INFORMATION DISCLOSURE	Application Number		15105648 2016-06-17		
	Filing Date				
	First Named Inventor	Faxé			
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit				
(Not for submission under 37 CFK 1.33)	Examiner Name	(in section of			
	Attorney Docket Num	ber	4015-9595 / P45698-US2		

CERTIFICATION STATE	MENT
---------------------	------

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.

X 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	/ Justin J. Leonard /	Date (YYYY-MM-DD)	2018-03-21	
Name/Print	Justin Leonard	Registration Number	60986	

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**.

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

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:

- 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.
- 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.
- 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).
- 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.
- 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.

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

Receipt date: 08/02/2016

15/105,648 - GAU: 2472

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.

Sector se	Application Number	15105648
	Filing Date	2016-06-17
INFORMATION DISCLOSURE	First Named Inventor Fa	xér
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit	
(Not for submission under 37 CFR 1.39)	Examiner Name	
	Attorney Docket Number	4015-9595 / P45698-US2

-					U.S.I	PATENTS			Remove	
Examiner Initial*	Cite No					Name of Pat of cited Docu	t Pages,Columns,Lines Relevant Passages or Figures Appear			
	1						-21			
If you wis	h to ad	d additional U.S. Pat	ent citatio	n informat	tion pl	ease click the	Add button.		Add	
			U.S.P	ATENT A	PPLI	CATION PUB	LICATIONS		Remove	
Examiner Initial*	Cito No		Kind Code ¹	Publicati Date	on	Name of Pat of cited Docu	entee or Applicant ument	t Relevant Passages or Relev Figures Appear		
			A1	2013-06-27		Jing et al.				
	2	20140016549	A1	2014-01-16		Novlan et al.				
	3 20130229980		A1	2013-09-05		Wernersson et al.				
	4	20100223237	A1	A1 2010-09-02 Mishra et al.						
If you wis	h to ad	d additional U.S. Put		• 00 0 C 2 L 1	10.10	IL n information ENT DOCUM	A contract of the second second	d button	Add	
				FUREIGI	MPAI	ENTDOCUN	And a second a pro-	1	Pages,Colu	mns.Lines
Examiner Initial*		Foreign Document Number ³	Country Code ² i		Kind Code4	Publication Applicant of Cited Document		e or	where Rele Passages o Figures App	vant r Relevant

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

eceipt date: 08/02/2016	Application Number		15/105,648 - GAU: 24 15105648 2016-06-17		
INFORMATION DISCLOSURE	Filing Date				
	First Named Inventor Faxér				
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit				
	Examiner Name) and the second			
	Attorney Docket Numb	per	4015-9595 / P45698-US2		

If you wis	h to a	dd additional F	Foreign Patent Document citation inf	ormation please click the Add button	Add				
			NON-PATENT LITERA	TURE DOCUMENTS	Remove				
Examiner Initials*	Cite No	(book, maga		RS), title of the article (when appropria alog, etc), date, pages(s), volume-iss					
	1	ALAMELDEEN, A., et al., "Frequent Pattern Compression: A Significance-Based Compression Scheme for L2 Caches", Technical Report #1500, 2004-05-01, pp. 1-15, University of Wisconsin							
	2		et al., "Elements of Information Theory", d edition, John Wiley & Sons, Inc.	Chapler 3, Asymptotic Equipartition Prop	erty', 2006-01-01, pp.				
If you wis	h to a	dd additional r	non-patent literature document citation	on information please click the Add bu	tton Add				
			EXAMINER S	SIGNATURE					
	Signa	ituro	/BRIAN D NCUYEN/	Date Considered	03/28/2018				
Examiner	orgine	and the second se	the second second second second	n is in conformance with MPEP 609.	Draw line through a				

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

INFORMATION DISCLOSURE	Application Number		15105648 2016-06-17		
	Filing Date				
	First Named Inventor	Faxér			
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit				
(Not for submission under 37 CFK 1.33)	Examiner Name	(Income)			
	Attorney Docket Num	ber	4015-9595 / P45698-US2		

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.

X 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	/Justin J. Leonard, Reg. No. 60986/	Date (YYYY-MM-DD)	2016-08-02	
Name/Print	Justin Leonard	Registration Number	60986	

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**.

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

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:

- 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.
- 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.
- 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).
- 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.
- 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.

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

Receipt date: 06/17/2016

15/105,648 - GAU: 2472

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.

	Application Number		1.1	
	Filing Date	R		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	First Named Inventor Faxér			
	Art Unit			
(Not for submission under of OFR 1.33)	Examiner Name	1.77		
	Attorney Docket Numb	er	4015-9595 / P45698-US2	

						U.S.I	PATENTS			Remove	-	
Examiner Cite Initial* No		Patont Number		t Relevant Passages or Figures Appear								
	1						17 19 19 19					
If you wis	h to ad	dd a	dditional U.S. Pate	ent citatio	n inform	ation pl	ease click the	Add button.		Add	2	
			-	U.S.P	ATENT	APPLI	CATION PUB	LICATIONS		Remove	6	
Examiner Initial*	Cite No Publication Number			Kind Code ¹	Publica Date	ition	Name of Pat of cited Docu	of Patentee or Applicant			Lines where es or Relev	
	1	1 20110243098		A1	2011-11-06		Koivisto et al.					
	2		20130163687	A1	2013-06	-27	Jing et al.				_	
If you wis	h to a	dd a	dditional U.S. Pub	lished Ap	plication	citation	n information	please click the Ade	d button	Add	5	
			Second Second Second		FOREI	SN PAT	ENT DOCUM	MENTS	1.1.1	Remove		
Examiner Initial*	Cite Foreign Doc No Number ³		reign Document mber³	Country Code²i		Kind Code ⁴	Publication Date	Name of Patentee Applicant of cited Document	e or F	vhere Rele	or Relevant	Т5
	1											
If you wis	h to a	dd a	dditional Foreign F	Patent Do	cument	citation	information p	lease click the Add	button	Add		_
	1000			NON	PATE	IT LITE	RATURE DO	CUMENTS	ine og A	Remove		

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

Receipt date: 06/17/2016	-	15/105,648 - GAU: 2472
	Application Number	
	Filing Date	
INFORMATION DISCLOSURE	First Named Inventor Fa	axér
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit	
(Not for submission under 37 OFK 1.33)	Examiner Name	
	Attorney Docket Number	4015-9595 / P45698-US2

Examiner Initials*	Cite No	(book, n	name of the author (in CAPITAL LETTER: nagazine, journal, serial, symposium, catal r, city and/or country where published.			T⁵
	1		DN, "Remaining Details of Codebook Subset R 15, pp. 1-6, R1-157203, 3GPP	estriction", 3GPP TSG-RAN WG1#83, A	naheim, USA,	
	2		VF on class A and class B CSI reporting for Re Sweden, 2015-10-05, pp. 1-10, R1-156165, 3G		G1 Meeling #82bis,	
If you wis	h to a	d additio	nal non-patent literature document citation	information please click the Add bu	tton Add	
			EXAMINER SI	GNATURE		
Examiner	Signa	ture	/BRIAN D NGUYEN/	Date Considered	03/28/2018	
			erence considered, whether or not citation ince and not considered. Include copy of			9
Standard ST	r.3). ³ f cument	or Japanes	atent Documents at <u>www.USPTO GOV</u> or MPEP 90 e patent documents, the indication of the year of the opriate symbols as indicated on the document under attached.	reign of the Emperor must precede the serial	number of the patent doe	cument

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

eceipt date: 06/17/2016	Application Number		15/105,648 - GA	U: 2472
	Filing Date			
INFORMATION DISCLOSURE	First Named Inventor	Faxé		
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit			
(Not for submission under 37 CFR 1.33)	Examiner Name	Inc. 1		
	Attorney Docket Num	per	4015-9595 / P45698-US2	

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.

X 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	/ Justin J. Leonard /	Date (YYYY-MM-DD)	2016-06-17	
Name/Print	Justin J. Leonard	Registration Number	60986	

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**.

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

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:

- 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.
- 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.
- 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).
- 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.
- 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.

EFS Web 2.1.17

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /B.D.N/

	dex of (Application/C	Control N	0.	1.	ant(s)/Pate mination ET AL.	nt Under
			Examiner BRIAN D NGU	JYEN		Art Uni 2472	it	
1	Rejected		Cancelled	N	Non-El	ected	A	Appeal
-	Allowed	÷	Restricted	Ĵ,	Interfe	rence	0	Objected
Claims	renumbered	in the same orde	r as presented by ap	plicant	Ċ] CPA	🔲 T.D.	🛛 R.1.47
CL	AIM		2 - 2		DATE		125.00	
	0.000 M	04/12/2012	1 1	1	DATE		1	1
Final	Original	04/12/2018				-		
	1 2	-						
-	3	-						
-	4		-					-
	5	140					1	-
	6	1-1-C						1
	7							
	8			1000 A				
	9	10000		11	1		n h	
	10	1.00.00	and the set	1			1.1	
	11							
	12							
	13			1				
	14			-				
	15	2.340.5185			1		1	
	16	100 C			· · · · · · · · · · · · · · · · · · ·			
	17	-						
	18	1.14.1.1.1			1			
	19	e						
-	20	10.00		2000				
	21	1.39						
	22	1.1	-			_		
_	23	-				-		
_	24			-	-	-	-	
_	25	1			-	-	-	
	20					-		
	27							
	28					-		
	30	1						
	31					-		
	32	-						
	33				1.111			
-	34	1.000						
	35	1			1			
	36							

US Patent and Trademark Office

Part of Paper No.: 20180412

	dex of (Application/C 15105648 Examiner	ontrol N	0.	Reexan	ant(s)/Pate nination ET AL.	nt Under
			BRIAN D NGU	IYEN		2472		
-	Rejected		Cancelled	N	Non-E	ected	Α	Appeal
÷ _	Allowed	÷	Restricted	Ϊ.	Interfe	rence	0	Objected
Claim:	s renumbered	l in the same ord	er as presented by ap	plicant	Ċ] CPA	🔲 т.р.	🛛 R.1.47
CL	AIM				DATE			
Final	Original	04/12/2018	1	1		1		
	37	i sen rigra					1	
	38	7						
	39	×		н т Ц		-		
	40	=			11			
	41	×						
	42	~	100 TA 100 TA 1			_		
	43	~			1			
	44	1				_		
	45							
	46	=						
	47	×						
	48	-						
	49	v		-		-		
	50	1	-			-		
	52	~				-	-	
	53	-						
	54					-		
	55	~						1
	56			1			-	
	57	1						
-	58	~						
	59	¥ I				-	444	
	60	1			1		1	
	61	1.000		ii			1	
	62	1			1		1	
	63	×						
	64	1 -= 2 1 1			· · · · · · · · · · · · · · · · · · ·			
	65	×					1	
	66	×.					J.	
	67	~						
	68	×						
	69	=			1			

U.S. Patent and Trademark Office

Part of Paper No. : 20180412

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination FAXÉR ET AL.
	Examiner BRIAN D NGUYEN	Art Unit 2472

CPC- SEARC	HED	
Symbol	Date	Examiner
H04B7/0469	4/12/18	BN
H04B7/0478	4/12/18	BN
H04B7/0639	4/12/18	BN
H03M7/3068	4/12/18	BN
H03M7/3082	4/12/18	BN

CPC COMBINATION SET		
Symbol	Date	Examiner

	US CLASSIFICATION SE	AITOILED	
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 NOT	ES	
		Extendence
Search Notes	Date	Examiner

	INTERFERENCE SEARCH	1	
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

1	

U.S. Patent and Trademark Office

Part of Paper No. : 20180412



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Atlanse, COMMISSIONER FOR PATENTS P.O. Ber 1450 Alexandia, Virginia 22313-1450 www.uopto.gov

BIB DATA SHEET

CONFIRMATION NO. 5548

SERIAL NUMBER 15/105,648	FILING or 371 DATE 06/17/2016 RULE	1(c)	CLASS 370	GRO	UP ART 2472	UNIT		PRNEY DOCKET NO. 4015-9595 / P45698-US2
APPLICANTS Telefonaktiebo	laget LM Ericsson (r	nubl) Stock	holm SWEDEN	a.				
INVENTORS Sebastian Fax Mattias Frenne Simon Järmyr, George Jöngre	ér, Järfälla, SWEDE , Uppsala, SWEDE Skarpnäck, SWEDE n, Sundbyberg, SW son, Solna, SWEDE	N; N; EN; /EDEN;	indini on coci	,				
	TA ************************************	E2016/0500						
** FOREIGN APPLIC ** IF REQUIRED, FO			*					
01/30/2018								
Foreign Priority claimed 35 USC 119(a-d) conditions n		Met atter Allowance	STATE OR COUNTRY		EETS	TOT		INDEPENDENT CLAIMS
Verified and /BRIAN	DINGUYEN/	Allowance	SWEDEN	20.05	14	32		4
ADDRESS COATS & BEN 1400 Crescent Cary, NC 2751 UNITED STAT	Green, Suite 300 8						2	
TITLE	20							
Codebook Sub	set Restriction Sign	aling						
11					All Fe	es		
FUND FEE FEES	: Authority has been	n given in P	aper		1.16	Fees (Fil	ling)	
RECEIVED NO	to charg	ge/credit DE	EPOSIT ACCOL				-	ing Ext. of time)
2860 No	for follo	wing:		1		ees (lss	sue)	
				1	Other			
					Credi	ţ		

BIB (Rev. 05/07).

Doc code: IDS

PTO/SB/08a (02-18) Mation Disclosure Statement (IDS) Filed U.S. Patent and Trademark Office; U.S. DEPARTNENT 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. Doc description: Information Disclosure Statement (IDS) Filed

	Application Number	6.1	15105648	
INFORMATION DISCLOSURE	Filing Date		2016-06-17	
			Sebastían Faxèr 2472	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)				
(NOTION SUBMISSION UNDER ST CPR 1.33)	Examiner Name	Brian D. Nguyen		
	Attorney Docket Number		4015-9595 / P45698-US2	

						U.S.I	PATENTS			Remove	-	
Examiner Initial*	Cite No	P	Patent Number	Kind Code ¹	Issue Date		Name of Patentee or Applicant of cited Document		Releva		ines where es or Relev	
	1											
If you wis	h to ac	id a	dditional U.S. Pat	ent citatio	n informa	ation pl	ease click the	Add button.		Add	-	_
				U.S.P	ATENT	APPLIC	CATION PUB	LICATIONS	1.2	Remove		
Examiner Initial*	Cite	Vo	Publication Number	Kind Code1	Publicat Date	tion	Name of Pat of cited Docu	entee or Applicant ument	Releva		lines where es or Relev	
	1		20110170638	A1	2011-07-	-14	Yuan et al.					
1	2		20110243098	A1	2011-10	-06	Koivisto et al.			í.		
	3		20110249713	A1	2011-10	-13	Hammarwall e	et al.				
If you wis	h to ac	id a	dditional U.S. Pub	lished Ap	plication	citation	n information	please click the Ad	d button	Add	-	_
					FOREIG	N PAT	ENT DOCUM	IENTS	-	Remove		
Examiner Initial*	Cite No		reign Document Imber ³	Country Code ² i		Kind Code4	Publication Date	Name of Patentee Applicant of cited Document	e or N	where Rele	or Relevant	T5
	đ.											

EFS Web 2.1.18

INFORMATION DISCLOSURE	Application Number		15105648	
	Filing Date		2016-06-17	
	First Named Inventor Sebas		bastian Faxèr	
STATEMENT BY APPLICANT Not for submission under 37 CFR 1.99)	Art Unit		2472	
(Not for submission under 57 GFK 1.35)	Examiner Name	Bria	D Nguyen	
	Attorney Docket Num	ber	4015-9595 / P45698-US2	

If you wis	h to a	dd additional Foreign Patent Document	citation information please click the Add button	Add		
		NON-PATE	NT LITERATURE DOCUMENTS	Remove	1	1.1
Examiner Initials*	Cite No	The second se	AL LETTERS), title of the article (when appropria osium, catalog, etc), date, pages(s), volume-issublished.	And the second second		Ţ5
If you win	1	de additional non notant literatura desur	mont sitution information places aligh the Add hu	tton Add	a	
ii you wis	n to a		ment citation information please click the Add bu AMINER SIGNATURE		<u> </u>	-
Examiner	Signa		Date Considered			
		이 밖에 가지 않는 것은 것을 만들어야 한다. 이번 것에서 가지 않는 것은 것이 많이 있는 것이 가지 않는 것이 같이 가지 않는 것이 없다.	not citation is in conformance with MPEP 609. ude copy of this form with next communication to		11 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Standard ST ⁴ Kind of doe	r.3). ³ i cument	For Japanese patent documents, the indication of	☑ or MPEP 901.04. ² Enter office that issued the document, the year of the reign of the Emperor must precede the serial locument under WIPO Standard ST.16 if possible. ⁵ Applicar	number of t	he patent do	cumen

	Application Number		15105648	
12420420102020202020	Filing Date		2016-06-17	
INFORMATION DISCLOSURE	First Named Inventor Sebastian Faxér		stian Faxér	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2472	
(Not for submission under 57 CPK 1.58)	Examiner Name	Brian	D. Nguyen	
	Attorney Docket Numb	ber	4015-9595 / P45698-US2	

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	/David E. Bennett/	Date (YYYY-MM-DD)	2018-05-08	
Name/Print	David E. Bennett	Registration Number	32194	

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.

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:

- 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.
- 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.
- 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).
- 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.
- 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.
- 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.

EFS Web 2.1.18

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Faxér

Serial No.: 15/105648

Filed: June 17, 2016

For: Codebook Subset Restriction Signaling

Attorney's Docket No: 4015-9595/P45698-US2

Examiner: Brian D. Nguyen

Group Art Unit: 2472

Confirmation No.: 5548

MS AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

In accordance with 37 C.F.R. 1.56, counsel wishes to make of record the attached items of information for the Examiner's consideration in connection with this application. Also attached is Form PTO/SB/08A for the Examiner's convenience in making such consideration of record. Inclusion herein of any particular item of information is not to be construed as an admission that same is prior art. Each item of information contained in the information disclosure statement:

was first cited in any communication from a patent office in a counterpart foreign or international application or from the Office, and this communication was not received by an individual designated in §1.56(c) more than thirty days prior to the filing of the information disclosure statement; or

is a communication that was issued by a patent office in a counterpart foreign or international application or by the Office, and this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the information disclosure statement

No statement re Patent Term Adjustment (PTA).

The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account 18-1167.

> Respectfully submitted, COATS & BENNETT, P.L.L.C.

Dated: May 8, 2018

<u>/ David E. Bennett/</u> David E. Bennett Registration No.: 32,194 Telephone: (919) 854-1844

Electronic A	cknowledgement Receipt
EFS ID:	32560767
Application Number:	15105648
International Application Number:	
Confirmation Number:	5548
Title of Invention:	Codebook Subset Restriction Signaling
First Named Inventor/Applicant Name:	Sebastian Faxér
Customer Number:	24112
Filer:	David E. Bennett/Robert Slvigny
Filer Authorized By:	David E. Bennett
Attorney Docket Number:	4015-9595 / P45698-US2
Receipt Date:	08-MAY-2018
Filing Date:	17-JUN-2016
Time Stamp:	11:57:25
Application Type:	U.S. National Stage under 35 USC 371

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.)			
		4015-9595_IDS.pdf	1034460	no	ġ.			
î.	Information Disclosure Statement (IDS) Form (SB08)		93c12052a31330e05a77fAuthe1ae9dad7f76 JOad					

Transmittal Letter	4015-9595_IDS_Cover.pdf	96150	na	1
Transmittal Letter	4015-9595_IDS_Cover.pdf	1dcs)4165d9556680c988614c177/pd7518	na	ı
		108800		
	1	1		
				-
	Total Files Size (in bytes)	113	0610	
ternational Application to enter the national sta oplicable requirements sion under 35 U.S.C. 371 lication Filed with the U application is being filed	under 35 U.S.C. 371 ge of an international applicat a Form PCT/DO/EO/903 indicat will be issued in addition to th JSPTO as a Receiving Office and the international applicat and MPEP 1810), a Notification	ing acceptance of the a e Filing Receipt, in due tion includes the neces n of the International A	pplication course. sary compo pplication	as a onents fo
	pplicant, and including d in MPEP 503. er 35 U.S.C. 111 being filed and the appl 506), a Filing Receipt (37 ceipt will establish the fi ternational Application to enter the national sta pplicable requirements sion under 35 U.S.C. 371 blication Filed with the L application is being filed date (see PCT Article 11	at Receipt evidences receipt on the noted date by the U pplicant, and including page counts, where applicable d in MPEP 503. er <u>35 U.S.C. 111</u> being filed and the application includes the necessary 506), a Filing Receipt (37 CFR 1.54) will be issued in due ceipt will establish the filing date of the application. <u>International Application under 35 U.S.C. 371</u> to enter the national stage of an international applicat pplicable requirements a Form PCT/DO/EO/903 indicat sion under 35 U.S.C. 371 will be issued in addition to the polication Filed with the USPTO as a Receiving Office application is being filed and the international applicat date (see PCT Article 11 and MPEP 1810), a Notification	At Receipt evidences receipt on the noted date by the USPTO of the indicated of pplicant, and including page counts, where applicable. It serves as evidence of d in MPEP 503. <u>er 35 U.S.C. 111</u> being filed and the application includes the necessary components for a filing 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date sh ceipt will establish the filing date of the application. <u>International Application under 35 U.S.C. 371</u> to enter the national stage of an international application is compliant with th pplicable requirements a Form PCT/DO/EO/903 indicating acceptance of the a sion under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due polication Filed with the USPTO as a Receiving Office application is being filed and the international application includes the neces date (see PCT Article 11 and MPEP 1810), a Notification of the International A	at Receipt evidences receipt on the noted date by the USPTO of the indicated documents pplicant, and including page counts, where applicable. It serves as evidence of receipt s d in MPEP 503. <u>er 35 U.S.C. 111</u> being filed and the application includes the necessary components for a filing date (see 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on th ceipt will establish the filing date of the application. <u>International Application under 35 U.S.C. 371</u> to enter the national stage of an international application is compliant with the condition pplicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application sion under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.