Electronic Patent Application Fee Transmittal

Application Number:	15287706
Filing Date:	06-Oct-2016
Title of Invention:	ROAMING IN A WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Filer:	Han-Wei Chen/Christine Ortt
Attorney Docket Number:	110729-8052.US01

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
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Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
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Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
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		Total in USD ($)		**1300**

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EFS ID:	34428170
Application Number:	15287706
International Application Number:	
Confirmation Number:	8691
Title of Invention:	ROAMING IN A WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Customer Number:	22918
Filer:	Han-Wei Chen/Christine Ortt
Filer Authorized By:	Han-Wei Chen
Attorney Docket Number:	110729-8052.US01
Receipt Date:	28-NOV-2018
Filing Date:	06-OCT-2016
Time Stamp:	19:43:08
Application Type:	Utility under 35 USC 111(a)

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Warnings:					
Information:					
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Application Number	15287706
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First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

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	Art Unit	2464
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	First Named Inventor	Peiman Amini
	Art Unit	2464
	Examiner Name	Kan Yuen
	Attorney Docket Number	110729-8052.US01

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Name/Print	Han-Wei Chen	Registration Number	75350

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International Application Number:	
Confirmation Number:	8691
Title of Invention:	ROAMING IN A WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Customer Number:	22918
Filer:	Han-Wei Chen/Christine Ortt
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Attorney Docket Number:	110729-8052.US01
Receipt Date:	07-JAN-2019
Filing Date:	06-OCT-2016
Time Stamp:	13:21:41
Application Type:	Utility under 35 USC 111(a)

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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	2019-01-07_IDS_110729-8052US01.PDF	1038505 0e37d9681538853af62f5facca3d8882d0d7108e	no	4

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YUEN, KAN	
ART UNIT	PAPER NUMBER
2464	

DATE MAILED: 02/25/2019

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,706	10/06/2016	Peiman Amini	110729-8052.US01	8691

TITLE OF INVENTION: ROAMING IN A WIRELESS MESH NETWORK

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1000	$0.00	$0.00	$1000	05/28/2019

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I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22918 7590 02/25/2019
PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,706	10/06/2016	Peiman Amini	110729-8052.US01	8691

TITLE OF INVENTION: ROAMING IN A WIRELESS MESH NETWORK

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1000	$0.00	$0.00	$1000	05/28/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
YUEN, KAN	2464	370-332000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

TP Link Ex. 1004
Page 280

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,706	10/06/2016	Peiman Amini	110729-8052.US01	8691

22918 7590 02/25/2019
PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER	
YUEN, KAN	
ART UNIT	PAPER NUMBER
2464	

DATE MAILED: 02/25/2019

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 15/287,706	Applicant(s) Amini et al.	
	Examiner KAN YUEN	Art Unit 2464	AIA Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to 1/7/2019.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are See Continuation Sheet . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____.
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file areply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/KAN YUEN/
Primary Examiner, Art Unit 2464

Continuation of 3. The allowed claim(s) is/are: 1-13,15-38 (Renumbered 1-37 Respectively)

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Allowable Subject Matter (Reasons for Allowance)

1. Claims 1-13, 15-38 are allowed. The prior art of record fails to disclose the features for determining whether the client supports intelligent roaming: wherein, when the client does not support intelligent roaming, the one or more instructions include a deauthentication or a disassociation frame, with a reason code reflecting a roaming decision by the controlling entity, as recited in claim 1.

2. The prior art of record fails to disclose the features for determining whether the client supports intelligent roaming; wherein, when the client supports intelligent roaming, the one or more instructions include a roaming directive and an identifier of the second mesh point, as recited in claim 21.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KAN YUEN whose telephone number is (571)270-1413. The examiner can normally be reached on Monday - Friday 11pm-7pm.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KAN YUEN/
Primary Examiner, Art Unit 2464

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/287,706	Amini et al.
	Examiner	Art Unit
	KAN YUEN	2464

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	02/12/2019								
1	1	=								
2	2	=								
3	3	=								
4	4	=								
5	5	=								
6	6	=								
7	7	=								
8	8	=								
9	9	=								
10	10	=								
11	11	=								
12	12	=								
13	13	=								
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31	30	=								
32	31	=								
33	32	=								
34	33	=								
35	34	=								
36	35	=								
37	36	=								
20	37	=								
21	38	=								

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/287,706	Amini et al.
	Examiner	Art Unit
	KAN YUEN	2464

CPC								
Symbol							Type	Version
H04W	/	72	/	0453			F	2013-01-01
H04L	/	12	/	44			I	2013-01-01
H04L	/	43	/	16			I	2013-01-01
H04L	/	45	/	20			I	2013-01-01
H04W	/	4	/	023			I	2013-01-01
H04W	/	24	/	08			I	2013-01-01
H04W	/	36	/	30			I	2013-01-01
H04W	/	36	/	36			I	2013-01-01
H04L	/	43	/	0888			I	2013-01-01
H04L	/	43	/	0894			I	2013-01-01
H04L	/	43	/	10			I	2013-01-01
H04W	/	24	/	06			I	2013-01-01
H04W	/	40	/	12			I	2013-01-01
H04W	/	76	/	15			I	2018-02-01
H04W	/	84	/	18			A	2013-01-01
H04W	/	84	/	12			A	2013-01-01
H04W	/	24	/	04			A	2013-01-01
H04W	/	72	/	085			A	2013-01-01
H04W	/	76	/	10			A	2018-02-01

CPC Combination Sets									
Symbol							Type	Set	Ranking	Version
	/		/							

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	37	
/KAN YUEN/ Primary Examiner, Art Unit 2464	12 February 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	21

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/287,706	Amini et al.
	Examiner	Art Unit
	KAN YUEN	2464

INTERNATIONAL CLASSIFICATION					
CLAIMED					
H04W	/	72	/	04	
NON-CLAIMED					
	/		/		

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	37	
/KAN YUEN/ Primary Examiner, Art Unit 2464	12 February 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	21

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/287,706	Amini et al.
	Examiner	**Art Unit**
	KAN YUEN	2464

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	10	10	18	19	29	28	20	37						
2	2	11	11	19	20	30	29	21	38						
3	3	12	12	22	21	31	30								
4	4	13	13	23	22	32	31								
5	5		14	24	23	33	32								
6	6	14	15	25	24	34	33								
7	7	15	16	26	25	35	34								
8	8	16	17	27	26	36	35								
9	9	17	18	28	27	37	36								

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	37	
/KAN YUEN/ Primary Examiner, Art Unit 2464	12 February 2019	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	21

U.S. Patent and Trademark Office

Part of Paper No.: 20190212

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/287,706	Amini et al.
	Examiner	Art Unit
	KAN YUEN	2464

CPC - Searched*		
Symbol	Date	Examiner
H04L12/44 ; H04L43/0888 ; H04L43/0894 ; H04L43/10 ; H04L43/16 ; H04L45/20 ; H04W24/04 ; H04W24/06 ; H04W24/08 ; H04W36/30 ; H04W36/36 ; H04W40/12 ; H04W4/023 ; H04W72/0453 ; H04W72/085 ; H04W76/10 ; H04W76/15 ; H04W84/12 ; H04W84/18	02/12/2019	KY

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST SEARCH; MANUAL SEARCH H04L12/44	02/12/2019	KY
INVENTORSHIP SEARCH	02/12/2019	KY

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
	INTERFERENCE SEARCH PRINTOUT (SEE SEARCH PRINTOUT)	02/12/2019	KY

/KAN YUEN/ Primary Examiner, Art Unit 2464	

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	82	(US-15287706-$ | US-20050048963-$ | US-20080025208-$ | US-20080080414-$ | US-20080247317-$ | US-20090046655-$ | US-20090252127-$ | US-20100118830-$ | US-20100246416-$ | US-20110081903-$ | US-20110286404-$ | US-20120020319-$ | US-20120224481-$ | US-20120294200-$ | US-20130194948-$ | US-20140233412-$ | US-20140270306-$ | US-20150018028-$ | US-20150029067-$ | US-20150049616-$ | US-20150264614-$ | US-20150334750-$ | US-20160007273-$ | US-20160142163-$ | US-20160192203-$ | US-20160212755-$ | US-20160286374-$ | US-20160366632-$ | US-20170048913-$ | US-20170070919-$ | US-20170125920-$ | US-20170127295-$ | US-20170127325-$ | US-20170164260-$ | US-20170164323-$ | US-20170215091-$ | US-20170238189-$ | US-20170251410-$ | US-20170325243-$ | US-3001767-$ | US-3179495-$ | US-3832796-$).DID.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:15
L2	6	(US-15287706-$ | US-20090116407-$ | US-3467929-$ | US-3942709-$).DID.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:15
L3	88	1 or 2	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:15
L4	1	(intelligent near4 roam$4) 3	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:16
L5	0	4 (deauthenticat$4 or de-authenticat$4 or disassociat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:17
L6	3	("9467929").PN.	US-PGPUB;	OR	OFF	2019/02/12 11:18

			USPAT; USOCR; EPO; DERWENT			
L7	2	14/152216	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:18
L8	0	(intelligent near4 roam$4) 7	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:18
L9	3	("9942709").PN.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2019/02/12 11:22
L10	2	14/436923	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:23
L11	0	(intelligent near4 roam$4) 10	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:23
L12	165575	((H04L12/44 OR H04L43/0888 OR H04L43/0894 OR H04L43/10 OR H04L43/16 OR H04L45/20 OR H04W24/04 OR H04W24/06 OR H04W24/08 OR H04W36/30 OR H04W36/36 OR H04W40/12 OR H04W4/023 OR H04W72/0453 OR H04W72/085 OR H04W76/10 OR H04W76/15 OR H04W84/12 OR H04W84/18).CPC.)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L13	2	15/287706 (qualitative near3 parameter)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L18	3011	(roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (exceed$4 or below or above or under or low$4 or high$4) near6 (threshold$4 or predefin$4 or predetermin$4 or preset$4 or pre-defin$4 or pre-determin$4 or pre-set$4 or limit)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42

L19	8106	(parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (monitor$4 or measur$4 or measurement or determin$4 or detect$4) with mesh$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L20	19	L18 L19	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L21	19	L18 L19	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L22	3	15/287706 (monitor$4 or measur$6) with (quality or strength)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L23	2	12/820988 (monitor$4 or measur$6) with (quality or strength)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L24	2	12/820988 (reconfigur$6 with uplink)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L25	2	12/820988 (termina$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L26	86568	(notif$4 or notification or configuration or reconfigur$4) with (terminat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L27	3205	(notif$4 or notification or configuration or reconfigur$4) with instruct$4 with (terminat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L28	3312	(notif$4 or notification or configuration or reconfigur$4) with instruct$4 with (establish$4 or setup or initiat$4) with (connection or channel or link or (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42

L29	157	L27 L28	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L30	157	L27 L28	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L31	342	(configuration or reconfigur$4) near7 instruct$4 with (notif$4 or notification or report$4) with (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L32	342	(configuration or reconfigur$4) near7 instruct$4 with (notif$4 or notification or report$4) with (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L33	2	(configuration or reconfigur$4) near7 instruct$4 with (establish$4 or setup or initiat$4) with roam$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L34	2	12/820988 (monitor$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L35	1438	(calculat$4) with (averag$4) with (snr)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L36	237	(path) with (averag$4) with (snr)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L37	39	L35 L36	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L38	39	L35 L36	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42

L39	3	15/287706 (modulat$4 near3 scheme)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L40	3	15/287706 ((modulat$4 near3 scheme) or mcs)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L41	6949	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength)))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L42	1852	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength))) with (increas$4 or decreas$4 or reduc$4 or adjust$4 or chang$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L43	1852	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength))) with (increas$4 or decreas$4 or reduc$4 or adjust$4 or chang$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L44	232	(profile) with (roam$4 near8 capabilit$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L45	3675	(profile) with (roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L46	3	15/287706 (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L47	17	(roam$4 near5 capabilit$4) same (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L48	17	(roam$4 near5 capabilit$4) same (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42

L49	2	15/287706 (roam$4 near4 behavior) and (roam$4 near3 capabilit$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L50	60	profil$4 with (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L51	60	profil$4 with (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L52	2	15/287706 (intelligent near4 roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L53	414	(intelligent near4 roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L54	6	(intelligent near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L55	6	(intelligent near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L56	7	((intelligen$6 or smart) near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L57	13	((intelligen$6 or smart) near6 roam$4) same (identif$4 or identification or id or address or unique) near9 (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L58	2	15/287706 (intelligent near4 roam$4) same mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42

L59	197	((intelligen$6 or smart) near6 roam$4) same (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L60	2	15/287706 (roam$4 near4 direct$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L61	2	15/287706 (intelligent near4 roam$4) same instruction	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L62	52	(delay$4 or postpon$4) near9 (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (uplink or upstream) near6 (data or packet)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L63	52	(delay$4 or postpon$4) near9 (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (uplink or upstream) near6 (data or packet)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L64	1	(roam$4 near9 instruct$4) with (IEEE near5 "802.11v")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L65	465	(IEEE near5 "802.11v")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L66	481	(IEEE near5 ("802.11v" or "802.11 v"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L67	481	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L68	1391	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42

L69	106	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) with roam$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L70	14	L69 roam$4 near7 instruct$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L71	6	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) with roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L72	56	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) and roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L73	792	delay$4 and roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L74	23	delay$4 same roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L75	679	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (complet$4 or finish$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L76	679	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (complet$4 or finish$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L77	140	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (exist$4 or current$4 or active) near5 (data or packet or traffic)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L78	2	12/820988 (monitor$4 same (error or rate or bandwidth or throughput))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42

L79	165575	((H04L12/44 OR H04L43/0888 OR H04L43/0894 OR H04L43/10 OR H04L43/16 OR H04L45/20 OR H04W24/04 OR H04W24/06 OR H04W24/08 OR H04W36/30 OR H04W36/36 OR H04W40/12 OR H04W4/023 OR H04W72/0453 OR H04W72/085 OR H04W76/10 OR H04W76/15 OR H04W84/12 OR H04W84/18).CPC.)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L80	2	15/287706 (qualitative near3 parameter)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L81	3011	(roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (exceed$4 or below or above or under or low$4 or high$4) near6 (threshold$4 or predefin$4 or predetermin$4 or preset$4 or pre-defin$4 or pre-determin$4 or pre-set$4 or limit)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L82	8106	(parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (monitor$4 or measur$4 or measurement or determin$4 or detect$4) with mesh$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L83	19	L81 L82	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L84	19	L81 L82	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L85	3	15/287706 (monitor$4 or measur$6) with (quality or strength)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L86	2	12/820988 (monitor$4 or measur$6) with (quality or strength)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L87	2	12/820988 (reconfigur$6 with uplink)	US-PGPUB; USPAT; USOCR;	AND	ON	2019/02/12 11:42

			EPO; DERWENT			
L88	2	12/820988 (termina$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L89	86568	(notif$4 or notification or configuration or reconfigur$4) with (terminat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L90	3205	(notif$4 or notification or configuration or reconfigur$4) with instruct$4 with (terminat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L91	3312	(notif$4 or notification or configuration or reconfigur$4) with instruct$4 with (establish$4 or setup or initiat$4) with (connection or channel or link or (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L92	157	L90 L91	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L93	157	L90 L91	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L94	342	(configuration or reconfigur$4) near7 instruct$4 with (notif$4 or notification or report$4) with (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L95	342	(configuration or reconfigur$4) near7 instruct$4 with (notif$4 or notification or report$4) with (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L96	2	(configuration or reconfigur$4) near7 instruct$4 with (establish$4 or setup or initiat$4) with roam$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L97	2	12/820988 (monitor$4)	US-PGPUB; USPAT;	AND	ON	2019/02/12 11:42

			USOCR; EPO; DERWENT			
L98	1438	(calculat$4) with (averag$4) with (snr)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L99	237	(path) with (averag$4) with (snr)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L100	39	L98 L99	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L101	39	L98 L99	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L102	3	15/287706 (modulat$4 near3 scheme)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L103	3	15/287706 ((modulat$4 near3 scheme) or mcs)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L104	6949	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength)))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L105	1852	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength))) with (increas$4 or decreas$4 or reduc$4 or adjust$4 or chang$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L106	1852	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength))) with (increas$4 or decreas$4 or reduc$4 or adjust$4 or chang$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L107	232	(profile) with (roam$4 near8 capabilit$4)	US-PGPUB; USPAT;	AND	ON	2019/02/12 11:42

			USOCR; EPO; DERWENT			
L108	3675	(profile) with (roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L109	3	15/287706 (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L110	17	(roam$4 near5 capabilit$4) same (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L111	17	(roam$4 near5 capabilit$4) same (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L112	2	15/287706 (roam$4 near4 behavior) and (roam$4 near3 capabilit$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L113	60	profil$4 with (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L114	60	profil$4 with (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L115	2	15/287706 (intelligent near4 roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L116	414	(intelligent near4 roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L117	6	(intelligent near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT;	AND	ON	2019/02/12 11:42

			USOCR; EPO; DERWENT			
L118	6	(intelligent near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L119	7	((intelligen$6 or smart) near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L120	13	((intelligen$6 or smart) near6 roam$4) same (identif$4 or identification or id or address or unique) near9 (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L121	2	15/287706 (intelligent near4 roam$4) same mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L122	197	((intelligen$6 or smart) near6 roam$4) same (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L123	2	15/287706 (roam$4 near4 direct$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L124	2	15/287706 (intelligent near4 roam$4) same instruction	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L125	52	(delay$4 or postpon$4) near9 (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (uplink or upstream) near6 (data or packet)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L126	52	(delay$4 or postpon$4) near9 (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (uplink or upstream) near6 (data or packet)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L127	1	(roam$4 near9 instruct$4) with (IEEE near5 "802.11v")	US-PGPUB;	AND	ON	2019/02/12 11:42

			USPAT; USOCR; EPO; DERWENT			
L128	465	(IEEE near5 "802.11v")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L129	481	(IEEE near5 ("802.11v" or "802.11 v"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:42
L130	481	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L131	1391	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L132	106	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) with roam$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L133	14	L132 roam$4 near7 instruct$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L134	6	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) with roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L135	56	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) and roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L136	792	delay$4 and roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L137	23	delay$4 same roam$4 near7 (instruct$4 or command$4)	US-PGPUB;	AND	ON	2019/02/12 11:43

			USPAT; USOCR; EPO; DERWENT			
L138	679	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (complet$4 or finish$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L139	679	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (complet$4 or finish$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L140	140	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (exist$4 or current$4 or active) near5 (data or packet or traffic)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L141	2	12/820988 (monitor$4 same (error or rate or bandwidth or throughput))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L149	69	("20070280453" | "20090067369" | "20100157888" | "20100291931" | "20160029384" | "20100260146" | "20160094946" | "7567822" | "20020042274" | "20090135738" | "20090135794" | "20160066249" | "20170118705" | "20120224484" | "20120225646" | "20100231473" | "20150215791" | "20160227544" | "20160269097" | "20170006431" | "7155167" | "7502354" | "20150092681" | "20070206528" | "20110250926" | "20120129517" | "20150103685" | "20160308755" | "8248948" | "20090221238" | "20140254400").PN.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L150	3011	(roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (exceed$4 or below or above or under or low$4 or high$4) near6 (threshold$4 or predefin$4 or predetermin$4 or preset$4 or pre-defin$4 or pre-determin$4 or pre-set$4 or limit)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L151	8106	(parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (monitor$4 or measur$4 or measurement or determin$4 or detect$4) with mesh$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43

L152	19	L150 L151	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L153	2	L149 L152	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L154	1	((intelligen$6 or smart) near6 roam$4) same (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b) L149	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2019/02/12 11:43
L155	2	("20110299422").PN.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2019/02/12 11:43
S3	133379	((H04L12/44 OR H04L43/0888 OR H04L43/0894 OR H04L43/10 OR H04L43/16 OR H04L45/20 OR H04W24/04 OR H04W24/06 OR H04W24/08 OR H04W36/30 OR H04W36/36 OR H04W40/12 OR H04W4/023 OR H04W72/0453 OR H04W72/085 OR H04W76/10 OR H04W76/15 OR H04W84/12 OR H04W84/18).CPC.)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/12 22:03
S4	1	15/287706 (qualitative near3 parameter)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/12 22:04
S9	2795	(roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (exceed$4 or below or above or under or low$4 or high$4) near6 (threshold$4 or predefin$4 or predetermin$4 or preset$4 or pre-defin$4 or pre-determin$4 or pre-set$4 or limit)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 12:31
S10	7212	(parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (monitor$4 or measur$4 or measurement or determin$4 or detect$4) with mesh$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 12:34
S11	19	S9 S10	US-PGPUB; USPAT; USOCR;	AND	ON	2018/03/13 12:34

			EPO; DERWENT			
S12	19	S9 S10	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 12:34
S13	1	15/287706 (monitor$4 or measur$6) with (quality or strength)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 15:48
S14	2	12/820988 (monitor$4 or measur$6) with (quality or strength)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 15:59
S15	2	12/820988 (reconfigur$6 with uplink)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 17:12
S16	2	12/820988 (termina$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 17:13
S17	81825	(notif$4 or notification or configuration or reconfigur$4) with (terminat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 17:32
S18	2976	(notif$4 or notification or configuration or reconfigur$4) with instruct$4 with (terminat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 17:36
S19	2883	(notif$4 or notification or configuration or reconfigur$4) with instruct$4 with (establish$4 or setup or initiat$4) with (connection or channel or link or (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 17:37
S20	135	S18 S19	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 17:38
S21	135	S18 S19	US-PGPUB; USPAT;	AND	ON	2018/03/13 17:38

			USOCR; EPO; DERWENT			
S22	268	(configuration or reconfigur$4) near7 instruct$4 with (notif$4 or notification or report$4) with (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 17:48
S23	268	(configuration or reconfigur$4) near7 instruct$4 with (notif$4 or notification or report$4) with (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 17:48
S24	2	(configuration or reconfigur$4) near7 instruct$4 with (establish$4 or setup or initiat$4) with roam$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 17:51
S25	2	12/820988 (monitor$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 18:06
S26	1342	(calculat$4) with (averag$4) with (snr)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 19:39
S27	225	(path) with (averag$4) with (snr)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 19:39
S28	37	S26 S27	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 19:39
S29	37	S26 S27	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 19:39
S30	1	15/287706 (modulat$4 near3 scheme)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:01
S31	1	15/287706 ((modulat$4 near3 scheme) or mcs)	US-PGPUB; USPAT;	AND	ON	2018/03/13 20:02

			USOCR; EPO; DERWENT			
S32	5970	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength)))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:11
S33	1394	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength))) with (increas$4 or decreas$4 or reduc$4 or adjust$4 or chang$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:12
S34	1394	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength))) with (increas$4 or decreas$4 or reduc$4 or adjust$4 or chang$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:13
S35	226	(profile) with (roam$4 near8 capabilit$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:41
S36	3410	(profile) with (roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:46
S37	1	15/287706 (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:47
S38	13	(roam$4 near5 capabilit$4) same (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:48
S39	13	(roam$4 near5 capabilit$4) same (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:48
S40	1	15/287706 (roam$4 near4 behavior) and (roam$4 near3 capabilit$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:49
S41	56	profil$4 with (roam$4 near4 behavior)	US-PGPUB; USPAT;	AND	ON	2018/03/13 20:51

			USOCR; EPO; DERWENT			
S42	56	profil$4 with (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:51
S43	1	15/287706 (intelligent near4 roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:57
S44	406	(intelligent near4 roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 20:58
S45	4	(intelligent near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:01
S46	4	(intelligent near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:01
S47	5	((intelligen$6 or smart) near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:06
S48	10	((intelligen$6 or smart) near6 roam$4) same (identif$4 or identification or id or address or unique) near9 (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:08
S49	1	15/287706 (intelligent near4 roam$4) same mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:12
S50	180	((intelligen$6 or smart) near6 roam$4) same (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:12
S51	1	15/287706 (roam$4 near4 direct$4)	US-PGPUB;	AND	ON	2018/03/13 21:13

			USPAT; USOCR; EPO; DERWENT			
S52	1	15/287706 (intelligent near4 roam$4) same instruction	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:14
S53	46	(delay$4 or postpon$4) near9 (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (uplink or upstream) near6 (data or packet)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:17
S54	46	(delay$4 or postpon$4) near9 (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (uplink or upstream) near6 (data or packet)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:18
S55	0	(roam$4 near9 instruct$4) with (IEEE near5 "802.11v")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:38
S56	397	(IEEE near5 "802.11v")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:38
S57	410	(IEEE near5 ("802.11v" or "802.11 v"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:38
S58	410	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:38
S59	1240	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:40
S60	85	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) with roam$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 21:40
S61	13	S60 roam$4 near7 instruct$4	US-PGPUB;	AND	ON	2018/03/13 21:40

			USPAT; USOCR; EPO; DERWENT			
S62	4	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) with roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 22:04
S63	48	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) and roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 22:04
S64	616	delay$4 and roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 22:07
S65	20	delay$4 same roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 22:07
S66	644	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (complet$4 or finish$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 22:13
S67	644	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (complet$4 or finish$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 22:13
S68	131	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (exist$4 or current$4 or active) near5 (data or packet or traffic)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 22:15
S69	2	12/820988 (monitor$4 same (error or rate or bandwidth or throughput))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/03/13 22:20
S70	150022	((H04L12/44 OR H04L43/0888 OR H04L43/0894 OR H04L43/10 OR H04L43/16 OR H04L45/20 OR H04W24/04 OR H04W24/06 OR H04W24/08 OR H04W36/30 OR H04W36/36 OR H04W40/12 OR H04W4/023 OR H04W72/0453 OR H04W72/085 OR H04W76/10 OR H04W76/15 OR H04W84/12 OR	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:46

		H04W84/18).CPC.)				
S71	1	15/287706 (qualitative near3 parameter)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:46
S72	2907	(roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (exceed$4 or below or above or under or low$4 or high$4) near6 (threshold$4 or predefin$4 or predetermin$4 or preset$4 or pre-defin$4 or pre-determin$4 or pre-set$4 or limit)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:46
S73	7600	(parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (monitor$4 or measur$4 or measurement or determin$4 or detect$4) with mesh$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:46
S74	19	S72 S73	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:46
S75	19	S72 S73	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S76	2	15/287706 (monitor$4 or measur$6) with (quality or strength)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S77	2	12/820988 (monitor$4 or measur$6) with (quality or strength)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S78	2	12/820988 (reconfigur$6 with uplink)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S79	2	12/820988 (termina$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47

S80	84118	(notif$4 or notification or configuration or reconfigur$4) with (terminat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S81	3091	(notif$4 or notification or configuration or reconfigur$4) with instruct$4 with (terminat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S82	3096	(notif$4 or notification or configuration or reconfigur$4) with instruct$4 with (establish$4 or setup or initiat$4) with (connection or channel or link or (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S83	145	S81 S82	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S84	145	S81 S82	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S85	304	(configuration or reconfigur$4) near7 instruct$4 with (notif$4 or notification or report$4) with (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S86	304	(configuration or reconfigur$4) near7 instruct$4 with (notif$4 or notification or report$4) with (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S87	2	(configuration or reconfigur$4) near7 instruct$4 with (establish$4 or setup or initiat$4) with roam$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S88	2	12/820988 (monitor$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S89	1386	(calculat$4) with (averag$4) with (snr)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47

S90	229	(path) with (averag$4) with (snr)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S91	37	S89 S90	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S92	37	S89 S90	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S93	2	15/287706 (modulat$4 near3 scheme)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S94	2	15/287706 ((modulat$4 near3 scheme) or mcs)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S95	6481	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength)))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S96	1642	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength))) with (increas$4 or decreas$4 or reduc$4 or adjust$4 or chang$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S97	1642	((modulat$4 near3 scheme) or mcs) with (snr or (signal near2 (quality or strength))) with (increas$4 or decreas$4 or reduc$4 or adjust$4 or chang$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S98	227	(profile) with (roam$4 near8 capabilit$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S99	3548	(profile) with (roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47

S100	2	15/287706 (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S101	14	(roam$4 near5 capabilit$4) same (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S102	14	(roam$4 near5 capabilit$4) same (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S103	1	15/287706 (roam$4 near4 behavior) and (roam$4 near3 capabilit$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S104	59	profil$4 with (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S105	59	profil$4 with (roam$4 near4 behavior)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S106	1	15/287706 (intelligent near4 roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S107	409	(intelligent near4 roam$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S108	4	(intelligent near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S109	4	(intelligent near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47

S110	5	((intelligen$6 or smart) near6 roam$4) same (deauthenticat$4 or de-authenticat$4 or disassociat$4 or dis-associat$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S111	10	((intelligen$6 or smart) near6 roam$4) same (identif$4 or identification or id or address or unique) near9 (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S112	1	15/287706 (intelligent near4 roam$4) same mesh	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S113	188	((intelligen$6 or smart) near6 roam$4) same (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S114	1	15/287706 (roam$4 near4 direct$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S115	1	15/287706 (intelligent near4 roam$4) same instruction	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S116	47	(delay$4 or postpon$4) near9 (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (uplink or upstream) near6 (data or packet)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S117	47	(delay$4 or postpon$4) near9 (roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (uplink or upstream) near6 (data or packet)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S118	0	(roam$4 near9 instruct$4) with (IEEE near5 "802.11v")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S119	434	(IEEE near5 "802.11v")	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47

S120	449	(IEEE near5 ("802.11v" or "802.11 v"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S121	449	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S122	1318	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r"))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S123	95	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) with roam$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S124	13	S123 roam$4 near7 instruct$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S125	4	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) with roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S126	51	(IEEE near5 ("802.11v" or "802.11 v" or "802.11_v" or "802.11k" or "802.11 k" or "802.11_k" or "IEEE 802.11 r" or "IEEE 802.11_r" or "IEEE 802.11r")) and roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S127	676	delay$4 and roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S128	21	delay$4 same roam$4 near7 (instruct$4 or command$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S129	661	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (complet$4 or finish$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47

S130	661	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (complet$4 or finish$4)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S131	136	((roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over))) with (delay$4 or postpon$4) with (exist$4 or current$4 or active) near5 (data or packet or traffic)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S132	2	12/820988 (monitor$4 same (error or rate or bandwidth or throughput))	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/23 21:47
S140	69	("20070280453" | "20090067369" | "20100157888" | "20100291931" | "20160029384" | "20100260146" | "20160094946" | "7567822" | "20020042274" | "20090135738" | "20090135794" | "20160066249" | "20170118705" | "20120224484" | "20120225646" | "20100231473" | "20150215791" | "20160227544" | "20160269097" | "20170006431" | "7155167" | "7502354" | "20150092681" | "20070206528" | "20110250926" | "20120129517" | "20150103685" | "20160308755" | "8248948" | "20090221238" | "20140254400").PN.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/24 12:12
S141	2907	(roam$4 or handoff or handover or hand-off or hand-over or (hand$3-over)) with (parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (exceed$4 or below or above or under or low$4 or high$4) near6 (threshold$4 or predefin$4 or predetermin$4 or preset$4 or pre-defin$4 or pre-determin$4 or pre-set$4 or limit)	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/24 12:13
S142	7600	(parameter or metric or quality or qos or bandwidth or throughput or rate or bitrate or latency or delay$4 or jitter$4) with (monitor$4 or measur$4 or measurement or determin$4 or detect$4) with mesh$4	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/24 12:13
S143	19	S141 S142	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/24 12:13
S144	2	S140 S143	US-PGPUB; USPAT; USOCR; EPO;	AND	ON	2018/08/24 12:14

			DERWENT			
S145	1	((intelligen$6 or smart) near6 roam$4) same (bs or (base adj2 station) or ap or (access adj2 point) or repeater or (node adj b) or bts or node$1b or node-b or enb or node$1b) S140	US-PGPUB; USPAT; USOCR; EPO; DERWENT	AND	ON	2018/08/24 12:16
S146	2	("20110299422").PN.	US-PGPUB; USPAT; USOCR; EPO; DERWENT	OR	OFF	2018/09/25 11:14

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L14	28	(mesh$4 near3 point near5 client$4).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:42
L15	28	(measur$6 near5 qualitative near4 parameter).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:42
L16	1	L14 L15	US-PGPUB; USPAT	AND	ON	2019/02/12 11:42
L17	4	15/287706	US-PGPUB; USPAT	AND	ON	2019/02/12 11:42
L142	28	(mesh near4 point near4 client).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:43
L143	81	(second$4 near4 mesh$4 near6 measur$6).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:43
L144	1	L142 L143	US-PGPUB; USPAT	AND	ON	2019/02/12 11:43
L145	28	(mesh$4 near3 point near5 client$4).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:43
L146	28	(measur$6 near5 qualitative near4 parameter).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:43
L147	1	L145 L146	US-PGPUB; USPAT	AND	ON	2019/02/12 11:43
L148	4	15/287706	US-PGPUB; USPAT	AND	ON	2019/02/12 11:43
L156	18010	(first near4 mesh).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:57
L157	16994	(second$4 near4 mesh).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:57
L158	24	(measur$4 near6 qualitat$4 near5 parameter$4).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:58
L159	2	156 157 158	US-PGPUB; USPAT	AND	ON	2019/02/12 11:58
L160	4	(potential$4 near4 link near5 second$4 near5 mesh$4).clm.	US-PGPUB; USPAT	AND	ON	2019/02/12 11:59
L161	2	159 160	US-PGPUB; USPAT	AND	ON	2019/02/12 11:59
L162	1	161 143	US-PGPUB; USPAT	AND	ON	2019/02/12 12:00
S5	22	(mesh$4 near3 point near5 client$4).clm.	US-PGPUB; USPAT	AND	ON	2018/03/12 21:56

S6	27	(measur$6 near5 qualitative near4 parameter).clm.	US-PGPUB; USPAT	AND	ON	2018/03/12 22:00
S7	1	S5 S6	US-PGPUB; USPAT	AND	ON	2018/03/12 22:00
S8	1	15/287706	US-PGPUB; USPAT	AND	ON	2018/03/12 22:02
S133	24	(mesh near4 point near4 client).clm.	US-PGPUB; USPAT	AND	ON	2018/08/23 21:46
S134	76	(second$4 near4 mesh$4 near6 measur$6).clm.	US-PGPUB; USPAT	AND	ON	2018/08/23 21:46
S135	1	S133 S134	US-PGPUB; USPAT	AND	ON	2018/08/23 21:46
S136	25	(mesh$4 near3 point near5 client$4).clm.	US-PGPUB; USPAT	AND	ON	2018/08/23 21:46
S137	27	(measur$6 near5 qualitative near4 parameter).clm.	US-PGPUB; USPAT	AND	ON	2018/08/23 21:46
S138	1	S136 S137	US-PGPUB; USPAT	AND	ON	2018/08/23 21:46
S139	3	15/287706	US-PGPUB; USPAT	AND	ON	2018/08/23 21:46

2/ 12/ 2019 12:00:28 PM
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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (03-15)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15287706
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

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	2	9942709	B2	2018-04-10	SUNG	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
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EXAMINER SIGNATURE

Examiner Signature	/KAN YUEN/	Date Considered	02/12/2019

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15287706
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

✓ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2019-01-04
Name/Print	Han-Wei Chen	Registration Number	75350

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /K.Y/

TP Link Ex. 1004
Page 326

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (03-15)
Approved for use through 07/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15287706
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	9001767	B1	2015-04-07	GATEWOOD, et al.	
	2	9179495	B1	2015-11-03	SCHERZER, et al.	
	3	9832796	B2	2017-11-28	MEHTA	

If you wish to add additional U.S. Patent citation information please click the Add button. Add

U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20050048963	A1	2005-03-03	KUBLER, et al.	
	2	20080025208	A1	2008-01-31	CHAN	
	3	20080080414	A1	2008-04-03	THUBERT, et al.	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /K.Y/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
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Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

	4	20080247317	A1	2008-10-09	WEIL, et al.	
	5	20090046655	A1	2009-02-19	ZHAO, et al.	
	6	20090252127	A1	2009-10-08	RANGARAJAN, et al.	
	7	20100118830	A1	2010-05-13	STEPHENSON, et al.	
	8	20100246416	A1	2010-09-30	SINHA, et al.	
	9	20110081903	A1	2011-04-07	CAI, et al.	
	10	20110286404	A1	2011-11-24	ABRAHAM, et al.	
	11	20120020319	A1	2012-01-26	SONG, et al.	
	12	20120224481	A1	2012-09-06	BABIARZ, et al.	
	13	20120294200	A1	2012-11-22	WANG, et al.	
	14	20130194948	A1	2013-08-01	MALLIK, et al.	

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TP Link Ex. 1004
Page 328

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
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Filing Date	2016-10-06
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Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

	15	20140233412	A1	2014-08-21	MISHRA, et al.	
	16	20140270306	A1	2014-09-18	LUNA, et al.	
	17	20150018028	A1	2015-01-15	UPLENCHWAR, et al.	
	18	20150029067	A1	2015-01-29	DONALDSON, et al.	
	19	20150049616	A1	2015-02-19	COWAN, et al.	
	20	20150264614	A1	2015-09-17	STAGER, et al.	
	21	20150334750	A1	2015-11-19	MEHTA	
	22	20160007273	A1	2016-01-07	PANG, et al.	
	23	20160142163	A1	2016-05-19	SIROTKIN	
	24	20160192203	A1	2016-06-30	GOKTURK, et al.	
	25	20160212755	A1	2016-07-21	CAO, et al.	

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TP Link Ex. 1004
Page 329

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	15287706
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

	26	20160286374	A1	2016-09-29	PATIL, et al.	
	27	20160366632	A1	2016-12-15	CUI, et al.	
	28	20170048913	A1	2017-02-16	TEYEB, et al.	
	29	20170070919	A1	2017-03-09	CHANDOK, et al.	
	30	20170125920	A1	2017-05-04	SPIEL, et al.	
	31	20170127295	A1	2017-05-04	BLACK, et al.	
	32	20170127325	A1	2017-05-04	VIKBERG, et al.	
	33	20170164260	A1	2017-06-08	SHI, et al.	
	34	20170164323	A1	2017-06-08	MARKHOVSKY, et al.	
	35	20170215091	A1	2017-07-27	LING	
	36	20170238189	A1	2017-08-17	NOLAN, et al.	

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TP Link Ex. 1004
Page 330

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	15287706
	Filing Date	2016-10-06
	First Named Inventor	Peiman Amini
	Art Unit	2464
	Examiner Name	Kan Yuen
	Attorney Docket Number	110729-8052.US01

	37	20170251410	A1	2017-08-31	COMSTOCK	
	38	20170325243	A1	2017-11-09	YASUKAWA, et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	"WLAN High Availability", Technical white paper; Hewlett-Packard Development Company, L.P., Oct. 2014, 8 pages	

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EXAMINER SIGNATURE

Examiner Signature	/KAN YUEN/	Date Considered	02/12/2019

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /K.Y/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15287706
Filing Date	2016-10-06
First Named Inventor	Peiman Amini
Art Unit	2464
Examiner Name	Kan Yuen
Attorney Docket Number	110729-8052.US01

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

✓ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Han-Wei Chen/	Date (YYYY-MM-DD)	2018-11-28
Name/Print	Han-Wei Chen	Registration Number	75350

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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Page 333

To: patentprocurement@perkinscoie.com,,
From: PAIR_eOfficeAction@uspto.gov
Cc: PAIR_eOfficeAction@uspto.gov
Subject: Private PAIR Correspondence Notification for Customer Number 22918

Feb 25, 2019 03:47:05 AM

Dear PAIR Customer:

PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247
UNITED STATES

The following USPTO patent application(s) associated with your Customer Number, 22918 , have new outgoing correspondence. This correspondence is now available for viewing in Private PAIR.

The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

Disclaimer:
The list of documents shown below is provided as a courtesy and is not part of the official file wrapper. The content of the images shown in PAIR is the official record.

Application	Document	Mailroom Date	Attorney Docket No.
15287706	NOA	02/25/2019	110729-8052.US01
	1449	02/25/2019	110729-8052.US01
	1449	02/25/2019	110729-8052.US01

To view your correspondence online or update your email addresses, please visit us anytime at https://sportal.uspto.gov/secure/myportal/privatepair.

If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov with 'e-Office Action' on the subject line or call 1-866-217-9197 during the following hours:

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Thank you for prompt attention to this notice,

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PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

22918 7590 02/25/2019
PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

Christine Dunn	(Typed or printed name)
/Christine Dunn/	(Signature)
05/13/2019	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,706	10/06/2016	Peiman Amini	110729-8052.US01	8691

TITLE OF INVENTION: ROAMING IN A WIRELESS MESH NETWORK

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1000	$0.00	$0.00	$1000	05/28/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
YUEN, KAN	2464	370-332000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Perkins Coie LLP
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: NETGEAR, INC.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): SAN JOSE, CALIFORNIA

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☒ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies ____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

☒ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 500665

5. **Change in Entity Status** (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Han-Wei Chen/ Date 5/13/2019

Typed or printed name Han-Wei Chen Registration No. 75,350

TP Link Ex. 1004
Page 335

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Peiman AMINI et al.

Application No.: 15/287,706 Confirmation No.: 8691

Filed: October 6, 2016 Art Unit: 2464

For: ROAMING IN A WIRELESS MESH NETWORK Examiner: Kan Yuen

Commissioner for Patents -- **MAIL STOP ISSUE FEE**
P.O. Box 1450
Alexandria, Virginia 22313-1450

COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

Dear Sir:

In the Notice of Allowability mailed February 25, 2019, the Examiner allowed Claims 1-13 and 15-38. Although Applicant agrees with the Examiner's conclusion that these claims are allowable, Applicant notes that the claims may be allowable for reasons other than those identified by the Examiner and does not concede that the Examiner's characterizations of the terms of the claims and the prior art are correct.

Dated: 5/13/2019

Respectfully submitted,

By /Han-Wei Chen/

Han-Wei Chen
Registration No.: 75,350
PERKINS COIE LLP
P.O. Box 1247
Seattle, WA 98111-1247
Phone: (650) 838-4300
Fax: (206) 359-7198
Attorney for Applicant

Electronic Patent Application Fee Transmittal

Application Number:	15287706
Filing Date:	06-Oct-2016
Title of Invention:	ROAMING IN A WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Filer:	Han-Wei Chen/Christine Ortt
Attorney Docket Number:	110729-8052.US01

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	1501	1	1000	1000

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	1000

Electronic Acknowledgement Receipt

EFS ID:	35998207
Application Number:	15287706
International Application Number:	
Confirmation Number:	8691
Title of Invention:	ROAMING IN A WIRELESS MESH NETWORK
First Named Inventor/Applicant Name:	Peiman Amini
Customer Number:	22918
Filer:	Han-Wei Chen/Christine Ortt
Filer Authorized By:	Han-Wei Chen
Attorney Docket Number:	110729-8052.US01
Receipt Date:	13-MAY-2019
Filing Date:	06-OCT-2016
Time Stamp:	17:33:42
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$1000
RAM confirmation Number	051419INTEFSW17342900
Deposit Account	500665
Authorized User	Christine Ortt

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	2019-05-13_Issue_Fee_transmittal_110729-8052US01.pdf	212825 1b4d5f6ddf62912905f3ff0235cb983a20ec4d2	no	1
Warnings:					
Information:					
2	Post Allowance Communication - Incoming	Comments_on_Reasons_for_Allowance_110729-8052US01.pdf	16209 9ac1a5f64e05d26d0babe6c92d06951c94e1ca9b	no	1
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30015 9a53e1a3529246f633aeec58b1f653bcd389e862a	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	259049		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/287,706	06/18/2019	10327242	110729-8052.US01	8691

22918 7590 05/29/2019

PERKINS COIE LLP - PAO General
P.O. BOX 1247
SEATTLE, WA 98111-1247

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

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