UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 11,044,341 B2
APPLICATION NO. : 16/600504
DATED : June 22, 2021
INVENTOR(S) : Derry Shribman et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

In Column 20, Line 65, Claim 17, the word "first" should be deleted;
In Column 21, Line 1, Claim 18, "the part" should be replaced with – a part –; and
In Column 21, Line 13, Claim 21, "a" should be added before the word "web-page".

Signed and Sealed this
Third Day of August, 2021



Drew Hirshfeld
Performing the Functions and Duties of the
Under Secretary of Commerce for Intellectual Property and
Director of the United States Patent and Trademark Office

PTO/SB/44 (09-07)
Approved for use through 01/31/2020. OMB 0651-0033
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 displays a valid OMB control number.
(Also Form PTO-1050)

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 11,044,341

APPLICATION NO.: 16/600,504

ISSUE DATE : June 22, 2021

INVENTOR(S) : Derry Shribman et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IIn Column 20, Line 65, Claim 17, the word "first" should be deleted;
In Column 21, Line 1, Claim 18, "the part" should be replaced with – a part -; and
In Column 21, Line 13, Claim 21, "a" should be added before the word "web-page".

MAILING ADDRESS OF SENDER (Please do not use Customer Number below):

BINDER Yehuda
May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. 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 1.0 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: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: HOLA-005-US16

In re:	)	Confirmation No. 3225
	)	
US Patent No. 11,044,341	)	Art Unit: 2459
	)	
Appln. No.: 16/600,504	)	Examiner: Nguyen Minh Chau
	)	
Filed: October 13, 2019	)	Washington, D.C.
	)	
For: SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	)	July 6, 2021
	)	

***37 CFR 1.323* REQUEST FOR CERTIFICATE OF CORRECTION *OF APPLICANT'S MISTAKE*:**

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Randolph Building, Mail Stop Amendments
401 Dulany Street
Alexandria, VA 22314

Sir:

The following is a request for a certificate of correction in US Application No. 16/600,504, now US Patent No. 11,044,341 granted on June 22, 2021.

A certificate of correction under 35 USC 255 is respectfully requested in the above identified patent in accordance with the first statutory requirement concerns the nature, i.e. a typographical nature, of the mistake for which a correction is sought.

The exact location where the errors appear in the patent are as follows:

In Column 20, Line 65, Claim 17, the word "first" should be deleted;

In Column 21, Line 1, Claim 18, "the part" should be replaced with – a part –; and

In Column 21, Line 13, Claim 21, "a" should be added before the word "web-page".

Electronic Payment in the amount of US$ 160 is being made by deposit account no. 603112 to cover the fee for providing a correction of applicant's mistake, as set forth in 37 CFR 1.20(a).

The requested correction is attached on Form PTO 1050.

Respectfully submitted,

By / Yehuda Binder /
Yehuda Binder
Registration No. 73,612

Tel: +972-54-4444577
Fax: +972-9-7442619
Email: yehuda@maypatents.com

Electronic Patent Application Fee Transmittal

Application Number:	16600504
Filing Date:	13-Oct-2019
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Filer:	Yehuda Binder/Dorit Binder
Attorney Docket Number:	HOLA-005-US16

Filed as Small 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:				
CERTIFICATE OF CORRECTION	2811	1	160	160

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**160**

Electronic Acknowledgement Receipt

EFS ID:	43172962
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	06-JUL-2021
Filing Date:	13-OCT-2019
Time Stamp:	12:39:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$160
RAM confirmation Number	E202176C39411613
Deposit Account	
Authorized User	

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

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Certificate of Correction	sb44-CoC-request.pdf	153423 c95dde983d9a4f80b0d09afd8e16b0f16d44a956	no	2
Warnings:					
Information:					
2	Request for Certificate of Correction	Request-for-corrections.pdf	21277 7795a7c9d39c5ce2d4654525700fe9bc15385339	no	3
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30471 632166d8456103938044d4dbabc21b796b4e49fe	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	205171		

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.

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.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/600,504	06/22/2021	11044341	HOLA-005-US16	3225

131926 7590 06/02/2021

May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

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.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

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 Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Derry Shribman, Tel Aviv, ISRAEL;
LUMINATI NETWORKS LTD., Netanya, ISRAEL;
Ofer Vilenski, Moshav Hadar Am, ISRAEL;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16/600504
	Filing Date	10/13/19
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

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
/M.N/	1	20150206176	A1	2015-07-23	Assaf Toval	
Change(s) applied to document. /C.M./ 4/2/2021	2	20020091760	A1	~~2009-09-08~~ 07-2002	John Rozen	
	3	20060224687	A1	2006-10-05	Laird Alexander Popkin	
	4	20090248793	A1	2009-10-01	Sanny Jacobsson	
	5	20110035503	A1	2011-02-10	SAM ZAID	
	6	20110087733	A1	2011-04-14	Derry Shribman	
	7	20120124239	A1	2012-05-17	Derry Shribman	
	8	20120166582	A1	~~2010-06-28~~ 06-2012	Yehuda BINDER	
	9	20130064370	A1	2013-03-14	Christopher S. Gouge	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455 2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/ Change(s) applied to document. /C.M./ 4/2/2021	2	20110022582	A1	~~2010-01-27~~ 01-2011	Umesh Unnikrishnan	
	3	20040117455	A1	2004-06-17	David L. Kaminsky	
	4	20080134258	A1	2008-06-05	Goose et al.	
	5	20050108244	A1	2005-05-19	Soren Riise	
	6	20070180111	A1	2007-08-02	Mazen CHMAYTELLI	

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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]
/M.N/	1	Michael K. Reiter and Aviel D. Rubin, "Crowds: Anonymity for Web Transactions", ACM Transactions on Information and System Security, November 1998 (27 pages)	

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. 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	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2455 2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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
/M.N/ Change(s) applied to document, /C.M./ 4/2/2021	1	6795848		2001-09-21 09-2004	Border et al.	
	2	8972602		2015-03-03	Mithyantha	
	3	7860988		2010-12-29	Aoki	
	4	7009927		2006-08-29	Cudd	
	5	9122554		2015-09-01	Callaghan	

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
/M.N/	1	20160352628	A1	2016-12-01	Reddy K Tirumaleswar et al	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16/600504
	Filing Date	10/13/19
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	9	4937781	A	1990-06-26	Lee , et al.	
	10	7970835	B2	2011-06-28	Robert St. Jacques	

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
/M.N/ Change(s) applied to document, /C.M./ 4/2/2021	1	20150067819	A1	2015-03-05	~~Hola Networks Ltd.~~ Shribman et al.	
	2	20120254456	A1	2012-10-04	Visharam Zubair et al.	
	3	20080222291	A1	2008-09-11	Weller et al.	
	4	20100235438	A1	2010-09-16	Narayanan et al.	
	5	20120124239	A1	2012-05-17	Shribman et al.	
	6	20130166768	A1	2013-06-27	~~Thomson Licensing~~ Gouache et al.	
	7	20020065930	A1	2002-30-05	Rhodes, David L.	

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	16/600504
Filing Date	10/13/19
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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
/M.N/	1	8479251	B2	2013-07-02	Feinleib et al	
	2	8499059	B2	2013-07-30	Stoyanov	
Change(s) applied to document. /C.M/ 4/2/2021	3	7970835	B2	2011-28-01	~~Xerox Corporation~~ St. Jacques	
	4	8832179	B2	2014-09-09	Owen , et al.	
	5	6173330	B1	2001-09-01	Guo , et al.	
	6	8769035	B2	2014-01-07	Resch , et al.	
	7	8171101	B2	2012-05-01	Gladwin , et al.	
	8	7558942	B2	2009-07-07	Chen , et al.	

PTO/AIA/14 (02-18)
Approved for use through 11/30/2020. OMB 0651-0032
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Derry		Shribman	

Residence Information (Select One) ○ US Residency ◉ Non US Residency ○ Active US Military Service

City	Tel Aviv	Country of Residence [i]	IL

Mailing Address of Inventor:

Address 1	9/6 Beylinson St.,		
Address 2			
City	Tel Aviv	**State/Province**	
Postal Code	6356709	**Country** [i]	IL

Inventor 2 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Ofer		Vilenski	

Residence Information (Select One) ○ US Residency ◉ Non US Residency ○ Active US Military Service

City	Moshav Hadar Am	Country of Residence [i]	IL

Mailing Address of Inventor:

Address 1	8 Hahollandim Street		
Address 2			
City	Moshav Hadar Am	**State/Province**	
Postal Code	42935	**Country** [i]	IL

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).		
☐ An Address is being provided for the correspondence Information of this application.		
Customer Number	131926	
Email Address		Add Email / Remove Email

Application Information:

Title of the Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION		
Attorney Docket Number	HOLA-005-US16	**Small Entity Status Claimed**	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	15	**Suggested Figure for Publication (if any)**	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	131926		

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
16/600,504	Continuation of	16/278105	2019-02-17

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16/278105	Continuation of	15/957950	2018-04-20	10225374	2019-03-05

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/957950	Continuation of	14/025109	2013-09-12	10069936	2018-09-04

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14/025109	Division of	12/836059	2010-07-14	8560604	2013-10-15

Prior Application Status	Expired		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
12/836059	Claims benefit of provisional	61/249624	2009-10-08

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Remove Access Code[i] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◉ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
○ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name	~~WEB SPARK LTD.~~ ~~LUMINATI NETWORKS LTD.~~ BRIGHT DATA LTD.

Mailing Address Information For Applicant:

Address 1	3 Hamahshev St.,		
Address 2			
City	Netanya	**State/Province**	
Country	IL	Postal Code	42507
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

PTO/AIA/14 (02-18)
Approved for use through 11/30/2020. OMB 0651-0032
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 Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Yehuda Binder/			Date (YYYY-MM-DD)	2021-05-16 ~~2019-10-10~~
First Name	Yehuda	Last Name	BINDER	Registration Number	73612

Additional Signature may be generated within this form by selecting the Add button.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

This collection of information is required by 37 CFR 1.76. 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 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet 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.**

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 records.

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 CooperationTreaty.

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.

PART B – FEE(S) TRANSMITTAL

Complete and send this form, together with the 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, VA 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)

May Patents Ltd.
c/o Dorit Shem-Tov
P.O.B. 7230
Ramat-Gan 5217102,
Israel

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
16/600,504	10/13/2019	Derry Shribman	HOLA-005-US16	3225

TITLE OF INVENTION:

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$600	$0	$0	$600	06/02/2021

EXAMINER	ART UNIT	CLASS-SUBCLASS

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. May Patents Ltd. c/o Dorit Shem-Tov
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: BRIGHT DATA LTD.

(B) RESIDENCE: (CITY and STATE or COUNTRY): Netanya
Israel 4250713

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. 603112

5. Change of Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29. 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.

☐ Applicant asserting small entity status. See 37 CFR 1.27. NOTE: If the application was previously under micro entity status, checking this box will be taken as a notification of loss of entitlement to micro entity status.

☐ Applicant changing to regular undiscounted fee status. NOTE: Checking this box will be taken as 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 /Yehuda Binder/ Date May 16, 2021

Typed or printed name Yehuda BINDER Registration No. 73,612

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.

Electronic Patent Application Fee Transmittal

Application Number:	16600504
Filing Date:	13-Oct-2019
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Filer:	Yehuda Binder/Dorit Binder
Attorney Docket Number:	HOLA-005-US16

Filed as Small 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	2501	1	600	600

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**600**

Electronic Acknowledgement Receipt

EFS ID:	42732171
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	16-MAY-2021
Filing Date:	13-OCT-2019
Time Stamp:	08:13:54
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$600
RAM confirmation Number	E20215F914131267
Deposit Account	
Authorized User	

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

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	aiaADS-005-016.pdf	389945 f425236690e76c60ff92bffe5b29f100193d636a	no	9
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
2	Issue Fee Payment (PTO-85B)	ptol85b.pdf	273139 5cde76235e775a35f4bf7bbb1a1540e65ae2771b	no	2
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30339 d681acdf906f7391e48a9d27c9e28fbce4e3beae	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	693423		

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.

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.
16/600,504	10/13/2019	Derry Shribman	HOLA-005-US16	3225

131926 7590 03/29/2021

May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

EXAMINER
NGUYEN, MINH CHAU

ART UNIT	PAPER NUMBER
2459	

MAIL DATE	DELIVERY MODE
03/29/2021	PAPER

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 Allowability	Application No. 16/600,504	Applicant(s) Shribman et al.	
	Examiner MINH CHAU N NGUYEN	Art Unit 2459	AIA (FITF) Status No

-- 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 Amendment, filed 03/09/2021.
   ☐ 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 1-27 . 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 a reply 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 03/03/2021.
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 _____.

/MINH CHAU NGUYEN/
Primary Examiner, Art Unit 2459

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	Art Unit
	MINH CHAU N NGUYEN	2459

CPC - Searched*		
Symbol	**Date**	**Examiner**
H04L67/42	11/23/2020	MN
H04L41/046	11/23/2020	MN
H04L67/1002	11/23/2020	MN
H04L67/1023	11/23/2020	MN
H04L67/1063	11/23/2020	MN
H04L67/108	11/23/2020	MN
H04L67/22	11/23/2020	MN
H04L67/02	11/23/2020	MN

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.

/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	Art Unit
	MINH CHAU N NGUYEN	2459

Search Notes		
Search Notes	**Date**	**Examiner**
search on EAST	11/23/2020	MN
review IDS	11/23/2020	MN
update search on EAST, google patents	02/27/2021	MN
review IDS	02/27/2021	MN
review IDS	03/25/2021	MN

Interference Search			
US Class/CPC Symbol	**US Subclass/CPC Group**	**Date**	**Examiner**
USPAT, USPG-Pub text search	Independent claim search	02/27/2021	MN

/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	Art Unit
	MINH CHAU N NGUYEN	2459

✓	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	11/23/2020	02/27/2021	03/25/2021						
1	1	✓	=	=						
18	2	✓	=	=						
19	3	✓	=	=						
20	4	✓	=	=						
21	5	✓	=	=						
2	6	✓	=	=						
7	7	✓	=	=						
8	8	✓	=	=						
3	9	✓	=	=						
4	10	✓	=	=						
5	11	✓	=	=						
6	12	✓	=	=						
9	13	✓	=	=						
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16	22	✓	=	=						
17	23	✓	=	=						
24	24	✓	=	=						
25	25	✓	=	=						
26	26	✓	=	=						
27	27	✓	=	=						
-	28	✓	-	-						

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	**Art Unit**
	MINH CHAU N NGUYEN	2459

CPC						
Symbol					**Type**	**Version**
H04L	/	67	/	42	F	2013-01-01
H04L	/	41	/	046	I	2013-01-01
H04L	/	67	/	22	I	2013-01-01
H04L	/	67	/	1063	I	2013-01-01
H04L	/	67	/	2814	I	2013-01-01
H04L	/	67	/	2819	I	2013-01-01
H04L	/	67	/	1002	I	2013-01-01
H04L	/	67	/	1023	I	2013-01-01
H04L	/	67	/	108	I	2013-01-01
H04L	/	67	/	02	A	2013-01-01

CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	27	
/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	25 March 2021	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	**Art Unit**
	MINH CHAU N NGUYEN	2459

INTERNATIONAL CLASSIFICATION					
CLAIMED					
H04L29/06	/	29	/	06	
H04L12/24	/	12	/	24	
H04L29/08	/	29	/	08	

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**

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

NONE (Assistant Examiner) (Date)		**Total Claims Allowed:** 27	
/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459 (Primary Examiner)	25 March 2021 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	**Art Unit**
	MINH CHAU N NGUYEN	2459

☐ 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	4	10	15	19	-	28								
18	2	5	11	22	20										
19	3	6	12	23	21										
20	4	9	13	16	22										
21	5	13	14	17	23										
2	6	14	15	24	24										
7	7	10	16	25	25										
8	8	11	17	26	26										
3	9	12	18	27	27										

NONE (Assistant Examiner) (Date)	**Total Claims Allowed:** 27	
/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459 (Primary Examiner) 25 March 2021 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	Nguyen Minh Chau
Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

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	7543018	B2	2009-06-02	Barry Appelman	
	2	9584529	B2	2017-02-28	Xiaokang Su	
	3	7702784	B2	2010-04-20	Viktors Berstis	
	4	7080158		2006-07-18	MATTHEW SQUIRE	
	5	10560509	B2	2020-02-11	Charles Nung LO	
	6	9705959	B1	2017-07-11	William Alexander Strand	
	7	10484337	B2	2019-11-19	Udayakumar Subbarayan	
	8	6792461	B1	2004-09-14	Olivier Hericourt	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	9	8996856	B2	2015-03-31	Yair AMIT	
	10	8516084	B1	2013-08-20	Andrew Grieve	
	11	7139579	B2	2006-11-21	Ken Hatano	
	12	10650166	B1	2020-05-12	Trevor Sundberg	
	13	10645654	B1	2020-05-05	Ari Backholm	
	14	10182466	B2	2019-01-15	Abhay Nirantar	

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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	20080209028	A1	2008-08-28	Madhu M. Kurup	
	2	20160140405	A1	2016-05-19	David L. Graumann	
	3	20200169536	A1	2020-05-28	Michael Joseph Santelia	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	4	20190260859	A1	2019-08-22	Ravikiran Patil	
	5	20190379766	A1	2019-12-12	Chris Decenzo	
	6	20150172324	A1	2015-06-18	James A. Calme	
	7	20120239811	A1	2012-09-20	Jaspal KOHLI	
	8	20170230434	A1	2017-08-10	Jun Wang	
	9	20170155654	A1	2017-06-01	Robert M. Burke	
	10	20090262724	A1	2009-10-22	Motohiro Suzuki	
	11	20190059083	A1	2019-02-21	Ari Backholm	
	12	20090138538	A1	2009-05-28	Amit Klein	
	13	20040221207	A1	2004-11-04	Daisuke Yokota	
	14	20080120427	A1	2008-05-22	Rajesh Ramanathan	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	15	20150172406	A1	2015-06-18	Tom Hansen	
	16	20190166520	A1	2019-05-30	Michael Luna	
	17	20200184035	A1	2020-06-11	Michael Joseph Santelia	
	18	20160294956	A1	2016-10-06	Jeremy Fix	
	19	20160241664	A1	2016-08-18	Linjin XIA	
	20	20190068740	A1	2019-02-28	John GRAHAM-CUMMING	
	21	20180131668	A1	2018-05-10	Matthew Browning Prince	
	22	20190387430	A1	2019-12-19	Mark M. Ingerman	
	23	20190050164	A1	2019-02-14	Rohit KOTIAN	
	24	20100162126	A1	2010-06-24	Jesse Donaldson	
	25	20090055749	A1	2009-02-26	Manjirnath Chatterjee ,	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	26	20130151709	A1	2013-06-13	Michael Luna	
	27	20160205028	A1	2016-07-13	Michael Luna	
	28	20200159622	A1	2020-05-21	Murali Mohan Chakravarthy Chintagunta	
	29	20150347118	A1	2015-12-11	Michael Yeung	
	30	20150317218	A1	2015-11-05	Bump Verde	
	31	20150268905	A1	2015-09-24	Martin Chakirov	
	32	20150036485	A1	2015-02-05	Chris Stewart Poulson	
	33	20190110173	A1	2019-04-11	John Collier	
	34	20050235044	A1	2005-10-20	Stanley K. Tazuma	
	35	20140201323	A1	2014-07-17	Kevin Roland Fall	
	36	20040054748	A1	2004-03-18	Emmanuel Ackaouy	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	37	20110282997	A1	2011-11-17	Matthew Browning Prince	
	38	20020194183	A1	2002-12-19	John H. Yoakum	
	39	20090161554	A1	2009-06-25	Sharad Agarwal	
	40	20200162432	A1	2020-05-21	Stephen L. Ludin	
	41	20180063228	A1	2018-03-01	Robert Glenn Deen	
	42	20190372878	A1	2019-12-05	Al Chakra	
	43	20060155995	A1	2006-07-13	Vesa Torvinen	
	44	20140310709	A1	2014-10-16	Abhay Nirantar	

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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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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

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.	T5
	1	Li et at, "Toward the Identification of Anonymous Web Proxies", University of Cambridge & University of Genoa, 04/03/2009 (2 pages)	
	2	"Anonymizing Proxies: WHAT THEY ARE AND WHO THEY WORK" - Enterprise Services 03/2013 (Year: 2012) (2 pages)	
	3	Selected pages from the website proxifier.com as of Feb 2008 (15 pages)	
	4	Proxychains source code (October 20, 2004) (53 pages)	
	5	RFC 1918, Address Allocation for Private Internets, February 1996 (9 pages)	
	6	RFC 2131, Dynamic Host Configuration Protocol, March 1997 (45 pages)	
	7	RFC 4388, Dynamic Host Configuration Protocol (DHCP) Leasequery, February 2006 (27 pages)	

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

EXAMINER SIGNATURE

Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	03/25/2021

*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.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

[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	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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).

X See attached certification statement.

X 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	/Yehuda Binder/	Date (YYYY-MM-DD)	2021-03-03
Name/Print	Yehuda BINDER	Registration Number	73612

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.**

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.

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: HOLA-005-US16

In re Application of:	)	Confirmation No. 3225
	)	
Derry Shribman *et al.*	)	Art Unit: 2459
	)	
Appln. No.: 16/600,504	)	Examiner: Nguyen Minh Chau
	)	
Filed: October 13, 2019	)	Washington, D.C.
	)	
For: SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	)	March 9, 2021
	)	

RESPONSE / AMENDMENT AFTER ALLOWANCE:

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Randolph Building, Mail Stop Amendments
401 Dulany Street
Alexandria, VA 22314

Sir:

In response to the Non-Final Office Action of March 2, 2021 ("Action"):

Amendments to the Claims appear in the Listing of Claims that begins on page **2** of this paper.

Remarks/Arguments begin on page **8** of this paper.

OK TO ENTER: /M.N/

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	151	(("7543018") or ("9584529") or ("7702784") or ("7080158") or ("10560509") or ("9705959") or ("10484337") or ("6792461") or ("8996856") or ("8516084") or ("7139579") or ("10650166") or ("10645654") or ("10182466") or ("20080209028") or ("20160140405") or ("20200169536") or ("20190260859") or ("20190379766") or ("20150172324") or ("20120239811") or ("20170230434") or ("20170155654") or ("20090262724") or ("20190059083") or ("20090138538") or ("20040221207") or ("20080120427") or ("20150172406") or ("20190166520") or ("20200184035") or ("20160294956") or ("20160241664") or ("20190068740") or ("20180131668") or ("20190387430") or ("20190050164") or ("20100162126") or ("20090055749") or ("20130151709") or ("20160205028") or ("20200159622") or ("20150347118") or ("20150317218") or ("20150268905") or ("20150036485") or ("20190110173") or ("20050235044") or ("20140201323") or ("20040054748") or ("20110282997") or ("20020194183") or ("20090161554") or ("20200162432") or ("20180063228") or ("20190372878") or ("20060155995") or ("20140310709")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/25 23:55
L2	4	L1 and ((servers same (peers clients)) same ((content$1 document$1 page$1) with (request$4 quer$4 inquir$4 retriev$4 search$4)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/25 23:55
L3	2	L2 and ((server$1 same (peer$1 client$1)) same ((content$1 document$1 page$1) with (request$4 quer$4 inquir$4 retriev$4 search$4) with (url$1 address$2 link$1 identifier$1)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/25 23:55
L4	1	3 and @ad<"20091008"	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2021/03/26 00:01

			EPO; JPO; DERWENT; IBM_TDB			
L5	19	1 and ((server$1 same (peer$1 client$1)) same ((content$1 document$1 page$1) with (request$4 quer$4 inquir$4 retriev$4 search$4) with (url$1 address$2 link$1 identifier$1)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/26 00:01
L6	1	4 and ((peer$1 client$1) with (return$4 respon$4) with (content$1 document$1 page$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/26 00:02
L7	0	6 and ((proxy near2 select$4 near3 (client$1 peer$1 server$1)) with (content$1 document$1 file$1 web$page$1 page$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/26 00:02
L8	15	5 and ((peer$1 client$1) with (return$4 respon$4) with (content$1 document$1 page$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/26 00:02
L9	1	8 and ((proxy near2 select$4 near3 (client$1 peer$1 server$1)) with (content$1 document$1 file$1 web$page$1 page$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/26 00:02
L10	0	9 and @ad<"20091008"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/26 00:02
L11	0	1 and (((selected near3 (client$1 peer$1)) with (transmit$4 send$4 forward$4 deliver$4) with (content$1 document$1 file$1 web$page$1 page$1) with server$1) same (geographic$6 location$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/03/26 00:03

EAST Search History (Interference)

<This search history is empty>

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: HOLA-005-US16

In re Application of:	)	Confirmation No. 3225
	)	
Derry Shribman *et al.*	)	Art Unit: 2459
	)	
Appln. No.: 16/600,504	)	Examiner: Nguyen Minh Chau
	)	
Filed: October 13, 2019	)	Washington, D.C.
	)	
For: SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	)	March 9, 2021
	)	

RESPONSE / AMENDMENT AFTER ALLOWANCE:

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Randolph Building, Mail Stop Amendments
401 Dulany Street
Alexandria, VA 22314

Sir:

In response to the Non-Final Office Action of March 2, 2021 ("Action"):

Amendments to the Claims appear in the Listing of Claims that begins on page **2** of this paper.

Remarks/Arguments begin on page **8** of this paper.

Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Previously presented) A method for use with a web server that stores a first content identified by a first content identifier, and for use with first and second client devices that are respectively addressed over the Internet using first and second Internet Protocol (IP) addresses and are each operative to communicate over the Internet with a first server, the method by the first server comprising:

storing, operating, or using, a server operating system;

communicating with the second client device;

storing the second IP address in response to the communicating;

receiving, from the first client device, the first content identifier;

sending, in response to the receiving of the first content identifier, the first content identifier to the second client device using the stored second IP address; and

sending the first content, or a part thereof, to the first client device.

2. (Currently amended) The method according to claim 1, further comprising, by the first server, receiving, in response to the sending of the first content identifier, the first content, or the part thereof, from the second client device.

3. (Currently amended) The method according to claim 1, wherein the first server is a Transmission Control Protocol/Internet Protocol (TCP/IP) server that communicates over the Internet with the first or second client device based on, according to, or using, TCP/IP protocol or connection.

4. (Currently amended) The method according to claim 1, wherein the first server communicates over the Internet based on, or according to, one out of UDP, DNS, TCP, FTP, POP*, SMTP, or SQL standards.

5. (Currently amended) The method according to claim 1, wherein the first content comprises web-page, audio, or video content, and wherein the first content identifier comprises a Uniform Resource Locator (URL).

6. (Currently amended) The method according to claim 1, for use with a plurality of client devices that includes the second client device, each identified over the Internet using a respective IP address, wherein the first server stores a list of the IP addresses of the client devices of the plurality of client devices, and wherein the method further comprising:

selecting, by the first server, multiple client devices from the plurality of client devices by selecting the IP addresses of the multiple client devices from the list; and

sending, by the first server, the selected IP addresses in response to the selecting.

7. (Currently amended) The method according to claim 6, wherein the sending of the selected IP addresses comprises sending to the first client device.

8. (Currently amended) The method according to claim 6, further comprising responsive to the receiving of the first content identifier from the first client device, adding the first client device to the plurality of client devices by including the IP address of the first device to the list.

9. (Currently amended) The method according to claim 6, for use with a third client device, the method further comprising:

sending, by the first server, a 'keep alive' message to the third client device; and

waiting, by the first server, for a response to the 'keep alive' message from the third client device.

10. (Currently amended) The method according to claim 9, further comprising:

receiving, by the first server, the response to the 'keep alive' message from the third client device; and

responsive to the receiving of the response, adding the third client device to the plurality of client devices by including the IP address of the third device to the list.

11. (Currently amended) The method according to claim 9, further comprising responsive to not receiving, by the first server, a response to the 'keep alive' message from the third client device, removing the third client device from the plurality of client devices by removing the IP address of the third device from the list.

12. (Currently amended) The method according to claim 9, wherein the sending of the 'keep alive' message comprises periodically sending by the first server the 'keep alive' message to the third client device.

13. (Currently amended) The method according to claim 1, for use with a first plurality of client devices that includes the second client device, each identified over the Internet using a respective IP address, wherein the first server stores a first list of the IP addresses of the client devices in the first plurality of client devices, wherein the method further comprising selecting, by the first server, the second client device from the first plurality of client devices by selecting the IP address of the second client device from the first list, and wherein the sending of the first content identifier to the second client device is in response to the selecting.

14. (Currently amended) The method according to claim 13, wherein the first plurality of client devices comprises currently online client devices.

15. (Currently amended) The method according to claim 13, further comprising:

receiving, a message by the first server from a third client device that is identified over the Internet using a third IP address; and

adding, by the first server in response to the receiving of the message, the third client device to the first plurality of client devices by adding the third IP address to the first list.

16. (Currently amended) The method according to claim 13, for use with a criterion stored in the first server, wherein the selecting of the second client device is according to, or based on, the criterion.

17. (Currently amended) The method according to claim 16, wherein the criterion is based on, or comprises, a numerical closeness to the web server IP address.

18. (Currently amended) The method according to claim 16, wherein the criterion is based on, or comprises, a geographical location of the selected client device, or a response time when communicating.

19. (Currently amended) The method according to claim 13, for use with a second plurality of client devices that is non-overlapping with the first plurality of client devices and that includes a third client device, each identified over the Internet using a respective IP address, wherein the first server stores a second list of the IP addresses of the client devices in the second plurality of client devices, and wherein the method further comprising:

selecting, by the first server, the third client device from the second plurality of client devices by selecting the IP address of the third client device from the second list; and

sending of the first content identifier to the third client device in response to the selecting.

20. (Currently amended) The method according to claim 1, further comprising establishing, by the first server, a Transmission Control Protocol (TCP) connection with the first or second client device.

21. (Currently amended) The method according to claim 1, wherein the first client device is identified by a first Internet Protocol (IP) address, Media Access Control (MAC) address, or a hostname.

22. (Currently amended) The method according to claim 1, for use with a software application stored in the first server and associated with a first version number, and wherein the method further comprising sending, by the first server to the first or second client device, a message that comprises the first version number of the software application.

23. (Currently amended) The method according to claim 22, further comprising sending, by the first server to the first or second client device, the first software application.

24. (Currently amended) The method according to claim 1, wherein the web server is a Hypertext Transfer Protocol (HTTP) server responding to HTTP requests.

25. (Currently amended) The method according to claim 1, wherein the steps are sequentially executed.

26. (Currently amended) The method according to claim 1, for use with a software application that includes computer instructions that, when executed by a computer processor, cause the processor to perform the steps of the claim 1.

27. (Original) A non-transitory computer readable medium containing computer instructions that, when executed by a computer processor, cause the processor to perform the method according to claim 1.

28. (Canceled)

REMARKS / ARGUMENTS

The claims are amended to correct typos.

The absence of a reply to a specific rejection, issue, or comment, does not signify agreement with that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims that have not been expressed.

Nothing in this reply should be understood as conceding any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claims does not necessarily signify concession of unpatentability to the claim before its amendment.

In view of the foregoing, it is requested that all of the rejections be reconsidered and withdrawn and that the claims be considered allowable.

If the above arguments should not now place the application in the condition for allowance, the examiner is invited to call undersigned counsel to resolve any remaining issues.

Respectfully submitted,

By /Yehuda Binder/

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Registration No. 73,612

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Fax: +972-9-7442619
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Electronic Acknowledgement Receipt

EFS ID:	42124937
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	09-MAR-2021
Filing Date:	13-OCT-2019
Time Stamp:	10:28:24
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		US16-After-NOA-reply.pdf	42106 1dcd6384e8a351a39538fa6204512ea871f17c1c	yes	9

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment after Notice of Allowance (Rule 312)	1	1
	Claims	2	7
	Applicant Arguments/Remarks Made in an Amendment	8	9
Warnings:			
Information:			
	Total Files Size (in bytes):	42106	

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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 (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	Nguyen Minh Chau
Attorney Docket Number	HOLA-005-US16

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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	7543018	B2	2009-06-02	Barry Appelman	
	2	9584529	B2	2017-02-28	Xiaokang Su	
	3	7702784	B2	2010-04-20	Viktors Berstis	
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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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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
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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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	16	20190166520	A1	2019-05-30	Michael Luna	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Attorney Docket Number	HOLA-005-US16

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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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	1	Li et at, "Toward the Identification of Anonymous Web Proxies", University of Cambridge & University of Genoa, 04/03/2009 (2 pages)	
	2	"Anonymizing Proxies: WHAT THEY ARE AND WHO THEY WORK" - Enterprise Services 03/2013 (Year: 2012) (2 pages)	
	3	Selected pages from the website proxifier.com as of Feb 2008 (15 pages)	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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).

X See attached certification statement.

X 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	/Yehuda Binder/	Date (YYYY-MM-DD)	2021-03-03
Name/Print	Yehuda BINDER	Registration Number	73612

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.**

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.

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:	16600504
Filing Date:	13-Oct-2019
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Filer:	Yehuda Binder/Dorit Binder
Attorney Docket Number:	HOLA-005-US16

Filed as Small 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($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	130	130
		Total in USD ($)		**130**

Electronic Acknowledgement Receipt

EFS ID:	42072496
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	03-MAR-2021
Filing Date:	13-OCT-2019
Time Stamp:	09:29:31
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$130
RAM confirmation Number	E202133030444499
Deposit Account	
Authorized User	

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

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)	EPR968-009-US1-AND-OTHER-005-US16.pdf	1036835 772d5f0db1a4d99c48f9174b7590def194ca7a3c	no	10
Warnings:					
Information:					
2	Non Patent Literature	PROXIFIER.pdf	2167232 ec22e3b580182344 88d2ef0445d582c44c673e71	no	15
Warnings:					
Information:					
3	Non Patent Literature	PROXYCHAINS.pdf	1624891 715dce1d98e1d0cfb1c8f65a5fc728279fdd6acd	no	53
Warnings:					
Information:					
4	Non Patent Literature	rfc1918.pdf	28294 39f23dd6758ed5ba921a8223c7e8873c9a5bf276	no	9
Warnings:					
Information:					
5	Non Patent Literature	RFC2131.pdf	98446 f67b18ece58ce2504d1ce7f6952368cd700b3a98	no	45
Warnings:					
Information:					
6	Non Patent Literature	rfc4388.pdf	79960 5eddbe2d508ad86bf2c40665658c7cbd57d89a05	no	27
Warnings:					
Information:					

7	Non Patent Literature	Toward-the-Identification.pdf	181696 838e417a9e9f65240c693f48a3f2e230efb87868	no	2
Warnings:					
Information:					
8	Non Patent Literature	What-They-Are-and-How-They-Work.pdf	197273 d806f7d329f72eef0a6f42ea712554f0fe83b6f3	no	2
Warnings:					
Information:					
9	Fee Worksheet (SB06)	fee-info.pdf	30362 ce6697e9503905ac81a3b3c725ff5ab375e8f1d0	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	5444989	

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.

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

NOTICE OF ALLOWANCE AND FEE(S) DUE

131926 7590 03/02/2021

May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

EXAMINER
NGUYEN, MINH CHAU

ART UNIT	PAPER NUMBER
2459	

DATE MAILED: 03/02/2021

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/600,504	10/13/2019	Derry Shribman	HOLA-005-US16	3225

TITLE OF INVENTION: SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$600	$0.00	$0.00	$600	06/02/2021

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE 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.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

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)

131926 7590 03/02/2021

May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

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.
16/600,504	10/13/2019	Derry Shribman	HOLA-005-US16	3225

TITLE OF INVENTION: SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$600	$0.00	$0.00	$600	06/02/2021

EXAMINER	ART UNIT	CLASS-SUBCLASS
NGUYEN, MINH CHAU	2459	709-202000

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. _____

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.
16/600,504	10/13/2019	Derry Shribman	HOLA-005-US16	3225

131926 7590 03/02/2021

May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

EXAMINER	
NGUYEN, MINH CHAU	
ART UNIT	PAPER NUMBER
2459	

DATE MAILED: 03/02/2021

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. 16/600,504	Applicant(s) Shribman et al.	
	Examiner MINH CHAU N NGUYEN	Art Unit 2459	AIA (FITF) Status No

-- 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 Amendment, filed 02/13/2021.
   ☐ 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 1-27 . 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 a reply 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 12/21/2020; 01/18/2021.
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 _____.

/MINH CHAU NGUYEN/
Primary Examiner, Art Unit 2459

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

Remarks

Applicant's amendment dated February 13, 2021 responding to November 25, 2020 Office Action provided in the rejection of claims 1-27. **Claims 1-27** remain pending in the application and which have been fully considered by the Examiner.

The Examiner withdraws the rejection to claims 1-27 under non-statutory obviousness type double patenting, in light of Applicant's filed terminal disclaimer on February 13, 2021, has been approved.

Applicant's arguments, filed February 13, 2021, with respect to claims 1-27 have been fully considered and are persuasive.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

Claims 1-27 are considered allowable since when reading the claims in light of the specification, as per MPEP §2111.01 or Toro Co. v. White Consolidated Industries Inc., 199 F.3d 1295, 1301,53 USPQ2d 1065, 1069 (Fed. Cir. 1999), none of the references of record alone or in combination disclose or suggest the combination of limitations specified in **independent claim 1.**

For example, the independent claims contain limitations, *the first server comprising: storing, operating, or using, a server operating system; communicating with the*

second client device; storing the second IP address in response to the communicating; receiving, from the first client device, the first content identifier; sending, in response to the receiving of the first content identifier, the first content identifier to the second client device using the stored second IP address; and sending the first content, or a part thereof, to the first client device.

Therefore, the Examiner agrees that the limitations of the independent claims, within its environment, is allowable subject matter over the prior art, in light of the specification and in view of the Applicant's arguments.

Because **claims 2-27** depend directly or indirectly on claim 1 these claims are considered allowable for at least the same reasons noted above with respect to **claim 1.**

To the extent that these features are not found in the prior art cited by Examiner, the present case is held allowable over the art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH CHAU N NGUYEN whose telephone number is (571)272-4242. The examiner can normally be reached on M-F 8am-4pm.

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, TONIA DOLLINGER can be reached on (571)272-4170. 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.

/MINH CHAU NGUYEN/
Primary Examiner, Art Unit 2459

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	Art Unit
	MINH CHAU N NGUYEN	2459

✓	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	11/23/2020	02/27/2021							
1	1	✓	=							
18	2	✓	=							
19	3	✓	=							
20	4	✓	=							
21	5	✓	=							
2	6	✓	=							
7	7	✓	=							
8	8	✓	=							
3	9	✓	=							
4	10	✓	=							
5	11	✓	=							
6	12	✓	=							
9	13	✓	=							
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14	15	✓	=							
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11	17	✓	=							
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17	23	✓	=							
24	24	✓	=							
25	25	✓	=							
26	26	✓	=							
27	27	✓	=							
-	28	✓	-							

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	**Art Unit**
	MINH CHAU N NGUYEN	2459

CPC						
Symbol					**Type**	**Version**
H04L	/	67	/	42	F	2013-01-01
H04L	/	41	/	046	I	2013-01-01
H04L	/	67	/	22	I	2013-01-01
H04L	/	67	/	1063	I	2013-01-01
H04L	/	67	/	2814	I	2013-01-01
H04L	/	67	/	2819	I	2013-01-01
H04L	/	67	/	1002	I	2013-01-01
H04L	/	67	/	1023	I	2013-01-01
H04L	/	67	/	108	I	2013-01-01
H04L	/	67	/	02	A	2013-01-01

CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	27	
/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	27 February 2021	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	**Art Unit**
	MINH CHAU N NGUYEN	2459

INTERNATIONAL CLASSIFICATION					
CLAIMED					
H04L29/06	/	29	/	06	
H04L12/24	/	12	/	24	
H04L29/08	/	29	/	08	

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**

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

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	27	
/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	27 February 2021	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	**Art Unit**
	MINH CHAU N NGUYEN	2459

☐ 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	4	10	15	19	-	28								
18	2	5	11	22	20										
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21	5	13	14	17	23										
2	6	14	15	24	24										
7	7	10	16	25	25										
8	8	11	17	26	26										
3	9	12	18	27	27										

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	27	
/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	27 February 2021	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	Art Unit
	MINH CHAU N NGUYEN	2459

CPC - Searched*		
Symbol	Date	Examiner
H04L67/42	11/23/2020	MN
H04L41/046	11/23/2020	MN
H04L67/1002	11/23/2020	MN
H04L67/1023	11/23/2020	MN
H04L67/1063	11/23/2020	MN
H04L67/108	11/23/2020	MN
H04L67/22	11/23/2020	MN
H04L67/02	11/23/2020	MN

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
search on EAST	11/23/2020	MN
review IDS	11/23/2020	MN
update search on EAST, google patents	02/27/2021	MN
review IDS	02/27/2021	MN

/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
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	Examiner	Art Unit
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Interference Search			
US Class/CPC Symbol	**US Subclass/CPC Group**	**Date**	**Examiner**
USPAT, USPG-Pub text search	Independent claim search	02/27/2021	MN

/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. 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	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	Nguyen Minh Chau
Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

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	8375434		2013-02-12	Lance M. Cottrell	
	2	7007228		2006-02-28	Fernando Incertis Carro	
	3	7620703	B1	2009-11-17	Yevgeniy Eugene Shteyn	
	4	8156275	B2	2012-04-10	Josh P. de Cesare	
	5	4855894	A	1989-08-08	NOBUMITSU ASAHI	
	6	4347827	A	1982-09-07	JAMES J. LO CASCIO	
	7	7929429	B2	2011-04-19	Claudson F. Bornstein	
	8	9444903	B2	2016-09-13	Athir Nuaimi	

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	Attorney Docket Number	HOLA-005-US16

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	9	10637956	B1	2020-04-28	Martynas Juravicius	

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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	20060059091	A1	2006-03-16	Yi-Min Wang	
	2	20080071925	A1	2008-03-20	F. Thomson Leighton	
	3	20080320151	A1	2008-12-25	Steven McCanne	
	4	20090070489	A1	2009-03-19	Leonard L. Lu	
	5	20090077233	A1	2009-03-19	Ryosuke Kurebayashi	
	6	20090150534	A1	2009-06-11	Andrew Karl Miller	
	7	20090199000	A1	2009-08-06	Stephen Dao Hui Hsu	
	8	20090234970	A1	2009-09-17	Chen Sun	

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	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	9	20090313318	A1	2009-12-17	Thomas A. Dye	
	10	20090327489	A1	2009-12-31	Eric Sven-Johan Swildens	
	11	20100161760	A1	2010-06-24	Sunil Maloo	
	12	20100180082	A1	2010-07-15	William B. Sebastian	
	13	20100322237	A1	2010-12-23	Murali Raja	
	14	20080201438	A1	2008-08-21	Indrek Mandre	
	15	20160098049	A1	2016-04-07	Hung-Cheng Fan	
	16	20110117938	A1	2011-05-19	Jong-sun PYO	
	17	20130007031	A1	2013-01-03	Masaaki MAKINO	
	18	20040263479	A1	2004-12-13	Mark Shkolnikov	
	19	20180227210	A1	2018-08-09	David Cosgrove	

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	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	20	20170041416	A1	2017-02-09	Qiang ZHOU	
	21	20120144047	A1	2012-06-07	Nicholas Armstrong	
	22	20160323409	A1	2016-11-03	Johan KÖLHI	
	23	20130219281	A1	2013-08-22	Robert Trevelyan	
	24	20150006615	A1	2015-01-01	Warren Scott Wainner	

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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	2418108	GB	A	2006-03-15	SURFCONTROL PLC		

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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]
	1	Authors Alain Durand (IMAG) et al., "IPv6 Tunnel Broker <draft-ietf-ngtrans-broker-00.txt>", Internet Society (ISOC), 2 April 1999 (14 pages)	

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	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	2	Sophie Gastellier-Prevost et al., "Defeating pharming attacks at the client-side", Network and System Security (NSS), 6 September 2011 (8 pages)
	3	Bharat K et al. "Mirror, Mirror on the Web: a study of host pairs with replicated content", Computer Networks, Amsterdam, vol. 31, no. 11-16, 17 May 1999 (12 pages)
	4	European Search Report of EP 20190259 dated December 16, 2020
	5	European Search Report of EP 20195090 dated December 8, 2020

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EXAMINER SIGNATURE

Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	02/27/2021

*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	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2021-01-18
Name/Print	Yehuda BINDER	Registration Number	73612

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

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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.

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

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	Nguyen Minh Chau
Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

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	6701374		2004-03-02	Amit Gupta	
	2	6012090	A	2000-01-04	PI-YU CHUNG	
	3	6134584	A	2000-10-17	SIH-PIN S. CHANG	
	4	8527631	B1	2013-09-03	Han-Chang LIANG	
	5	10594660	B2	2020-03-17	David SMITH	
	6	9979674	B1	2018-05-22	Raju Kumar	
	7	7984110	B1	2011-07-19	Sundar Raman	
	8	7805517	B2	2010-09-08	Choon B. Shim	

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	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	9	10404791	B2	2019-09-03	Ranjit Puri	
	10	10361911	B2	2019-07-23	Eric Jason Brandwine	
	11	9154557	B2	2015-10-06	Etai Lev-Ran	
	12	7719971	B1	2010-05-18	Alfredo C. Issa	
	13	7890624	B2	2011-02-15	John A. Bivens	
	14	9059938	B1	2015-06-16	William Alexander Strand	
	15	8990357	B2	2015-03-24	John Graham-Cumming	
	16	9237210	B2	2016-01-12	Jing Liu	
	17	6687732	B1	2004-02-03	RAJEEV BECTOR	

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	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	1	20080222244	A1	2008-09-11	Charles Huang	
	2	20150135302	A1	2015-05-14	Aviram Cohen	
	3	20150026341	A1	2015-01-22	David Blacka	
	4	20120136926	A1	2012-05-31	Douglas M. Dillon	
	5	20070171921	A1	2007-07-26	Michael Wookey	
	6	20080225710	A1	2008-09-18	Murali Raja	
	7	20200259893	A1	2020-08-13	Matthew W. JAMES	
	8	20190199611	A1	2019-06-27	Hiren R. KOTADIA	
	9	20180020324	A1	2018-01-18	Mike Beauford	
	10	20110023125	A1	2011-01-27	Yongbum Kim	
	11	20190238510	A1	2019-08-01	Shunge Li	

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	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	12	20130173756	A1	2013-07-04	Michael Luna	
	13	20070047452	A1	2007-03-01	Joachim Lohr	
	14	20140222974	A1	2014-08-07	Jing Liu	
	15	20150016261	A1	2015-01-15	Ari Backholm	
	16	20020194292	A1	2002-12-19	Peter F. King	
	17	20140199044	A1	2014-07-17	Chaitali Gupta	
	18	20200186614	A1	2020-06-11	Michael Luna	
	19	20200287867	A1	2020-09-10	Dane Orion KNECHT	
	20	20160337464	A1	2016-11-17	Anders E ERIKSSON	
	21	20200007494	A1	2020-01-02	Matthew Browning Prince	
	22	20130117413	A1	2013-05-09	Takashi Kaneko	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	23	20180034766	A1	2018-02-01	Daiki CHIBA	
	24	20150149431	A1	2015-05-12	Robert Trevelyan	

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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	2007/136665	WO		2007-11-29	CISCO IRONPORT SYSTEMS LLC		
	2	2015/157646	WO		2015-10-15	ENSIGHTEN, INC.		
	3	2019/043687	WO		2019-03-07	LUMINATI NETWORKS LTD.		

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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]
	1	RFC 2187, "Application of Internet Cache Protocol (ICP), version 2", September 1997 (24 pages)	
	2	Duane Wessels, "ICP and the Squid Web Cache", August 13, 1997 (25 pages)	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /M.N/

	3	RFC 1738, "Uniform Resource Locators (URL)", December 1994 (25 pages)
	4	European Search Report of EP 20195075 dated November 13, 2020
	5	David Gourley et al, "HTTP-The-Definitive-Guide", O'Reilly Media, Inc. 27 September 2002 (658 pages)
	6	Floss MANUALS, "CIRCUMVENTION TOOLS", Free Software Foundation Inc., 31 May 2021 (240 pages)
	7	David Fifield et al, "Blocking resistant communication through domain fronting", Proceeding on Privacy Enhanching Technologies 2015, 15 May 2015 (19 pages)
	8	Wang Qiyan et al, "CensorSpoofer: Asymmetric Communication with IP Spoofing for ensorship-Resistant Web Browsing", Mar 9, 2012 (16 pages)

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EXAMINER SIGNATURE

Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	02/27/2021

*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	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-12-22
Name/Print	Yehuda Binder	Registration Number	73612

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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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	122	(("6701374") or ("6012090") or ("6134584") or ("8527631") or ("10594660") or ("9979674") or ("7984110") or ("7805517") or ("10404791") or ("10361911") or ("9154557") or ("7719971") or ("7890624") or ("9059938") or ("8990357") or ("9237210") or ("6687732") or ("20080222244") or ("20150135302") or ("20150026341") or ("20120136926") or ("20070171921") or ("20080225710") or ("20200259893") or ("20190199611") or ("20180020324") or ("20110023125") or ("20190238510") or ("20130173756") or ("20070047452") or ("20150222974") or ("20150016261") or ("20020194292") or ("20140199044") or ("20200186614") or ("20200287867") or ("20160337464") or ("20200007494") or ("20130117413") or ("20180034766") or ("20150149431")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:23
L2	87	(("8375434") or ("7007228") or ("7620703") or ("8156275") or ("4855894") or ("4347827") or ("7929429") or ("9444903") or ("10637956") or ("20060059091") or ("20080071925") or ("20080320151") or ("20090070489") or ("20090077233") or ("20090150534") or ("20090199000") or ("20090234970") or ("20090313318") or ("20090327489") or ("20100161760") or ("20100180082") or ("20100322237") or ("20080201438") or ("20160098049") or ("20110117938") or ("20130007031") or ("20040263479") or ("20180227210") or ("20170041416") or ("20120144047") or ("20160323409") or	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:26

		("20130219281") or ("20150006615")).PN.				
L3	0	1 and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:26
L4	0	2 and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:26
L5	2	1 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:34
L6	3	2 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:34
L7	226,742	(H04L67/42 H04L41/046 H04L67/108 H04L67/22 H04L67/02 H04L67/1002 H04L67/1023 H04L67/1063 H04L67/2814 H04L67/2819).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:34
L8	1	1 and ((web near servers) with (transfer$4 provid$4 transmit$4 send$4 forward$4) with (content$1 file$1 document$1 page$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:34
L9	3	2 and ((web near servers) with (transfer$4 provid$4 transmit$4 send$4 forward$4) with (content$1 file$1 document$1 page$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2021/02/27 22:34

			DERWENT; IBM_TDB			
L10	1	8 and @ad<"20091008"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:37
L11	2	9 and @ad<"20091008"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:37
L12	0	10 and (server with (receiv$4) with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) with ((second differen$4 another other) near (client$1 user$1 peer$1)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:37
L13	0	11 and (server with (receiv$4) with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) with ((second differen$4 another other) near (client$1 user$1 peer$1)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:37
L14	73	7 and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:38
L15	73	14 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:38
L16	46	15 and (server with (receiv$4) with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) with ((second differen$4 another other) near (client$1 user$1 peer$1)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2021/02/27 22:39

			DERWENT; IBM_TDB			
L17	5	16 and @ad<"20091008"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:40
L18	3	17 and (server$1 with (select$4 list$4 retriev$4 inquir$4 quer$4) with (client$1 peer$1) with (geographic$4 location$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:40
L19	3	18 and (server with (send$4 transmit$4 forward$4 return$4) with ((received obtained) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((first inital$4) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:41
L20	150	(server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:43
L21	150	20 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:43
L22	75	21 and (server with (receiv$4) with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) with ((second differen$4 another other) near (client$1 user$1 peer$1)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:44
L23	13	22 and (server$1 with (select$4 list$4 retriev$4 inquir$4 quer$4) with (client$1 peer$1) with (geographic$4 location$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2021/02/27 22:45

			DERWENT; IBM_TDB			
L24	4	23 and @ad<"20091008"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:45
L25	467,146	((server$1) with (transfer$4 provid$4 transmit$4 send$4 forward$4) with (content$1 file$1 document$1 page$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:50
L26	5,406	L25 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:50
L27	4,342	L26 and (server with (receiv$4 stor$4 maintain$4) with (id$1 identifier$1 identification$1 address$2 port$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:50
L28	121	L27 and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:50
L29	121	L28 and (server with (send$4 transmit$4 forward$4 return$4) with (web$page$1 page$1 content$1 document$1 url$1) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:50
L30	67	L29 and (server with (receiv$4) with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) with ((second differen$4 another other) near (client$1 user$1 peer$1)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2021/02/27 22:50

			DERWENT; IBM_TDB			
L31	10	L30 and @ad<"20091008"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:50
L32	10	L31 and (server$1 with (select$4 list$4 retriev$4 inquir$4 quer$4) with (client$1 peer$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:50
L33	4	L32 and (server$1 with (select$4 list$4 retriev$4 inquir$4 quer$4) with (client$1 peer$1) with (geographic$4 location$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/02/27 22:50

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L34	40	((server with (receiv$4) with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) with ((second differen$4 another other) near (client$1 user$1 peer$1))) and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1) and (server with (receiv$4) with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) with ((second differen$4 another other) near (client$1 user$1 peer$1)))).clm.	US-PGPUB; USPAT	OR	OFF	2021/02/27 22:57
L35	0	((server with receiv$4 with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) same ((second differen$4 another other) near (client$1 user$1 peer$1))) and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) with (content$1 document$1	US-PGPUB; USPAT	OR	OFF	2021/02/27 22:59

		web$page$1 page$1 url$1)) same server$1) and ((web near servers) with (transfer$4 provid$4 transmit$4 send$4 forward$4) with (content$1 file$1 document$1 page$1))).clm.				
L36	11	34 and @ad<"20091008"	US-PGPUB; USPAT	OR	OFF	2021/02/27 22:59
L38	0	36 and ((web near servers) with (transfer$4 provid$4 transmit$4 send$4 forward$4) with (content$1 file$1 document$1 page$1))	US-PGPUB; USPAT	OR	OFF	2021/02/27 23:01
L39	20	((server with receiv$4 with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) with ((second differen$4 another other) near (client$1 user$1 peer$1))) and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1) and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))).clm.	US-PGPUB; USPAT	OR	OFF	2021/02/27 23:02
L40	5	39 and @ad<"20091008"	US-PGPUB; USPAT	OR	OFF	2021/02/27 23:04
L41	1	40 and (server$1 with (select$4 list$4 retriev$4 inquir$4 quer$4) with (client$1 peer$1) with (geographic$4 location$1))	US-PGPUB; USPAT	OR	OFF	2021/02/27 23:05

2/27/2021 11:06:24 PM
C:\Users\mnguyen2\Documents\EAST\Workspaces\16600504.wsp

Bibliographic Data

Application No: 16/600,504

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /MINH CHAU NGUYEN/ Examiner's Signature | Initials

Title: SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/13/2019	709	2459	HOLA-005-US16
RULE			

APPLICANTS

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Ofer Vilenski, Moshav Hadar Am, ISRAEL

CONTINUING DATA

This application is a CON of 16278105 02/17/2019 PAT 10469628

16278105 is a CON of 15957950 04/20/2018 PAT 10225374

15957950 is a CON of 14025109 09/12/2013 PAT 10069936

14025109 is a DIV of 12836059 07/14/2010 PAT 8560604

12836059 has PRO of 61249624 10/08/2009

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: HOLA-005-US16

In re Application of:	)	Confirmation No. 3225
	)	
Derry Shribman *et al.*	)	Art Unit: 2459
	)	
Appln. No.: 16/600,504	)	Examiner: Nguyen Minh Chau
	)	
Filed: October 13, 2019	)	Washington, D.C.
	)	
For: SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	)	February 13, 2021
	)	

RESPONSE / AMENDMENT:

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Randolph Building, Mail Stop Amendments
401 Dulany Street
Alexandria, VA 22314

Sir:

In response to the Non-Final Office Action of November 25, 2020 ("Action"):

Amendments to the Claims appear in the Listing of Claims that begins on page **2** of this paper.

Remarks/Arguments begin on page **7** of this paper.

Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently amended) A method for use with a web server that stores a first content identified by a first content identifier, and for use with first and second client devices that are respectively addressed over the Internet using first and second Internet Protocol (IP) addresses and are each operative to communicate over the Internet with a first server, the method by the first server comprising:

storing, operating, or using, a server operating system;

communicating with the second client device;

storing the second IP address in response to the communicating;

receiving, from the first client device, the first content identifier;

sending, in response to the receiving of the first content identifier, the first content identifier to the second client device using the stored second IP address; and

sending the first content, or a part thereof, to the first client device.

2. (Original) according to claim 1, further comprising, by the first server, receiving, in response to the sending of the first content identifier, the first content, or the part thereof, from the second client device.

3. (Original) according to claim 1, wherein the first server is a Transmission Control Protocol/Internet Protocol (TCP/IP) server that communicates over the Internet with the first or second client device based on, according to, or using, TCP/IP protocol or connection.

4. (Original) according to claim 1, wherein the first server communicates over the Internet based on, or according to, one out of UDP, DNS, TCP, FTP, POP*, SMTP, or SQL standards.

5. (Original) according to claim 1, wherein the first content comprises web-page, audio, or video content, and wherein the first content identifier comprises a Uniform Resource Locator (URL).

6. (Original) according to claim 1, for use with a plurality of client devices that includes the second client device, each identified over the Internet using a respective IP address, wherein the first server stores a list of the IP addresses of the client devices of the plurality of client devices, and wherein the method further comprising:

selecting, by the first server, multiple client devices from the plurality of client devices by selecting the IP addresses of the multiple client devices from the list; and

sending, by the first server, the selected IP addresses in response to the selecting.

7. (Original) according to claim 6, wherein the sending of the selected IP addresses comprises sending to the first client device.

8. (Original) according to claim 6, further comprising responsive to the receiving of the first content identifier from the first client device, adding the first client device to the plurality of client devices by including the IP address of the first device to the list.

9. (Original) according to claim 6, for use with a third client device, the method further comprising:

sending, by the first server, a 'keep alive' message to the third client device; and

waiting, by the first server, for a response to the 'keep alive' message from the third client device.

10. (Original) according to claim 9, further comprising:

receiving, by the first server, the response to the 'keep alive' message from the third client device; and

responsive to the receiving of the response, adding the third client device to the plurality of client devices by including the IP address of the third device to the list.

11. (Original) according to claim 9, further comprising responsive to not receiving, by the first server, a response to the 'keep alive' message from the third client device, removing the third client device from the plurality of client devices by removing the IP address of the third device from the list.

12. (Original) according to claim 9, wherein the sending of the 'keep alive' message comprises periodically sending by the first server the 'keep alive' message to the third client device.

13. (Original) according to claim 1, for use with a first plurality of client devices that includes the second client device, each identified over the Internet using a respective IP address, wherein the first server stores a first list of the IP addresses of the client devices in the first plurality of client devices, wherein the method further comprising selecting, by the first server, the second client device from the first plurality of client devices by selecting the IP address of the second client device from the first list, and wherein the sending of the first content identifier to the second client device is in response to the selecting.

14. (Original) according to claim 13, wherein the first plurality of client devices comprises currently online client devices.

15. (Original) according to claim 13, further comprising:

receiving, a message by the first server from a third client device that is identified over the Internet using a third IP address; and

adding, by the first server in response to the receiving of the message, the third client device to the first plurality of client devices by adding the third IP address to the first list.

16. (Original) according to claim 13, for use with a criterion stored in the first server, wherein the selecting of the second client device is according to, or based on, the criterion.

17. (Original) according to claim 16, wherein the criterion is based on, or comprises, a numerical closeness to the web server IP address.

18. (Original) according to claim 16, wherein the criterion is based on, or comprises, a geographical location of the selected client device, or a response time when communicating.

19. (Original) according to claim 13, for use with a second plurality of client devices that is non-overlapping with the first plurality of client devices and that includes a third client device, each identified over the Internet using a respective IP address, wherein the first server stores a second list of the IP addresses of the client devices in the second plurality of client devices, and wherein the method further comprising:

selecting, by the first server, the third client device from the second plurality of client devices by selecting the IP address of the third client device from the second list; and

sending of the first content identifier to the third client device in response to the selecting.

20. (Original) according to claim 1, further comprising establishing, by the first server, a Transmission Control

Protocol (TCP) connection with the first or second client device.

21. (Original) according to claim 1, wherein the first client device is identified by a first Internet Protocol (IP) address, Media Access Control (MAC) address, or a hostname.

22. (Original) according to claim 1, for use with a software application stored in the first server and associated with a first version number, and wherein the method further comprising sending, by the first server to the first or second client device, a message that comprises the first version number of the software application.

23. (Original) according to claim 22, further comprising sending, by the first server to the first or second client device, the first software application.

24. (Original) according to claim 1, wherein the web server is a Hypertext Transfer Protocol (HTTP) server responding to HTTP requests.

25. (Original) according to claim 1, wherein the steps are sequentially executed.

26. (Original) according to claim 1, for use with a software application that includes computer instructions that, when executed by a computer processor, cause the processor to perform the steps of the claim 1.

27. (Original) A non-transitory computer readable medium containing computer instructions that, when executed by a computer processor, cause the processor to perform the method according to claim 1.

28. (Canceled)

REMARKS / ARGUMENTS

The examiner's action dated November 25, 2020 ("Action") has been received and its contents carefully noted. An eTD was filed to overcome the Double Patenting rejection.

Office Action, pages 7-19

Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu *et al.* (US 2006/0212584 - "Yu") and in view of Barth *et al.* (US 2001/0054020 - "Barth").

Combining Yu and Barth references

a. The Action does not explain WHY the Yu and Barth references are analogous and can be combined. If the Examiner contends that they are analogous art being in the same field, **a clear definition stating that field is requested, as required in the rules.** In one example, while the Yu invention is directed to using **peer-to-peer** direct communication, the Barth invention is focused on fetching information from additional **servers**.

b. The rationale for combining with the Yu and Barth references is stated as "… *in order to provide an improvement for an information/communication exchange via a network*". It is respectfully submitted that this rationale amounts to nothing more than a conclusory statement. It is not clear what improvement is provided and WHY. It is settled that the Office should provide a "satisfactory explanation" for the motivation for a finding that includes an express and **"rational" connection with the evidence presented.** Further, the rationale provides no link to the present application, as required in MPEP 2143 that clearly states that "*Any rationale employed must provide* ***a link between the factual findings and the legal***

conclusion of obviousness." (Emphasis added), and "… *there must be "some articulated reasoning with some rational underpinning" to support the Examiner's findings and conclusion of obviousness*". See KSR Inti Co. v. Teleflex Inc., 550 U.S. 401, 418 (2007).

c. The rationale is improper since the Yu reference already teaches an improvement of reducing server load and servicing of multiple clients (for example, see paragraphs 0004, 0016, 0025), hence additional improvement is not required, and the Action provides no explanation of why one of ordinary skill in the art would have modified accordingly the Yu reference. It is noted that In Square, Inc. v. Cooper, IPR2014-00158, Paper No. 8, at 30 (15 May 2014), an obviousness challenge was dismissed where the primary reference already had the capabilities that the secondary reference provided with its added disclosures. Moreover, it would not be appropriate to base this rejection on a combination of these references because the devices in Yu and Barth are each self-contained and independently operate effectively to improve "*an information/communication exchange via a network*", and it is settled in *Kinetic Concepts v. Smith and Nephew,* 688 F.3d 1342, at 1369 (CAFC, 2012) that:

> *Because each device independently operates effectively, a person having ordinary skill in the art, who was merely seeking to create a better device to drain fluids from a wound, would have no reason to combine the features of both devices into a single device.*

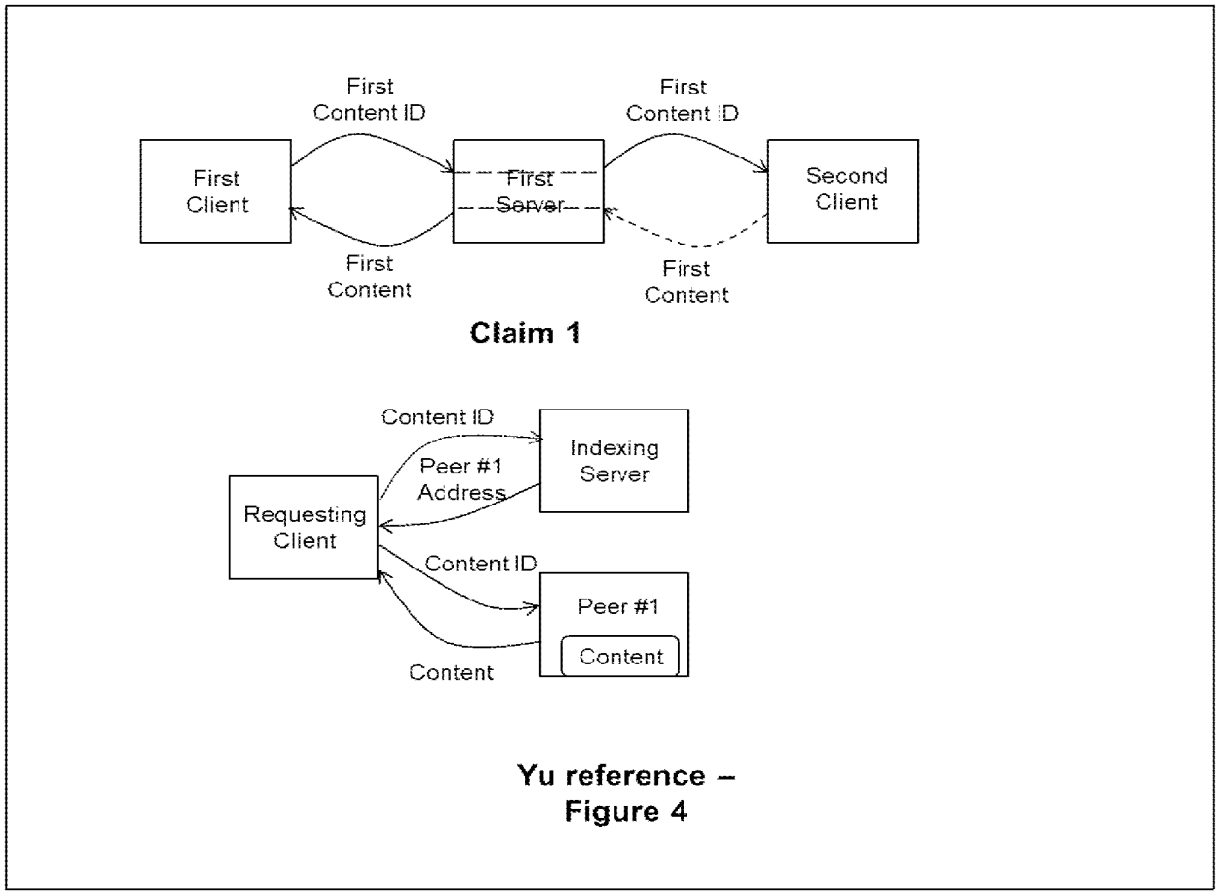
d. The Yu reference in general, and the cited passages in particular, is focused on reducing a load of a server by accessing client peer devices **rather than the server storing the required content**, where the system is managed by an additional server (indexing server 404). Modifying the Yu

reference so that the content is provided via the indexing server 404 resumes the basic problem of server loading, and thus the Yu reference effectively teaches away from the suggested modification.

e. The Action relies upon the Barth reference for the steps of sending of the first content identifier and receiving in response the first content. However, the Barth in general, and the cited paragraphs in particular, does NOT disclose any content delivery of the content itself but only information regarding the location of the content.

Regarding Claim 1 – General

a. A non-limiting pictorial view of claim 1, in comparison to the cited Figure 4 of the Yu reference is shown in the Figure below. The comparison further illustrates the substantial differences. The Yu reference is directed to peer-to-peer communication and thus does not teach any content receiving from the first server, or from any server that is not the actual web server.



Regarding claim 1.

Claim 1 recites that the method comprises: "… *sending the first content, or a part thereof, to the first client device.*". The Action is based on steps 310 and 312 in Figure 3 of the Barth reference.

a. As explained in paragraph 0031 of the Barth reference, the data 'presented to the user' as part of step 312 is not the content requested or addressed by the user, but rather relating to a manipulation of the request as part of steps 306 and 308, thus the claim limitation is NOT taught.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to different limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

I - Regarding claim 6

a. Claim 6 recites selection of the second client device by the first server. In contrast, BOTH the Yu and Barth references are silent regarding any selecting by any server in general, and sending only the selected peers in particular. In fact, the Yu reference teaches away from any selecting by any server. Further, the indexing server 404, as described in the cited paragraphs, sends the WHOLE list of peers to the requesting client, and **the selecting is made in the requesting client device** (see step 514 in Figure 5). The Yu reference is silent regarding any selecting by any server in general, and sending only the selected peers in particular.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to different limitations discussed in claims 1, and the rationale provided for

combination in claim 1 is not relevant to the applied limitations of these claims.

II- Regarding claim 6.

Claim 6 recites that the method: "… *sending, by the first server,* ***the selected IP addresses*** *in response to the selecting*." (Emphasis added). The Action is based on steps 308 and 310 in Figure 3 of the Barth reference.

a. As explained in paragraph 0031 of the Barth reference, the data 'presented to the user' as part of steps 310 and 312 is not the content requested or addressed by the user, but rather relating to a manipulation of the request as part of steps 306 and 308, thus the claim limitation is NOT taught. The Barth reference in general, and the cited Figure in particular, are silent regarding any sending of any IP address in general, and regarding he sending of the selected IP address as recited in the claim in particular.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to different limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

Regarding Claim 8

Claim 8 recites that the method: "… *further comprising responsive to the receiving of the first message from the first client device, adding the first client device to the plurality of client devices by including the IP address of the first device to the list*.". The rejection is based on paragraphs 0057 and 0176 of the Barth reference.

a. It is unclear how paragraph 0057 is not relevant to the recited limitation. A clear explanation is requested. Regarding paragraph 0176, this paragraph ONLY discloses storing cookies in the requesting peer device, and does not disclose any storing in any server, or any storing of any IP address, and further regarding any adding any IP address of any client device as recited in the claim.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to <u>different</u> limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

<u>Regarding Claim 9</u>

Claim 9 recites that the method: "… *further comprising: sending to each of the client devices in the plurality of client devices, a 'keep alive' message; and waiting for a response to the 'keep alive' message from each of the client*

devices in the plurality of client devices.". The rejection is based on paragraph 0095 of the Barth reference.

a. While the cited paragraph 0095 mentions by passing using 'keep-alive', it is silent regarding any sending of such message or waiting for any such message as recited in the claim.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to <u>different</u> limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

<u>Regarding Claim 10</u>

Claim 10 recites that the method: "… *further comprising: receiving a message from the third client device; and responsive to the receiving of the message from the third client device, adding the third client device to the plurality of client devices by including the IP address of the third device to the list.*". The rejection is based on paragraphs 0057, 0176, and 0095-0098 of the Barth reference.

a. It is unclear how the cited paragraphs 0057 0057, 0176, and 0095-0098 are relevant to the recited limitations, since none of them teach any list, any adding to the list, any IP address inclusion in a list, and in particular any "*adding the third*

client device to the plurality of client devices by including the IP address of the third device to the list." as recited in the claim. A clear explanation is requested.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to different limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

Regarding Claim 11

Claim 11 recites that the method: "… *further comprising responsive to not receiving, by the first server, a response to the 'keep alive' message from a third client device in the plurality of client devices, removing the third client device from the plurality of client devices by removing the IP address of the third device from the list*.". The rejection is based on paragraphs 0095-0098, 0221, and 0232 of the Barth reference.

a. While the cited paragraph 0095 mentions by passing using 'keep-alive', the cited paragraphs are regarding any actions in response to such message in general, and updating any list in particular, as recited in the claim.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these limitations. Further, it is noted that this claim depends from

claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to different limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

Regarding Claim 13

Claim 13 recites selection of the second client device by the first server. In contrast, BOTH the Yu and Barth references are silent regarding any selecting by any server in general, and sending only the selected peers in particular. In fact, the Yu reference teaches away from any selecting by any server. Further, the indexing server 404, as described in the cited paragraphs, sends the WHOLE list of peers to the requesting client, and **the selecting is made in the requesting client device** (see step 514 in Figure 5). The Yu reference is silent regarding any selecting by any server in general, and sending only the selected peers in particular.

Regarding Claim 15

Claim 15 recites that the method: "… *further comprising: receiving, a second message by the first server from a third client device that is identified over the Internet using a third IP address; and adding, by the first server in response to the receiving of the second message, the third client device to the first plurality of client devices by adding the third IP address to the first list.*". The rejection is based on paragraphs 0057, 0176, and 0095-0098 of the Barth reference.

a. It is unclear how the cited paragraphs 0057 0057, 0176, and 0095-0098 are relevant to the recited limitations, since none of them teach any list, any adding to the list, any IP address inclusion in a list, and in particular any "*adding the third client device to the plurality of client devices by including the IP address of the third device to the list*." as recited in the claim. A clear explanation is requested.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to <u>different</u> limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

<u>Regarding Claim 16</u>

Claim 16 recites that the method: "… *wherein the selecting of the second client device is according to, or based on, the criterion*.". The rejection is based on paragraphs 0057 and 0176 of the Barth reference.

It is unclear how paragraph 0057 is not relevant to the recited limitation, as it is not related to any 'selecting' action. A clear explanation is requested. Regarding paragraph 0176, this paragraph ONLY discloses storing cookies in the requesting peer device, and does not disclose any selecting in general, and further regarding any criterion based selecting in particular, as recited in the claim.

Regarding Claim 17

Claim 17 recites that: "… *the criterion is based on, or comprises, a numerical closeness to the web server IP address.*". The rejection is based on paragraphs 0057, 0083, and 0176 of the Barth reference.

a. It is unclear how the cited paragraphs 0057, 0083, and 0176 are relevant to the recited limitations, as it is not related to any 'selecting' action in general, and to any '*numerical closeness*' in particular, as recited in the claim.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these specific limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to different limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

Regarding Claim 18

Claim 18 recites that: "… the criterion is based on, or comprises, a geographical location of the selected client device.". The rejection is based on paragraph 0083 of the Barth reference.

a. The cited paragraph 0083 ONLY states that the server may be in a 'different physical location', while the claim recites locations of the peer clients. Second, the fact that a device

is in a 'different physical location' cannot be equated to "*the criterion is based on, or comprises, a geographical location of the selected client device*" as recited in the claim.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these specific limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to different limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

Regarding Claim 20

Claim 20 recites that: "*… further comprising establishing, by the first server, a Transmission Control Protocol (TCP) connection with the first or second client device.*". The rejection is based on paragraph 0024 of the Yu reference.

While the cited paragraph 0024 of the Yu reference mentions by-passing using TCP, it is silent regarding 'TCP connection' which is technically different from just using the TCP protocol, as explained in the specification.

Regarding Claim 22

Claim 22 recites that: "*… wherein the method further comprising sending, by the first server to the first or second client device, a message that comprises the first version number of the software application.*". The rejection is based on paragraphs 0069-0072 and 0091 of the Barth reference.

a. It is unclear how the cited paragraphs 0069-0072 and 0091 are relevant to the recited limitations, as it is not related to any software version in general, and sending such version in particular. A clear explanation is required.

b. The rejection is based on the Barth reference, however no rationale is provided for modifying the Yu reference with these specific limitations. Further, it is noted that this claim depends from claim 1 and further defines the 'selecting', where the rejection is based on the Yu reference for this feature. Furthermore, it is noted that the rejection of claim 1 is based on the Barth reference with regard to different limitations discussed in claims 1, and the rationale provided for combination in claim 1 is not relevant to the applied limitations of these claims.

The absence of a reply to a specific rejection, issue, or comment, does not signify agreement with that rejection, issue, or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims that have not been expressed.

Nothing in this reply should be understood as conceding any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claims does not necessarily signify concession of unpatentability to the claim before its amendment.

In view of the foregoing, it is requested that all of the rejections be reconsidered and withdrawn and that the claims be considered allowable.

If the above arguments should not now place the application in the condition for allowance, the examiner is invited to call undersigned counsel to resolve any remaining issues.

Respectfully submitted,

By /Yehuda Binder/
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Electronic Acknowledgement Receipt

EFS ID:	41919968
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	13-FEB-2021
Filing Date:	13-OCT-2019
Time Stamp:	15:51:13
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		005-US16-Non-Final-OA-reply.pdf	143973 2a9d1092d2730d1e116c37adf605df3e4a1d19f6	yes	21

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	21
Warnings:			
Information:			
	Total Files Size (in bytes):	143973	

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.

Doc Code: DIST.E.FILE Document Description: Electronic Terminal Disclaimer - Filed	PTO/SB/26 U.S. Patent and Trademark Office Department of Commerce

Electronic Petition Request	**TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING REJECTION OVER A "PRIOR" PATENT**
Application Number	16600504
Filing Date	13-Oct-2019
First Named Inventor	Derry Shribman
Attorney Docket Number	HOLA-005-US16
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action

☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.

Owner	Percent Interest
LUMINATI NETWORKS LTD.	100%

The owner(s) with percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s)

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10225374

as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:
- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

◉ Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.

○ I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.

Applicant claims the following fee status:

◉ Small Entity

○ Micro Entity

○ Regular Undiscounted

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:

◉ An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

Registration Number 73612

○ A sole inventor

○ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application

○ A joint inventor; all of whom are signing this request

Signature	/Yehuda Binder/
Name	Yehuda BINDER

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal

Application Number:	16600504
Filing Date:	13-Oct-2019
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Filer:	Yehuda Binder/Dorit Binder
Attorney Docket Number:	HOLA-005-US16

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
STATUTORY OR TERMINAL DISCLAIMER	2814	1	170	170
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**170**

Doc Code: DISQ.E.FILE
Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 16600504

Filing Date: 13-Oct-2019

Applicant/Patent under Reexamination: Shribman

Electronic Terminal Disclaimer filed on February 13, 2021

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt

EFS ID:	41919965
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	13-FEB-2021
Filing Date:	13-OCT-2019
Time Stamp:	15:46:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$170
RAM confirmation Number	E20212CF46372564
Deposit Account	
Authorized User	

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

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Terminal Disclaimer-Filed (Electronic)	eTerminal-Disclaimer.pdf	33644 0a6fff0f349ed0dd1fcb18f4a16081cfab76a91b	no	2
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30435 c9214bfb24f756e03ce9abd74c665fc4448fd782	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	64079		

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/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/600,504	Filing Date 10/13/2019	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $460 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	02/13/2021	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 28	Minus	** 28	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/LAMONT N MCLAUCHLIN/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. 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 12 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, 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.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	Nguyen Minh Chau
Attorney Docket Number	HOLA-005-US16

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	8375434		2013-02-12	Lance M. Cottrell	
	2	7007228		2006-02-28	Fernando Incertis Carro	
	3	7620703	B1	2009-11-17	Yevgeniy Eugene Shteyn	
	4	8156275	B2	2012-04-10	Josh P. de Cesare	
	5	4855894	A	1989-08-08	NOBUMITSU ASAHI	
	6	4347827	A	1982-09-07	JAMES J. LO CASCIO	
	7	7929429	B2	2011-04-19	Claudson F. Bornstein	
	8	9444903	B2	2016-09-13	Athir Nuaimi	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

	9	10637956	B1	2020-04-28	Martynas Juravicius	

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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	20060059091	A1	2006-03-16	Yi-Min Wang	
	2	20080071925	A1	2008-03-20	F. Thomson Leighton	
	3	20080320151	A1	2008-12-25	Steven McCanne	
	4	20090070489	A1	2009-03-19	Leonard L. Lu	
	5	20090077233	A1	2009-03-19	Ryosuke Kurebayashi	
	6	20090150534	A1	2009-06-11	Andrew Karl Miller	
	7	20090199000	A1	2009-08-06	Stephen Dao Hui Hsu	
	8	20090234970	A1	2009-09-17	Chen Sun	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

	9	20090313318	A1	2009-12-17	Thomas A. Dye	
	10	20090327489	A1	2009-12-31	Eric Sven-Johan Swildens	
	11	20100161760	A1	2010-06-24	Sunil Maloo	
	12	20100180082	A1	2010-07-15	William B. Sebastian	
	13	20100322237	A1	2010-12-23	Murali Raja	
	14	20080201438	A1	2008-08-21	Indrek Mandre	
	15	20160098049	A1	2016-04-07	Hung-Cheng Fan	
	16	20110117938	A1	2011-05-19	Jong-sun PYO	
	17	20130007031	A1	2013-01-03	Masaaki MAKINO	
	18	20040263479	A1	2004-12-13	Mark Shkolnikov	
	19	20180227210	A1	2018-08-09	David Cosgrove	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

	20	20170041416	A1	2017-02-09	Qiang ZHOU	
	21	20120144047	A1	2012-06-07	Nicholas Armstrong	
	22	20160323409	A1	2016-11-03	Johan KÖLHI	
	23	20130219281	A1	2013-08-22	Robert Trevelyan	
	24	20150006615	A1	2015-01-01	Warren Scott Wainner	

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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]
	1	2418108	GB	A	2006-03-15	SURFCONTROL PLC		

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

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	Authors Alain Durand (IMAG) et al., "IPv6 Tunnel Broker <draft-ietf-ngtrans-broker-00.txt>", Internet Society (ISOC), 2 April 1999 (14 pages)	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
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	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

	2	Sophie Gastellier-Prevost et al., "Defeating pharming attacks at the client-side", Network and System Security (NSS), 6 September 2011 (8 pages)	
	3	Bharat K et al. "Mirror, Mirror on the Web: a study of host pairs with replicated content", Computer Networks, Amsterdam, vol. 31, no. 11-16, 17 May 1999 (12 pages)	
	4	European Search Report of EP 20190259 dated December 16, 2020	
	5	European Search Report of EP 20195090 dated December 8, 2020	

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

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	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2021-01-18
Name/Print	Yehuda BINDER	Registration Number	73612

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

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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).

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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:	16600504
Filing Date:	13-Oct-2019
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Filer:	Yehuda Binder/Dorit Binder
Attorney Docket Number:	HOLA-005-US16

Filed as Small 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($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	130	130
		Total in USD ($)		**130**

Electronic Acknowledgement Receipt

EFS ID:	41671075
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	18-JAN-2021
Filing Date:	13-OCT-2019
Time Stamp:	13:56:01
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$130
RAM confirmation Number	E20211HD56396074
Deposit Account	
Authorized User	

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Non Patent Literature	DEFEATING-PHARMING-ATTACKS.pdf	673800 69ab213aad1148ea4f17a76f831be2986e0ec6bf	no	8
Warnings:					
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Information:					
2	Other Reference-Patent/App/Search documents	ESR-007-DIV5.pdf	217435 4a9931ce9b145391775117723215d6a534adc991	no	2
Warnings:					
Information:					
3	Other Reference-Patent/App/Search documents	ESR-009-DIV2.pdf	237748 32d966ce09776ad491e055f6581406cd2829b51a	no	2
Warnings:					
Information:					
4	Foreign Reference	GB2418108A.pdf	1859251 dbe002e73f98595c0d822e04b45dedc279e45d0c	no	62
Warnings:					
Information:					
5	Non Patent Literature	IPV6-Tunnel-Broker.pdf	464966 f0273a3962266c2102f8c77c395672e6165ed56c	no	14
Warnings:					
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Warnings:					
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Information:					
7	Information Disclosure Statement (IDS) Form (SB08)	IPR-968-and-other-005-US16.pdf	1036194 eebc63cdead40f5387d0a31de4a0b9d5e340e646	no	7
Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	30362 d556dd23e734bbe16fe212676cae4b609fac3708	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):		5352879

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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

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New International Application Filed with the USPTO as a Receiving Office

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PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Filing Date	2019-10-13
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Art Unit	2459
Examiner Name	Nguyen Minh Chau
Attorney Docket Number	HOLA-005-US16

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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	6701374		2004-03-02	Amit Gupta	
	2	6012090	A	2000-01-04	PI-YU CHUNG	
	3	6134584	A	2000-10-17	SIH-PIN S. CHANG	
	4	8527631	B1	2013-09-03	Han-Chang LIANG	
	5	10594660	B2	2020-03-17	David SMITH	
	6	9979674	B1	2018-05-22	Raju Kumar	
	7	7984110	B1	2011-07-19	Sundar Raman	
	8	7805517	B2	2010-09-08	Choon B. Shim	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

	9	10404791	B2	2019-09-03	Ranjit Puri	
	10	10361911	B2	2019-07-23	Eric Jason Brandwine	
	11	9154557	B2	2015-10-06	Etai Lev-Ran	
	12	7719971	B1	2010-05-18	Alfredo C. Issa	
	13	7890624	B2	2011-02-15	John A. Bivens	
	14	9059938	B1	2015-06-16	William Alexander Strand	
	15	8990357	B2	2015-03-24	John Graham-Cumming	
	16	9237210	B2	2016-01-12	Jing Liu	
	17	6687732	B1	2004-02-03	RAJEEV BECTOR	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Derry Shribman
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	Attorney Docket Number	HOLA-005-US16

	1	20080222244	A1	2008-09-11	Charles Huang	
	2	20150135302	A1	2015-05-14	Aviram Cohen	
	3	20150026341	A1	2015-01-22	David Blacka	
	4	20120136926	A1	2012-05-31	Douglas M. Dillon	
	5	20070171921	A1	2007-07-26	Michael Wookey	
	6	20080225710	A1	2008-09-18	Murali Raja	
	7	20200259893	A1	2020-08-13	Matthew W. JAMES	
	8	20190199611	A1	2019-06-27	Hiren R. KOTADIA	
	9	20180020324	A1	2018-01-18	Mike Beauford	
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	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

	12	20130173756	A1	2013-07-04	Michael Luna	
	13	20070047452	A1	2007-03-01	Joachim Lohr	
	14	20140222974	A1	2014-08-07	Jing Liu	
	15	20150016261	A1	2015-01-15	Ari Backholm	
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	17	20140199044	A1	2014-07-17	Chaitali Gupta	
	18	20200186614	A1	2020-06-11	Michael Luna	
	19	20200287867	A1	2020-09-10	Dane Orion KNECHT	
	20	20160337464	A1	2016-11-17	Anders E ERIKSSON	
	21	20200007494	A1	2020-01-02	Matthew Browning Prince	
	22	20130117413	A1	2013-05-09	Takashi Kaneko	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	23	20180034766	A1	2018-02-01	Daiki CHIBA	
	24	20150149431	A1	2015-05-12	Robert Trevelyan	

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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	2007/136665	WO		2007-11-29	CISCO IRONPORT SYSTEMS LLC		
	2	2015/157646	WO		2015-10-15	ENSIGHTEN, INC.		
	3	2019/043687	WO		2019-03-07	LUMINATI NETWORKS LTD.		

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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	RFC 2187, "Application of Internet Cache Protocol (ICP), version 2", September 1997 (24 pages)	
	2	Duane Wessels, "ICP and the Squid Web Cache", August 13, 1997 (25 pages)	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

	3	RFC 1738, "Uniform Resource Locators (URL)", December 1994 (25 pages)	
	4	European Search Report of EP 20195075 dated November 13, 2020	
	5	David Gourley et al, "HTTP-The-Definitive-Guide", O'Reilly Media, Inc. 27 September 2002 (658 pages)	
	6	Floss MANUALS, "CIRCUMVENTION TOOLS", Free Software Foundation Inc., 31 May 2021 (240 pages)	
	7	David Fifield et al, "Blocking resistant communication through domain fronting", Proceeding on Privacy Enhanching Technologies 2015, 15 May 2015 (19 pages)	
	8	Wang Qiyan et al, "CensorSpoofer: Asymmetric Communication with IP Spoofing for ensorship-Resistant Web Browsing", Mar 9, 2012 (16 pages)	

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

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.

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	Application Number	16600504
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	Art Unit	2459
	Examiner Name	Nguyen Minh Chau
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-12-22
Name/Print	Yehuda Binder	Registration Number	73612

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.**

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.

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:	16600504
Filing Date:	13-Oct-2019
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Filer:	Yehuda Binder/Dorit Binder
Attorney Docket Number:	HOLA-005-US16

Filed as Small 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($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	130	130
		Total in USD ($)		**130**

Electronic Acknowledgement Receipt

EFS ID:	41450754
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	21-DEC-2020
Filing Date:	13-OCT-2019
Time Stamp:	15:42:28
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$130
RAM confirmation Number	E2020BKF42541643
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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

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)	EPR511-PCT10-and-other-005-US16.pdf	1036671 ed4a1483b70186b9adea6ada6cda15213dd44e56	no	8
Warnings:					
Information:					
2	Non Patent Literature	Blocking-resistant.pdf	790348 1708eba3482a2bc755f405ef9446914f82a321ad	no	19
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4	Non Patent Literature	CIRCUMVENTION-TOOLS.pdf	9017323 c545dbc7ba49bcd2c77226f2787a08065836e8de	no	240
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5	Other Reference-Patent/App/Search documents	ESR-20195075.pdf	170996 235b683ff95c44451e991487fa35cca2e846e78e	no	2
Warnings:					
Information:					
6	Non Patent Literature	G-rfc2187.pdf	58376 892b57d989256199f92ae0f8f709863858f46e99	no	24
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7	Non Patent Literature	HTTP-The-Definitive-Guide-PRIMO.pdf	10723250 5cee6fafc4ae7291795d2a79f3843a55db60f6c5	no	658
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8	Non Patent Literature	H-Wessels-icp-sq.pdf	618956 4a271066ed8187acd49602c573c073651dff1e57	no	25
Warnings:					
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9	Non Patent Literature	M-rfc1738.pdf	60506 160ccda7f8398235f93f63952a5fb4f7fe07220c	no	25
Warnings:					
Information:					
10	Foreign Reference	WO2007136665.pdf	2799512 2a395fc1f4c0f1cc4cc3d9234ef0927403b6f7b4	no	49
Warnings:					
Information:					
11	Foreign Reference	WO2015157646.pdf	1636469 9b9843fdecb89af02b7c5cd3ebbad41ff0cb9b7f	no	35
Warnings:					
Information:					
12	Foreign Reference	WO2019043687.pdf	19629159 e2cc3c941f674fae46be94eafe5f1beb7f657be4	no	370
Warnings:					
Information:					
13	Fee Worksheet (SB06)	fee-info.pdf	30362 cdc6d5a853d5899015786115fbafd816552eea83	no	2
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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.

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/600,504	10/13/2019	Derry Shribman	HOLA-005-US16	3225

131926 7590 11/25/2020

May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

EXAMINER
NGUYEN, MINH CHAU

ART UNIT	PAPER NUMBER
2459	

MAIL DATE	DELIVERY MODE
11/25/2020	PAPER

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.

Office Action Summary	Application No. 16/600,504	Applicant(s) Shribman et al.	
	Examiner MINH CHAU N NGUYEN	Art Unit 2459	AIA (FITF) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 13 October 2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ 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.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-28 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-28 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, 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.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 13 October 2019 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ 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)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date See Continuation Sheet.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

Continuation of Attachment(s) 2) Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date: 10/13/19; 10/21/19; 1/8/2020; 5/12/2020; 7/12/2020; 8/4/2020; 8/27/2020; 10/4/2020; 10/18/2020; 11/15/2020

Notice of Pre-AIA or AIA Status

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

This action is responsive to the application 16/600,504 filed on October 13, 2019. **Claims 1-28** are pending.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-28 (hereafter "*examined claim*") are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims **1-28** (hereafter "*patent claim*") of U.S. Patent No. **10,225,374**. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application are merely obvious variations of the claims in the patent 10,225,374 as outlined in the table below:

Examined claim 2 The method according to claim 1, further comprising, **by the first server, receiving, in response to the sending of the first content identifier, the first content, or the part thereof, from the second client device.** **Examined claim 1** A method for use with a web server that stores a first content identified by a first content identifier, and for use with first and second client devices that are respectively addressed over the Internet using first and second Internet Protocol (IP) addresses and are each operative to communicate over the Internet with a first server, the method by the first server comprising: storing, operating, or using, a server operating system;	**Patent claim 1** A method for use with a first server, for use with a second server that comprises a web server that is a Hypertext Transfer Protocol (HTTP) server responding to HTTP requests and addressed in the Internet using a web server Internet Protocol (IP) address, the second server stores a first content identified by a first content identifier, and for use with first and second client devices, each of the client devices is operative to communicate over the Internet with the first and second servers, the method by the first server comprising:

communicating with the second device;	
storing the second IP address in response to the communicating;	
receiving, from the first client device, a first content identifier;	**receiving, from the first client device, a first message that comprises the web server IP address or the first content identifier;**
sending, in response to the receiving of the first content identifier, the first content identifier to the second client device using the stored second IP address; and	**sending, in response to the receiving of the first message, the first content identifier to the second client device; and**
	receiving, in response to the sending of the first content identifier, the first content, or a part thereof, from the second client device; and
sending the first content, or a part thereof, to the first client device.	**sending, the received first content, or the part thereof, to the first client device.**

Examined claim 2 is merely a broader version of patent claim 1. Examined claim 2 recites the similar limitations in patent claim 1. It would have been obvious to broaden patent claim 1 because omitting the limitation is obvious variation.

Examined claims 3-28 recite the similar limitations of patent claims 2-28.

Claims 1-28 (hereafter "*examined claim*") are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims **1-28** (hereafter "*patent claim*") of U.S. Patent No. **10,469,628**. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the instant application are merely obvious variations of the claims in the patent 10,469,628 as outlined in the table below:

This is a provisional nonstatutory double patenting rejection because the patentably indistinct claims have not in fact been patented.

Examined claim 2	**Patent claim 18**
The method according to claim 1, further comprising, **by the first server, receiving, in response to the sending of the first content identifier, the first content, or the part thereof, from the second client device.**	The method according to claim 1, further comprising, **by the first server, sending the received first content, or the part thereof, to the first client device.**
Examined claim 1	**Patent claim 1**
A method for use with a web server that stores a first content identified by a first content identifier, and for use with first and second client devices that are respectively addressed over the Internet using first and second Internet Protocol (IP) addresses and are each operative to communicate over the Internet with a first server, the method by the first server comprising:	A method for use with a web server that is a Hypertext Transfer Protocol (HTTP) server responding to HTTP requests and stores a first content identified by a first content identifier, and for use with first and second client devices that are respectively addressed over the Internet using first and second Internet Protocol (IP) addresses and are each operative to communicate over the Internet with a first server, the method by the first server comprising:
storing, operating, or using, a server operating system;	
communicating with the second device;	**communicating with the second device;**
storing the second IP address in response to the communicating;	**storing the IP address of the second device in response to the communicating;**
receiving, from the first client device, a first content identifier;	**receiving, from the first client device,** a first message that comprises **the first content identifier;**
sending, in response to the receiving of the first content identifier, the first content identifier to the second client device using the stored second IP address; and	**sending, in response to the receiving of the first message, the first content identifier to the second client device using the respective stored second IP address; and**

sending the first content, or a part thereof, to the first client device.	receiving, in response to the sending of the first content, identifier, the first content, or a part thereof, from the second client device.

Examined claim 2 is merely a broader version of patent claim 18. Examined claim 2 recites the similar limitations in patent claim 18. It would have been obvious to broaden patent claim 18 because omitting the limitation is obvious variation.

Examined claims 3-28 recite the similar limitations of patent claims 2-17, 19-28.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under pre-AIA 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-28 is/are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Yu et al. (US 2006/0212584) hereinafter "**Yu**" and in view of Barth et al. (US 2001/0054020) hereinafter "**Barth**".

Claim 1

Yu teaches a method for use with a web server that stores a first content identified by a first content identifier, and for use with first and second client devices that are respectively addressed over the Internet using first and second Internet Protocol (IP) addresses and are each operative to communicate over the Internet with a first server, the method by the first server comprising:

storing, operating, or using, a server operating system (Yu, 0024, 0043);

communicating with the second device (Yu, figure 2);

storing the second IP address in response to the communicating (Yu, 0022, 0037)

receiving, from the first client device, the first content identifier (Yu, 0026, 0033-0034);

sending, in response to the receiving of the first content identifier, the first content identifier to the second client device using the stored second IP address (Yu, 0026, 0030-0035).

Yu fails to teach sending the first content, or the part thereof, to the first client device.

However, in an analogous art, **Barth** teaches sending the first content, or the part thereof, to the first client device (Barth, figure 3 (#310, 312)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of sending the first content, or the part thereof, to the first client device, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 2

Yu in combination with Barth teach the method according to claim 1, further comprising, by the first server, receiving, in response to the sending of the first content identifier, the first content, or a part thereof, from the second client device (Barth, figure 3, 0031). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of receiving, in response to the sending of the first content identifier, the first content, or a part thereof, from the second client device, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 3

Yu in combination with Barth teach the method according to claim 1, wherein the first server is a Transmission Control Protocol/Internet Protocol (TCP/IP) server that communicates

over the Internet with the first or second client device based on, according to, or using, TCP/IP protocol or connection (Yu, 0024).

Claim 4

Yu in combination with Barth teach the method according to claim 1, wherein the first server communicates over the Internet based on, or according to, one out of UDP, DNS, TCP, FTP, POP*, SMTP, or SQL standards (Yu, 0024).

Claim 5

Yu in combination with Barth teach the method according to claim 1, wherein the first content comprises web-page, audio, or video content, and wherein the first content identifier comprises a Uniform Resource Locator (URL) (Yu, 0006, 0015, 0021).

Claim 6

Yu in combination with Barth teach the method according to claim 1, for use with a plurality of client devices that includes the second client device, each identified over the Internet using a respective IP address, wherein the first server stores a list of the IP addresses of the client devices of the plurality of client devices, and wherein the method further comprising: selecting, by the first server, multiple client devices from the plurality of client devices by selecting the

IP addresses of the multiple client devices from the list; and sending, by the first server, the selected IP addresses in response to the selecting (Barth, figure 3, 0030-0031, 0087-0089, 0091-0092, 0155).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of selecting and then sending, by the first server, multiple client devices from the plurality of client devices, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 7

Yu in combination with Barth teach the method according to claim 6, wherein the sending of the selected IP addresses comprises sending to the first client device (Barth, figure 3 (#308, 310)). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of sending of the selected IP addresses to the first client device, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 8

Yu in combination with Barth teach the method according to claim 6, further comprising responsive to the receiving of the first message from the first client device, adding the first client device to the plurality of client devices by including the IP address of the first device to the list (Barth, 0057, 0176). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of adding IP address of the first device to the list, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information /communication exchange system via a network.

Claim 9

Yu in combination with Barth teach the method according to claim 6, for use with a third client device, the method further comprising: sending, by the first server, a 'keep alive' message to the third client device (Barth, 0095); and waiting, by the first server, for a response to the 'keep alive' message from the third client device (Barth, 0095). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of sending and receiving a 'keep alive' message to and from the client device, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 10

Yu in combination with Barth teach the method according to claim 9, further comprising: receiving, by the first server, the response to the 'keep alive' message from the third client device; and responsive to the receiving of the response, adding the third client device to the plurality of client devices by including the IP address of the third device to the list (Barth, 0057, 0176, 0095-0098). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of receiving a response to 'keep alive' message from the client device and adding the IP address of client device to the list, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 11

Yu in combination with Barth teach the method according to claim 9, further comprising responsive to not receiving, by the first server, a response to the 'keep alive' message from the third client device, removing the third client device from the plurality of client devices by removing the IP address of the third device from the list (Barth, 0095-0098, 0221, 0232). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of 'keep alive' message and removing the client device from the list, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 12

Yu in combination with Barth teach the method according to claim 9, wherein the sending of the 'keep alive' message comprises periodically sending by the first server the 'keep alive' message to the third client device (Barth, 0024, 0064, 0095-0098). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of periodically sending by the first server the 'keep alive' message to the client device, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 13

Yu in combination with Barth teach the method according to claim 1, for use with a first plurality of client devices that includes the second client device, each identified over the Internet using a respective IP address, wherein the first server stores a first list of the IP addresses of the client devices in the first plurality of client devices (Yu, 0037, 0045), wherein the method further comprising selecting, by the first server, the second client device from the first plurality of client devices by selecting the IP address of the second client device from the first list, and wherein the sending of the first content identifier to the second client device is in response to the selecting (Barth, figure 3, 0030-0031, 0087-0089, 0091-0092, 0155). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of selecting the IP address of the second client device from the

list, and sending of the first content identifier to the selected second client device, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 14

Yu in combination with Barth teach the method according to claim 13, wherein the first plurality of client devices comprises currently online client devices (Barth, 0095-0098). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of currently online client devices, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 15

Yu in combination with Barth teach the method according to claim 13, further comprising: receiving, a second message by the first server from a third client device that is identified over the Internet using a third IP address; and adding, by the first server in response to the receiving of the second message, the third client device to the first plurality of client devices by adding the third IP address to the first list (Barth, 0057, 0176, 0095-0098). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of adding the third IP address to the first list, as disclosed by

Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 16

Yu in combination with Barth teach the method according to claim 13, for use with a criterion stored in the first server, wherein the selecting of the second client device is according to, or based on, the criterion (Barth, 0057, 0176). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of selecting of the second client device is according to the criterion, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 17

Yu in combination with Barth teach the method according to claim 16, wherein the criterion is based on, or comprises, a numerical closeness to the web server IP address (Barth, 0057, 0083, 0176). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of criterion is a numerical closeness to the web server IP address, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information /communication exchange system via a network.

Claim 18

Yu in combination with Barth teach the method according to claim 16, wherein the criterion is based on, or comprises, a geographical location of the selected client device, or a response time when communicating (Barth, 0083). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of criterion is a geographical location of the selected client device, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 19

Yu in combination with Barth teach the method according to claim 13, for use with a second plurality of client devices that is non-overlapping with the first plurality of client devices and that includes a third client device, each identified over the Internet using a respective IP address, wherein the first server stores a second list of the IP addresses of the client devices in the second plurality of client devices, and wherein the method further comprising: selecting, by the first server, the third client device from the second plurality of client devices by selecting the IP address of the third client device from the second list; and sending of the first content identifier to the third client device in response to the selecting (Barth, figure 3, 0030-0031, 0087-0089, 0091-0092, 0155). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of selecting the IP address

of the third client device from the second list and sending of the first content identifier to the selected third client device, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 20

Yu in combination with Barth teach the method according to claim 1, further comprising establishing, by the first server, a Transmission Control Protocol (TCP) connection with the first or second client device (Yu, 0024).

Claim 21

Yu in combination with Barth teach the method according to claim 1, wherein the first client device is identified by a first Internet Protocol (IP) address, Media Access Control (MAC) address, or a hostname, and wherein the first message further comprises the first IP address, the MAC address, or the hostname (Barth, 0083-0086, 0041). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of the first message further comprises the first IP address, the MAC address, or the hostname, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 22

Yu in combination with Barth teach the method according to claim 1, for use with a software application stored in the first server and associated with a first version number, and wherein the method further comprising sending, by the first server to the first or second client device, a message that comprises the first version number of the software application (Barth, 0069-0072, 0091). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of sending, by the first server to the first or second client device, a message that comprises the first version number of the software application, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 23

Yu in combination with Barth teach the method according to claim 22, further comprising sending, by the first server to the first or second client device, the first software application (Barth, 0069-0072, 0091). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of sending, by the first server to the first or second client device, the first software application, as disclosed by Barth, into the teachings of Yu. One would be motivated to do so in order to provide an improvement for an information/communication exchange system via a network.

Claim 24

Yu in combination with Barth teach the method according to claim 1, wherein the web server is a Hypertext Transfer Protocol (HTTP) server responding to HTTP requests (Yu, 0024, 0043).

Claim 25

Yu in combination with Barth teach the method according to claim 1, wherein the steps are sequentially executed (Yu, 0047).

Claim 26

Yu in combination with Barth teach the method according to claim 1, for use with a software application that includes computer instructions that, when executed by a computer processor, cause the processor to perform the steps of the claim 1 (Yu, 0024, 0043).

Claim 27 is corresponding claim of claim 1. Therefore, it is rejected under the same rationale.

Claim 28 is corresponding claim of claim 1. Therefore, it is rejected under the same rationale.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH CHAU N NGUYEN whose telephone number is (571)272-4242. The examiner can normally be reached on M-F 8am-4pm.

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, TONIA DOLLINGER can be reached on (571)272-4170. 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 https://ppair-my.uspto.gov/pair/PrivatePair. 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.

/MINH CHAU NGUYEN/
Primary Examiner, Art Unit 2459

Notice of References Cited	Application/Control No. 16/600,504	Applicant(s)/Patent Under Reexamination Shribman et al.	
	Examiner MINH CHAU N NGUYEN	Art Unit 2459	Page 1 of 1

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20060212584-A1	09-2006	Yu; Mingjian	G06F16/9574	709/227
*	B	US-20010054020-A1	12-2001	Barth, Brian E.	G06Q30/0613	705/37
*	C	US-7865585-B2	01-2011	Samuels; Allen	H04L67/28	709/223
*	D	US-20060212542-A1	09-2006	Fang; Han	H04L67/104	709/219
	E					
	F					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	Art Unit
	MINH CHAU N NGUYEN	2459

CPC - Searched*		
Symbol	Date	Examiner
H04L67/42	11/23/2020	MN
H04L41/046	11/23/2020	MN
H04L67/1002	11/23/2020	MN
H04L67/1023	11/23/2020	MN
H04L67/1063	11/23/2020	MN
H04L67/108	11/23/2020	MN
H04L67/22	11/23/2020	MN
H04L67/02	11/23/2020	MN

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
search on EAST	11/23/2020	MN
review IDS	11/23/2020	MN

/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	Art Unit
	MINH CHAU N NGUYEN	2459

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/MINH CHAU NGUYEN/ Primary Examiner, Art Unit 2459	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/600,504	Shribman et al.
	Examiner	Art Unit
	MINH CHAU N NGUYEN	2459

✓	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	11/23/2020								
	1	✓								
	2	✓								
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	27	✓								
	28	✓								

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	51	(Luminati adj Networks).as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:10
L2	2	1 and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:10
L3	2	2 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:11
L5	135	(Shribman adj Derry).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:11
L6	74	5 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:11
L7	7	6 and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:12
L8	131	(Vilenski adj Ofer).in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2020/11/21 23:12

			DERWENT; IBM_TDB			
L9	74	8 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:12
L10	7	9 and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:13
L11	220,225	(H04L67/42 H04L41/046 H04L67/108 H04L67/22 H04L67/02 H04L67/1002 H04L67/1023 H04L67/1063 H04L67/2814 H04L67/2819).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:15
L12	72	11 and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:15
L13	72	12 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:15
L14	9	13 and (server with (send$4 transmit$4 forward$4 return$4) with ((received obtained) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((first inital$4) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:16
L15	3	14 and @ad<"20091008"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:16
L16	3	15 and ((web near servers) with (transfer$4 provid$4 transmit$4	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2020/11/21 23:16

		send$4 forward$4) with (content$1 file$1 document$1 page$1))	EPO; JPO; DERWENT; IBM_TDB			
L17	456,341	((server$1) with (transfer$4 provid$4 transmit$4 send$4 forward$4) with (content$1 file$1 document$1 page$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L18	5,297	L17 and ((peer$1 client$1) with (send$4 transmit$4 forward$4) with ((address$2 id$1 identifier$1 identification$1) near3 (content$1 document$1 web$page$1 page$1 url$1)) with server$1)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L19	4,250	L18 and (server with (receiv$4 stor$4 maintain$4) with (id$1 identifier$1 identification$1 address$2 port$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L20	117	L19 and (server with (send$4 transmit$4 forward$4) with ((id$1 identifier$1 identification$1 address$2) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L21	117	L20 and (server with (send$4 transmit$4 forward$4 return$4) with (web$page$1 page$1 content$1 document$1 url$1) with ((second different other another) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L22	66	L21 and (server with (receiv$4) with (web$page$1 page$1 content$1 document$1) with (address$2 identifier$1 identification$1 url$1) with ((second differen$4 another other) near (client$1 user$1 peer$1)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L23	10	L22 and @ad<"20091008"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17

L24	10	L23 and (server$1 with (select$4 list$4 retriev$4 inquir$4 quer$4) with (client$1 peer$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L25	4	L24 and (server$1 with (select$4 list$4 retriev$4 inquir$4 quer$4) with (client$1 peer$1) with (geographic$4 location$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L26	18	L20 and (server with (send$4 transmit$4 forward$4 return$4) with ((received obtained) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((first inital$4) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L27	6	L23 and (server with (send$4 transmit$4 forward$4 return$4) with ((received obtained) near3 (web$page$1 page$1 content$1 document$1 url$1)) with ((first inital$4) near client$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17
L28	3	L27 and (server$1 with (select$4 list$4 retriev$4 inquir$4 quer$4) with (client$1 peer$1) with (geographic$4 location$1))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/11/21 23:17

EAST Search History (Interference)

<This search history is empty>

11/21/2020 11:43:13 PM
C:\Users\mnguyen2\Documents\EAST\Workspaces\16600504.wsp

PTO/SB/08a (02-18)
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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	16/600504
Filing Date	10/13/19
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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
/M.N/	1	6868453	B1	2005-03-15	Mitsuhiro Watanabe	
	2	8595786	B2	2013-11-26	In Hwan Choi	

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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
/M.N/	1	20030097408	A1	2003-05-22	Masahiro Kageyama	
	2	20070100839	A1	2007-05-03	Deok-ho Kim	
	3	20080256175	A1	2008-10-16	Sang-kwon Lee	
	4	20060212542	A1	2006-09-21	Han Fang	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	5	20110035503	A1	2011-02-10	SAM ZAID	
/M.N/	6	20050097441	A1	2005-05-05	Jonathan D. Herbach	

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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]
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[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)		
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	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

CERTIFICATION STATEMENT

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

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda BINDER	Registration Number	73612

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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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Filing Date	10/13/19
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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
/M.N/	1	9177157	B2	2015-11-03	Yehuda Binder	

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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
/M.N/	1	20070142036	A1	2007-06-21	Johan Wikman	
	2	20090248793	A1	2009-10-01	Sanny Jacobsson	
	3	20130080575	A1	2013-03-28	Matthew Browning Prince	
	4	20110066924	A1	2011-03-17	Gregory Dorso	
	5	20120246273	A1	2012-09-27	Claudson F. Bornstein	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Derry Shribman
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	Attorney Docket Number	HOLA-005-US16

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]
/M.N/	1	2004094980	WO	A2	2004-11-04	FONTIJN, Wilhelmus, F., J. et al		

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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]
/M.N/	1	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/140,749	
	2	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/140,785	
	3	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/214,433	
	4	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/214,451	
	5	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/214,476	
	6	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/214,496	
	7	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/292,363	

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	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	8	Third-party submission under 37 CFR 1.290 filed on July 22, 2019 and entered in U.S. Appl. No. 16/292,364
	9	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/292,374
	10	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/292,382
	11	Third-party submission under 37 CFR 1.290 filed on July 25, 2019 and entered in U.S. Appl. No. 16/365,250
	12	Third-party submission under 37 CFR 1.290 filed on July 25, 2019 and entered in U.S. Appl. No. 16/365,315
	13	"Slice Embedding Solutions for Distributed Service Architectures" - Esposito et al., Boston University, 02/12/2011 http://www.cs.bu.edu/techreports/pdf/2011-025-slice-embedding.pdf (Year 2011) (16 pages)

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EXAMINER SIGNATURE

Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

CERTIFICATION STATEMENT

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73612

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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.

Bibliographic Data

Application No: 16/600,504

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /MINH CHAU NGUYEN/ Examiner's Signature | Initials

Title: SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/13/2019	709	2459	HOLA-005-US16
RULE			

APPLICANTS

LUMINATI NETWORKS LTD., Netanya, ISRAEL

INVENTORS

Derry Shribman, Tel Aviv, ISRAEL

Ofer Vilenski, Moshav Hadar Am, ISRAEL

CONTINUING DATA

This application is a CON of 16278105 02/17/2019 PAT 10469628

16278105 is a CON of 15957950 04/20/2018 PAT 10225374

15957950 is a CON of 14025109 09/12/2013 PAT 10069936

14025109 is a DIV of 12836059 07/14/2010 PAT 8560604

12836059 has PRO of 61249624 10/08/2009

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Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	5826014		1998-10-20	CHRISTOPHER D. COLEY	
	2	5974566		1999-10-26	MICHAEL BRADFORD AULT	
	3	6185625		2001-02-06	MICHAEL MAN-HAK TSO	
	4	7706362	B1	2010-04-27	JANAKIRAMAN SENTHILNATHAN	
	5	6311216	B1	2001-10-30	BRIAN J. SMITH	
	6	6421733	B1	2002-07-16	MICHAEL M. TSO	
	7	6389422	B1	2002-05-14	KATSUO DOI	
	8	6842463	B1	2005-01-11	Tadeusz J. Drwiega	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	9	6513061	B1	2003-01-28	TOMOICHI EBATA	
	10	9313100	B1	2016-04-12	Jonathan A. Jenkins	
	11	10594660	B2	2020-03-17	David SMITH	
	12	9979674	B1	2018-05-22	Raju Kumar	
	13	7984110	B1	2011-07-19	Sundar Raman	
	14	7805517	B2	2010-09-28	Choon B. Shim	
	15	10404791	B2	2019-09-03	Ranjit Puri	
	16	10361911	B2	2019-07-23	Eric Jason Brandwine	
	17	9154557	B2	2015-10-06	Etai Lev-Ran	
	18	7719971	B1	2010-05-18	Alfredo C. Issa	

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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
/M.N/	1	20090300208	A1	2009-12-03	Peter Lepeska	
	2	20100161756	A1	2010-06-24	John Lewis	
	3	20140258465	A1	2014-09-11	Ke Li	
	4	20070283026	A1	2007-12-06	Thorsten Lohmar	
	5	20020026517	A1	2002-02-28	Richard A. Watson	
	6	20150039674	A1	2015-02-05	Mugdha Agarwal	
	7	20040133692	A1	2004-07-08	Marc Blanchet	
	8	20140337308	A1	2014-11-13	Gianmarco De Francisci Morales	
	9	20060184647	A1	2006-08-17	Vineet Ramesh Dixit	
	10	20060015545	A1	2006-01-19	Josef Ezra	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	11	20150032803	A1	2015-01-29	John Graham-Cumming	
	12	20150026239	A1	2015-01-22	Jason Hofmann	
	13	20150372972	A1	2015-12-24	Brian Kennedy	
	14	20110173345	A1	2011-07-14	Christopher R. Knox	
	15	20080225710	A1	2008-09-18	Murali Raja	
	16	20030018834	A1	2003-01-23	Bernd Eilers	
	17	20040230593	A1	2004-11-18	Harry R. Rudin	
	18	20040236962	A1	2004-11-25	Ping Wah Wong	
	19	20080235623	A1	2008-09-25	Richard Ding Li	
	20	20090217351	A1	2009-08-27	Lloyd Leon Burch	
	21	20100042724	A1	2010-02-18	Jae Sic JEON	

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	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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

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

☒ A certification statement is not submitted herewith.

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-11-15
Name/Print	Yehuda Binder	Registration Number	73612

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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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Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	6785705		2004-08-31	Sitarama S. Kocherlakota	
	2	6389462		2002-05-14	ARIEL COHEN	
	3	10637956		2020-04-28	Martynas Juravicius	
	4	10484510		2019-11-19	Derry Shribman	

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/M.N/	1	20080196098	A1	2008-08-14	Lance M. Cottrell	
/M.N/	2	20160170814	A1	2016-06-16	Peter C. LI	

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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	3	20180077624	A1	2018-03-15	Sunghoon JUNG	
	4	20180225387	A1	2018-08-09	Kai PANG	
	5	20180227210	A1	2018-08-09	David Cosgrove	
	6	20130080498	A1	2013-03-28	Mahi DESILVA	
	7	20130072233	A1	2013-03-21	Thomas E. Sandholm	
	8	20130212462	A1	2013-08-15	Gregory Joseph Athas	
	9	20120290717	A1	2012-11-15	Michael Luna	

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/M.N/	1	RFC 3022, Traditional IP Network Address Translator (Traditional NAT), January 2001 (16 pages)	
	2	RFC 2068, Hypertext Transfer Protocol – HTTP/1.1, January 1997 (162 pages)	
	3	RFC 1919, Classical versus Transparent IP Proxies, March 1996 (35 pages)	
	4	HAProxy Reference Manual, Version 1.2.18, Willy Tarreau, 2008/05/25 (40 pages)	
	5	HAProxy Architecture Guide, Version 1.2.18, Willy Tarreau, 2008/05/25 (23 pages)	
	6	RFC 2663 entitled: "IP Network Address Translator (NAT) Terminology and Considerations", August 1999 (30 pages)	

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-09-29
Name/Print	Yehuda BINDER	Registration Number	73612

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/M.N/	1	6895011	B1	2005-05-17	Harold Aaron Lassers	

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/M.N/	1	20090232003	A1	2009-09-17	Jean-Philippe Vasseur	
	2	20140189802	A1	2014-07-03	Gregory MONTGOMERY	
	3	20030229785	A1	2003-12-11	Michael J. Daseke	
	4	20050027782	A1	2005-02-03	Rajkumar Jalan	
	5	20030229718	A1	2003-12-11	Theron Tock	

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/M.N/	6	20090292816	A1	2009-11-26	Craig S. Etchegoyen	
/M.N/	7	20120166582	A1	2012-06-28	Yehuda BINDER	

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/M.N/	1	Reed et al, "Anonymous Connections and Onion Routing", Naval Research Laboratory, 03/1998 https://www.onion-router.net/Publications/JSAC-1998.pdf (Year: 1998)	

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73,612

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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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.

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(Not for submission under 37 CFR 1.99)

Application Number	16/600504
Filing Date	10/13/19
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	9015335	B1	2015-04-21	Samuel S. Gigliotti	
	2	7788378	B2	2010-08-31	Ravi T. Rao	
	3	5734829	A	1998-03-31	BILLY R. ROBINSON	

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/M.N/	1	20130304796	A1	2013-11-14	Steven J. Jackowski	
	2	20120164980	A1	2012-06-28	Vinh Van Phan	
	3	20010054020	A1	2001-12-20	Brian E. Barth	

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	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	4	20160105530	A1	2016-04-14	Derry Shribman	
	5	20070050522	A1	2007-03-01	Adam J. Grove	
	6	20090216887	A1	2009-08-27	Andreas Hertle	
	7	20130080575	A1	2013-03-28	Matthew Browning Prince	
	8	20090150930	A1	2009-06-11	Jeffrey Sherwin	
	9	20060280191	A1	2006-12-14	Kai Nishida	
	10	20030163413	A1	2003-08-28	Frank T. Wiczkowski	
	11	20130263280	A1	2013-10-03	Stephen W. Cote , Bellevue	

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/M.N/	1	2922275	EP	B1	2016-03-23	Axis AB		

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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]
/M.N/	1	"Keep Alive" - Imperva, 2019 https://www.imperva.com/learn/performance/keep-alive (2019) (3 pages)	
	2	Third party observation filed on June 21, 2019 in PCT Application No. PCT/IL2018/050910 (7 pages)	
	3	IETF named: IPv6 Tunnel Broker, April 1999 - First uploaded document submitted with third party observation dated June 21, 2019 (13 pages)	
	4	RFC 3053 (January 2001) named: IPv6 Tunnel Broker - Secod uploaded document submitted with third party observation dated June 21, 2019 (13 pages)	

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Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

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	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

CERTIFICATION STATEMENT

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See attached certification statement.

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-13
Name/Print	Yehuda Binder	Registration Number	73612

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Application Number	16/600504
Filing Date	10/13/19
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	8479251	B2	2013-07-02	Feinleib et al	
	2	8499059	B2	2013-07-30	Stoyanov	
	3	7970835	B2	2011-28-01	Xerox Corporation	
	4	8832179	B2	2014-09-09	Owen , et al.	
	5	6173330	B1	2001-09-01	Guo , et al.	
	6	8769035	B2	2014-01-07	Resch , et al.	
	7	8171101	B2	2012-05-01	Gladwin , et al.	
	8	7558942	B2	2009-07-07	Chen , et al.	

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	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	9	4937781	A	1990-06-26	Lee , et al.	
	10	7970835	B2	2011-06-28	Robert St. Jacques	

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/M.N/	1	20150067819	A1	2015-03-05	Hola Networks Ltd.	
	2	20120254456	A1	2012-10-04	Visharam Zubair et al.	
	3	20080222291	A1	2008-09-11	Weller et al.	
	4	20100235438	A1	2010-09-16	Narayanan et al.	
	5	20120124239	A1	2012-05-17	Shribman et al.	
	6	20130166768	A1	2013-06-27	Thomson Licensing	
	7	20020065930	A1	2002-30-05	Rhodes, David L.	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	8	20030204602	A1	2003-10-30	Hudson Michael D.	
	9	20120099566	A1	2012-04-26	Laine; Tuomas ; et al.	
	10	20130201316	A1	2013-08-08	BINDER; Yehuda ; et al.	
	11	20080125123	A1	2008-05-29	Dorenbosch; Jheroen P. ; et al.	
	12	20140301334	A1	2014-10-09	Labranche; Miguel ; et al.	
	13	20070239655	A1	2007-10-11	Agetsuma; Masakuni ; et al.	
	14	20070226810	A1	2007-09-27	Hotti; Timo	
	15	20100094970	A1	2010-04-15	Zuckerman; Gal ; et al.	
	16	20020120874	A1	2002-29-08	Shu, Li ; et al.	
	17	20100115063	A1	2010-06-05	GLADWIN; S. CHRISTOPHER ; et al.	
	18	20100154044	A1	2010-17-06	Manku; Tajinder	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	19	20100293555	A1	2010-15-11	VEPSALAINEN; Ari M.	
	20	20130272519	A1	2013-17-10	Huang; Lawrence P.	
	21	20030115364	A1	2003-06-19	Shu Li et al.	
	22	20090217122	A1	2009-27-08	Yokokawa; Takashi ; et al.	
	23	20010033583	A1	2001-25-10	Rabenko, Theodore F. ; et al.	
	24	20080109446	A1	2008-05-08	Wang Matrix XIN	
	25	20020133621	A1	2002-09-19	Talmon Marco et al	
	26	20040107242	A1	2004-06-03	John Vert et al	
	27	20070073878	A1	2007-03-29	Alfredo C. Issa	
	28	20090319502	A1	2009-12-24	Olivier Chalouhi et al	
	29	20060212584	A1	2006-09-21	Mingjian Yu et al	

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/M.N/	1	2015034752	WO	A1	2015-03-12	Akamai Technologies INC		
	2	2000/018078	WO	A1	2000-03-30	Sopuch David. J		
	3	0948176	EP	A2	1999-10-06	Siemens Inf &Comm Networks		
	4	2597869	EP	A1	2015-05-29	Sharp Kabushiki Kaisha Osaka-shi		
	5	2010090562	WO	A1	2010-08-12	Telefonaktiebolaget L M Ericsson		
	6	2007280388	JP		2007-25-10	Xerox Corporation		
	7	1020090097034	KR		2009-15-09	KT Corporation		
	8	2343536	RU	C2	2009-10-01	Microsoft Corporation		
	9	101075242	CN	A	2007-11-21	TENGXUN SCIENCE & TECHNOLOGY		

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/M.N/	10	101179389	CN	A	2008-05-14	Wang Matrix XIN		

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/M.N/	1	R. Fielding et al, RFC 2616: Hypertext Transfer Protocol -- HTTP/1.1, June 1999, retrieved from the Internet http://rcf-editor.org [retrieved Apr. 15, 2002] (114 pages)	
	2	"On the Leakage of Personally Identifiable Information via Online Social Networks"-Wills et al, AT&T, Apr. 2009 http://www2.research.att.com/~bala/papers/wosn09.pdf.	
	3	Notice of Preliminary Rejection in KR Application No. 10-2012-7011711 dated July 15, 2016	
	4	KEI SUZUKI, a study on Cooperative Peer Selection Method in P2P Video Delivery, Vol. 109, No. 37, IEICE Technical Report, The Institute of Electronics, Information and Communication Engineers, May 14, 2009	

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Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda BINDER	Registration Number	73612

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

(Not for submission under 37 CFR 1.99)

Application Number	16/600504
Filing Date	10/13/19
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	3922494	A	1975-11-25	Cooper , et al.	
	2	5758195	A	1998-05-26	Balmer; Keith	
	3	6061278	A	2000-05-09	Kato , et al.	
	4	6466470	B1	2002-10-15	Houn Chang	
	5	7865585		2011-01-04	Allen Samuels, et al.	
	6	7120666		2006-10-10	Steven McCanne, et al.	
	7	7203741		2007-04-10	Talmon Marco, et al.	

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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
/M.N/	1	20030009518	A1	2003-01-09	Harrow, Ivan P. ; et al.	
	2	20030074403	A1	2003-04-17	Harrow, Ivan P. ; et al.	
	3	20140082260	A1	2014-03-20	OH; HakJune ; et al.	
	4	20110314347	A1	2011-12-22	NAKANO; Rikizo ; et al.	
	5	20100329270	A1	2010-12-30	Asati; Rajiv ; et al.	
	6	20100085977	A1	2010-04-08	Khalid; Mohamed ; et al.	
	7	20100066808	A1	2010-03-18	Tucker; Curtis E. ; et al.	
	8	20090279559	A1	2009-11-12	Wong; Yuen Fai ; et al.	
	9	20080025506	A1	2008-01-31	Muraoka; Jochiku	
	10	20040264506	A1	2004-12-30	Furukawa, Rei	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	11	20020123895	A1	2002-09-05	Sergey Potekhin	
	12	20150033001	A1	2015-01-29	Ivanov; Vladimir	
	13	20150358648	A1	2015-12-10	Limberg; Allen LeRoy	
	14	20160021430	A1	2016-01-21	LaBosco; Mark ; et al.	
	15	20110087733	A1	2011-04-14	Derry Shribman; et al.	
	16	20030174648	A1	2003-09-18	Mea Wang; et al.	
	17	20080008089	A1	2008-01-10	Claudson F. Bornstein; et al.	
	18	20040088646	A1	2004-05-06	William J. Yeager; et al.	
	19	20030009583	A1	2003-01-09	Chung Chan; et al.	
	20	20080235391	A1	2008-09-25	Christopher Painter; et al.	
	21	20070156855	A1	2007-07-05	Moses Johnson	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	22	20020007413	A1	2002-01-17	JJ Garcia-Luna-Aceves, et al.	
	23	20030210694	A1	2003-11-13	Suresh Jayaraman, et al.	
	24	20030200307	A1	2003-10-23	Jyoti Raju, et al.	

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/M.N/	1	International Search Report issued in PCT Application No. PCT/US2010/051881 dated 09 December 2010	
/M.N/	2	Supplementary European Search Report issued in EP Application No. 10822724 dated 24 April 2013	

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Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

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	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

[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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	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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).

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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.

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda BINDER	Registration Number	73612

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Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	10277711		2019-04-30	Derry Shribman	
	2	8577724		2013-11-05	Devkumar R. Gandhi	
	3	7877511		2011-01-25	Michael A. Berger	
	4	7894431		2011-02-22	Bryan R. Goring	
	5	8533628		2013-09-10	Gary B. Rohrabaugh	

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/M.N/	1	20040044731	A1	2004-03-04	Kailai Chen	

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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	2	20090193498		2009-07-30	Puneet Agarwal	
	3	20080052156		2008-02-28	Walter Brenner	
	4	20080235746		2008-09-25	Michael James Peters	
	5	20080098101		2008-04-24	Tyler James Black	
	6	20190037047		2019-01-31	Derry Shribman	
	7	20150295988		2015-10-15	Joshua C. Goodwin	

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/M.N/	1	2016181383	WO		2016-11-17	HOLA NETWORKS LTD.		
/M.N/	2	1672826	EP		2006-06-21	MICROSOFT CORPORATION		

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	Attorney Docket Number	HOLA-005-US16

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-08-26
Name/Print	Yehuda BINDER	Registration Number	73612

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/M.N/	1	9100320		2015-08-04	Joe Pei-Wen Hsy	
	2	8464350		2013-06-11	Dimitri Kanevsky	
	3	8935798		2015-01-13	Michael David SMITH	
	4	9418243		2016-08-16	BERNHARD BAUER	

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/M.N/	1	20160170814	A1	2016-06-16	Peter C. LI , McLean	
/M.N/	2	20180077624	A1	2018-03-15	Sunghoon JUNG	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	3	20180225387	A1	2018-08-09	Kai PANG	
	4	20180227210	A1	2018-08-09	David Cosgrove	
	5	20050108551	A1	2005-05-19	Christopher Newell Toomey	
	6	20160035019	A1	2016-02-04	Cheryl Rosner	
	7	20020103823	A1	2002-08-01	Jared J. Jackson	
	8	20120185947	A1	2012-07-19	CHRISTOPHER PHILLIPS	
	9	20120198524	A1	2012-08-02	Berk C. Celebisoy	
	10	20120297041	A1	2012-11-22	Georgy Momchilov	
	11	20130167045	A1	2013-06-27	Jimson Xu	
	12	20130268357	A1	2013-10-10	Stephan HEATH	
	13	20190138560	A1	2019-05-09	Lee Hahn Holloway	

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	Art Unit	2459
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	Attorney Docket Number	HOLA-005-US16

/M.N/	14	20180375952	A1	2018-12-27	Dane Orion KNECHT	
	15	20180042067	A1	2018-02-08	Abhay Nirantar	
	16	20180262388	A1	2018-09-13	Michael W. Johnson	
	17	20190155665	A1	2019-05-23	Ross Bott	
	18	20130083800	A1	2013-04-04	Damian C. Lezama Bounine	
	19	20080263180	A1	2008-10-23	Mark B. Hurst	
	20	20190098518	A1	2019-03-28	Michael Luna	
	21	20060075114	A1	2006-04-06	Anatoliy Panasyuk	
	22	20150244839	A1	2015-08-27	Uwe Horn	
	23	20160366233	A1	2016-12-15	Bich Cau Le	
	24	20170250861	A1	2017-08-31	Claudiu Dan Gheorghe	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	25	20150350362	A1	2015-12-03	Daniel B. Pollack	
	26	20130067086	A1	2013-03-14	Yuval Corey Hershko	
	27	20130047020	A1	2013-02-21	Yuval Corey Hershko	
	28	20120096116	A1	2012-04-19	Alan Mislove	
	29	20040068579	A1	2004-04-08	Gerard Marmigere	

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/M.N/	1	Octoparse Blog: "Top 20 Web Crawling Tools to Scrape the Websites Quickly", 8/23/2019 (15 pages)	

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	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

EXAMINER SIGNATURE			
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	Art Unit	
	Examiner Name	
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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-10-18
Name/Print	Yehuda BINDER	Registration Number	73612

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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.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2455 2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	6795848		2001-09-21	Border et al.	
	2	8972602		2015-03-03	Mithyantha	
	3	7860988		2010-12-29	Aoki	
	4	7009927		2006-08-29	Cudd	
	5	9122554		2015-09-01	Callaghan	

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/M.N/	1	20160352628	A1	2016-12-01	Reddy K Tirumaleswar et al	

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	Art Unit	2455 2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	2	20110022582	A1	2010-01-27	Umesh Unnikrishnan	
	3	20040117455	A1	2004-06-17	David L. Kaminsky	
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	5	20050108244	A1	2005-05-19	Soren Riise	
	6	20070180111	A1	2007-08-02	Mazen CHMAYTELLI	

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/M.N/	1	Michael K. Reiter and Aviel D. Rubin, "Crowds: Anonymity for Web Transactions", ACM Transactions on Information and System Security, November 1998 (27 pages)	

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	First Named Inventor	Derry Shribman
	Art Unit	2455 2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	2	Rennhard, Marc, "MorphMix - A Peer-to-Peer based System for Anonymous Internet Access", 2004 (307 pages)
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	4	RFC 760, DOD STANDARD INTERNET PROTOCOL, January 1980 (46 pages)
	5	RFC 2547, BGP/MPLS VPNs, March 1999 (25 pages)
	6	RFC 1180, A TCP/IP Tutorial, January 1991 (28 pages)
	7	RFC 1122, Requirements for Internet Hosts -- Communication Layers, October 1989 (116 pages)
	8	Andrei Popescu, Google, Inc, Geolocation API Specification, W3C Working Draft 22 December 2008 (8 pages)
	9	Andrei Popescu, Google, Inc, Geolocation API Specification, W3C Recommendation 24 October 2013 (10 pages)
	10	Yong Wang, et. al., Towards Street-Level Client-Independent IP Geolocation, 2011 (14 pages)
	11	William R. Stanek, Introducing Microsoft Windows Vista 81, 2006 (9 pages)
	12	IETF RFC 2460 "Internet Protocol, Version 6 (IPv6)", December 1998 (39 pages)

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	First Named Inventor	Derry Shribman
	Art Unit	2455 2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	13	IETF RFC 793 "PROTOCOL SPECIFICATION", September 1981 (90 pages)
	14	IETF RFC 1349 "Type of Service in the Internet Protocol Suite", July 1992 (28 pages)
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	16	Scott Lowe, Use Resource Monitor to monitor network performance - TechRepublic, July 29, 2011 (11 pages)
	17	Greg Shultz, Windows Vista's Task Manager: The harder-to-detect changes - TechRepublic, February 21, 2007 (16 pages)
	18	Gavin Gear, Windows 8 Task Manager In-Depth, June 6, 2013 (32 pages)
	19	IETF RFC 2914, "Congestion Control Principles", Sep. 2000 (17 pages)
	20	IETF RFC 4026, "Provider Provisioned Virtual Private Network (VPN) Terminology", Mar. 2005 (20 pages)

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Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

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	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455
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	Attorney Docket Number	HOLA-005-US16

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-07-07
Name/Print	Yehuda BINDER	Registration Number	73612

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/M.N/	1	7742485	B2	2010-06-22	Xinyan Zhang	
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/M.N/	1	20140359081	A1	2014-12-04	Mattijs Oskar Van Deventer	
	2	20090010426	A1	2009-01-08	Scott D. Redmond	
	3	20130007232	A1	2013-01-03	Wei Wang	
	4	20150206197	A1	2015-07-23	Assaf Toval	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	5	20150206176	A1	2015-07-23	Assaf Toval	
	6	20170221092	A1	2017-08-03	Assaf Toval	
	7	20070174246	A1	2007-07-26	Johann Tomas Sigurdsson	
	8	20100262650	A1	2010-10-14	Abhishek Chauhan	
	9	20060047844	A1	2006-03-02	Li Deng	
	10	20130171964	A1	2013-07-04	Sumeet Singh Bhatia	
	11	20130219458	A1	2013-08-22	Vasudevan Ramanathan	

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	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73,612

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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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	1	Berners-Lee et al., RFC 1945, Hypertext Transfer Protocol, HTTP/1.0 (May 1996) (60 pages)
	2	Leech et al., RFC 1928, Socks Protocol, Version 5 (Internet Engineering Task Force, Network Working Group, March 1996) (9 pages)
	3	Wessels, "Squid: The Definitive Guide," ISBN-10: 9780596001629, ISBN-13: 978-0596001629, O'Reilly Media; 1st Ed. (January 1, 2004) (468 pages)
	4	Luotonen, "Web Proxy Servers," ISBN-10: 0136806120, ISBN-13: 978-0136806127, Prentice Hall; 1st Ed. (December 30, 1997) (452 pages)
	5	Loutonen et al., "World-Wide Web proxies," Computer Networks and ISDN Systems 27, 147-154 (Elsevier Science B. V.) (1994) (8 pages)
	6	Cooper et al., RFC 3040, Internet Web Replication and Caching Taxonomy (January 2001) (32 pages)
	7	ISO/IEC 23009-1:2012(E), MPEG-DASH standard, Jan. 5, 2012 (133 pages)
	8	ProxyList.net, as captured by the Wayback Machine (web.archive.org), on July 17, 2011 (1 page)
	9	Printout of VIP72 Youtube web page at https://www.youtube.com/watch?v=L0Hct2kSnn4, retrieved Nov. 21, 2019 (1 page)
	10	VIP72 Scene Images extracted from VIP72.com/nvpnnet, MPEG-4 video recording of "nVPN.net | Double your Safety and use Socks5 +nVpn", accessed from https://www.youtube.com/watch?v=L0Hct2kSnn4, published September 11, 2011 (221 pages)
	11	Certification dated Nov. 8, 2019 of Anjali Shresta of Google, Proof of Date for VIP72 Youtube web page and video (4 pages)

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	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	12	VIP72.com home page as of 2013 from Wayback Machine (3 pages)

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Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

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	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

CERTIFICATION STATEMENT

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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).

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-01-05
Name/Print	Yehuda BINDER	Registration Number	73612

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2455 2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	6266704		2001-07-24	MICHAEL G. REED	
/M.N/	2	9374244		2016-06-21	MICHAEL G. REED	

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/M.N/	1	20030187925	A1	2003-10-02	Suman Kumar Inala	

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	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455 2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

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]
/M.N/	1	KEI SUZUKI, a study on Cooperative Peer Selection Method in P2P Video Delivery, Vol. 109, No. 37, IEICE Technical Engineers Report, The Institute of Electronics, Information and Communication, May 14, 2009	X

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	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-05-11
Name/Print	Yehuda BINDER	Registration Number	73612

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Application Number	16/600504
Filing Date	10/13/19
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	8639630		2014-01-28	Fomenko et al	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Attorney Docket Number	HOLA-005-US16

/M.N/	1	Michael J. Freedman, Princeton University, "Experiences with CoralCDN: a five-year operational view", Proceeding NSDI'10 Proceedings of the 7th USENIX conference on Networked systems design and implementation San Jose, California — April 28 - 30, 2010 (17 pages)
	2	"The BitTorrent Protocol Specification", Website: https://web.archive.org/web/20120513011037/http:/www.bittorrent.org/beps/bep_0003.html describing BitTorrent dated Jan 10, 2008 downloaded using web archive on Aug 16, 2019 (6 pages)
	3	"BitTorrent", Website: https://en.wikipedia.org/w/index.php?title=BitTorrent&oldid=530466721 describing BitTorrent dated Dec 30, 2012 downloaded using Wikipedia on Aug 16, 2019 (9 pages)
	4	"VIP SOCKS/VPN SERVICE", Website: http://vip72.com:80/?drgn=1 describing VIP72 proxy service dated Jan 2010 downloaded using VIP Technologies webpage on Aug 16, 2019 (3 pages)
	5	"Welcome to Easy Hide IP", Website: https://web.archive.org/web/20130702093456/http://www.easy-hide-ip.com:80/ describing Easy Hide IP dated June 26, 2007 downloaded using web archive on Aug 16, 2019 (2 pages)
	6	"You make it fun; we'll make it run", Website: https://web.archive.org/web/20130726050810/https://www.coralcdn.org describing CoralCDN dated Jan 25, 2005 downloaded using web archive on Aug 16, 2019 (2 pages)
	7	"Net Transport", Website: http://www.xi-soft.com/default.htm describing Net Transport Overview dated 2005 downloaded using Net Transport webpage on Aug 16, 2019 (2 pages)
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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

EXAMINER SIGNATURE			
Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

*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	
	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

CERTIFICATION STATEMENT

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OR

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See attached certification statement.

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☒ 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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73612

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(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	5734829	A	1998-03-31	BILLY R. ROBINSON	
	2	7047315	B1	2006-05-16	Sunil K. Srivastava	
	3	6012083	A	2000-01-04	STEPHEN R. SAVITZKY	
	4	10410244	B2	2019-09-10	Assaf Toval	
	5	6665715		2003-12-16	Cyril Houri	

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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
/M.N/	1	20090150930	A1	2009-06-11	Jeffrey Sherwin	

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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	2	20060280191	A1	2006-12-14	Kai Nishida	
	3	20130263280	A1	2013-10-03	Stephen W. Cote , Bellevue	
	4	20030163413	A1	2003-08-28	Frank T. Wiczkowski	
	5	20080222267	A1	2008-09-11	Ray C. Horn	
	6	20050165903	A1	2005-07-28	Christopher Hoang Doan	
	7	20100036954	A1	2010-02-11	Jay Sakata	
	8	20070088821	A1	2007-04-19	Subhash Sankuratripati	
	9	20080228537	A1	2008-09-18	Andrew Monfried	
	10	20130019258	A1	2013-01-17	Manish Bhatia	
	11	20190180316	A1	2019-06-13	Assaf Toval	
	12	20100235473	A1	2010-09-16	DAVID KOREN	

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	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	13	20140013001	A1	2014-01-09	Matthew R. Cox	
	14	20080037536	A1	2008-02-14	Venkata N. Padmanabhan	
	15	20120264520	A1	2012-10-18	John Marsland	
	16	20120323674	A1	2012-12-10	Willard L. Simmons	
	17	20060271438	A1	2006-11-30	Andrew Shotland	

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Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-21
Name/Print	Yehuda BINDER	Registration Number	73612

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Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2455 2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	6961783	B1	2005-11-01	Jeffrey Cook	

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/M.N/	1	20140244778	A1	2014-08-28	BARTOW WYATT	
	2	20050096753	A1	2005-05-05	Paul D. Arling	
	3	20110007665	A1	2011-01-13	Jehuda Julian Dinur	
	4	20050050097	A1	2005-03-03	Leslie Yeh	
	5	20110154477	A1	2011-06-23	Vincent E. Parla	

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/M.N/	6	20070011674	A1	2007-01-11	Soo-Yeun Joo	
/M.N/	7	20120023212	A1	2012-01-26	Erik Roth	

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/M.N/	1	Kozierok, The TCP/IP Guide - TCP Connection Preparation, 04-06-2005 (3 pages)	
	2	Jovovic, Turning your HD TV into an Android SmartTV is easier than you think!, 02/26/2013 (3 pages)	
	3	Allen, A Software Developer's Guide to HTTP Part III - Connections, 01/26/2012 (10 pages)	
	4	Google Scholar: MorphMix citation in Alessandro Acquisti, et al., Digital Privacy: Theory, Technologies, and Practices (2007) (2 pages)	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	5	RFC 959, FILE TRANSFER PROTOCOL (FTP), October 1985 (69 pages)
	6	RFC 821, Jonathan B. Postel, SIMPLE MAIL TRANSFER PROTOCOL, August 1982 (70 pages)
	7	RFC 918, POST OFFICE PROTOCOL, October 1984 (5 pages)
	8	RFC 937, POST OFFICE PROTOCOL - VERSION 2, February 1985 (24 pages)
	9	Roger Dingledine et al., "The Free Haven Project: Distributed Anonymous Storage Service", December 17, 2000 (23 pages)
	10	Michael Freedman et al., "Tarzan: A Peer-to-Peer Anonymizing Network Layer", November 18–22, 2002 (14 pages)
	11	RFC 791, DARPA INTERNET PROGRAM PROTOCOL SPECIFICATION, September 1981 (49 pages)
	12	RFC 1034, "DOMAIN NAMES - CONCEPTS AND FACILITIES", November 1987 (55 pages)
	13	RFC 1035, "DOMAIN NAMES - IMPLEMENTATION AND SPECIFICATION", November 1987 (54 pages)
	14	RFC 1939, Post Office Protocol - Version 3, May 1996 (23 pages)

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	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455 2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

EXAMINER SIGNATURE			
Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-08-04
Name/Print	Yehuda BINDER	Registration Number	73612

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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.

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(Not for submission under 37 CFR 1.99)

Application Number	16/600504
Filing Date	10/13/19
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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
/M.N/	1	7673048		2010-03-02	James W. O'Toole	
	2	7783777		2010-08-24	Kuldipsingh A. Pabla	
	3	8719430		2014-05-06	Michel Van Ackere	
	4	8838811		2014-09-16	Songqing Chen	
	5	7751628	B1	2010-07-06	Richard R. Reisman	
	6	5519693	A	1996-05-21	ROBERT J. GALUSZKA	
	7	6519693	B1	2003-02-11	HENRY C. DEBEY	
	8	7234059	B1	2007-06-19	Cheryl L. Beaver	

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	Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	20150206176	A1	2015-07-23	Assaf Toval	
	2	20020091760	A1	2009-09-08	John Rozen	
	3	20060224687	A1	2006-10-05	Laird Alexander Popkin	
	4	20090248793	A1	2009-10-01	Sanny Jacobsson	
	5	20110035503	A1	2011-02-10	SAM ZAID	
	6	20110087733	A1	2011-04-14	Derry Shribman	
	7	20120124239	A1	2012-05-17	Derry Shribman	
	8	20120166582	A1	2016-06-28	Yehuda BINDER	
	9	20130064370	A1	2013-03-14	Christopher S. Gouge	

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	Attorney Docket Number	HOLA-005-US16

/M.N/	10	20130080575	A1	2013-03-28	Matthew Browning Prince	
	11	20060039352	A1	2006-02-23	Christopher K. Karstens	
	12	20080222291	A1	2008-09-11	Timothy N. Weller	
	13	20100235438	A1	2010-09-16	Kumar Narayanan	
	14	20150067819	A1	2015-03-05	Derry Shribman	
	15	20120254456	A1	2012-10-04	Zubair Visharam	
	16	20150189401	A1	2015-07-02	Donghoon YI	
	17	20150341812	A1	2015-11-26	Gino Louis Dion	
	18	20110264809	A1	2011-10-27	Robert P. Koster	

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/M.N/	1	2004094980	WO		2004-11-04	FONTIJN, Wilhelmus, F., J. et al		

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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]
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Examiner Signature	/MINH CHAU NGUYEN/	Date Considered	11/21/2020

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	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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See attached certification statement.

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☒ 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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73,612

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Application Number	16/600504
Filing Date	10/13/2019
First Named Inventor	Derry Shribman
Art Unit	2459
Examiner Name	MINH-CHAU NGUYEN
Attorney Docket Number	HOLA-005-US16

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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
/M.N/	1	7788378		2010-08-31	Ravi T. Rao	
	2	9253164		2016-02-02	Christopher S. Gouge	
	3	7890547	B2	2011-02-15	Timo Hotti	
	4	8832179	B2	2014-09-09	Owen , et al.	
	5	7818430	B2	2010-10-19	Gal Zuckerman	
	6	6154782	A	2000-11-28	NAOHISA KAWAGUCHI	
	7	5577243	A	1996-17-11	Sherwood , et al.	
	8	8135912	B2	2012-13-03	Shribman , et al.	

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/M.N/	9	8719505	B2	2014-06-05	Shribman , et al.	
	10	9201808	B2	2015-01-12	Shribman , et al.	
	11	9990295	B2	2018-06-05	Shribman , et al.	

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/M.N/	1	20080109446	A1	2008-05-08	Matrix Xin Wang	
	2	20110066924	A1	2011-03-17	Gregory Dorso	
	3	20110128911	A1	2011-06-02	Kamel M. Shaheen	
	4	20130157699	A1	2013-06-20	Mohit Talwar	
	5	20130326607	A1	2013-12-05	Liang Feng	
	6	20030204602	A1	2003-30-10	Hudson, Michael D. ; et al.	

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	First Named Inventor	Derry Shribman
	Art Unit	2459
	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	7	20120124173	A1	2012-17-05	De; Pradipta ; et al.	
	8	20020069241	A1	2002-06-06	Narlikar, Girija ; et al.	
	9	20130201316	A1	2013-08-08	BINDER; Yehuda ; et al.	
	10	20120099566	A1	2012-26-04	Laine; Tuomas ; et al.	
	11	20120254370	A1	2012-10-04	Utz BACHER	
	12	20080125123	A1	2008-05-29	Jheroen P. Dorenbosch	
	13	20140301334	A1	2014-10-09	Miguel Labranche	
	14	20070239655	A1	2007-10-11	Masakuni Agetsuma	
	15	20070226810	A1	2007-09-27	Timo Hotti	
	16	20100094970	A1	2010-04-15	Gal Zuckerman	
	17	20130007253	A1	2013-01-03	Guohuai Li	

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	Examiner Name	MINH-CHAU NGUYEN
	Attorney Docket Number	HOLA-005-US16

/M.N/	18	20090037529	A1	2009-02-05	Gilad Armon-Kest	
	19	20090182843	A1	2009-07-16	Michael G. Hluchyj	
	20	20060036755	A1	2006-02-16	Ibrahim S. Abdullah	
	21	20140376403	A1	2014-12-25	Wenqi Shao	
	22	20050228964	A1	2005-13-10	Sechrest, Stuart ; et al.	
	23	20080086730	A1	2008-10-04	Vertes; Marc	
	24	20060259728	A1	2006-16-11	Chandrasekaran; Sashikanth ; et al.	
	25	20040254907	A1	2004-16-12	Crow, Preston F. ; et al.	
	26	20050015552	A1	2005-20-01	So, Kimming ; et al.	
	27	20050022236	A1	2005-01-27	Akihiko Ito; et al.	

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/M.N/	1	2597869	EP	A1	2013-18-12	Sharp Kk		
	2	2010090562	WO	A1	2010-12-08	Telefonaktiebolaget L M Ericsson (Publ)		
	3	2011068784	WO	A1	2011-09-06	Azuki Systems, Inc		

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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]
/M.N/	1	Screen captures from YouTube video clip entitle "nVpn.net | Double your Safety and use Socks5 + nVpn" 38 pages, last accessed 11/20/2018 <https://www.youtube.com/watch?v=L0Hct2kSnn4>	
	2	Screen captures from YouTube video clip entitle "Andromeda" 47 pages, publicly known and available as of at least 2011 <https://www.youtube.com/watch?v=yRRYpFLbKNU>	
	3	SpyEye, https://www.symantec.com/security-center/writeup/2010-020216-0135-9; http://securesql.info/riskyclouds/spyeye-user-manual; known as of at least 2010 (13 pages)	
	4	Screen captures from YouTube video clip entitle "Change Your Country IP Address & Location with Easy Hide IP Software" 9 pages, publicly known and available as of at least 2011, <https://www.youtube.com/watch?v=ulwkf1sOfdA and https://www.youtube.com/watch?v=iFEMT-o9DTc>	
	5	CoralCDN ("CoralCDN"), https://pdos.csail.mit.edu/6.824/papers/freedman-coral.pdf (14 PAGES)	

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/M.N/	6	European Search Report for EP 14182547.1, dated July 30, 2015
	7	R. Fielding et al, RFC 2616: Hypertext Transfer Protocol -- HTTP/1.1, June 1999, retrieved from the Internet http://rfc-editor.org [retrieved Apr. 15, 2002]
	8	"On the leakage of personally identifiable information via online social networks", Wills et al. AT&T, Apr. 2009 http://www2.research.att.com/-bala/papers/wosn09.pdf*
	9	"Slice Embedding Solutions for Distributed Service Architectures" - Esposito et al., Boston University, Computer Science Dept., 10/2011 http://www.cs.bu.edu/techreports/pdf/2011-025-slice-embedding.pdf
	10	International Search Report of PCT/US2010/034072 dated July 01, 2010
	11	YouTube video clip entitled "nVpn.net | Double your Safety and use Socks5 + nVpn" <https://www.youtube.com/watch?v=L0Hct2kSnn4>
	12	YouTube video clip entitled "Andromeda" <https://www.youtube.com/watch?v=yRRYpFLbKNU>
	13	YouTube video clip entitled "Change Your Country IP Address & Location with Easy Hide IP Software" <https://www.youtube.com/watch?v=ulwkf1sOfdA and https://www.youtube.com/watch?v=iFEMT-o9DTc>

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CERTIFICATION STATEMENT

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See attached certification statement.

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

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73,612

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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.

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(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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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	5826014		1998-10-20	CHRISTOPHER D. COLEY	
	2	5974566		1999-10-26	MICHAEL BRADFORD AULT	
	3	6185625		2001-02-06	MICHAEL MAN-HAK TSO	
	4	7706362	B1	2010-04-27	JANAKIRAMAN SENTHILNATHAN	
	5	6311216	B1	2001-10-30	BRIAN J. SMITH	
	6	6421733	B1	2002-07-16	MICHAEL M. TSO	
	7	6389422	B1	2002-05-14	KATSUO DOI	
	8	6842463	B1	2005-01-11	Tadeusz J. Drwiega	

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	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	9	6513061	B1	2003-01-28	TOMOICHI EBATA	
	10	9313100	B1	2016-04-12	Jonathan A. Jenkins	
	11	10594660	B2	2020-03-17	David SMITH	
	12	9979674	B1	2018-05-22	Raju Kumar	
	13	7984110	B1	2011-07-19	Sundar Raman	
	14	7805517	B2	2010-09-28	Choon B. Shim	
	15	10404791	B2	2019-09-03	Ranjit Puri	
	16	10361911	B2	2019-07-23	Eric Jason Brandwine	
	17	9154557	B2	2015-10-06	Etai Lev-Ran	
	18	7719971	B1	2010-05-18	Alfredo C. Issa	

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	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	20090300208	A1	2009-12-03	Peter Lepeska	
	2	20100161756	A1	2010-06-24	John Lewis	
	3	20140258465	A1	2014-09-11	Ke Li	
	4	20070283026	A1	2007-12-06	Thorsten Lohmar	
	5	20020026517	A1	2002-02-28	Richard A. Watson	
	6	20150039674	A1	2015-02-05	Mugdha Agarwal	
	7	20040133692	A1	2004-07-08	Marc Blanchet	
	8	20140337308	A1	2014-11-13	Gianmarco De Francisci Morales	
	9	20060184647	A1	2006-08-17	Vineet Ramesh Dixit	
	10	20060015545	A1	2006-01-19	Josef Ezra	

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	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	11	20150032803	A1	2015-01-29	John Graham-Cumming	
	12	20150026239	A1	2015-01-22	Jason Hofmann	
	13	20150372972	A1	2015-12-24	Brian Kennedy	
	14	20110173345	A1	2011-07-14	Christopher R. Knox	
	15	20080225710	A1	2008-09-18	Murali Raja	
	16	20030018834	A1	2003-01-23	Bernd Eilers	
	17	20040230593	A1	2004-11-18	Harry R. Rudin	
	18	20040236962	A1	2004-11-25	Ping Wah Wong	
	19	20080235623	A1	2008-09-25	Richard Ding Li	
	20	20090217351	A1	2009-08-27	Lloyd Leon Burch	
	21	20100042724	A1	2010-02-18	Jae Sic JEON	

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	Attorney Docket Number	HOLA-005-US16

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	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

CERTIFICATION STATEMENT

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-11-15
Name/Print	Yehuda Binder	Registration Number	73612

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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.

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Electronic Acknowledgement Receipt

EFS ID:	41125723
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	15-NOV-2020
Filing Date:	13-OCT-2019
Time Stamp:	15:26:04
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	Information Disclosure Statement (IDS) Form (SB08)	IPR-511-and-other-005-US16.pdf	1035922 d15bbbef208bd2af19a9b46254a50b7d0fbc2dd6	no	7

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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.

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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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Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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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	9100320		2015-08-04	Joe Pei-Wen Hsy	
	2	8464350		2013-06-11	Dimitri Kanevsky	
	3	8935798		2015-01-13	Michael David SMITH	
	4	9418243		2016-08-16	BERNHARD BAUER	

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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	20160170814	A1	2016-06-16	Peter C. LI , McLean	
	2	20180077624	A1	2018-03-15	Sunghoon JUNG	

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	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	3	20180225387	A1	2018-08-09	Kai PANG	
	4	20180227210	A1	2018-08-09	David Cosgrove	
	5	20050108551	A1	2005-05-19	Christopher Newell Toomey	
	6	20160035019	A1	2016-02-04	Cheryl Rosner	
	7	20020103823	A1	2002-08-01	Jared J. Jackson	
	8	20120185947	A1	2012-07-19	CHRISTOPHER PHILLIPS	
	9	20120198524	A1	2012-08-02	Berk C. Celebisoy	
	10	20120297041	A1	2012-11-22	Georgy Momchilov	
	11	20130167045	A1	2013-06-27	Jimson Xu	
	12	20130268357	A1	2013-10-10	Stephan HEATH	
	13	20190138560	A1	2019-05-09	Lee Hahn Holloway	

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	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	14	20180375952	A1	2018-12-27	Dane Orion KNECHT	
	15	20180042067	A1	2018-02-08	Abhay Nirantar	
	16	20180262388	A1	2018-09-13	Michael W. Johnson	
	17	20190155665	A1	2019-05-23	Ross Bott	
	18	20130083800	A1	2013-04-04	Damian C. Lezama Bounine	
	19	20080263180	A1	2008-10-23	Mark B. Hurst	
	20	20190098518	A1	2019-03-28	Michael Luna	
	21	20060075114	A1	2006-04-06	Anatoliy Panasyuk	
	22	20150244839	A1	2015-08-27	Uwe Horn	
	23	20160366233	A1	2016-12-15	Bich Cau Le	
	24	20170250861	A1	2017-08-31	Claudiu Dan Gheorghe	

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	25	20150350362	A1	2015-12-03	Daniel B. Pollack	
	26	20130067086	A1	2013-03-14	Yuval Corey Hershko	
	27	20130047020	A1	2013-02-21	Yuval Corey Hershko	
	28	20120096116	A1	2012-04-19	Alan Mislove	
	29	20040068579	A1	2004-04-08	Gerard Marmigere	

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	1	Octoparse Blog: "Top 20 Web Crawling Tools to Scrape the Websites Quickly", 8/23/2019 (15 pages)	

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See attached certification statement.

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☒ A certification statement is not submitted herewith.

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-10-18
Name/Print	Yehuda BINDER	Registration Number	73612

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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)).

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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 Acknowledgement Receipt

EFS ID:	40872950
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	18-OCT-2020
Filing Date:	13-OCT-2019
Time Stamp:	08:54:01
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	Information Disclosure Statement (IDS) Form (SB08)	IDS-Metacluster-and-other-005-US16.pdf	1035789 b15ca1d1335c9b86deb13c53051426fd0dc27a34	no	7

Warnings:

Information:					
2	Non Patent Literature	META-Crawling-Tools-to-Scrape-the-Websites-Quickly.pdf	898009 6e51ec9c35983903b277008ca11f44210498a392	no	15
Warnings:					
Information:					
			Total Files Size (in bytes):	1933798	

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 (02-18)
Approved for use through 11/30/2020. 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	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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	6785705		2004-08-31	Sitarama S. Kocherlakota	
	2	6389462		2002-05-14	ARIEL COHEN	
	3	10637956		2020-04-28	Martynas Juravicius	
	4	10484510		2019-11-19	Derry Shribman	

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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	20080196098	A1	2008-08-14	Lance M. Cottrell	
	2	20160170814	A1	2016-06-16	Peter C. LI	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	3	20180077624	A1	2018-03-15	Sunghoon JUNG	
	4	20180225387	A1	2018-08-09	Kai PANG	
	5	20180227210	A1	2018-08-09	David Cosgrove	
	6	20130080498	A1	2013-03-28	Mahi DESILVA	
	7	20130072233	A1	2013-03-21	Thomas E. Sandholm	
	8	20130212462	A1	2013-08-15	Gregory Joseph Athas	
	9	20120290717	A1	2012-11-15	Michael Luna	

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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	H11-355302	JP		1999-12-24	NEC CORPORATION		X

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NON-PATENT LITERATURE DOCUMENTS Remove

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	RFC 3022, Traditional IP Network Address Translator (Traditional NAT), January 2001 (16 pages)	
	2	RFC 2068, Hypertext Transfer Protocol – HTTP/1.1, January 1997 (162 pages)	
	3	RFC 1919, Classical versus Transparent IP Proxies, March 1996 (35 pages)	
	4	HAProxy Reference Manual, Version 1.2.18, Willy Tarreau, 2008/05/25 (40 pages)	
	5	HAProxy Architecture Guide, Version 1.2.18, Willy Tarreau, 2008/05/25 (23 pages)	
	6	RFC 2663 entitled: "IP Network Address Translator (NAT) Terminology and Considerations", August 1999 (30 pages)	

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

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	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-09-29
Name/Print	Yehuda BINDER	Registration Number	73612

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.**

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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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 Acknowledgement Receipt

EFS ID:	40753518
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	04-OCT-2020
Filing Date:	13-OCT-2019
Time Stamp:	07:10:00
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	Information Disclosure Statement (IDS) Form (SB08)	IDS-EXTRNAL-COD200-and-other-005-US16.pdf	1035407 c21a9529be7452e6a5f0ae0baeeba57f01cb1ac0	no	5

Warnings:

Information:					
2	Non Patent Literature	TESOPA0004484_HAProxy-Architecture-Guide.pdf	3710230 419a6d0c2c83eb10acc2de0446d0737f02db8c5e	no	23
Warnings:					
Information:					
3	Non Patent Literature	TESOPA0004507_HAProxy-Reference-Manual.pdf	7247525 495ac7ce51fdd47dbd513a5568212 4e4370a2364	no	40
Warnings:					
Information:					
4	Non Patent Literature	TESOPA0004837_RFC1919.pdf	4917016 e5729189c8a0ffb3d9694c2a250afcb68a1a9158	no	35
Warnings:					
Information:					
5	Non Patent Literature	TESOPA0004872_RFC2068.pdf	24073555 3c8bda08202149203f3606f7895947f41b8e863c	no	162
Warnings:					
Information:					
6	Non Patent Literature	TESOPA0005212_RFC2663.pdf	4593002 b551035be00a3e23578069b111cf1857e69cbd20	no	30
Warnings:					
Information:					
7	Non Patent Literature	TESOPA0005259_RFC3022.pdf	2402498 df4740b038fad85ae299d3f10f728622ba143a24	no	16
Warnings:					
Information:					
8	Foreign Reference	TESOPA0005406_JP11-355302.pdf	2167625 65106e3b374a37bf3a7fd4bbedd92fa23f9b2bb2	no	12
Warnings:					
Information:					
		Total Files Size (in bytes):	50146858		

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 (02-18)
Approved for use through 11/30/2020. 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	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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	10277711		2019-04-30	Derry Shribman	
	2	8577724		2013-11-05	Devkumar R. Gandhi	
	3	7877511		2011-01-25	Michael A. Berger	
	4	7894431		2011-02-22	Bryan R. Goring	
	5	8533628		2013-09-10	Gary B. Rohrabaugh	

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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	20040044731	A1	2004-03-04	Kailai Chen	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	2	20090193498		2009-07-30	Puneet Agarwal	
	3	20080052156		2008-02-28	Walter Brenner	
	4	20080235746		2008-09-25	Michael James Peters	
	5	20080098101		2008-04-24	Tyler James Black	
	6	20190037047		2019-01-31	Derry Shribman	
	7	20150295988		2015-10-15	Joshua C. Goodwin	

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]
	1	2016181383	WO		2016-11-17	HOLA NETWORKS LTD.		
	2	1672826	EP		2006-06-21	MICROSOFT CORPORATION		

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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		

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

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	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-08-26
Name/Print	Yehuda BINDER	Registration Number	73612

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.**

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.

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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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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 Acknowledgement Receipt

EFS ID:	40404229
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	27-AUG-2020
Filing Date:	13-OCT-2019
Time Stamp:	16:58:29
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	Foreign Reference	009-WO2016181383.pdf	18934493 80bb3d8adfd954b18778028046efbcae931399ea	no	346

Warnings:

Information:					
2	Foreign Reference	009-EP1672826.pdf	936494 d24da7959375864cb6793d46f3ac104be43635d1	no	30
Warnings:					
Information:					
3	Information Disclosure Statement (IDS) Form (SB08)	US14-US27-009-PCT-005-US16.pdf	1035044 1c88ef23528b2593ff0c459b3ed79d6c517c4c75	no	5
Warnings:					
Information:					
		Total Files Size (in bytes):	20906031		

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New Applications Under 35 U.S.C. 111

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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 (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2455
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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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	6961783	B1	2005-11-01	Jeffrey Cook	

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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	20140244778	A1	2014-08-28	BARTOW WYATT	
	2	20050096753	A1	2005-05-05	Paul D. Arling	
	3	20110007665	A1	2011-01-13	Jehuda Julian Dinur	
	4	20050050097	A1	2005-03-03	Leslie Yeh	
	5	20110154477	A1	2011-06-23	Vincent E. Parla	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	6	20070011674	A1	2007-01-11	Soo-Yeun Joo	
	7	20120023212	A1	2012-01-26	Erik Roth	

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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	102314348	CN		2012-01-11	WEIBING LIU		

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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]
	1	Kozierok, The TCP/IP Guide - TCP Connection Preparation, 04-06-2005 (3 pages)	
	2	Jovovic, Turning your HD TV into an Android SmartTV is easier than you think!, 02/26/2013 (3 pages)	
	3	Allen, A Software Developer's Guide to HTTP Part III - Connections, 01/26/2012 (10 pages)	
	4	Google Scholar: MorphMix citation in Alessandro Acquisti, et al., Digital Privacy: Theory, Technologies, and Practices (2007) (2 pages)	

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	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	5	RFC 959, FILE TRANSFER PROTOCOL (FTP), October 1985 (69 pages)	
	6	RFC 821, Jonathan B. Postel, SIMPLE MAIL TRANSFER PROTOCOL, August 1982 (70 pages)	
	7	RFC 918, POST OFFICE PROTOCOL, October 1984 (5 pages)	
	8	RFC 937, POST OFFICE PROTOCOL - VERSION 2, February 1985 (24 pages)	
	9	Roger Dingledine et al., "The Free Haven Project: Distributed Anonymous Storage Service", December 17, 2000 (23 pages)	
	10	Michael Freedman et al., "Tarzan: A Peer-to-Peer Anonymizing Network Layer", November 18–22, 2002 (14 pages)	
	11	RFC 791, DARPA INTERNET PROGRAM PROTOCOL SPECIFICATION, September 1981 (49 pages)	
	12	RFC 1034, "DOMAIN NAMES - CONCEPTS AND FACILITIES", November 1987 (55 pages)	
	13	RFC 1035, "DOMAIN NAMES - IMPLEMENTATION AND SPECIFICATION", November 1987 (54 pages)	
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	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	

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	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-08-04
Name/Print	Yehuda BINDER	Registration Number	73612

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Electronic Acknowledgement Receipt

EFS ID:	40188455
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	04-AUG-2020
Filing Date:	13-OCT-2019
Time Stamp:	13:33:02
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	Information Disclosure Statement (IDS) Form (SB08)	319-510-003-US13-005-US16.pdf	1035665 87b3f4f1cc85d84b8650557cc5d507eb5859ae98	no	6

Warnings:

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2	Non Patent Literature	1021-rfc791.pdf	723630 1ca59d0f8d5f1690960d351bc001ac8d341bb1d8	no	49
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Information:					
3	Non Patent Literature	1024-rfc959.pdf	805551 dc8a71d4d9a1cc81d5af75cda36c70c56cbe4e4a	no	69
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4	Non Patent Literature	1025-rfc821.pdf	781237 44de37dcf7d8a13779d98bee3847cdf101d156f5	no	70
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5	Non Patent Literature	1026-rfc918.pdf	595422 564cdd05be2c16c8c6da733a84713841d4749d7b	no	5
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6	Non Patent Literature	1027-rfc937.pdf	649701 f466f93c1f8a7c88fceb625efcbe749682cdac10	no	24
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7	Non Patent Literature	1028-rfc1939.pdf	664733 e0f126a64674174c1337d3fe31c9c749f7f9e9f9	no	23
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8	Non Patent Literature	1029-rfc1034.pdf	774692 3f9530a4b607e86312946 2dea727044c7b8f9a39	no	55
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9	Non Patent Literature	1032-Freedman-freehaven.pdf	909243 3ba622aa3925a6daf080fb1ab4ad6b23f5a98c28	no	23
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10	Non Patent Literature	1033-Freedman-tarzan.pdf	794423 a7c3e8c137db73b9b3fe9bf4314a60ee7668179d	no	14
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Information:					
11	Non Patent Literature	1035-GoogleScholar-MorphMix.pdf	114605 b2d3469577ba934ba6af8fab361f212f33b2cf8d	no	2
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12	Foreign Reference	CN102314348.pdf	441100 92f3fc20793d0b4140f38c73eaa882ac0466ba48	no	5
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Information:					
13	Non Patent Literature	NPL-Software-developers-guide-partIII.pdf	1232812 7f934edb612a05138778b9a983aaa57854f30c66	no	10
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14	Non Patent Literature	NPL-TCP-IP-GUIDE.pdf	173058 4e6e9f0169544bf8b02e2c2acfc719f1d7c7caa5	no	3
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15	Non Patent Literature	NPL-Turning-your-HD-TV.pdf	311227 602bd0e378ad4252bd0fac8047fd98964cf815f3	no	3
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16	Non Patent Literature	RFC1035.pdf	2270908 e12c9a597de4d0ad6ce568eac53ab574d8c24e86	no	56

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2455
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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	6795848		2001-09-21	Border et al.	
	2	8972602		2015-03-03	Mithyantha	
	3	7860988		2010-12-29	Aoki	
	4	7009927		2006-08-29	Cudd	
	5	9122554		2015-09-01	Callaghan	

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	1	20160352628	A1	2016-12-01	Reddy K Tirumaleswar et al	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	2	20110022582	A1	2010-01-27	Umesh Unnikrishnan	
	3	20040117455	A1	2004-06-17	David L. Kaminsky	
	4	20080134258	A1	2008-06-05	Goose et al.	
	5	20050108244	A1	2005-05-19	Soren Riise	
	6	20070180111	A1	2007-08-02	Mazen CHMAYTELLI	

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	1							

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	1	Michael K. Reiter and Aviel D. Rubin, "Crowds: Anonymity for Web Transactions", ACM Transactions on Information and System Security, November 1998 (27 pages)	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	2	Rennhard, Marc, "MorphMix - A Peer-to-Peer based System for Anonymous Internet Access", 2004 (307 pages)	
	3	Ari Luotonen, "Web Proxy Servers," ISBN-10: 0136806120, ISBN-13: 978-0136806127, Prentice Hall; 1st Ed. 1998 (452 pages)	
	4	RFC 760, DOD STANDARD INTERNET PROTOCOL, January 1980 (46 pages)	
	5	RFC 2547, BGP/MPLS VPNs, March 1999 (25 pages)	
	6	RFC 1180, A TCP/IP Tutorial, January 1991 (28 pages)	
	7	RFC 1122, Requirements for Internet Hosts -- Communication Layers, October 1989 (116 pages)	
	8	Andrei Popescu, Google, Inc, Geolocation API Specification, W3C Working Draft 22 December 2008 (8 pages)	
	9	Andrei Popescu, Google, Inc, Geolocation API Specification, W3C Recommendation 24 October 2013 (10 pages)	
	10	Yong Wang, et. al., Towards Street-Level Client-Independent IP Geolocation, 2011 (14 pages)	
	11	William R. Stanek, Introducing Microsoft Windows Vista 81, 2006 (9 pages)	
	12	IETF RFC 2460 "Internet Protocol, Version 6 (IPv6)", December 1998 (39 pages)	

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	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	13	IETF RFC 793 "PROTOCOL SPECIFICATION", September 1981 (90 pages)
	14	IETF RFC 1349 "Type of Service in the Internet Protocol Suite", July 1992 (28 pages)
	15	IEEE Std 802-2001, IEEE Standard for Local and Metropolitan Area Networks: Overview and Architecture, 7 February 2002 (47 pages)
	16	Scott Lowe, Use Resource Monitor to monitor network performance - TechRepublic, July 29, 2011 (11 pages)
	17	Greg Shultz, Windows Vista's Task Manager: The harder-to-detect changes - TechRepublic, February 21, 2007 (16 pages)
	18	Gavin Gear, Windows 8 Task Manager In-Depth, June 6, 2013 (32 pages)
	19	IETF RFC 2914, "Congestion Control Principles", Sep. 2000 (17 pages)
	20	IETF RFC 4026, "Provider Provisioned Virtual Private Network (VPN) Terminology", Mar. 2005 (20 pages)

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Examiner Signature		Date Considered	

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[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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	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

CERTIFICATION STATEMENT

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

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-07-07
Name/Print	Yehuda BINDER	Registration Number	73612

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 Acknowledgement Receipt

EFS ID:	39975161
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	12-JUL-2020
Filing Date:	13-OCT-2019
Time Stamp:	15:05:53
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	Information Disclosure Statement (IDS) Form (SB08)	HOLA-007-EP-refs-and-further-OXYLAB-REFs-005-US16.pdf	1036092 a2c69928b512e109bb406631cbef176782625db6	no	6

Warnings:

Information:					
2	Non Patent Literature	CROWDS.pdf	3051731 5b9755e867a09de0c51ec6a8ae7ce1c43eb40b9a	no	27
Warnings:					
Information:					
3	Non Patent Literature	Luotonen.pdf	19064365 37871c59db14d318043fb024f4d67dd0b0e53954	no	452
Warnings:					
Information:					
4	Non Patent Literature	MorphMix.pdf	14743816 5858b56f738ae899ecd4609e6de31979b6352de3	no	307
Warnings:					
Information:					
5	Non Patent Literature	RFC760.pdf	704496 be5d59fc8c5d402684e7f1e020991565b8bccad9	no	46
Warnings:					
Information:					
6	Non Patent Literature	rfc793-005-007.pdf	155915 9b1b60419413399b5d296f71c60ef7eeafc299ec	no	90
Warnings:					
Information:					
7	Non Patent Literature	RFC1122.pdf	1019305 534278c97de63dcab32cdac5ca1cbd1f5a6164f5	no	116
Warnings:					
Information:					
8	Non Patent Literature	RFC1180.pdf	676617 17536ef0db5a4f6a5de6e7910001ce4eb85e5695	no	28
Warnings:					
Information:					

9	Non Patent Literature	RFC1349-005-007.pdf	1369998 9a952822244ee0269428458f78f35e46e9bfd7d8	no	29
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10	Non Patent Literature	rfc2460-005-007.pdf	79487 ae3a2973d99765ef1306af820646ac75a7f340f3	no	39
Warnings:					
Information:					
11	Non Patent Literature	RFC2547.pdf	681247 c2b947fbff0594c6e02a83f36384589156dcc173	no	25
Warnings:					
Information:					
12	Non Patent Literature	RFC2914-005-007-001.pdf	781523 113ca9cca08dadf9b5194dca3926570297dfc248	no	17
Warnings:					
Information:					
13	Non Patent Literature	RFC4026-005-007-001.pdf	696282 a2ad37bb0e188622660cf767eda6a4373055c5a1	no	20
Warnings:					
Information:					
14	Non Patent Literature	Std802-2001.pdf	707556 3708eb9488dd9f379f96ff4b84aed3cc0fedb234	no	47
Warnings:					
Information:					
15	Non Patent Literature	Task-manager.pdf	1034609 82c27395507d9d31895443d043cf1a1fe11d949d	no	32
Warnings:					
Information:					

16	Non Patent Literature	use-resourse.pdf	2713985 4af05da84a4f65300164ac4b154e1628054780cb	no	11
Warnings:					
Information:					
17	Non Patent Literature	W3C2008.pdf	191212 559c216da64dfa1b464d1525075817308de23097	no	8
Warnings:					
Information:					
18	Non Patent Literature	W3C2013.pdf	218547 45059aeedc1591e66142e99bf5600d4ebc50794b	no	10
Warnings:					
Information:					
19	Non Patent Literature	Wang_Yong.pdf	337057 2eeaa1a11cdd5f1edb7a4e4ee326cf6b695054ef	no	14
Warnings:					
Information:					
20	Non Patent Literature	William-Stanek-vista-81.pdf	2081669 6c6015bff40633c7d77618363f1411bc4ff155c1	no	9
Warnings:					
Information:					
21	Non Patent Literature	window-vista.pdf	3091786 db0abc1bdbee20ab1e6e556873343e00ce53ac7b	no	16
Warnings:					
Information:					
			Total Files Size (in bytes):	54437295	

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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

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PTO/SB/08a (02-18)
Approved for use through 11/30/2020. 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	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	2455
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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	6266704		2001-07-24	MICHAEL G. REED	
	2	9374244		2016-06-21	MICHAEL G. REED	

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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	20030187925	A1	2003-10-02	Suman Kumar Inala	

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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]
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NON-PATENT LITERATURE DOCUMENTS Remove

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	KEI SUZUKI, a study on Cooperative Peer Selection Method in P2P Video Delivery, Vol. 109, No. 37, IEICE Technical Engineers Report, The Institute of Electronics, Information and Communication, May 14, 2009	X

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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	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	2455
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-05-11
Name/Print	Yehuda BINDER	Registration Number	73612

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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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)).

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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 Acknowledgement Receipt

EFS ID:	39412964
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	12-MAY-2020
Filing Date:	13-OCT-2019
Time Stamp:	09:44:55
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	Information Disclosure Statement (IDS) Form (SB08)	IDS-US20-JP-005-US16.pdf	1034517 fd54fd7c7562ff4df1f041434123d80c0428a960	no	4

Warnings:

Information:					
2	Non Patent Literature	Cooperative-Peer-Selection-Method-in-P2P-Video-Delivery.pdf	263002 42a0b1c60d287fd32c92a280d8bdb339645bf8a2	no	6
Warnings:					
Information:					
3	Non Patent Literature	JP-ABSTRACT.pdf	19484 afca80a789b58a3a6aa6f780ef1be38df79ba3b1	no	1
Warnings:					
Information:					
			Total Files Size (in bytes):	1317003	

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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.

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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/600,504	10/13/2019	Derry Shribman	HOLA-005-US16

CONFIRMATION NO. 3225

131926
May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

PUBLICATION NOTICE

OC000000115028869

Title:SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

Publication No.US-2020-0068046-A1
Publication Date:02/27/2020

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently https://portal.uspto.gov/pair/PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Electronic Acknowledgement Receipt

EFS ID:	38436276
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	29-JAN-2020
Filing Date:	13-OCT-2019
Time Stamp:	16:37:03
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	Non Patent Literature	EX1028-VIP72-Scenes-1-100-1.pdf	7171748 e9a1cb5cac25f31eeed6372cf890b537c59cb4b2	no	100

Warnings:

Information:					
2	Non Patent Literature	EX1028-VIP72-Scenes-101-221-1.pdf	10694583 0fa75e76778effd323bc16bc4a44f7b679d4a484	no	121
Warnings:					
Information:					
			Total Files Size (in bytes):	17866331	

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New International Application Filed with the USPTO as a Receiving Office

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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 NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
16/600,504	10/13/2019	2447	1185	HOLA-005-US16	28	1

CONFIRMATION NO. 3225

CORRECTED FILING RECEIPT

131926
May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

OC000000113963143

Date Mailed: 01/14/2020

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Derry Shribman, Tel Aviv, ISRAEL;
Ofer Vilenski, Moshav Hadar Am, ISRAEL;

Applicant(s)

LUMINATI NETWORKS LTD., Netanya, ISRAEL;

Power of Attorney: The patent practitioners associated with Customer Number 131926

Domestic Priority data as claimed by applicant

This application is a CON of 16/278,105 02/17/2019 PAT 10469628
which is a CON of 15/957,950 04/20/2018 PAT 10225374
which is a CON of 14/025,109 09/12/2013 PAT 10069936
which is a DIV of 12/836,059 07/14/2010 PAT 8560604
which claims benefit of 61/249,624 10/08/2009

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 10/30/2019

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/600,504**

Projected Publication Date: 02/27/2020

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

Preliminary Class

709

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

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Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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NOT GRANTED

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/600,504	10/13/2019	Derry Shribman	HOLA-005-US16

CONFIRMATION NO. 3225

POA ACCEPTANCE LETTER

131926
May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

OC000000113963115

Date Mailed: 01/14/2020

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 01/06/2020.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/sleutchit/

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	1	Berners-Lee et al., RFC 1945, Hypertext Transfer Protocol, HTTP/1.0 (May 1996) (60 pages)	
	2	Leech et al., RFC 1928, Socks Protocol, Version 5 (Internet Engineering Task Force, Network Working Group, March 1996) (9 pages)	
	3	Wessels, "Squid: The Definitive Guide," ISBN-10: 9780596001629, ISBN-13: 978-0596001629, O'Reilly Media; 1st Ed. (January 1, 2004) (468 pages)	
	4	Luotonen, "Web Proxy Servers," ISBN-10: 0136806120, ISBN-13: 978-0136806127, Prentice Hall; 1st Ed. (December 30, 1997) (452 pages)	
	5	Loutonen et al., "World-Wide Web proxies," Computer Networks and ISDN Systems 27, 147-154 (Elsevier Science B. V.) (1994) (8 pages)	
	6	Cooper et al., RFC 3040, Internet Web Replication and Caching Taxonomy (January 2001) (32 pages)	
	7	ISO/IEC 23009-1:2012(E), MPEG-DASH standard, Jan. 5, 2012 (133 pages)	
	8	ProxyList.net, as captured by the Wayback Machine (web.archive.org), on July 17, 2011 (1 page)	
	9	Printout of VIP72 Youtube web page at https://www.youtube.com/watch?v=L0Hct2kSnn4, retrieved Nov. 21, 2019 (1 page)	
	10	VIP72 Scene Images extracted from VIP72.com/nvpnnet, MPEG-4 video recording of "nVPN.net | Double your Safety and use Socks5 +nVpn", accessed from https://www.youtube.com/watch?v=L0Hct2kSnn4, published September 11, 2011 (221 pages)	
	11	Certification dated Nov. 8, 2019 of Anjali Shresta of Google, Proof of Date for VIP72 Youtube web page and video (4 pages)	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	12	VIP72.com home page as of 2013 from Wayback Machine (3 pages)	

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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	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2020-01-05
Name/Print	Yehuda BINDER	Registration Number	73612

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

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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 Acknowledgement Receipt

EFS ID:	38232198
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	08-JAN-2020
Filing Date:	13-OCT-2019
Time Stamp:	04:40:59
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	Non Patent Literature	EX1008-RFC1945.pdf	169399 5e16fa53d3007c362345afc352a625dce47ea77b	no	60

Warnings:

Information:					
2	Non Patent Literature	EX1009-RFC1928.pdf	54018 065d79abd4e6c97014d6465f4457837431b1b0e1	no	9
Warnings:					
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3	Non Patent Literature	EX1012-Squid-A-1-150.pdf	14980600 fcbf42f01fb330b783915dfbc41f60b36acd1240	no	150
Warnings:					
Information:					
4	Non Patent Literature	EX1012-Squid-A-151-300.pdf	15672423 274053845edb3c66e22b52268c522989569b8bbb	no	150
Warnings:					
Information:					
5	Non Patent Literature	EX1012-Squid-A-301-468.pdf	15918804 12d3d126b3a4b427c6a2e13ac50705d27e9a22d5	no	168
Warnings:					
Information:					
6	Non Patent Literature	EX1014-Web-Proxy-Servers.pdf	20027463 4a32026e1f40e7e7f727a5e5e632ab92f0aaae9c	no	452
Warnings:					
Information:					
7	Non Patent Literature	EX1015-Loutonen-1-WWW.pdf	1168613 487fb348e93287ee9822f4a17d1838a0d9477f71	no	8
Warnings:					
Information:					
8	Non Patent Literature	EX1020-RFC3040.pdf	102381 ab8cacef157f92c02d0a8e4780f4b5f2365edc7b	no	32
Warnings:					
Information:					

9	Non Patent Literature	EX1027-ISO_IEC-JTC1_SC29.pdf	1579758 56f8ef1d9f1644dfc7ae70f989f39b11d71e8b3c	no	133
Warnings:					
Information:					
10	Non Patent Literature	EX1027-VIP72-Youtube-Scan.pdf	432631 88fdc4a7175cf0739159c1e4ba84008b10124b9e	no	1
Warnings:					
Information:					
11	Non Patent Literature	EX1028-Proxylists-net-Scan.pdf	600586 5c965c73fe35f14aa9505470a8f828a594702b5f	no	1
Warnings:					
Information:					
12	Non Patent Literature	EX1030-GoogleProd.pdf	246379 c962cf694e3e65103623ed40c2921d746e2456a4	no	4
Warnings:					
Information:					
13	Non Patent Literature	EX1031-Wayback-Machine-vip72.pdf	236715 1d5405567d8fe9e2d266b3ab5dd7f3f8e1d75dfc	no	3
Warnings:					
Information:					
14	Information Disclosure Statement (IDS) Form (SB08)	IDS-IPR-005-US16.pdf	1035391 60606d5d98bff0d17a1c647efd7bcd9b311cc998	no	5
Warnings:					
Information:					
A U.S. Patent Number Citation or a U.S. Publication Number Citation is required in the Information Disclosure Statement (IDS) form for autoloading of data into USPTO systems. You may remove the form to add the required data in order to correct the Informational Message if you are citing U.S. References. If you chose not to include U.S. References, the image of the form will be processed and be made available within the Image File Wrapper (IFW) system. However, no data will be extracted from this form. Any additional data such as Foreign Patent Documents or Non Patent Literature will be manually reviewed and keyed into USPTO systems.					
		Total Files Size (in bytes):	72225161		

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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.

Electronic Acknowledgement Receipt

EFS ID:	38215028
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	06-JAN-2020
Filing Date:	13-OCT-2019
Time Stamp:	16:42:09
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	Application Data Sheet	aiaADS-016.pdf	367473 b086b36fbe0064b7a08cb501cb8a8592f79c0d47	no	9

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Information:					
This is not an USPTO supplied ADS fillable form					
2	Assignee showing of ownership per 37 CFR 3.73	sb0096-US16.pdf	117844 e79e328437c1eb200a59efb3d7a12d888ebc9177	no	3
Warnings:					
Information:					
3	Power of Attorney	Signed-POA.pdf	401615 ac455c31f3973a1e73d72aa572405b16e92e9acc	no	1
Warnings:					
Information:					
			Total Files Size (in bytes):	886932	

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<u>New Applications Under 35 U.S.C. 111</u>
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.
<u>National Stage of an International Application under 35 U.S.C. 371</u>
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.
<u>New International Application Filed with the USPTO as a Receiving Office</u>
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/AIA/14 (02-18)
Approved for use through 11/30/2020. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Derry		Shribman	

Residence Information (Select One) ○ US Residency ◉ Non US Residency ○ Active US Military Service

City	Tel Aviv	Country of Residence [i]	IL

Mailing Address of Inventor:

Address 1	9/6 Beylinson St.,		
Address 2			
City	Tel Aviv	**State/Province**	
Postal Code	6356709	**Country** [i]	IL

Inventor 2 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Ofer		Vilenski	

Residence Information (Select One) ○ US Residency ◉ Non US Residency ○ Active US Military Service

City	Moshav Hadar Am	Country of Residence [i]	IL

Mailing Address of Inventor:

Address 1	8 Hahollandim Street		
Address 2			
City	Moshav Hadar Am	**State/Province**	
Postal Code	42935	**Country** [i]	IL

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

PTO/AIA/14 (02-18)
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).			
☐ An Address is being provided for the correspondence Information of this application.			
Customer Number	131926		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION		
Attorney Docket Number	HOLA-005-US16	**Small Entity Status Claimed**	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	15	**Suggested Figure for Publication (if any)**	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	131926		

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
16/600,504	Continuation of	16/278105	2019-02-17

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16/278105	Continuation of	15/957950	2018-04-20	10225374	2019-03-05

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/957950	Continuation of	14/025109	2013-09-12	10069936	2018-09-04

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14/025109	Division of	12/836059	2010-07-14	8560604	2013-10-15

Prior Application Status	Expired		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
12/836059	Claims benefit of provisional	61/249624	2009-10-08

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Remove

Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◉ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
○ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name	~~WEB SPARK LTD.~~ LUMINATI NETWORKS LTD.		
Mailing Address Information For Applicant:			
Address 1	3 Hamahshev St.,		
Address 2			
City	Netanya	**State/Province**	
Country	IL	Postal Code	42507
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Yehuda Binder/			Date (YYYY-MM-DD)	2020-01-06 ~~2019-10-10~~
First Name	Yehuda	Last Name	BINDER	Registration Number	73612

Additional Signature may be generated within this form by selecting the Add button.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	16/600,504
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

This collection of information is required by 37 CFR 1.76. 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 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet 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.**

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 records.

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 CooperationTreaty.

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.

PTO/AIA/96 (08-12)
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STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: WEB SPARK LTD.

Application No./Patent No.: 16/600,504 Filed/Issue Date: 10/13/2019

Titled: SYSTEM AND METHOD FOR PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

LUMINATI NETWORKS LTD., a Corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☑ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 051183, Frame 0592, or for which a copy thereof is attached.

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____

   The document was recorded in the United States Patent and Trademark Office at

   Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____

   The document was recorded in the United States Patent and Trademark Office at

   Reel _____, Frame _____, or for which a copy thereof is attached.

This collection of information is required by 37 CFR 3.73(b). 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 1.11 and 1.14. This collection is estimated to take 12 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, 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.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☐ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Yehuda Binder/	2020-01-06
Signature	Date
Yehuda Binder	US Patent Agent 73,612
Printed or Typed Name	Title or Registration Number

[Page 2 of 2]

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.

PTO/AIA/80 (07-17)
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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

[X] Practitioners associated with Customer Number: 131926

OR

[ ] Practitioner(s) named below (If more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

[X] The address associated with Customer Number:

OR

[ ]

Firm or individual name		
Address		
City	State	Zip
Country		
Telephone	Email	

Assignee name and address: LUMINATI NETWORKS LTD.

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of the practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee.

Signature	Date 05-Jan-2020
Name Or Lenchner	Telephone +972 54 615 7167
Title CEO of LUMINATI NETWORKS LTD.	

This collection of information is required by 37 CFR 1.31, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public, which is to update (and by the USPTO to process) the file of a patent or reexamination proceeding. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 18 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, 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.
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/600,504

APPLICATION AS FILED - PART I

	(Column 1)	(Column 2)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE($)	FEE($)		RATE($)	FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	75		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	330		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	28 minus 20 =	* 8	x 50 =	400	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1 minus 3 =	*	x 230 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	1185		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1)		(Column 2)	(Column 3)					
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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 NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
16/600,504	10/13/2019	2447	1185	HOLA-005-US16	28	1

CONFIRMATION NO. 3225

UPDATED FILING RECEIPT

131926
May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

OC000000112723395

Date Mailed: 11/19/2019

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Derry Shribman, Tel Aviv, ISRAEL;
Ofer Vilenski, Moshav Hadar Am, ISRAEL;

Applicant(s)

WEB SPARK LTD., Netanya, ISRAEL;

Power of Attorney: The patent practitioners associated with Customer Number 131926

Domestic Priority data as claimed by applicant

This application is a CON of 16/278,105 02/17/2019 PAT 10469628
which is a CON of 15/957,950 04/20/2018 PAT 10225374
which is a CON of 14/025,109 09/12/2013 PAT 10069936
which is a DIV of 12/836,059 07/14/2010 PAT 8560604
which claims benefit of 61/249,624 10/08/2009

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 10/30/2019

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/600,504**

Projected Publication Date: 02/27/2020

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

Preliminary Class

709

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop

technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

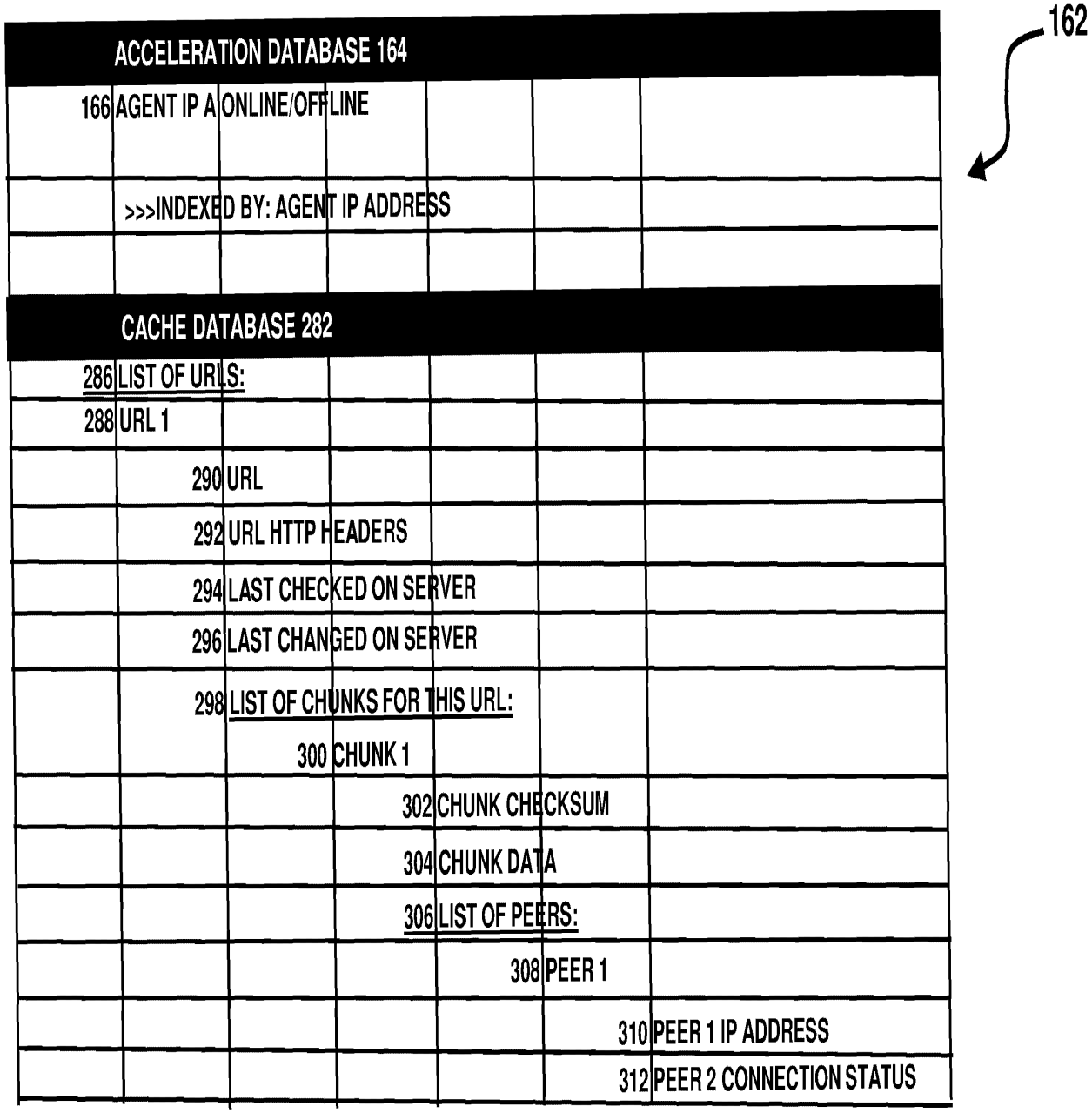

162
ACCELERATION DATABASE 164
166 AGENT IP A ONLINE/OFFLINE
>>>INDEXED BY: AGENT IP ADDRESS
CACHE DATABASE 282
286 LIST OF URLS:
288 URL 1
290 URL
292 URL HTTP HEADERS
294 LAST CHECKED ON SERVER
296 LAST CHANGED ON SERVER
298 LIST OF CHUNKS FOR THIS URL:
300 CHUNK 1
302 CHUNK CHECKSUM
304 CHUNK DATA
306 LIST OF PEERS:
308 PEER 1
310 PEER 1 IP ADDRESS
312 PEER 2 CONNECTION STATUS

FIG. 7

Electronic Acknowledgement Receipt

EFS ID:	37773734
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	18-NOV-2019
Filing Date:	13-OCT-2019
Time Stamp:	04:35:35
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	Applicant Response to Pre-Exam Formalities Notice	Response-to-correction-notice.pdf	16203 3df80cc08a5d314c2da5abb96ca1aecae97e8fd8	no	2

Warnings:

Information:					
2	Drawings-only black and white line drawings	New-Fig-7.pdf	8289 b0a8f116031c5b5cace41fbbea78466ef7471dc9	no	1
Warnings:					
Information:					
			Total Files Size (in bytes):	24492	

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: HOLA-005-US16

In re Application of:	)	Confirmation No. 3225
	)	
Derry SHRIBMAN	)	Art Unit:
	)	
Appln. No.: 16/600,504	)	Examiner:
	)	
Filed: October 13, 2019	)	Washington, D.C.
	)	
For: SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	)	November 15, 2019

Response to Notice to File Corrected Application Papers:

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Randolph Building, Mail Stop Amendments
401 Dulany Street
Alexandria, VA 22314

Sir:

A Notice to File Corrected Application Papers was issued on October 30, 2019, the following amendments were made:

Amendments to the drawings begin on page **2** of this paper.

Amendments to the drawings

Submitted herewith is Figure 7 wherein the line quality has been improved.

No new matter was added.

Respectfully submitted,

By / Yehuda Binder /

Yehuda Binder
Registration No. 73,612

Tel: +972-54-4444577
Fax: +972-9-7442619
e-mail: yehuda@maypatents.com

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 16/600,504

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	75		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	330		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	28 minus 20 =	* 8	x 50 =	400	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1 minus 3 =	*	x 230 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	1185		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/600,504	10/13/2019	Derry Shribman	HOLA-005-US16

CONFIRMATION NO. 3225

131926
May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

FORMALITIES LETTER

OC000000112266424

Date Mailed: 10/30/2019

NOTICE TO FILE CORRECTED APPLICATION PAPERS

Filing Date Granted

An application number and filing date have been accorded to this application. The application is informal since it does not comply with the regulations for the reason(s) indicated below. Applicant is given **TWO MONTHS** from the date of this Notice within which to correct the informalities indicated below. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

The required item(s) identified below must be timely submitted to avoid abandonment:

- Replacement drawings in compliance with 37 CFR 1.84 and 37 CFR 1.121(d) are required. The drawings submitted are not acceptable because:
  - The drawings submitted to the Office are not electronically reproducible because portions of figures 7 are missing and/or blurry.

Applicant is cautioned that correction of the above items may cause the specification and drawings page count to exceed 100 pages. If the specification and drawings exceed 100 pages, applicant will need to submit the required application size fee.

Replies must be received in the USPTO within the set time period or must include a proper Certificate of Mailing or Transmission under 37 CFR 1.8 with a mailing or transmission date within the set time period. For more information and a suggested format, see Form PTO/SB/92 and MPEP 512.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web, including a copy of this Notice and selecting the document description "Applicant response to Pre-Exam Formalities Notice". https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/qtran/

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 NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
16/600,504	10/13/2019	2447	1185	HOLA-005-US16	28	1

CONFIRMATION NO. 3225

FILING RECEIPT

131926
May Patents Ltd. c/o Dorit Shem-Tov
P.O.B 7230
Ramat-Gan, 5217102
ISRAEL

OC000000112286423

Date Mailed: 10/30/2019

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

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Inventor(s)

Derry Shribman, Tel Aviv, ISRAEL;
Ofer Vilenski, Moshav Hadar Am, ISRAEL;

Applicant(s)

WEB SPARK LTD., Netanya, ISRAEL;

Power of Attorney: The patent practitioners associated with Customer Number 131926

Domestic Priority data as claimed by applicant

This application is a CON of 16/278,105 02/17/2019 PAT 10469628
which is a CON of 15/957,950 04/20/2018 PAT 10225374
which is a CON of 14/025,109 09/12/2013 PAT 10069936
which is a DIV of 12/836,059 07/14/2010 PAT 8560604
which claims benefit of 61/249,624 10/08/2009

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 10/30/2019

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/600,504**

Projected Publication Date: To Be Determined - pending completion of Corrected Papers

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

Preliminary Class

709

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16600504
Filing Date	2019-10-13
First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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	5734829	A	1998-03-31	BILLY R. ROBINSON	
	2	7047315	B1	2006-05-16	Sunil K. Srivastava	
	3	6012083	A	2000-01-04	STEPHEN R. SAVITZKY	
	4	10410244	B2	2019-09-10	Assaf Toval	
	5	6665715		2003-12-16	Cyril Houri	

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	20090150930	A1	2009-06-11	Jeffrey Sherwin	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	2	20060280191	A1	2006-12-14	Kai Nishida	
	3	20130263280	A1	2013-10-03	Stephen W. Cote , Bellevue	
	4	20030163413	A1	2003-08-28	Frank T. Wiczkowski	
	5	20080222267	A1	2008-09-11	Ray C. Horn	
	6	20050165903	A1	2005-07-28	Christopher Hoang Doan	
	7	20100036954	A1	2010-02-11	Jay Sakata	
	8	20070088821	A1	2007-04-19	Subhash Sankuratripati	
	9	20080228537	A1	2008-09-18	Andrew Monfried	
	10	20130019258	A1	2013-01-17	Manish Bhatia	
	11	20190180316	A1	2019-06-13	Assaf Toval	
	12	20100235473	A1	2010-09-16	DAVID KOREN	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	13	20140013001	A1	2014-01-09	Matthew R. Cox	
	14	20080037536	A1	2008-02-14	Venkata N. Padmanabhan	
	15	20120264520	A1	2012-10-18	John Marsland	
	16	20120323674	A1	2012-12-10	Willard L. Simmons	
	17	20060271438	A1	2006-11-30	Andrew Shotland	

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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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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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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	16600504
	Filing Date	2019-10-13
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-21
Name/Print	Yehuda BINDER	Registration Number	73612

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.**

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.

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 Acknowledgement Receipt

EFS ID:	37514405
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	21-OCT-2019
Filing Date:	
Time Stamp:	15:53:51
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	Information Disclosure Statement (IDS) Form (SB08)	IDS-BI-science-and-other.pdf	1035325 1bb2be218d031de64fd448abb404d60826d2d6dd	no	6

Warnings:

Information:	
Total Files Size (in bytes):	1035325

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.

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	
Filing Date	
First Named Inventor	Derry Shribman
Title	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16, US17, US18 and US19

SIGNATURE of Applicant or Patent Practitioner

Signature	/Yehuda Binder/	Date (Optional)	2019-10-08
Name	Yehuda Binder	Registration Number	73,612
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 1.11 and 1.14. This collection is estimated to take 3 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, 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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Document Description: Power of Attorney

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POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 131926

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☑ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

WEB SPARK LTD.

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature		Date (Optional)	
Name	Jerry Shribman		
Title	CEO of Web Spark Ltd.		

Web Spark Ltd
515689289

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. 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 1.11 and 1.14. This collection is estimated to take 3 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, 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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POWER OF ATTORNEY BY APPLICANT

No more than ten (10) patent practitioners total may be appointed as set forth below by name and registration number. This page need not be submitted if appointing the Patent Practitioner(s) associated with a Customer Number (see form PTO/AIA/82B):

Name	Registration 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 the Freedom of Information Act requires disclosure of these records.
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.

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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

As the below named inventor, I hereby declare that:

This declaration is directed to:

- [■] The attached application, or
- [ ] United States application or PCT international application number _____

  filed on _____.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Derry Shribman Date (Optional) :_____

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

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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.
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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 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.

PTO/AIA/01 (06-12)
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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

As the below named inventor, I hereby declare that:

This declaration is directed to:

- [■] The attached application, or
- [ ] United States application or PCT international application number _____

  filed on _____.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

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LEGAL NAME OF INVENTOR

Inventor: Ofer Vilensk _____ Date (Optional) :_____

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

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PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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	9177157	B2	2015-11-03	Yehuda Binder	

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	1	20070142036	A1	2007-06-21	Johan Wikman	
	2	20090248793	A1	2009-10-01	Sanny Jacobsson	
	3	20130080575	A1	2013-03-28	Matthew Browning Prince	
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	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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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	1	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/140,749	
	2	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/140,785	
	3	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/214,433	
	4	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/214,451	
	5	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/214,476	
	6	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/214,496	
	7	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/292,363	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	8	Third-party submission under 37 CFR 1.290 filed on July 22, 2019 and entered in U.S. Appl. No. 16/292,364
	9	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/292,374
	10	Third-party submission under 37 CFR 1.290 filed on July 23, 2019 and entered in U.S. Appl. No. 16/292,382
	11	Third-party submission under 37 CFR 1.290 filed on July 25, 2019 and entered in U.S. Appl. No. 16/365,250
	12	Third-party submission under 37 CFR 1.290 filed on July 25, 2019 and entered in U.S. Appl. No. 16/365,315
	13	"Slice Embedding Solutions for Distributed Service Architectures" - Esposito et al., Boston University, 02/12/2011 http://www.cs.bu.edu/techreports/pdf/2011-025-slice-embedding.pdf (Year 2011) (16 pages)

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	Application Number	
	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73612

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Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Filer:	Yehuda Binder/Dorit Binder
Attorney Docket Number:	HOLA-005-US16

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	75	75
UTILITY SEARCH FEE	2111	1	330	330
UTILITY EXAMINATION FEE	2311	1	380	380
Pages:				
Claims:				
CLAIMS IN EXCESS OF 20	2202	8	50	400
Miscellaneous-Filing:				
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**1185**

Electronic Acknowledgement Receipt

EFS ID:	37442335
Application Number:	16600504
International Application Number:	
Confirmation Number:	3225
Title of Invention:	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION
First Named Inventor/Applicant Name:	Derry Shribman
Customer Number:	131926
Filer:	Yehuda Binder/Dorit Binder
Filer Authorized By:	Yehuda Binder
Attorney Docket Number:	HOLA-005-US16
Receipt Date:	13-OCT-2019
Filing Date:	
Time Stamp:	03:47:28
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$1185
RAM confirmation Number	E20190C447552269
Deposit Account	
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1	Transmittal of New Application	Transmittal-letter.pdf	77434 61ad349665de54b1427c56606af5ff82d129f868	no	2
Warnings:					
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2	Power of Attorney	signed_poa-US16-US19.pdf	1646845 b79e7241dafa1c845b83db6a2a5b7b0db51e9098	no	4
Warnings:					
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3	Specification	Spec.pdf	3058513 663b7c99da72e7aa43215cf35aebfa6216a58a47	no	33
Warnings:					
Information:					
4	Claims	HOLA-005-US16-claims.pdf	20331 3182ffa9a7fec2eea41f71b14a6ea72a63d8579c	no	5
Warnings:					
Information:					
5	Abstract	Abstract.pdf	15633 610c5cd6c9bf96043e75a87de2c6fdc1f2d7ec90	no	1
Warnings:					
Information:					
6	Drawings-only black and white line drawings	Drawings.pdf	278281 85c5ed68f1bdf35511ec3c1a52e1c24cf3e7d92a	no	15
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Information:					
7	Application Data Sheet	aiaADS.pdf	1256588 f8f7f80c1f7a284f7ffca46b888595683ce532b1	no	9
Warnings:					
Information:					
8	Oath or Declaration filed	Signed-oath-Derry.pdf	862135 6a2192d0180f49adf2112bf067a659cb3f1f8144	no	2
Warnings:					
Information:					
9	Oath or Declaration filed	Signed-oath-Ofer.pdf	871562 164ffbaa7776b17398cb08bf75bfa2cac4e62d20	no	2
Warnings:					
Information:					
10	Information Disclosure Statement (IDS) Form (SB08)	005-US16-003-004-OL.pdf	1036954 2faaf36dd6d9eaed72d2b390341398631402df08	no	8
Warnings:					
Information:					
11	Information Disclosure Statement (IDS) Form (SB08)	005-US16-IDS-007.pdf	1035293 f824530148d54c270181fb8b0afae177ca9eddae	no	5
Warnings:					
Information:					
12	Information Disclosure Statement (IDS) Form (SB08)	IDS.pdf	1037440 77812f513bb50e51511d84247f5186e1b9fca2aa	no	8
Warnings:					
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13	Information Disclosure Statement (IDS) Form (SB08)	IDS2.pdf	1036356 ab83851c269cf15c28f3e9629bd704e4bea84dfc	no	7
Warnings:					
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Warnings:					
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15	Information Disclosure Statement (IDS) Form (SB08)	IDS4.pdf	1034862 6b529387a6558cefbe9f1d82c1d70cd3eaf94ca1	no	5
Warnings:					
Information:					
16	Information Disclosure Statement (IDS) Form (SB08)	IDS5.pdf	1035457 da13c08ae4c2d8193c6d74a5f1654fb0757b5324	no	6
Warnings:					
Information:					
17	Information Disclosure Statement (IDS) Form (SB08)	IDS6.pdf	1034731 718dc383c19df806debbe4b7d592be8db685dcbc	no	4
Warnings:					
Information:					
18	Information Disclosure Statement (IDS) Form (SB08)	Second-OXYLABS-IDS-005-US16.pdf	1035292 a08f6413d220d20d568d03e4e0d0cdd1ad9fcc6a	no	5
Warnings:					
Information:					
19	Information Disclosure Statement (IDS) Form (SB08)	Third-party-submission-005-US16.pdf	1035153 a07628a74196e39f1ef30c51f50231f26e37801a	no	5
Warnings:					
Information:					
20	Fee Worksheet (SB06)	fee-info.pdf	36679 4e5919dc42ec7a8d6cc245f10ce25981277ba0b0	no	2
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			Total Files Size (in bytes):	18480125	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	
Filing Date	
First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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	1	8639630		2014-01-28	Fomenko et al	

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	Filing Date	
	First Named Inventor	Derry Shribman
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	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	1	Michael J. Freedman, Princeton University, "Experiences with CoralCDN: a five-year operational view", Proceeding NSDI'10 Proceedings of the 7th USENIX conference on Networked systems design and implementation San Jose, California — April 28 - 30, 2010 (17 pages)	
	2	"The BitTorrent Protocol Specification", Website: https://web.archive.org/web/20120513011037/http:/www.bittorrent.org/beps/bep_0003.html describing BitTorrent dated Jan 10, 2008 downloaded using web archive on Aug 16, 2019 (6 pages)	
	3	"BitTorrent", Website: https://en.wikipedia.org/w/index.php?title=BitTorrent&oldid=530466721 describing BitTorrent dated Dec 30, 2012 downloaded using Wikipedia on Aug 16, 2019 (9 pages)	
	4	"VIP SOCKS/VPN SERVICE", Website: http://vip72.com:80/?drgn=1 describing VIP72 proxy service dated Jan 2010 downloaded using VIP Technologies webpage on Aug 16, 2019 (3 pages)	
	5	"Welcome to Easy Hide IP", Website: https://web.archive.org/web/20130702093456/http://www.easy-hide-ip.com:80/ describing Easy Hide IP dated June 26, 2007 downloaded using web archive on Aug 16, 2019 (2 pages)	
	6	"You make it fun; we'll make it run", Website: https://web.archive.org/web/20130726050810/https://www.coralcdn.org describing CoralCDN dated Jan 25, 2005 downloaded using web archive on Aug 16, 2019 (2 pages)	
	7	"Net Transport", Website: http://www.xi-soft.com/default.htm describing Net Transport Overview dated 2005 downloaded using Net Transport webpage on Aug 16, 2019 (2 pages)	
	8	Net Transport - Develop History, Website: http://www.xi-soft.com/download.htm describing Net Transport Download dated 2005 downloaded using Net Transport webpage on Aug 16, 2019 (10 pages)	
	9	Net Transport FAQ, Website: http://www.xi-soft.com/faq.htm describing Net Transport FAQ dated 2005 downloaded using Net Transport webpage on Aug 16, 2019 (4 pages)	
	10	Net Transport News, Website: http://www.xi-soft.com/news.htm describing Net Transport News dated 2005 downloaded using Net Transport webpage on Aug 16, 2019 (5 pages)	

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73612

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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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	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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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	6895011	B1	2005-05-17	Harold Aaron Lassers	
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	1	20090232003	A1	2009-09-17	Jean-Philippe Vasseur	
	2	20140189802	A1	2014-07-03	Gregory MONTGOMERY	
	3	20030229785	A1	2003-12-11	Michael J. Daseke	
	4	20050027782	A1	2005-02-03	Rajkumar Jalan	
	5	20030229718	A1	2003-12-11	Theron Tock	

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	First Named Inventor	Derry Shribman
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	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	6	20090292816	A1	2009-11-26	Craig S. Etchegoyen	
	7	20120166582	A1	2012-06-28	Yehuda BINDER	

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	1	Reed et al, "Anonymous Connections and Onion Routing", Naval Research Laboratory, 03/1998 https://www.onion-router.net/Publications/JSAC-1998.pdf (Year: 1998)	

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	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73,612

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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	3922494	A	1975-11-25	Cooper , et al.	
	2	5758195	A	1998-05-26	Balmer; Keith	
	3	6061278	A	2000-05-09	Kato , et al.	
	4	6466470	B1	2002-10-15	Houn Chang	
	5	7865585		2011-01-04	Allen Samuels, et al.	
	6	7120666		2006-10-10	Steven McCanne, et al.	
	7	7203741		2007-04-10	Talmon Marco, et al.	

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	1	20030009518	A1	2003-01-09	Harrow, Ivan P. ; et al.	
	2	20030074403	A1	2003-04-17	Harrow, Ivan P. ; et al.	
	3	20140082260	A1	2014-03-20	OH; HakJune ; et al.	
	4	20110314347	A1	2011-12-22	NAKANO; Rikizo ; et al.	
	5	20100329270	A1	2010-12-30	Asati; Rajiv ; et al.	
	6	20100085977	A1	2010-04-08	Khalid; Mohamed ; et al.	
	7	20100066808	A1	2010-03-18	Tucker; Curtis E. ; et al.	
	8	20090279559	A1	2009-11-12	Wong; Yuen Fai ; et al.	
	9	20080025506	A1	2008-01-31	Muraoka; Jochiku	
	10	20040264506	A1	2004-12-30	Furukawa, Rei	

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	First Named Inventor	Derry Shribman
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	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	11	20020123895	A1	2002-09-05	Sergey Potekhin	
	12	20150033001	A1	2015-01-29	Ivanov; Vladimir	
	13	20150358648	A1	2015-12-10	Limberg; Allen LeRoy	
	14	20160021430	A1	2016-01-21	LaBosco; Mark ; et al.	
	15	20110087733	A1	2011-04-14	Derry Shribman; et al.	
	16	20030174648	A1	2003-09-18	Mea Wang; et al.	
	17	20080008089	A1	2008-01-10	Claudson F. Bornstein; et al.	
	18	20040088646	A1	2004-05-06	William J. Yeager; et al.	
	19	20030009583	A1	2003-01-09	Chung Chan; et al.	
	20	20080235391	A1	2008-09-25	Christopher Painter; et al.	
	21	20070156855	A1	2007-07-05	Moses Johnson	

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	Attorney Docket Number	HOLA-005-US16

	22	20020007413	A1	2002-01-17	JJ Garcia-Luna-Aceves, et al.	
	23	20030210694	A1	2003-11-13	Suresh Jayaraman, et al.	
	24	20030200307	A1	2003-10-23	Jyoti Raju, et al.	

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	1	International Search Report issued in PCT Application No. PCT/US2010/051881 dated 09 December 2010	
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	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

[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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	Attorney Docket Number	HOLA-005-US16

CERTIFICATION STATEMENT

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OR

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☒ A certification statement is not submitted herewith.

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda BINDER	Registration Number	73612

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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	6868453	B1	2005-03-15	Mitsuhiro Watanabe	
	2	8595786	B2	2013-11-26	In Hwan Choi	
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	1	20030097408	A1	2003-05-22	Masahiro Kageyama	
	2	20070100839	A1	2007-05-03	Deok-ho Kim	
	3	20080256175	A1	2008-10-16	Sang-kwon Lee	
	4	20060212542	A1	2006-09-21	Han Fang	

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	5	20110035503	A1	2011-02-10	SAM ZAID	
	6	20050097441	A1	2005-05-05	Jonathan D. Herbach	

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Name/Print	Yehuda BINDER	Registration Number	73612

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Filing Date	
First Named Inventor	Derry Shribman
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Examiner Name	
Attorney Docket Number	HOLA-005-US16

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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	7742485	B2	2010-06-22	Xinyan Zhang	
	2	7831720	B1	2010-11-09	Wael Noureddine	

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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	20140359081	A1	2014-12-04	Mattijs Oskar Van Deventer	
	2	20090010426	A1	2009-01-08	Scott D. Redmond	
	3	20130007232	A1	2013-01-03	Wei Wang	
	4	20150206197	A1	2015-07-23	Assaf Toval	

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	5	20150206176	A1	2015-07-23	Assaf Toval	
	6	20170221092	A1	2017-08-03	Assaf Toval	
	7	20070174246	A1	2007-07-26	Johann Tomas Sigurdsson	
	8	20100262650	A1	2010-10-14	Abhishek Chauhan	
	9	20060047844	A1	2006-03-02	Li Deng	
	10	20130171964	A1	2013-07-04	Sumeet Singh Bhatia	
	11	20130219458	A1	2013-08-22	Vasudevan Ramanathan	

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	1	7673048		2010-03-02	James W. O'Toole	
	2	7783777		2010-08-24	Kuldipsingh A. Pabla	
	3	8719430		2014-05-06	Michel Van Ackere	
	4	8838811		2014-09-16	Songqing Chen	
	5	7751628	B1	2010-07-06	Richard R. Reisman	
	6	5519693	A	1996-05-21	ROBERT J. GALUSZKA	
	7	6519693	B1	2003-02-11	HENRY C. DEBEY	
	8	7234059	B1	2007-06-19	Cheryl L. Beaver	

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	1	20150206176	A1	2015-07-23	Assaf Toval	
	2	20020091760	A1	2009-09-08	John Rozen	
	3	20060224687	A1	2006-10-05	Laird Alexander Popkin	
	4	20090248793	A1	2009-10-01	Sanny Jacobsson	
	5	20110035503	A1	2011-02-10	SAM ZAID	
	6	20110087733	A1	2011-04-14	Derry Shribman	
	7	20120124239	A1	2012-05-17	Derry Shribman	
	8	20120166582	A1	2016-06-28	Yehuda BINDER	
	9	20130064370	A1	2013-03-14	Christopher S. Gouge	

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	10	20130080575	A1	2013-03-28	Matthew Browning Prince	
	11	20060039352	A1	2006-02-23	Christopher K. Karstens	
	12	20080222291	A1	2008-09-11	Timothy N. Weller	
	13	20100235438	A1	2010-09-16	Kumar Narayanan	
	14	20150067819	A1	2015-03-05	Derry Shribman	
	15	20120254456	A1	2012-10-04	Zubair Visharam	
	16	20150189401	A1	2015-07-02	Donghoon YI	
	17	20150341812	A1	2015-11-26	Gino Louis Dion	
	18	20110264809	A1	2011-10-27	Robert P. Koster	

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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]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	
	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	1	2004094980	WO		2004-11-04	FONTIJN, Wilhelmus, F., J. et al		

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	Examiner Name	
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☒ A certification statement is not submitted herewith.

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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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73,612

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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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Application Number	
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First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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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	7788378		2010-08-31	Ravi T. Rao	
	2	9253164		2016-02-02	Christopher S. Gouge	
	3	7890547	B2	2011-02-15	Timo Hotti	
	4	8832179	B2	2014-09-09	Owen , et al.	
	5	7818430	B2	2010-10-19	Gal Zuckerman	
	6	6154782	A	2000-11-28	NAOHISA KAWAGUCHI	
	7	5577243	A	1996-17-11	Sherwood , et al.	
	8	8135912	B2	2012-13-03	Shribman , et al.	

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	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

	9	8719505	B2	2014-06-05	Shribman , et al.	
	10	9201808	B2	2015-01-12	Shribman , et al.	
	11	9990295	B2	2018-06-05	Shribman , et al.	

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	1	20080109446	A1	2008-05-08	Matrix Xin Wang	
	2	20110066924	A1	2011-03-17	Gregory Dorso	
	3	20110128911	A1	2011-06-02	Kamel M. Shaheen	
	4	20130157699	A1	2013-06-20	Mohit Talwar	
	5	20130326607	A1	2013-12-05	Liang Feng	
	6	20030204602	A1	2003-30-10	Hudson, Michael D. ; et al.	

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	Attorney Docket Number	HOLA-005-US16

	7	20120124173	A1	2012-17-05	De; Pradipta ; et al.	
	8	20020069241	A1	2002-06-06	Narlikar, Girija ; et al.	
	9	20130201316	A1	2013-08-08	BINDER; Yehuda ; et al.	
	10	20120099566	A1	2012-26-04	Laine; Tuomas ; et al.	
	11	20120254370	A1	2012-10-04	Utz BACHER	
	12	20080125123	A1	2008-05-29	Jheroen P. Dorenbosch	
	13	20140301334	A1	2014-10-09	Miguel Labranche	
	14	20070239655	A1	2007-10-11	Masakuni Agetsuma	
	15	20070226810	A1	2007-09-27	Timo Hotti	
	16	20100094970	A1	2010-04-15	Gal Zuckerman	
	17	20130007253	A1	2013-01-03	Guohuai Li	

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	18	20090037529	A1	2009-02-05	Gilad Armon-Kest	
	19	20090182843	A1	2009-07-16	Michael G. Hluchyj	
	20	20060036755	A1	2006-02-16	Ibrahim S. Abdullah	
	21	20140376403	A1	2014-12-25	Wenqi Shao	
	22	20050228964	A1	2005-13-10	Sechrest, Stuart ; et al.	
	23	20080086730	A1	2008-10-04	Vertes; Marc	
	24	20060259728	A1	2006-16-11	Chandrasekaran; Sashikanth ; et al.	
	25	20040254907	A1	2004-16-12	Crow, Preston F. ; et al.	
	26	20050015552	A1	2005-20-01	So, Kimming ; et al.	
	27	20050022236	A1	2005-01-27	Akihiko Ito; et al.	

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	1	2597869	EP	A1	2013-18-12	Sharp Kk		
	2	2010090562	WO	A1	2010-12-08	Telefonaktiebolaget L M Ericsson (Publ)		
	3	2011068784	WO	A1	2011-09-06	Azuki Systems, Inc		

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	1	Screen captures from YouTube video clip entitle "nVpn.net | Double your Safety and use Socks5 + nVpn" 38 pages, last accessed 11/20/2018 <https://www.youtube.com/watch?v=L0Hct2kSnn4>	
	2	Screen captures from YouTube video clip entitle "Andromeda" 47 pages, publicly known and available as of at least 2011 <https://www.youtube.com/watch?v=yRRYpFLbKNU>	
	3	SpyEye, https://www.symantec.com/security-center/writeup/2010-020216-0135-9; http://securesql.info/riskyclouds/spyeye-user-manual; known as of at least 2010 (13 pages)	
	4	Screen captures from YouTube video clip entitle "Change Your Country IP Address & Location with Easy Hide IP Software" 9 pages, publicly known and available as of at least 2011, <https://www.youtube.com/watch?v=ulwkf1sOfdA and https://www.youtube.com/watch?v=iFEMT-o9DTc>	
	5	CoralCDN ("CoralCDN"), https://pdos.csail.mit.edu/6.824/papers/freedman-coral.pdf (14 PAGES)	

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	6	European Search Report for EP 14182547.1, dated July 30, 2015
	7	R. Fielding et al, RFC 2616: Hypertext Transfer Protocol -- HTTP/1.1, June 1999, retrieved from the Internet http://rfc-editor.org [retrieved Apr. 15, 2002]
	8	"On the leakage of personally identifiable information via online social networks", Wills et al. AT&T, Apr. 2009 http://www2.research.att.com/-bala/papers/wosn09.pdf*
	9	"Slice Embedding Solutions for Distributed Service Architectures" - Esposito et al., Boston University, Computer Science Dept., 10/2011 http://www.cs.bu.edu/techreports/pdf/2011-025-slice-embedding.pdf
	10	International Search Report of PCT/US2010/034072 dated July 01, 2010
	11	YouTube video clip entitled "nVpn.net | Double your Safety and use Socks5 + nVpn" <https://www.youtube.com/watch?v=L0Hct2kSnn4>
	12	YouTube video clip entitled "Andromeda" <https://www.youtube.com/watch?v=yRRYpFLbKNU>
	13	YouTube video clip entitled "Change Your Country IP Address & Location with Easy Hide IP Software" <https://www.youtube.com/watch?v=ulwkf1sOfdA and https://www.youtube.com/watch?v=iFEMT-o9DTc>

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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda Binder	Registration Number	73,612

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	1	9015335	B1	2015-04-21	Samuel S. Gigliotti	
	2	7788378	B2	2010-08-31	Ravi T. Rao	
	3	5734829	A	1998-03-31	BILLY R. ROBINSON	

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	1	20130304796	A1	2013-11-14	Steven J. Jackowski	
	2	20120164980	A1	2012-06-28	Vinh Van Phan	
	3	20010054020	A1	2001-12-20	Brian E. Barth	

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	4	20160105530	A1	2016-04-14	Derry Shribman	
	5	20070050522	A1	2007-03-01	Adam J. Grove	
	6	20090216887	A1	2009-08-27	Andreas Hertle	
	7	20130080575	A1	2013-03-28	Matthew Browning Prince	
	8	20090150930	A1	2009-06-11	Jeffrey Sherwin	
	9	20060280191	A1	2006-12-14	Kai Nishida	
	10	20030163413	A1	2003-08-28	Frank T. Wiczkowski	
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	1	2922275	EP	B1	2016-03-23	Axis AB		

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	1	"Keep Alive" - Imperva, 2019 https://www.imperva.com/learn/performance/keep-alive (2019) (3 pages)	
	2	Third party observation filed on June 21, 2019 in PCT Application No. PCT/IL2018/050910 (7 pages)	
	3	IETF named: IPv6 Tunnel Broker, April 1999 - First uploaded document submitted with third party observation dated June 21, 2019 (13 pages)	
	4	RFC 3053 (January 2001) named: IPv6 Tunnel Broker - Secod uploaded document submitted with third party observation dated June 21, 2019 (13 pages)	

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	Application Number	
	Filing Date	
	First Named Inventor	Derry Shribman
	Art Unit	
	Examiner Name	
	Attorney Docket Number	HOLA-005-US16

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	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-13
Name/Print	Yehuda Binder	Registration Number	73612

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.**

Privacy Act Statement

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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.

PTO/SB/08a (03-15)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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First Named Inventor	Derry Shribman
Art Unit	
Examiner Name	
Attorney Docket Number	HOLA-005-US16

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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	8479251	B2	2013-07-02	Feinleib et al	
	2	8499059	B2	2013-07-30	Stoyanov	
	3	7970835	B2	2011-28-01	Xerox Corporation	
	4	8832179	B2	2014-09-09	Owen , et al.	
	5	6173330	B1	2001-09-01	Guo , et al.	
	6	8769035	B2	2014-01-07	Resch , et al.	
	7	8171101	B2	2012-05-01	Gladwin , et al.	
	8	7558942	B2	2009-07-07	Chen , et al.	

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	9	4937781	A	1990-06-26	Lee , et al.	
	10	7970835	B2	2011-06-28	Robert St. Jacques	

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	1	20150067819	A1	2015-03-05	Hola Networks Ltd.	
	2	20120254456	A1	2012-10-04	Visharam Zubair et al.	
	3	20080222291	A1	2008-09-11	Weller et al.	
	4	20100235438	A1	2010-09-16	Narayanan et al.	
	5	20120124239	A1	2012-05-17	Shribman et al.	
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	8	20030204602	A1	2003-10-30	Hudson Michael D.	
	9	20120099566	A1	2012-04-26	Laine; Tuomas ; et al.	
	10	20130201316	A1	2013-08-08	BINDER; Yehuda ; et al.	
	11	20080125123	A1	2008-05-29	Dorenbosch; Jheroen P. ; et al.	
	12	20140301334	A1	2014-10-09	Labranche; Miguel ; et al.	
	13	20070239655	A1	2007-10-11	Agetsuma; Masakuni ; et al.	
	14	20070226810	A1	2007-09-27	Hotti; Timo	
	15	20100094970	A1	2010-04-15	Zuckerman; Gal ; et al.	
	16	20020120874	A1	2002-29-08	Shu, Li ; et al.	
	17	20100115063	A1	2010-06-05	GLADWIN; S. CHRISTOPHER ; et al.	
	18	20100154044	A1	2010-17-06	Manku; Tajinder	

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	19	20100293555	A1	2010-15-11	VEPSALAINEN; Ari M.	
	20	20130272519	A1	2013-17-10	Huang; Lawrence P.	
	21	20030115364	A1	2003-06-19	Shu Li et al.	
	22	20090217122	A1	2009-27-08	Yokokawa; Takashi ; et al.	
	23	20010033583	A1	2001-25-10	Rabenko, Theodore F. ; et al.	
	24	20080109446	A1	2008-05-08	Wang Matrix XIN	
	25	20020133621	A1	2002-09-19	Talmon Marco et al	
	26	20040107242	A1	2004-06-03	John Vert et al	
	27	20070073878	A1	2007-03-29	Alfredo C. Issa	
	28	20090319502	A1	2009-12-24	Olivier Chalouhi et al	
	29	20060212584	A1	2006-09-21	Mingjian Yu et al	

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	1	2015034752	WO	A1	2015-03-12	Akamai Technologies INC		
	2	2000/018078	WO	A1	2000-03-30	Sopuch David. J		
	3	0948176	EP	A2	1999-10-06	Siemens Inf &Comm Networks		
	4	2597869	EP	A1	2015-05-29	Sharp Kabushiki Kaisha Osaka-shi		
	5	2010090562	WO	A1	2010-08-12	Telefonaktiebolaget L M Ericsson		
	6	2007280388	JP		2007-25-10	Xerox Corporation		
	7	1020090097034	KR		2009-15-09	KT Corporation		
	8	2343536	RU	C2	2009-10-01	Microsoft Corporation		
	9	101075242	CN	A	2007-11-21	TENGXUN SCIENCE & TECHNOLOGY		

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	Attorney Docket Number	HOLA-005-US16

	10	101179389	CN	A	2008-05-14	Wang Matrix XIN		

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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]
	1	R. Fielding et al, RFC 2616: Hypertext Transfer Protocol -- HTTP/1.1, June 1999, retrieved from the Internet http://rcf-editor.org [retrieved Apr. 15, 2002] (114 pages)	
	2	"On the Leakage of Personally Identifiable Information via Online Social Networks"-Wills et al, AT&T, Apr. 2009 http://www2.research.att.com/~bala/papers/wosn09.pdf.	
	3	Notice of Preliminary Rejection in KR Application No. 10-2012-7011711 dated July 15, 2016	
	4	KEI SUZUKI, a study on Cooperative Peer Selection Method in P2P Video Delivery, Vol. 109, No. 37, IEICE Technical Report, The Institute of Electronics, Information and Communication Engineers, May 14, 2009	

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*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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Signature	/Yehuda Binder/	Date (YYYY-MM-DD)	2019-10-10
Name/Print	Yehuda BINDER	Registration Number	73612

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Yehuda BINDER, U.S. Patent Agent
B.Sc.E.E.; M.Sc.E.E; M.B.A

October 10, 2019

U.S. Patent and Trademark Office (USPTO)
Customer Service Window
Mail Stop Patent Application
401 Dulany Street
Alexandria, VA 22314

Re: **New Utility Patent Application in U.S.**
Applicant(s): **WEB SPARK LTD.**
Title: ***SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION***
Attorney Docket No.: HOLA-005-US16

Sir/Madam,

Attached herewith is the above-identified application for Letters Patent including:

1. Applicant asserts small entity status. See 37 CFR 1.27.
2. Application Data Sheet (PTO/AIA/14);
3. Specification (33 pages), Claims 1-28 (5 pages) and abstract (1 page).
4. Fifteen (15) sheets of Drawings (Figures 1-15).
5. Declaration

   [X] Newly executed [ ] Copy from prior application no. _____
6. Assignment submitted through EPAS

   [X] Newly executed [ ] Copy from prior application no. _____
7. Power of Attorney
8. Information Disclosure Statement (PTO/SB/08).

   Certain documents were previously filed or cited to the USPTO in the prior application 16/278,105, which is relied upon under 35 U.S.C. § 120. Applicant(s) identify these documents by attaching an Information Disclosure Statement listing these documents and request that they be considered and made of record in accordance with 37 CFR § 1.98(d). Per Section 1.98(d), copies of these documents need not be filed in the application.

e-mail: yehuda@maypatents.com; Mobile: +972-54-4444577

9. Electronic Payment in the amount of US$ 1,185 is being made by deposit account no. 603112 to cover filing fee calculated as follows:

Application as Filed				**Fee (US$)**
Basic Filing Fee				75.00
Search Fee				330.00
Examination Fee				380.00
Total Sheets	**Extra Sheets**		**Rate**	
54/100	--		200.00	--
Claims	**# Filed**	**# Extra**	**Rate**	
Total Claims	1-28	8	50.00	400.00
Independent Claims	3	--	230.00	--
Multiple Dependent Claim			410.00	--
Total Filing Fee				1,185.00

1. As in the prior application 16/278,105, please associate the above referenced application with **Customer No. 131926**.
2. The Correspondence Address associated with **Customer No. 131926.**

Submitted by,
May Patents Ltd.

By: /Yehuda Binder/
Yehuda Binder
Registration No. 73,612

SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION

CROSS-REFERENCE TO RELATED APPLICATIONS

The present application is a continuation application of U.S. non-provisional patent application no. 14/025,109, filed Sep. 12, 2013, which is a divisional application of U.S. non-provisional patent application entitled "SYSTEM AND METHOD FOR PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION" having Ser. No. 12/836,059, filed Jul. 14, 2010 and issued as U.S. Patent No. 8,560,604 on Oct. 15, 2013, and claims priority to U.S. provisional patent application entitled "SYSTEM AND METHOD FOR REDUCING INTERNET CONGESTION," having Ser. No. 61/249,624, filed Oct. 8, 2009, which are hereby incorporated herein by reference in their entirety.

FIELD OF THE INVENTION

The present invention is related to Internet communication, and more particularly, to improving data communication speed and bandwidth efficiency on the Internet.

BACKGROUND OF THE INVENTION

There are several trends in network and Internet usage, which tremendously increase the bandwidth that is being used on the Internet. One such trend is that more and more video is being viewed on demand on the Internet. Such viewing includes the viewing of both large and short video clips. In addition, regular shows and full-featured films may be viewed on the Internet. Another trend that is increasing the traffic on the Internet is that Web sites (such as shopping portals, news portals, and social networks) are becoming global, meaning that the Web sites are serving people in many diverse places on the globe, and thus the data is traversing over longer stretches of the Internet, increasing the congestion.

The increase in bandwidth consumption has created several major problems, a few of which are described below:

The problem for users – the current Internet bandwidth is not sufficient, and thus the effective 'speed' experienced by users is slow;

The problem for content owners – the tremendous amount of data being viewed by users is costing large amounts of money in hosting and bandwidth costs; and

The problem for Internet Service Providers (ISPs) – the growth in Internet traffic is requiring the ISPs to increase the infrastructure costs (communication lines, routers, etc.) at tremendous financial expense.

The need for a new method of data transfer that is fast for the consumer, cheap for the content distributor and does not require infrastructure investment for ISPs, has become a major issue which is yet unsolved.

There have been many attempts at making the Internet faster for the consumer and cheaper for the broadcaster. Each such attempt is lacking in some aspect to become a widespread, practical solution, or is a partial solution in that it solves only a subset of the major problems associated with the increase in Internet traffic. Most of the previous solutions require billions of dollars in capital investment for a comprehensive solution. Many of these attempts are lacking in that much of the content on the Internet has become dynamically created per the user and the session of the user (this is what used to be called the "Web2.0" trend). This may be seen on the Amazon Web site and the Salesforce Web site, for example, where most of the page views on these Web sites is tailored to the viewer, and is thus different for any two viewers. This dynamic information makes it impossible for most of the solutions offered to date to store the content and provide it to others seeking similar content.

One solution that has been in use is called a "proxy". FIG. 1 is a schematic diagram providing an example of use of a proxy within a network 2. A proxy, or proxy server 4, 6, 8 is a device that is placed between one or more clients, illustrated in FIG. 1 as client devices 10, 12, 14, 16, 18, 20, that request data, via the Internet 22, and a Web server or Web servers 30, 32, 34 from which they are requesting the data. The proxy server 4, 6, 8 requests the data from the Web servers 30, 32, 34 on their behalf, and caches the responses from the Web servers 30, 32, 34, to provide to other client devices that make similar requests. If the proxy server 4, 6, 8 is geographically close enough to the client devices 10, 12, 14, 16, 18, 20, and if the storage and bandwidth of the proxy server 4, 6, 8 are large enough, the proxy server 4, 6, 8 will speed up the requests for the client devices 10, 12, 14, 16, 18, 20 that it is serving.

It should be noted, however, that to provide a comprehensive solution for Internet surfing, the proxy servers of FIG. 1 would need to be deployed at every point around the world where the Internet is being consumed, and the storage size of the proxy servers at each location would need to be near the size of all the data stored anywhere on the Internet. The abovementioned would lead to massive costs that are impractical. In addition, these proxy solutions cannot deal well with dynamic data that is prevalent now on the Web.

There have been commercial companies, such as Akamai, that have deployed such proxies locally around the world, and that are serving a select small group of sites on the Internet. If all sites on the Web were to be solved with such a solution, the capital investment would be in the range of billions of dollars. In addition, this type of solution does not handle dynamic content.

To create large distribution systems without the large hardware costs involved with a proxy solution, "peer-to-peer file sharing" solutions have been introduced, such as, for example, BitTorrent. FIG. 2 is a schematic diagram providing an example of a peer-to-peer file transfer network 50. In the network 50, files are stored on computers of consumers, referred to herein as

client devices 60. Each consumer can serve up data to other consumers, via the Internet 62, thus taking the load of serving off of the distributors and saving them the associated costs, and providing the consumer multiple points from which to download the data, referred to herein as peers 70, 72, 74, 76, 78, thus increasing the speed of the download. However, each such peer-to-peer solution must have some sort of index by which to find the required data. In typical peer-to-peer file sharing systems, because the index is on a server 80, or distributed among several servers, the number of files available in the system is not very large (otherwise, the server costs would be very large, or the lookup time would be very long).

The peer-to-peer file sharing solution is acceptable in file sharing systems, because there are not that many media files that are of interest to the mass (probably in the order of magnitude of millions of movies and songs that are of interest). Storing and maintaining an index of millions of entries is practical technically and economically. However, if this system were to be used to serve the hundreds of billions of files that are available on the Internet of today, the cost of storing and maintaining such an index would be again in the billions of dollars. In addition, these types of peer-to-peer file sharing systems are not able to deal with dynamic HTTP data.

In conclusion, a system does not exist that enables fast transmission of most of the data on the Internet, that does not incur tremendous costs, and/or that provides only a very partial solution to the problem of Internet traffic congestion. Thus, a heretofore unaddressed need exists in the industry to address the aforementioned deficiencies and inadequacies.

SUMMARY OF THE INVENTION

The present system and method provides for faster and more efficient data communication within a communication network. Briefly described, in architecture, one embodiment of the system, among others, can be implemented as follows. A network is provided

for accelerating data communication, wherein the network contains: at least one client communication device for originating a data request for obtaining the data from a data server; at least one agent communication device which is assigned to the data server for receiving the data request from the client communication device, wherein the agent keeps track of which client communication devices have received responses to data requests from the assigned data server; at least one peer communication device for storing portions of data received in response to the data request by the at least one client communication device, wherein the portions of data may be transmitted to the at least one client communication device upon request by the client communication device; and at least one acceleration server for deciding which agent communication device is to be assigned to which data server and providing this information to the at least one client communication device.

The present system and method also provides a communication device within a network, wherein the communication device contains: a memory; and a processor configured by the memory to perform the steps of: originating a data request for obtaining data from a data server; being assigned to a data server, referred to as an assigned data server; receiving a data request from a separate device within the network, and keeping track of which client communication devices within the network have received responses to data requests from the assigned data server; and storing portions of data received in response to the originated data request, wherein the portions of data may be transmitted to communication device upon request by the communication device.

Other systems, methods, features, and advantages of the present invention will be or become apparent to one with skill in the art upon examination of the following drawings and detailed description. It is intended that all such additional systems, methods, features, and advantages be included within this description, be within the scope of the present invention, and be protected by the accompanying claims.

BRIEF DESCRIPTION OF THE DRAWINGS

Many aspects of the invention can be better understood with reference to the following drawings. The components in the drawings are not necessarily to scale, emphasis instead being placed upon clearly illustrating the principles of the present invention. Moreover, in the drawings, like reference numerals designate corresponding parts throughout the several views.

FIG. 1 is a schematic diagram providing a prior art example of use of a proxy within a network.

FIG. 2 is a schematic diagram providing a prior art example of a peer-to-peer file transfer network.

FIG. 3 is a schematic diagram providing an example of a communication network in accordance with the present invention.

FIG. 4 is a schematic diagram further illustrating a communication device of the communication network of FIG. 3.

FIG. 5 is a schematic diagram further illustrating the memory of FIG. 4.

FIG. 6 is a schematic diagram further illustrating elements of the acceleration application of FIG. 5, as well as communication paths of the acceleration application.

FIG. 7 is a chart further illustrating two of the main databases utilized within the communication network.

FIG. 8 is a flowchart illustrating operation of the acceleration system initializer module.

FIG. 9 is a flowchart further illustrating communication between different elements of the communication network.

FIG. 10 is a flowchart continuing the flowchart of FIG. 9 and focused on agent response to the HTTP request.

FIG. 11 is a flowchart continuing the flowchart of FIG. 10, which illustrates actions taken upon receipt of the list of peers, or single peer listing, from the agent.

FIG. 12 is a flowchart illustrating steps taken by an agent, client, or peer to determine whether a certain HTTP request is still valid.

FIG. 13 is a flowchart outlining operation of the acceleration server.

FIG. 14 is a flowchart further illustrating TCPIP acceleration in accordance with an alternative embodiment of the invention.

FIG. 15 is a flowchart further illustrating TCPIP acceleration in accordance with an alternative embodiment of the invention, detailing the communication between the client and the TCPIP server (read and write commands) after the connect phase has completed successfully.

DETAILED DESCRIPTION

The present system and method provides for faster and more efficient data communication within a communication network. An example of such a communication network 100 is provided by the schematic diagram of FIG. 3. The network 100 of FIG. 3 contains multiple communication devices. Due to functionality provided by software stored within each communication device, which may be the same in each communication device, each communication device may serve as a client, peer, or agent, depending upon requirements of the network 100, as is described in detail herein. It should be noted that a detailed description of a communication device is provided with regard to the description of FIG. 4.

Returning to FIG. 3, the exemplary embodiment of the network 100 illustrates that one of the communication devices is functioning as a client 102. The client 102 is capable of communication with one or more peers 112, 114, 116 and one or more agents 122. For exemplary purposes, the network contains three peers and one agent, although it is noted that a client can communicate with any number of agents and peers.

The communication network 100 also contains a Web server 152. The Web server 152 is the server from which the client 102 is requesting information and may be, for example, a typical HTTP server, such as those being used to deliver content on any of the many such servers on the Internet. It should be noted that the server 152 is not limited to being an HTTP server. In fact, if a different communication protocol is used within the communication network, the server may be a server capable of handling a different protocol. It should also be noted that while the present description refers to the use of HTTP, the present invention may relate to any other communication protocol and HTTP is not intended to be a limitation to the present invention.

The communication network 100 further contains an acceleration server 162 having an acceleration server storage device 164. As is described in more detail herein, the acceleration server storage device 164 has contained therein an acceleration server database. The acceleration server database stores Internet protocol (IP) addresses of communication devices within the communication network 100 having acceleration software stored therein. Specifically, the acceleration server database contains stored therein a list of communication devices having acceleration software stored therein that are currently online within the communication network 100. For each such agent, the acceleration server assigns a list of IP addresses.

In the communication network 100 of FIG. 3, the application in the client 102 is requesting information from the Web server 152, which is why the software within the communication device designated this communication device to work as a client. In addition, since the agent 122 receives the request from the client 102 as the communication device closest

to the Web server 152, functionality of the agent 122, as provided by the software of the agent 122, designates this communication device to work as an agent. It should be noted, that in accordance with an alternative embodiment of the invention, the agent need not be the communication device that is closest to the Web server. Instead, a different communication device may be selected to be the agent.

Since the peers 112, 114, 116 contain at least portions of the information sought by the client 102 from the Web server 152, functionality of the peers 112, 114, 116, as provided by the software of the peers 112, 114, 116, designates these communication devices to work as peers. It should be noted that the process of designating clients, agents, and peers is described in detail herein. It should also be noted that the number of clients, agents, peers, acceleration servers, Web servers, and other components of the communication network 100 may differ from the number illustrated by FIG. 3. In fact, the number of clients, agents, peers, acceleration servers, Web servers, and other components of the communication network 100 are not intended to be limited by the current description.

Prior to describing functionality performed within a communication network 100, the following further describes a communication device 200, in accordance with a first exemplary embodiment of the invention. FIG. 4 is a schematic diagram further illustrating a communication device 200 of the communication network 100, which contains general components of a computer. As previously mentioned, it should be noted that the communication device 200 of FIG. 4 may serve as a client, agent, or peer.

Generally, in terms of hardware architecture, as shown in FIG. 4, the communication device 200 includes a processor 202, memory 210, at least one storage device 208, and one or more input and/or output (I/O) devices 240 (or peripherals) that are communicatively coupled via a local interface 250. The local interface 250 can be, for example but not limited to, one or more buses or other wired or wireless connections, as is known in the art. The local interface 250

may have additional elements, which are omitted for simplicity, such as controllers, buffers (caches), drivers, repeaters, and receivers, to enable communications. Further, the local interface 250 may include address, control, and/or data connections to enable appropriate communications among the aforementioned components.

The processor 202 is a hardware device for executing software, particularly that stored in the memory 210. The processor 52 can be any custom made or commercially available processor, a central processing unit (CPU), an auxiliary processor among several processors associated with the communication device 200, a semiconductor based microprocessor (in the form of a microchip or chip set), a macroprocessor, or generally any device for executing software instructions.

The memory 210, which is further illustrated and described by the description of FIG. 5, can include any one or combination of volatile memory elements (*e.g.*, random access memory (RAM, such as DRAM, SRAM, SDRAM, *etc.*)) and nonvolatile memory elements (*e.g.*, ROM, hard drive, tape, CDROM, *etc.*). Moreover, the memory 210 may incorporate electronic, magnetic, optical, and/or other types of storage media. Note that the memory 210 can have a distributed architecture, where various components are situated remote from one another, but can be accessed by the processor 202.

The software 212 located within the memory 210 may include one or more separate programs, each of which contains an ordered listing of executable instructions for implementing logical functions of the communication device 200, as described below. In the example of FIG. 4, the software 212 in the memory 210 at least contains an acceleration application 220 and an Internet browser 214. In addition, the memory 210 may contain an operating system (O/S) 230. The operating system 230 essentially controls the execution of computer programs and provides scheduling, input-output control, file and data management, memory management, and communication control and related services. It should be noted that, in addition to the

acceleration application 220, Internet browser 214, and operating system 230, the memory 210 may contain other software applications.

While the present description refers to a request from the client originating from an Internet browser, the present invention is not limited to requests originating from Internet browsers. Instead, a request may originate from an email program or any other program that would be used to request data that is stored on a Web server, or other server holding data that is requested by the client device.

Functionality of the communication device 200 may be provided by a source program, executable program (object code), script, or any other entity containing a set of instructions to be performed. When a source program, then the program needs to be translated via a compiler, assembler, interpreter, or the like, which may or may not be included within the memory 210, so as to operate properly in connection with the operating system 230. Furthermore, functionality of the communication device 200 can be written as (a) an object oriented programming language, which has classes of data and methods, or (b) a procedure programming language, which has routines, subroutines, and/or functions.

The I/O devices 240 may include input devices, for example but not limited to, a keyboard, mouse, scanner, microphone, *etc.* Furthermore, the I/O devices 240 may also include output devices, for example but not limited to, a printer, display, *etc.* Finally, the I/O devices 240 may further include devices that communicate via both inputs and outputs, for instance but not limited to, a modulator/demodulator (modem; for accessing another device, system, or network), a radio frequency (RF) or other transceiver, a telephonic interface, a bridge, a router, *etc.*

When the communication device 200 is in operation, the processor 202 is configured to execute the software 212 stored within the memory 210, to communicate data to and from the memory 210, and to generally control operations of the communication device 200 pursuant to

the software 212. The software 212 and the O/S 230, in whole or in part, but typically the latter, are read by the processor 202, perhaps buffered within the processor 202, and then executed.

When functionality of the communication device 200 is implemented in software, as is shown in FIG. 4, it should be noted that the functionality can be stored on any computer readable medium for use by or in connection with any computer related system or method. In the context of this document, a computer readable medium is an electronic, magnetic, optical, or other physical device or means that can contain or store a computer program for use by or in connection with a computer related system or method. The functionality of the communication device 200 can be embodied in any computer-readable medium for use by or in connection with an instruction execution system, apparatus, or device, such as a computer-based system, processor-containing system, or other system that can fetch the instructions from the instruction execution system, apparatus, or device and execute the instructions. In the context of this document, a "computer-readable medium" can be any means that can store, communicate, propagate, or transport the program for use by or in connection with the instruction execution system, apparatus, or device.

The computer readable medium can be, for example but not limited to, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, device, or propagation medium. More specific examples (a non-exhaustive list) of the computer-readable medium would include the following: an electrical connection (electronic) having one or more wires, a portable computer diskette (magnetic), a random access memory (RAM) (electronic), a read-only memory (ROM) (electronic), an erasable programmable read-only memory (EPROM, EEPROM, or Flash memory) (electronic), an optical fiber (optical), and a portable compact disc read-only memory (CDROM) (optical). Note that the computer-readable medium could even be paper or another suitable medium upon which the program is printed, as the program can be electronically captured, via for instance optical scanning of the paper or other medium, then

compiled, interpreted or otherwise processed in a suitable manner if necessary, and then stored in a computer memory.

In an alternative embodiment, where the functionality of the communication device 200 is implemented in hardware, the functionality can be implemented with any or a combination of the following technologies, which are each well known in the art: a discrete logic circuit(s) having logic gates for implementing logic functions upon data signals, an application specific integrated circuit (ASIC) having appropriate combinational logic gates, a programmable gate array(s) (PGA), a field programmable gate array (FPGA), *etc.*

The at least one storage device 208 of the communication device 200 may be one of many different categories of storage device. As is described in more detail herein, the storage device 208 may include a configuration database 280 and a cache database 282. Alternatively, the configuration database 280 and cache database 282 may be located on different storage devices that are in communication with the communication device 200. The description that follows assumes that the configuration database 280 and cache database 282 are located on the same storage device, however, it should be noted that the present invention is not intended to be limited to this configuration.

The configuration database 280 stores configuration data that is common to all elements of the communication network 100 and is used to provide set up and synchronization information to different modules of the acceleration application 220 stored within the memory 210, as is described in further detail herein. The cache database 282 stores responses to HTTP requests that the communication device 200 has dispatched, either for its own consumption or on behalf of other elements of the communication network 100. As is explained in additional detail herein, the responses to HTTP requests are stored within the cache database 282 for future use by this communication device 200, or for other communication devices within the

communication network 100 that need to retrieve this information and will use this communication device as either a peer or an agent.

In addition to the abovementioned, as is explained in further detail herein, the cache database 282 has stored therein a list of URLs that the communication device is aware of (i.e., has seen requests for). For each URL, the cache database 282 has stored therein the URL itself, HTTP headers returned by the Web Server for this URL, when the last time was that the contents of this URL was loaded directly from the Web Server, when the contents of the URL had last changed on the Web Server, as well as a list of chunks that contain the contents of this URL, and the chunks of data themselves. Chunks in the present description are defined as equally sized pieces of data that together form the whole content of the URL. It should be noted that while the present description provides for chunks being equally sized pieces of data, in accordance with an alternative embodiment of the invention, the chunks may instead be of different size.

FIG. 5 is a schematic diagram further illustrating the memory 210 of FIG. 4. As shown by FIG. 5, the memory 210 may be separated into two basic levels, namely, an operating system level 260 and an application level 270. The operating system level 260 contains the operating system 230, wherein the operating system 230 further contains at least one device driver 262 and at least one communication stack 264. The device drivers 262 are software modules that are responsible for the basic operating commands for various hardware devices of the communication device 200, such as the processor 202, the storage device 208 and the I/O devices 240. In addition, the communication stacks 264 provide applications of the communication device 200 with a means of communicating within the network 100 by implementing various standard communication protocols.

The application level 270 includes any application that is running on the communication device 200. As a result, the application level 270 includes the Internet browser 214, which is used to view information that is located on remote Web servers, the acceleration application 220,

as described in more detail below, and any other applications 216 stored on the communication device 200.

As is explained in additional detail below, the acceleration application 220 intercepts the requests being made by applications of the communication device (client) that use the Internet, in order to modify the requests and route the requests through the communication network. There are various methods that may be used to intercept such requests. One such method is to create an intermediate driver 272, which is also located within the memory 210, that attaches itself to all communication applications, intercepts outgoing requests of the communication applications of the communication device 200, such as the Internet browser 214, and routes the requests to the acceleration application 220. Once the acceleration application 220 modifies the requests, routes the requests to other system elements on the communication network 100, and receives replies from other system elements of the communication network 100, the acceleration application 220 returns the replies to the intermediate driver 272, which provides the replies back to the requesting communication application.

FIG. 6 is a schematic diagram further illustrating elements of the acceleration application 220, as well as communication paths of the acceleration application 220. The acceleration application 220 contains an acceleration system initializer module 222, which is called when the acceleration application 220 is started. The acceleration system initializer module 222 is capable of initializing all elements of the communication device 200 The acceleration application 220 also contains three separate modules that run in parallel, namely, a client module 224, a peer module 226, and an agent module 228, each of which comes into play according to the specific role that the communication device 200 is partaking in the communication network 100 at a given time. The role of each module is further described herein.

The client module 224 provides functionality required when the communication device 200 is requesting information from the Web server 152, such as, for example, but not limited to,

Web pages, data, video, or audio. The client module 224 causes the communication device 200 having the client module 224 therein to intercept the information request and pass the information request on to other elements of the communication network 100, such as, servers, agents or peers. This process is further described in detail herein.

The peer module 226 provides functionality required by the communication device 200 when answering other clients within the communication network 100 and providing the other clients with information that they request, which this communication device 200, having this peer module 226 therein, has already downloaded at a separate time. This process is further described in detail herein.

The agent module 228 provides functionality required when other communication devices of the communication network 100 acting as clients query this communication device 200, having this agent module 228 therein, as an agent, to obtain a list of peers within the communication network 100 that contain requested information. This process is further described in detail herein.

The acceleration application 220 interacts with both the configuration database 280 and the cache database 282 of the storage device 208. As previously mentioned herein, the configuration database 280 stores configuration data that may be common to all communication devices of the communication network 100 and is used to provide setup and synchronization information to different modules 222, 224, 226, 228 of the acceleration application 220 stored within the memory 210.

The cache database 282 stores responses to information requests, such as, for example, HTTP requests, that the communication device 200 has dispatched, either for its own consumption or on behalf of other elements of the communication network 100. The responses to HTTP requests are stored within the cache database 282 for future use by this communication device 200, or for other communication devices within the communication network 100 that

need to retrieve this same information and will use this communication device 200 as either a peer or an agent. This process is described in detail herein.

Information stored within the cache database 282 may include any information associated with a request sent by the client. As an example, such information may include, metadata and actual requested data. For example, for an HTTP request for a video, the metadata may include the version of the Web server answering the request from the client and the data would be the requested video itself. In a situation where there is no more room for storage in the cache database, the software of the associated communication device may cause the communication device to erase previous data stored in order to clear room for the new data to store in the cache database. As an example, such previous data may include data that is most likely not to be used again. Such data may be old data or data that is known to no longer be valid. The communication device may choose to erase the least relevant data, according to any of several methods that are well known in the art.

FIG. 7 is a chart further illustrating two of the main databases utilized within the communication network 100, namely, the acceleration server database 164 and the cache database 282. As previously mentioned, the acceleration server database 164 stores IP addresses of communication devices located within the communication network 100, which have acceleration software stored therein. Specifically, the acceleration server database 164 contains stored therein a list of communication devices having acceleration software stored therein that are currently online within the communication network 100. The acceleration server assigns a list of IP addresses to each communication device functioning as an agent. Each communication device will be the agent for any Web servers whose IP address is in the range 'owned' by that communication device. As an example, when a first ever communication device goes online, namely, the first communication device as described herein having the acceleration application 220 therein, the acceleration server assigns all IP addresses in the world to this communication device, and this communication device will be the agent for any Web server. When a second

communication device goes online it will share the IP address list with the first communication device, so that each of the communication devices will be responsible for a different part of the world wide web servers.

The cache database 282 of the communication device 200 has stored therein a list of URLs 286 of which the communication device 200 is aware. The communication device 200 becomes aware of a URL each time that the communication device 200 receives a request for information located at a specific URL. As shown by FIG. 7, for each URL 288 within the list of URLs 286, the cache database 282 stores: the URL itself 290; HTTP headers 292 returned by the Web Server 152 for this URL; when the last time 294 was that the contents of this URL were loaded directly from the Web Server 152; when the contents of the URL last changed 296 on the Web Server 152; and a list of chunks 298 that contain the contents of this URL, and the content of the chunk. As previously mentioned, chunks, in the present description, are defined as equally sized pieces of data that together form the entire content of the URL, namely, the entire content whose location is described by the URL. As a non-limiting example, a chunk size of, for example, 16KB can be used, so that any HTTP response will be split up into chunks of 16KB. In accordance with an alternative embodiment of the invention, if the last chunk of the response is not large enough to fill the designated chunk size, such as 16KB for the present example, the remaining portion of the chunk will be left empty.

For each such chunk 300, the cache database 282 includes the checksum of the chunk 302, the data of the chunk 304 itself, and a list of peers 306 that most likely have the data for this chunk. As is described in additional detail herein, the data for the chunk may be used by other clients within the communication network 100 when other communication devices of the communication network 100 serve as peers to the clients, from which to download the chunk data.

For each chunk, a checksum is calculated and stored along side of the chunk itself. The checksum may be calculated in any of numerous ways known to those in the art. The purpose of having the checksum is to be able to identify data uniquely, whereas the checksum is the "key" to the data, where the data is the chunk. As an example, a client may want to load the contents of a URL, resulting in the agent that is servicing this request sending the checksums of the chunks to the client, along with the peers that store these chunks. It is to be noted that there could be a different peer for every different chunk. The client then communicates with each such peer, and provides the checksum of the chunk that it would like the peer to transmit back to the client. The peer looks up the checksum (the key) in its cache database, and provides back the chunk (data) that corresponds to this checksum (the key). As shown by FIG. 7, for each peer 308 within the list of peers 306, the cache database 282 includes the peer IP address 310, as well as the connection status 312 of the peer, which represents whether the peer 308 is online or not.

In accordance with one embodiment of the invention, the cache database 282 may be indexed by URL and by Checksum. Having the cache database indexed in this manner is beneficial due to the following reason. When the agent is using the cache database, the agent receives a request from a client for the URL that the client is looking for. In such a case the agent needs the cache database to be indexed by the URL, to assist in finding a list of corresponding peers that have the chunks of this URL. When the peers are using this cache database, the peers obtain a request from the client for a particular checksum, and the peers need the database to be indexed by the checksum so that they can quickly find the correct chunk. Of course, as would be understood by one having ordinary skill in the art, the cache database may instead be indexed in any other manner.

Having described components of the communication network 100, the following further describes how such components interact and individually function. FIG. 8 is a flowchart 300 illustrating operation of the acceleration system initializer module 222 (hereafter referred to as the initializer 222 for purposes of brevity). It should be noted that any process descriptions or

blocks in flowcharts should be understood as representing modules, segments, portions of code, or steps that include one or more instructions for implementing specific logical functions in the process, and alternative implementations are included within the scope of the present invention in which functions may be executed out of order from that shown or discussed, including substantially concurrently or in reverse order, depending on the functionality involved, as would be understood by those reasonably skilled in the art of the present invention.

The initializer 222 is the first element of the communication device 200 to operate as the communication device 200 starts up (block 302). As the initializer 222 starts, it first communicates with the acceleration server 162 to sign up with the acceleration server 162. This is performed by providing the acceleration server 162 with the hostname, and all IP addresses and media access control (MAC) addresses of the interfaces on the communication device 200 having the initializer 222 thereon.

In accordance with an alternative embodiment of the invention, as shown by block 304, the initializer 222 checks with the acceleration server 162 whether a more updated version of the acceleration application software is available. This may be performed by any one of many known methods, such as, but not limited to, by providing the version number of the acceleration application software to the acceleration server 162. The message received back from the acceleration server 162 indicates whether there is a newer version of the acceleration application software or not. If a newer version of the acceleration application software exists, the initializer 222 downloads the latest version of the acceleration application software from the acceleration server 162, or from a different location, and installs the latest version on the communication device 200. In addition to the abovementioned, the initializer 222 may also schedule additional version checks for every set period of time thereafter. As an example, the initializer 222 may check for system updates every two days.

As shown by block 306, the initializer 222 then redirects outgoing network traffic from the communication device 200 to flow through the acceleration application 162. As previously mentioned, one way to redirect the outgoing network traffic is to insert an intermediate driver 212 that intercepts and redirects the traffic. It should be noted that there are many other ways to implement this redirection, which are well known to those having ordinary skill in the art.

As shown by block 308, the initializer 222 then launches the client module 224 of the communication device 200, and configures the client module 224 of the communication device 200 to intercept to all outgoing network communications of the communication device 200 and route the outgoing network communications to the client module 224, from the intermediate driver 272 or other routing method implemented. This is performed so that the client module 224 is able to receive all network traffic coming from the network applications, modify the network traffic if necessary, and re-route the traffic. As is known by those having ordinary skill in the art, in order to re-route the traffic, the traffic needs to be modified, as an example, to change the destination of requests.

As shown by block 310, the initializer 222 then launches the agent module 228 and the peer module 226 to run on the communication device 200. The agent module 228 and peer module 226 listen on pre-determined ports of the communication device 200, so that incoming network traffic on these ports gets routed to the agent module 228 and peer module 226. As is explained in further detail herein, the abovementioned enables the communication device 200 to function as an agent and as a peer for other communication devices within the communication network 100, as needed.

FIG. 9 is a flowchart 350 further illustrating communication between different elements of the communication network 100, in accordance with the present system and method for providing faster and more efficient data communication.

As shown by block 352, an application running on the client 200 initiates a request for a resource on a network. Such a request may be, for example, "GET http://www.aol.com/index.html HTTP/1.1". The request may come from an Internet browser 214 located on the client 200, where the Internet browser 214 is loading a page from the Internet, an application that wants to download information from the Internet, fetch or send email, or any other network communication request.

Through the intermediate driver 272, or other such mechanism as may be implemented that is re-routing the communication to the client module 224 of the client 200, the resource request is intercepted by the client module 224 that is running on the client 200 (block 354). The client module 224 then looks up the IP address of the server 152 that is the target of the resource request (e.g., the IP address of the Web server that is the host of www.aol.com in the example above), and sends this IP address to the acceleration server 162 (block 356) in order to obtain a list of communication devices that the client 200 can use as agents (hereafter referred to as agents). It should be noted that the process of performing an IP lookup for a server is known by one having ordinary skill in the art, and therefore is not described further herein.

In response to receiving the IP address of the server 152, the acceleration server 162 prepares a list of agents that may be suitable to handle the request from this IP address (block 358). The size of the list can differ based on implementation. For exemplary purposes, the following provides an example where a list of five agents is prepared by the acceleration server 162. The list of agents is created by the acceleration server 162 by finding the communication devices of the communication network 100 that are currently online, and whose IP address is numerically close to the IP of the destination Web server 152. A further description of the abovementioned process is described here in.

As shown by block 360, the client module 224 then sends the original request (e.g., "GET http://www.aol.com/index.html HTTP/1.1") to all the agents in the list received from the

acceleration server 162 in order to find out which of the agents in the list is best suited to be the one agent that will assist with this request.

It should be noted that, in accordance with an alternative embodiment of the invention, the communication device 200 may be connected to a device that is actually requesting data. In such an alternative embodiment, the communication device would be a modular device connected to a requesting device, where the requesting device, such as, for example, a personal data assistant (PDA) or other device, would request data, and the communication device connected thereto, either through a physical connection, wireless connection, or any other connection, would receive the data request and function as described herein. In addition, as previously mentioned, it should be noted that the HTTP request may be replaced by any request for resources on the Web.

FIG. 10 is a flowchart continuing the flowchart 380 of FIG. 9 and focused on agent response to the request. As shown by block 382, upon receiving the request from the client 200, each agent that received the request from the client responds to the client 200 with whether it has information regarding the request, which can help the client to download the requested information from peers in the network. Specifically, each agent responds with whether the agent has seen a previous request for this resource that has been fulfilled. In such a case, the agent may then provide the client with the list of peers and checksums of the chunks that each of them have.

As shown by block 384, the client then decides which of the agents in the list to use as its agent for this particular information request. To determine which agent in the list to use as its agent for the particular information request, the client may consider multiple factors, such as, for example, factoring the speed of the reply by each agent and whether that agent does or does not have the information required. There are multiple ways to implement this agent selection, one practical way being to start a timer of a small window of time, such as, for example, 5ms, after receiving the first response from the agents, and after the small window, choosing from the list

of agents that responded, the agent that has the information about the request, or in the case that none of the agents responded, to choose the first agent from the list received from the acceleration server 162.

As shown by block 386, after selecting an agent, the client notifies the selected agent that it is going to use it for this request, and notifies the other agents that they will not be used for this request. The client then sends the selected agent a request for the first five chunks of data of the original information request (block 388). By specifying to the selected agent the requested chunks by their order in the full response, the client receives the peer list and checksums of the requested chunks from the selected agent. As an example, for the first five chunks the client will ask the selected agent for chunks one through five, and for the fourth batch of five chunks the client will ask the agent for chunks sixteen through twenty. As previously mentioned, additional or fewer chunks may be requested at a single time.

As shown by block 390, after receiving the request from the client, the selected agent determines whether it has information regarding the requested chunks of data by looking up the request in its cache database and determining if the selected agent has stored therein information regarding peers of the communication network that have stored the requested data of the request, or whether the selected agent itself has the requested data of the request stored in its memory. In addition to determining if the selected agent contains an entry for this request in its database, the selected agent may also determine if this information is still valid. Specifically, the selected agent determines whether the data that is stored within the memory of the selected agent or the memory of the peers, still mirrors the information that would have been received from the server itself for this request. A further description of the process utilized by the selected agent to determine if the information is still valid, is described in detail herein.

As shown by block 392, if the information (requested data of the request) exists and is still valid, then the agent prepares a response to the client, which includes for each of the chunks:

(i) the checksum of the chunk; (ii) a list of peers that according to the database of the selected agent contains these chunks; and (iii) if these are the first five chunks of the information, then the selected agent also provides the specific protocol's headers that would have been received from the server, had the initial request from the client been made directly to the server.

As shown by block 394, the list of peers for each chunk is sorted by geographical proximity to the requesting client. In accordance with the present example, only the five closest peers are kept in the list for every chunk, and the rest of the peers are discarded from this list. As shown by block 396, the prepared response, namely, the list of closest peers, is sent back to the client. It should be noted that, if this were the last set of chunks to be provided for this request, then it would be beneficial to include information about this to the client.

If the selected agent discovers that it does not have information about this request, or if the selected agent discovers that the information it has is no longer valid, the selected agent needs to load the information directly from the server in order to be able to provide an answer to the requesting client. As shown by block 400, the selected agent then sends the request directly to the server. The selected agent then stores the information it receives from the server (both the headers of the request, as well as chunks of the response itself) in its database, for this particular response to the client, as well as for future use to other clients that may request this data (block 402). The selected agent then prepares a response (list) for the client, where the response includes the protocol headers (if these are the first five chunks), and the checksums of the five chunks, and provides itself as the only peer for these chunks (block 404). This list is then sent back to the client (block 406).

FIG. 11 is a flowchart 420 continuing the flowchart of FIG. 10, which illustrates actions taken upon receipt of the list of peers, or single peer listing, from the agent. As shown by block 422, the client receives the response from the agent (including the list of chunks and their corresponding data, including peers and other information previously mentioned) and, for each

of the five chunks, the client sends a request to each of the peers listed for the chunk to download the chunk. The chunk request that the client sends to each of the peers is the checksum of the data that the client seeks to receive, which is the key (identifier) of the chunk.

As shown by block 424, the peers then respond regarding whether they still have the data of the chunk. As an example, some of the peers may not currently be online, some may be online but may have discarded the relevant information, and some may still have the relevant information, namely, the chunk. As shown by block 426, the client then selects the quickest peer that responds with a positive answer regarding the requested information, the client lets that peer know that it is chosen to provide the client with the chunk, and the client notifies the other peers that they are not chosen.

As shown by block 428, the chosen peer then sends the chunk to the client. It should be noted that if no peers answer the request of the client, the client goes back to the agent noting that the peers were all negative, and the agent either provides a list of 5 other agents, if they exist, or the agent goes on to download the information directly from the Web server as happens in the case where no peers exist as described above.

The client then stores the chunks in its cache for future use (block 430), when the client may need to provide the chunks to a requesting communication device when acting as a peer for another client that is looking for the same information. As shown by block 432, if some of the chunks were not loaded from any of the peers, the client requests the chunks again from the agent in a next round of requests, flagging these chunks as chunks that were not loadable from the client list of peers. In this situation, the agent will load the data directly from the server and provide it back to the client.

The client then acknowledges to the agent which of the chunks it received properly (block 434). The agent then looks up these chunks in the database of the agent, and adds the

client to the list of peers for these chunks, specifically, since this client is now storing these chunks, and can provide these chunks to other clients that turn to it as a peer (block 436).

As shown by block 438, the client then passes the data on to the Web browser or other application of the client that made the original request, for it to use as it had originally intended. The client then checks whether all of the chunks for this request were received (block 440), by checking the flag set by the agent. Specifically, when the agent is providing the list of the last 5 chunks, the agent includes that information as part of its reply to the client, which is referred to herein as a flag. This information is what enables the client to know that all information has been received for a particular resource request.

If the last received chunks were not the last chunks for this request, the processing flow of the client continues by returning to the functionality of block 384 of FIG. 10, but instead sending the chosen agent a request for the next five chunks of data of the original information request. Alternatively, if all chunks for this request were received, the request is complete, and the flow starts again at block 352 of FIG. 9.

FIG. 12 is a flowchart 500 illustrating steps taken by an agent, client, or peer to determine whether a certain HTTP request is still valid. Specifically, the following provides an example of how the agent, client, or peer can determine whether particular data that is stored within the memory of the agent, or the memory of a peer or client, still mirrors the information that is currently on the Web server. As shown by block 502, the HTTP request is looked up in the cache database of the agent, client or peer that is checking the validity of the HTTP request. As an example, the HTTP protocol, defined by RFC 2616, outlines specific methods that Web servers can define within the HTTP headers signifying the validity of certain data, such as, but not limited to, by using HTTP header information such as "max age" to indicate how long this data may be cached before becoming invalid, "no cache" to indicate that the data may never be cached, and using other information.

As shown by block 504, these standard methods of validation are tested on the HTTP request information in question. As shown by block 506, a determination is made whether the requested information that is stored is valid or not. If the requested information is valid, a "VALID" response is returned (block 508). Alternatively, if the requested information is not valid, an HTTP conditional request is sent to the relevant Web server, to determine if the data stored for this request is still valid (block 510). If the data stored for this request is still valid, a "VALID" response is returned (block 508). Alternatively, if the data stored for this request is not valid, an "INVALID" response is returned (block 514). It should be noted, that the abovementioned description with regard to FIG. 12 is an explanation of how to check if HTTP information is still valid. There are similar methods of determining validity for any other protocol, which may be utilized, and which those having ordinary skill in the art would appreciate and understand.

FIG. 13 is a flowchart 550 outlining operation of the acceleration server, whose main responsibility in the present system and method is to provide clients with information regarding which agents serve which requests, and to keep the network elements all up to date with the latest software updates. As shown by block 552, the acceleration server sends "keep alive" signals to the network elements, and keeps track within its database as to which network elements are online. As shown by block 554, the acceleration server continues to wait for a client request and continues to determine if one is received.

Once a request is received, the acceleration server tests the type of request received (block 556). If the client request is to sign up the client within the network, an event that happens every time that the client starts running on its host machine, then that client is added to the list of agents stored on the acceleration server, sorted by the IP address of the client (block 558).

If the request is to find an agent to use for a particular request, the acceleration server creates a new agent list, which is empty (block 560). The acceleration server then searches the

agent database for the next 5 active agents whose IP address is closest to the IP address of the server who is targeted in the request (block 562). In this context, 192.166.3.103 is closer to 192.166.3.212 than to 192.167.3.104. The acceleration server then sends this agent list to the client (block 564).

If instead, the request is to check the version of the latest acceleration software then the acceleration server sends that network element (client, peer or agent) the version number of the latest existing acceleration software version, and a URL from where to download the new version, for the case that the element needs to upgrade to the new version (block 566).

While the abovementioned example is focused on HTTP requests for data, as previously mentioned, other protocol requests are equally capable of being handled by the present system and method. As an example, in separate embodiments the acceleration method described may accelerate any communication protocol at any OSI layer (SMTP, DNS, UDP, ETHERNET, etc.). In the following alternative embodiment, it is illustrated how the acceleration method may accelerate TCPIP. As is known by those having ordinary skill in the art, TCPIP is a relatively low-level protocol, as opposed to HTTP, which is a high level protocol. For purposes of illustration of TCPIP communication, reference may be made to FIG. 3, wherein the Web server is a TCPIP server.

In TCPIP there are three communication commands that are of particular interest, namely, connect, write, and read. Connect is a command issued by an application in the communication device that is initiating the communication to instruct the TCPIP stack to connect to a remote communication device. The connect message includes the IP address of the communication device, and the port number to connect to. An application uses the write command to instruct the TCPIP stack to send a message (i.e., data) to a communication device to which it is connected. In addition, an application uses the read command to ask the TCPIP stack to provide the message that was sent from the remote communication device to which it is

connected. A communication session typically exists of a connect, followed by a read and write on both sides.

FIG. 14 is a flowchart 600 further illustrating TCPIP acceleration in accordance with this alternative embodiment of the invention. As shown by blocks 601 and 602 when an application of the communication device makes a request to the communications stack to connect with the TCPIP server, that communication is intercepted by the acceleration application.

To find an agent, upon receiving that connect message from the communication device application, which includes the IP address of the TCPIP server and the port to connect to, the acceleration application in the client makes a request to the acceleration server to find out who the agent for the communication with the TCPIP server is. This step is performed in a similar manner to that described with regard to the main HTTP embodiment of the invention (block 604). As shown by block 606, the server then provides the client with a list of agents, for example, a primary agent and four others.

To establish a connection, as shown by block 608, the client issues a TCPIP connect with the primary agent or one of the other agents if the primary agent does not succeed, to create a connection with the agent. The client then sends to the agent the IP address of the TCPIP server and connection port that were provided by the communication device application (block 610). As shown by block 612, that agent in turn issues a TCPIP connect to the TCPIP server to the port it received from the client, to create a connection with the agent.

FIG. 15 is a flowchart 800 further illustrating TCPIP acceleration in accordance with this alternative embodiment of the invention, detailing the communication between the client and the TCPIP server (read and write commands) after the connect phase has completed successfully.

As shown by block 802, if the network application within the client wants to send a message to the TCPIP server, the network application within the client writes the message to the TCPIP stack in the operating system of the client. This WRITE command is received by the acceleration application of the client and handled in the manner described below. If the TCPIP server wants to send a message to the client, the TCPIP server writes the message to the TCPIP stack of TCPIP operating system, on the connection to the agent, since this agent is where the server received the original connection. This WRITE command is received by the acceleration application of the agent and handled in the manner described below.

When the acceleration application of the client receives a message from the network application of the client to be sent to the agent, or when the acceleration application of the agent receives a message from the connection to the TCPIP server that is to be sent to the client, the acceleration application proceeds to send the message to the communication device on the other side. For instance, if the client has intercepted the message from the communication application, the client sends the message to the agent, and if it is the agent that intercepted the message from the connection to the TCPIP server, such as the TCPIP server sending a message that is intended for the communication with client, the agent sends the message to the client in the following manner:

As shown by block 804, the acceleration application breaks up the content of the message to chunks and calculates the corresponding checksums, in the same manner as in the main embodiment described herein. The acceleration application then looks up each checksum in its cache database (block 806). As shown by block 808, the acceleration application checks if the checksum exists in the cache database. If it does, then, as shown by block 810, the acceleration

application prepares a list of peers that have already received the chunk of the checksum in the past (if any), and adds the communication device of the other side to the list of communication devices that have received this chunk (adds it to the peer list of the checksum in its database), to be provided to other communication devices requesting this information in the future. As shown by block 812, the list of peers is sent to the receiving communication device, which, as shown by block 814 retrieves the chunks from the peers in the list received, in the same manner as in the main embodiment.

If the checksum does not exist within the cache database of the sending communication device then, as shown by block 820, the acceleration application adds the checksum and chunk to its cache database, sends the chunk to the communication device on the other side, and adds the other communication device to the list of peers for that checksum in its database.

As shown by block 816, a determination is then made as to whether all chunks have been received. If all chunks have not been received, the process continues on again from block 806.

Once all data has been received, as shown by block 818, the acceleration application passes the data on to the requester. Specifically, in the client, the acceleration application passes on the complete data to the communication application, and in the agent, the acceleration application passes on the complete data to the requesting TCPIP server.

It should be emphasized that the above-described embodiments of the present invention are merely possible examples of implementations, merely set forth for a clear understanding of the principles of the invention. Many variations and modifications may be made to the above-described embodiments of the invention without departing substantially from the spirit and principles of the invention. All such modifications and variations are intended to be included

herein within the scope of this disclosure and the present invention and protected by the following claims.

Claims

1. A method for use with a web server that stores a first content identified by a first content identifier, and for use with first and second client devices that are respectively addressed over the Internet using first and second Internet Protocol (IP) addresses and are each operative to communicate over the Internet with a first server, the method by the first server comprising:

storing, operating, or using, a server operating system;

communicating with the second device;

storing the second IP address in response to the communicating;

receiving, from the first client device, the first content identifier;

sending, in response to the receiving of the first content identifier, the first content identifier to the second client device using the stored second IP address; and

sending the first content, or a part thereof, to the first client device.

2. The method according to claim 1, further comprising, by the first server, receiving, in response to the sending of the first content identifier, the first content, or the part thereof, from the second client device.

3. The method according to claim 1, wherein the first server is a Transmission Control Protocol/Internet Protocol (TCP/IP) server that communicates over the Internet with the first or second client device based on, according to, or using, TCP/IP protocol or connection.

4. The method according to claim 1, wherein the first server communicates over the Internet based on, or according to, one out of UDP, DNS, TCP, FTP, POP*, SMTP, or SQL standards.

5. The method according to claim 1, wherein the first content comprises web-page, audio, or video content, and wherein the first content identifier comprises a Uniform Resource Locator (URL).

6. The method according to claim 1, for use with a plurality of client devices that includes the second client device, each identified over the Internet using a respective IP address, wherein the first server stores a list of the IP addresses of the client devices of the plurality of client devices, and wherein the method further comprising:

selecting, by the first server, multiple client devices from the plurality of client devices by selecting the IP addresses of the multiple client devices from the list; and

sending, by the first server, the selected IP addresses in response to the selecting.

7. The method according to claim 6, wherein the sending of the selected IP addresses comprises sending to the first client device.

8. The method according to claim 6, further comprising responsive to the receiving of the first content identifier from the first client device, adding the first client device to the plurality of client devices by including the IP address of the first device to the list.

9. The method according to claim 6, for use with a third client device, the method further comprising:

sending, by the first server, a 'keep alive' message to the third client device; and

waiting, by the first server, for a response to the 'keep alive' message from the third client device.

10. The method according to claim 9, further comprising:

receiving, by the first server, the response to the 'keep alive' message from the third client device; and

responsive to the receiving of the response, adding the third client device to the plurality of client devices by including the IP address of the third device to the list.

11. The method according to claim 9, further comprising responsive to not receiving, by the first server, a response to the 'keep alive' message from the third client device, removing the third client device from the plurality of client devices by removing the IP address of the third device from the list.

12. The method according to claim 9, wherein the sending of the 'keep alive' message comprises periodically sending by the first server the 'keep alive' message to the third client device.

13. The method according to claim 1, for use with a first plurality of client devices that includes the second client device, each identified over the Internet using a respective IP address, wherein the first server stores a first list of the IP addresses of the client devices in the first plurality of client devices, wherein the method further comprising selecting, by the first server, the second client device from the first plurality of client devices by selecting the IP address of the second client device from the first list, and wherein the sending of the first content identifier to the second client device is in response to the selecting.

14. The method according to claim 13, wherein the first plurality of client devices comprises currently online client devices.

15. The method according to claim 13, further comprising:

receiving, a message by the first server from a third client device that is identified over the Internet using a third IP address; and

adding, by the first server in response to the receiving of the message, the third client device to the first plurality

of client devices by adding the third IP address to the first list.

16. The method according to claim 13, for use with a criterion stored in the first server, wherein the selecting of the second client device is according to, or based on, the criterion.

17. The method according to claim 16, wherein the criterion is based on, or comprises, a numerical closeness to the web server IP address.

18. The method according to claim 16, wherein the criterion is based on, or comprises, a geographical location of the selected client device, or a response time when communicating.

19. The method according to claim 13, for use with a second plurality of client devices that is non-overlapping with the first plurality of client devices and that includes a third client device, each identified over the Internet using a respective IP address, wherein the first server stores a second list of the IP addresses of the client devices in the second plurality of client devices, and wherein the method further comprising:

selecting, by the first server, the third client device from the second plurality of client devices by selecting the IP address of the third client device from the second list; and

sending of the first content identifier to the third client device in response to the selecting.

20. The method according to claim 1, further comprising establishing, by the first server, a Transmission Control Protocol (TCP) connection with the first or second client device.

21. The method according to claim 1, wherein the first client device is identified by a first Internet Protocol (IP) address, Media Access Control (MAC) address, or a hostname.

22. The method according to claim 1, for use with a software application stored in the first server and associated with a first version number, and wherein the method further comprising sending, by the first server to the first or second client device, a message that comprises the first version number of the software application.

23. The method according to claim 22, further comprising sending, by the first server to the first or second client device, the first software application.

24. The method according to claim 1, wherein the web server is a Hypertext Transfer Protocol (HTTP) server responding to HTTP requests.

25. The method according to claim 1, wherein the steps are sequentially executed.

26. The method according to claim 1, for use with a software application that includes computer instructions that, when executed by a computer processor, cause the processor to perform the steps of the claim 1.

27. A non-transitory computer readable medium containing computer instructions that, when executed by a computer processor, cause the processor to perform the method according to claim 1.

28. A server device comprising a non-transitory computer readable medium containing computer instructions that, when executed by a computer processor, cause the processor to perform the method according to claim 1.

Abstract

A system designed for increasing network communication speed for users, while lowering network congestion for content owners and ISPs. The system employs network elements including an acceleration server, clients, agents, and peers, where communication requests generated by applications are intercepted by the client on the same machine. The IP address of the server in the communication request is transmitted to the acceleration server, which provides a list of agents to use for this IP address. The communication request is sent to the agents. One or more of the agents respond with a list of peers that have previously seen some or all of the content which is the response to this request (after checking whether this data is still valid). The client then downloads the data from these peers in parts and in parallel, thereby speeding up the Web transfer, releasing congestion from the Web by fetching the information from multiple sources, and relieving traffic from Web servers by offloading the data transfers from them to nearby peers.

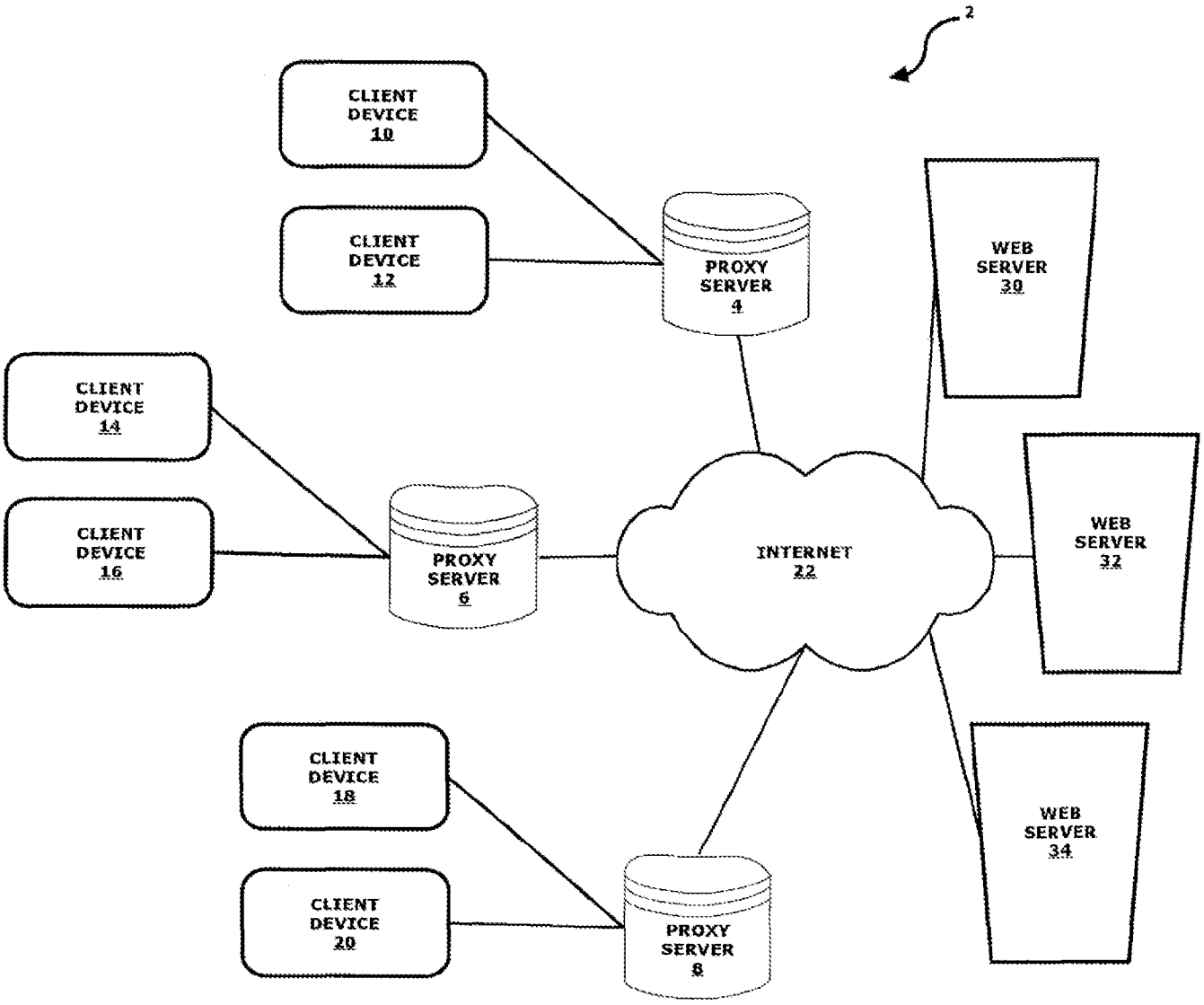

2
CLIENT DEVICE 10
CLIENT DEVICE 12
CLIENT DEVICE 14
CLIENT DEVICE 16
CLIENT DEVICE 18
CLIENT DEVICE 20
PROXY SERVER 4
PROXY SERVER 6
PROXY SERVER 8
INTERNET 22
WEB SERVER 30
WEB SERVER 32
WEB SERVER 34

FIG. 1

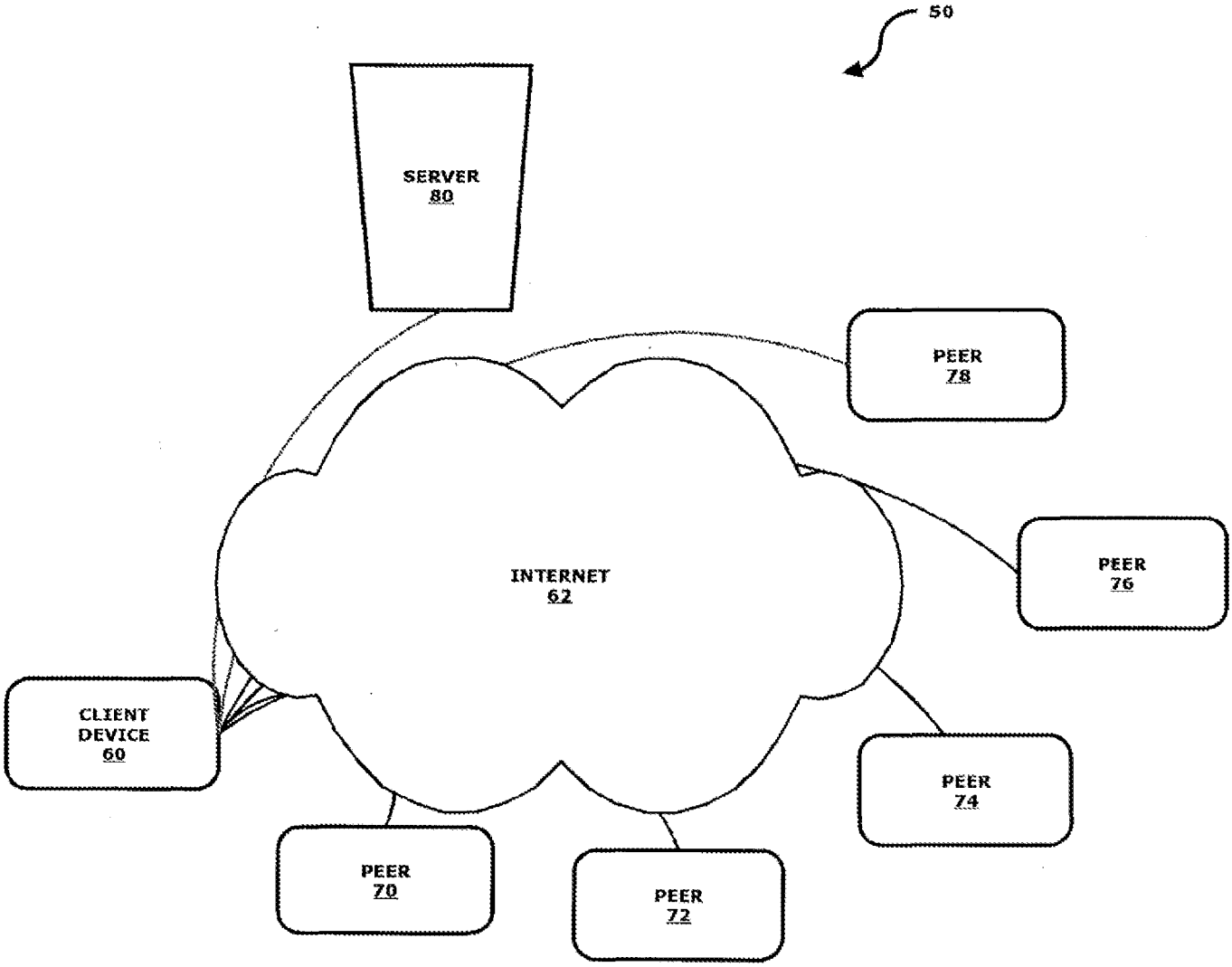

50
SERVER
80
PEER
78
INTERNET
62
PEER
76
CLIENT
DEVICE
60
PEER
74
PEER
70
PEER
72

FIG. 2

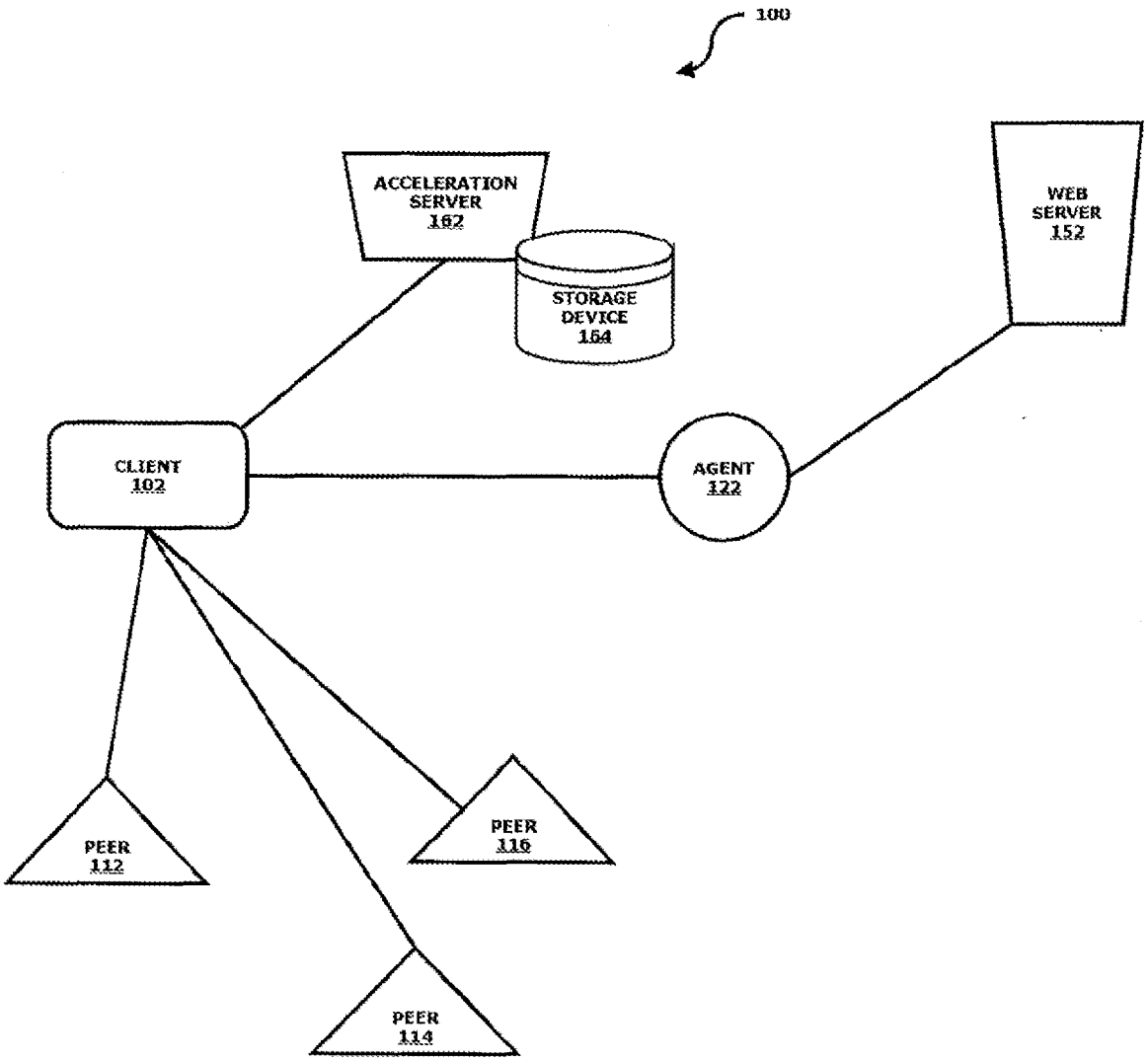

100
ACCELERATION SERVER 162
STORAGE DEVICE 164
WEB SERVER 152
CLIENT 102
AGENT 122
PEER 112
PEER 116
PEER 114

FIG. 3

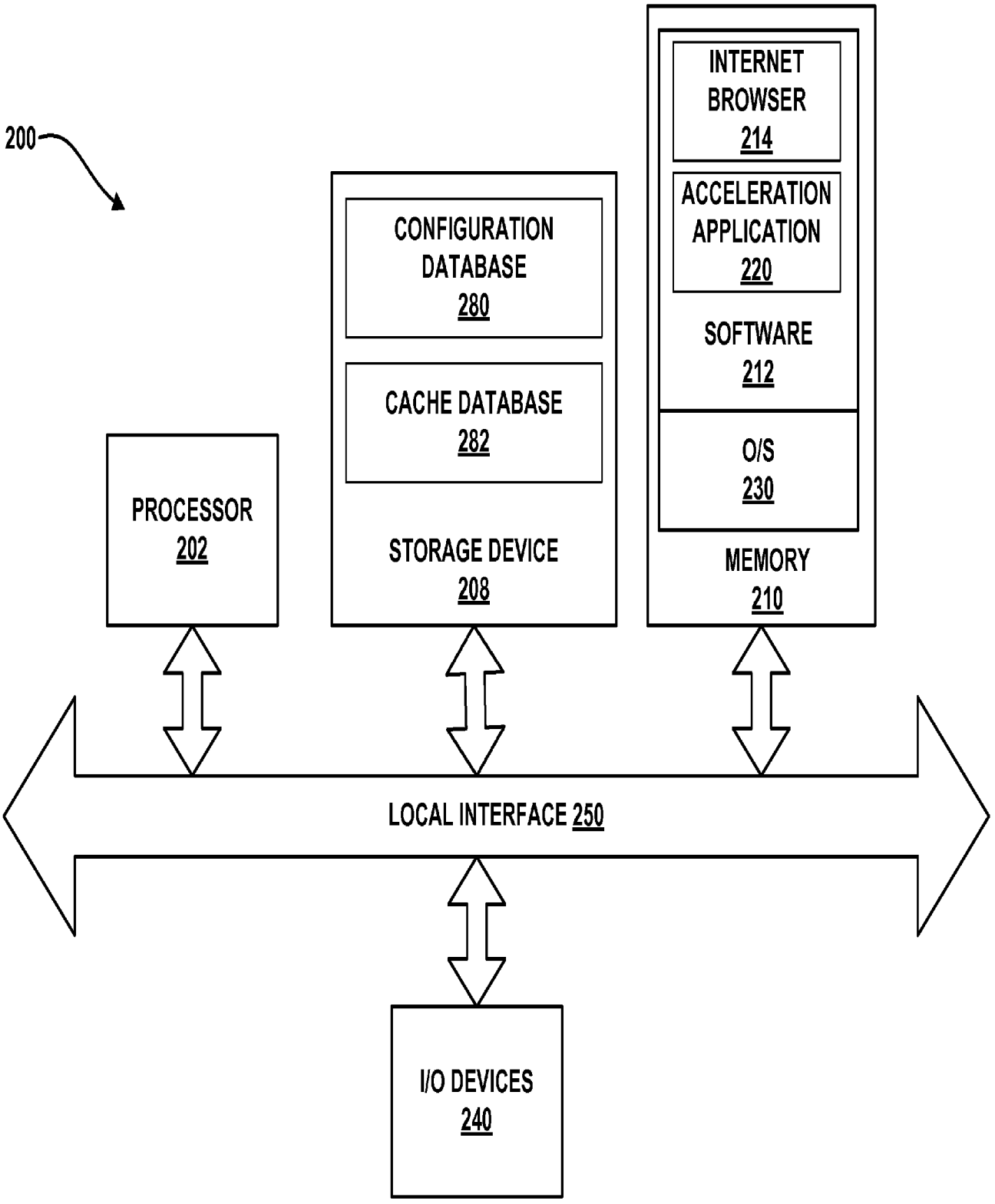

200
INTERNET BROWSER 214
ACCELERATION APPLICATION 220
SOFTWARE 212
O/S 230
MEMORY 210
CONFIGURATION DATABASE 280
CACHE DATABASE 282
STORAGE DEVICE 208
PROCESSOR 202
LOCAL INTERFACE 250
I/O DEVICES 240

FIG. 4

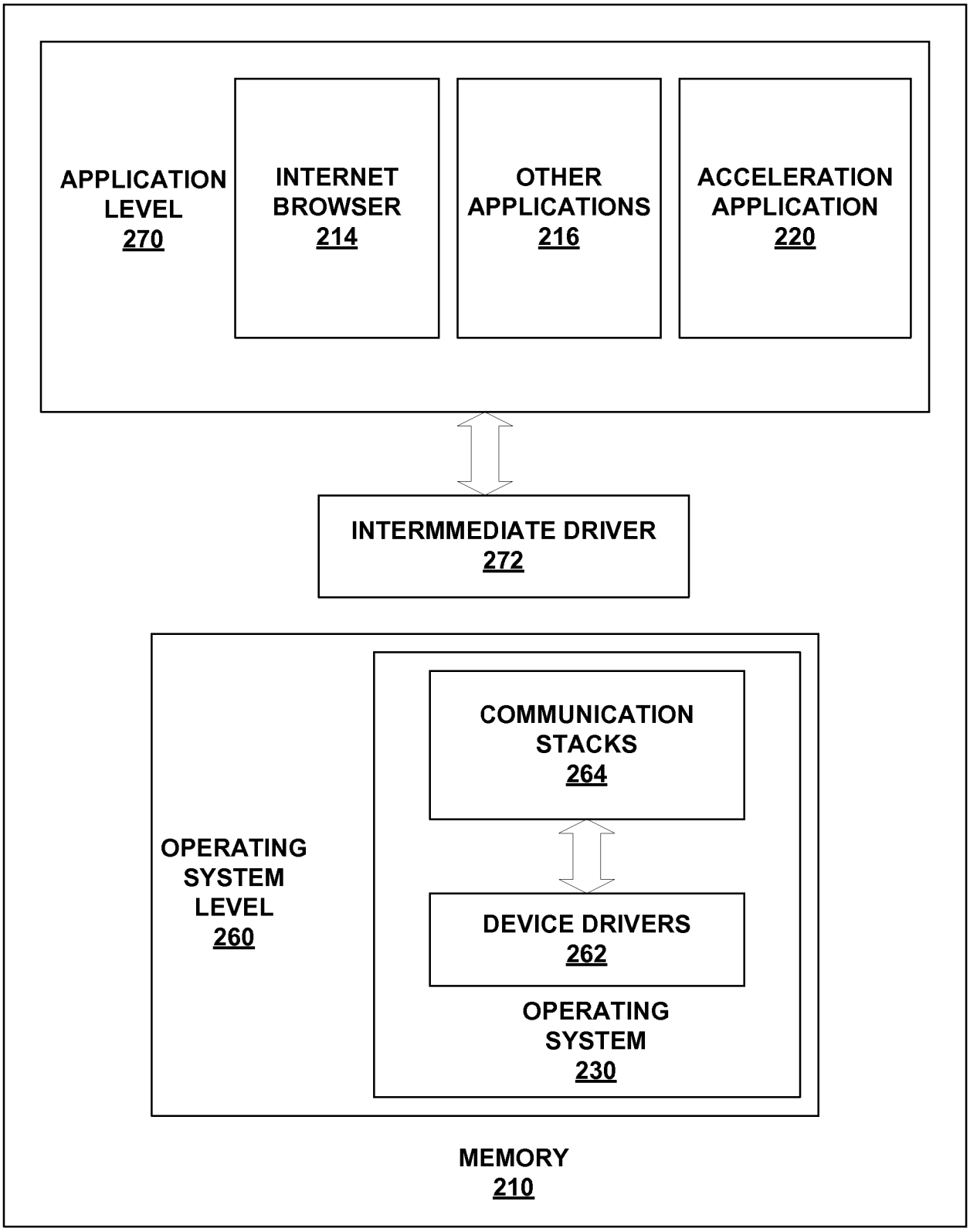

APPLICATION LEVEL 270
INTERNET BROWSER 214
OTHER APPLICATIONS 216
ACCELERATION APPLICATION 220
INTERMMEDIATE DRIVER 272
OPERATING SYSTEM LEVEL 260
COMMUNICATION STACKS 264
DEVICE DRIVERS 262
OPERATING SYSTEM 230
MEMORY 210

FIG. 5

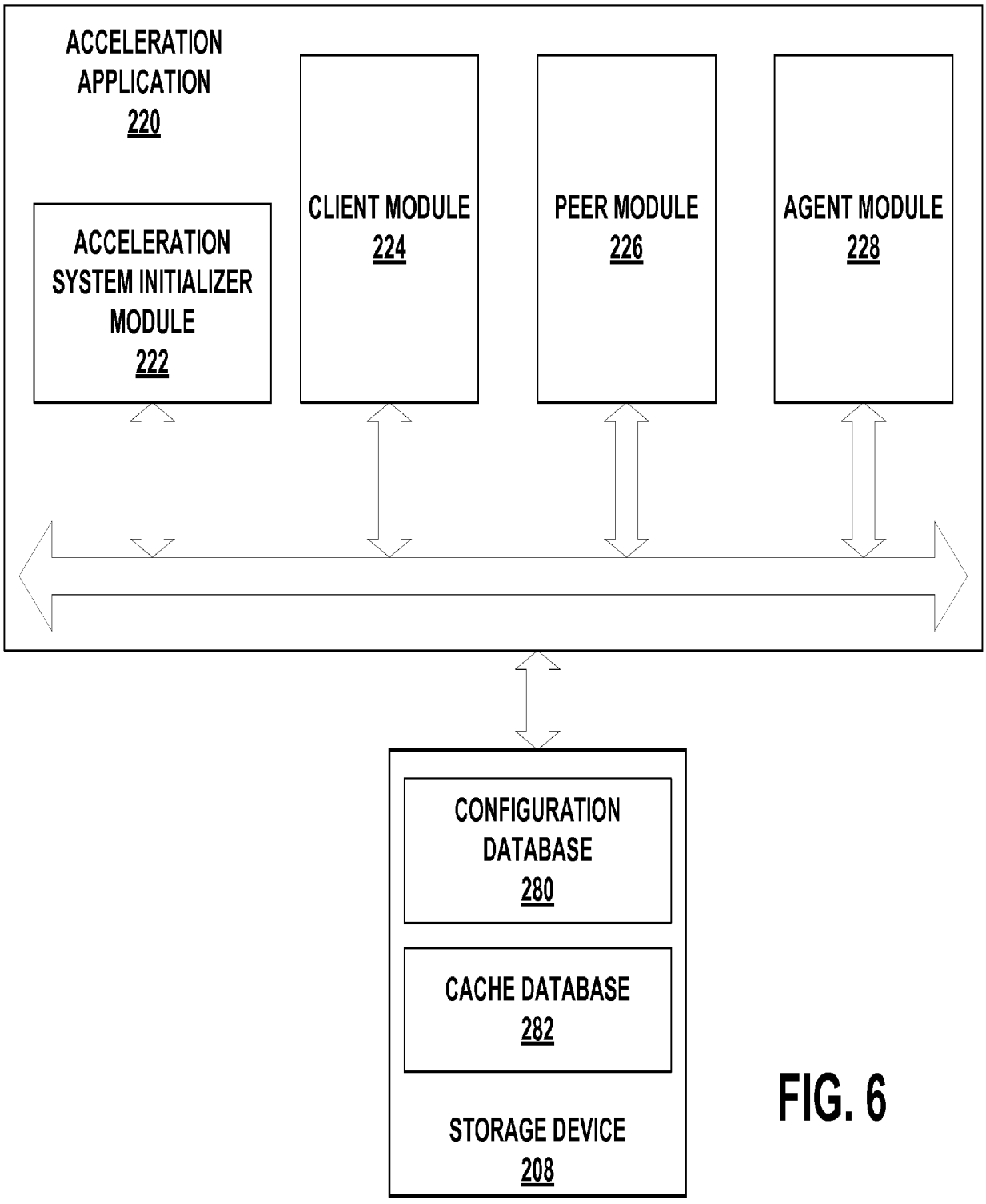
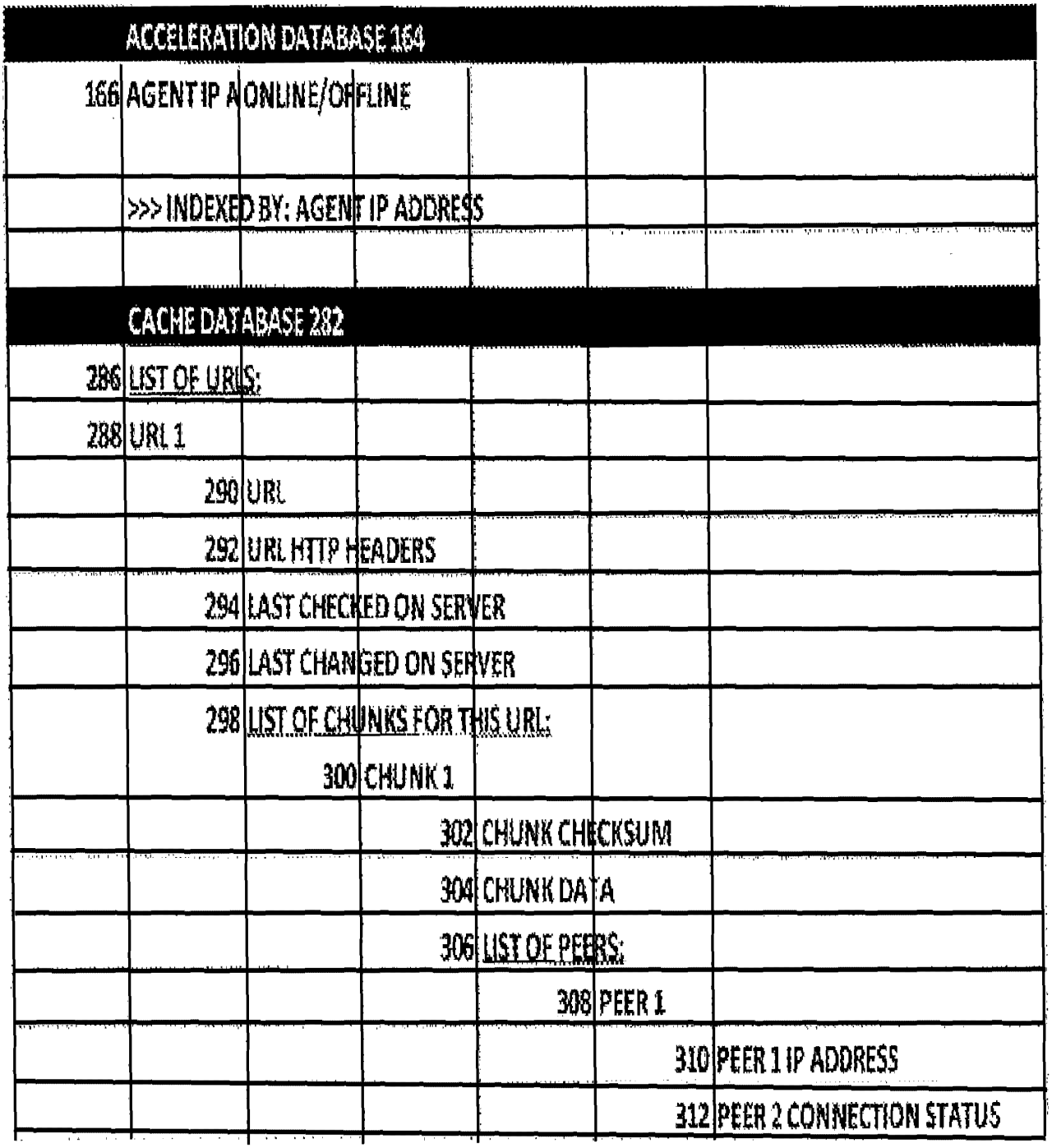

ACCELERATION APPLICATION 220
ACCELERATION SYSTEM INITIALIZER MODULE 222
CLIENT MODULE 224
PEER MODULE 226
AGENT MODULE 228
CONFIGURATION DATABASE 280
CACHE DATABASE 282
STORAGE DEVICE 208

FIG. 6


ACCELERATION DATABASE 164
166 AGENT IP ADDRESS
ONLINE/OFFLINE
>>> INDEXED BY: AGENT IP ADDRESS
CACHE DATABASE 282
286 LIST OF URLS:
288 URL 1
290 URL
292 URL HTTP HEADERS
294 LAST CHECKED ON SERVER
296 LAST CHANGED ON SERVER
298 LIST OF CHUNKS FOR THIS URL:
300 CHUNK 1
302 CHUNK CHECKSUM
304 CHUNK DATA
306 LIST OF PEERS:
308 PEER 1
310 PEER 1 IP ADDRESS
312 PEER 2 CONNECTION STATUS

162

FIG. 7

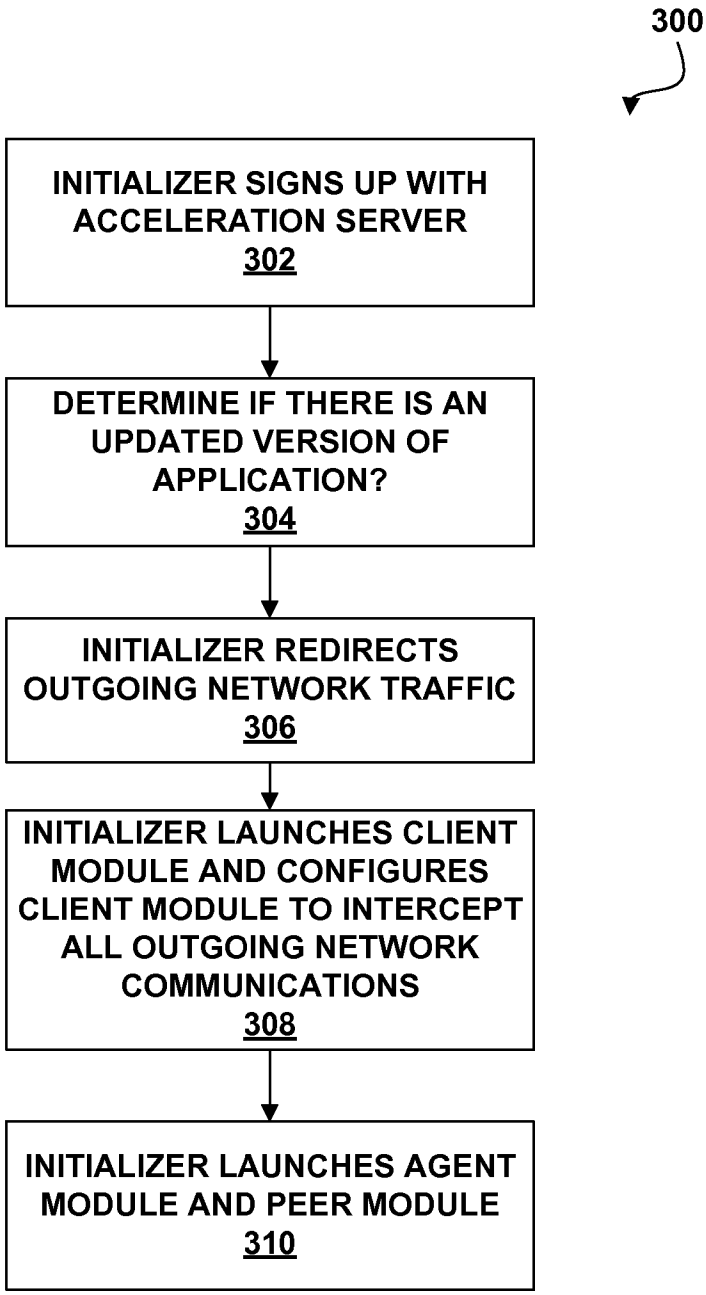

300
INITIALIZER SIGNS UP WITH ACCELERATION SERVER
302
DETERMINE IF THERE IS AN UPDATED VERSION OF APPLICATION?
304
INITIALIZER REDIRECTS OUTGOING NETWORK TRAFFIC
306
INITIALIZER LAUNCHES CLIENT MODULE AND CONFIGURES CLIENT MODULE TO INTERCEPT ALL OUTGOING NETWORK COMMUNICATIONS
308
INITIALIZER LAUNCHES AGENT MODULE AND PEER MODULE
310

FIG. 8

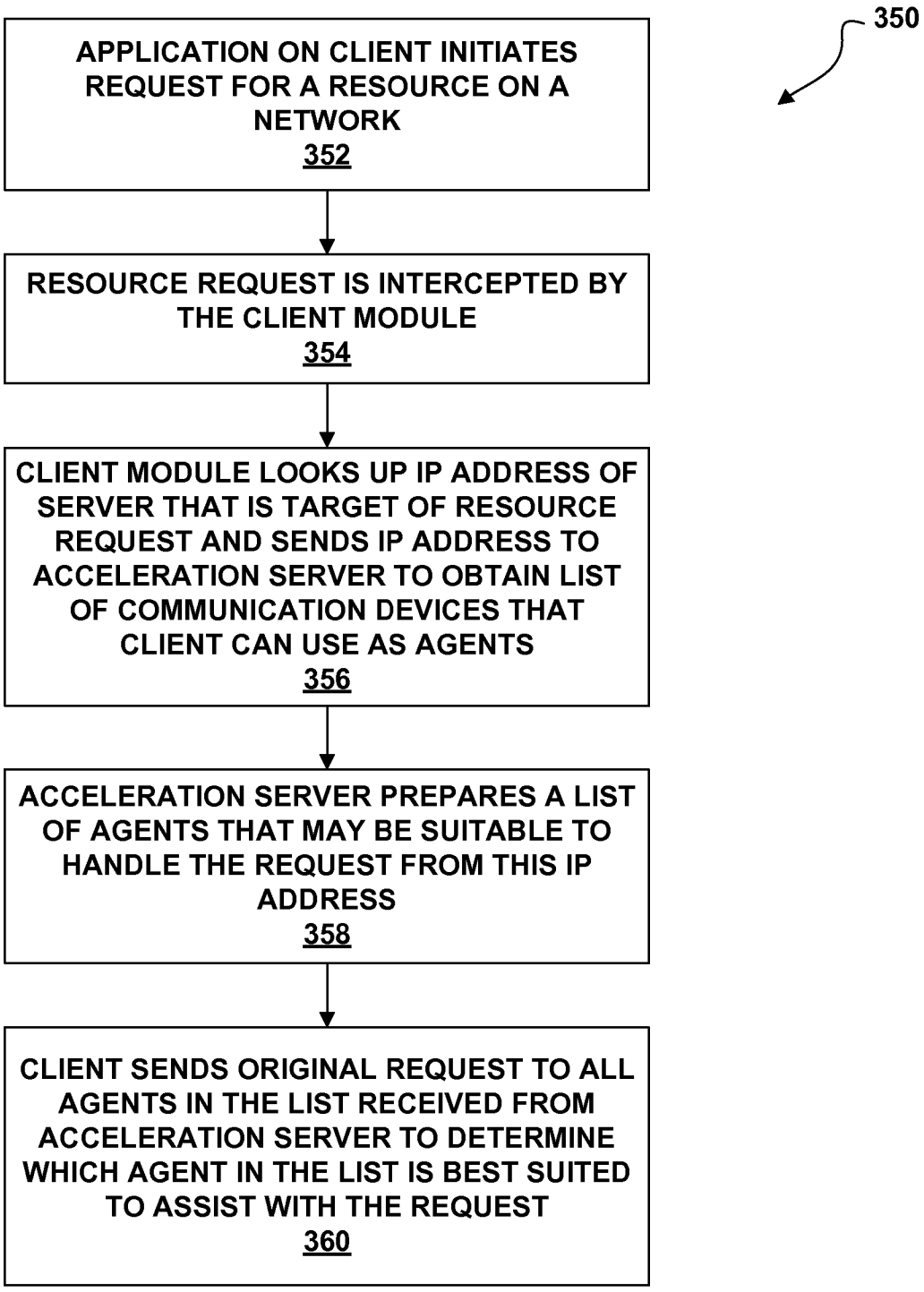

350
APPLICATION ON CLIENT INITIATES REQUEST FOR A RESOURCE ON A NETWORK
352
RESOURCE REQUEST IS INTERCEPTED BY THE CLIENT MODULE
354
CLIENT MODULE LOOKS UP IP ADDRESS OF SERVER THAT IS TARGET OF RESOURCE REQUEST AND SENDS IP ADDRESS TO ACCELERATION SERVER TO OBTAIN LIST OF COMMUNICATION DEVICES THAT CLIENT CAN USE AS AGENTS
356
ACCELERATION SERVER PREPARES A LIST OF AGENTS THAT MAY BE SUITABLE TO HANDLE THE REQUEST FROM THIS IP ADDRESS
358
CLIENT SENDS ORIGINAL REQUEST TO ALL AGENTS IN THE LIST RECEIVED FROM ACCELERATION SERVER TO DETERMINE WHICH AGENT IN THE LIST IS BEST SUITED TO ASSIST WITH THE REQUEST
360

FIG. 9

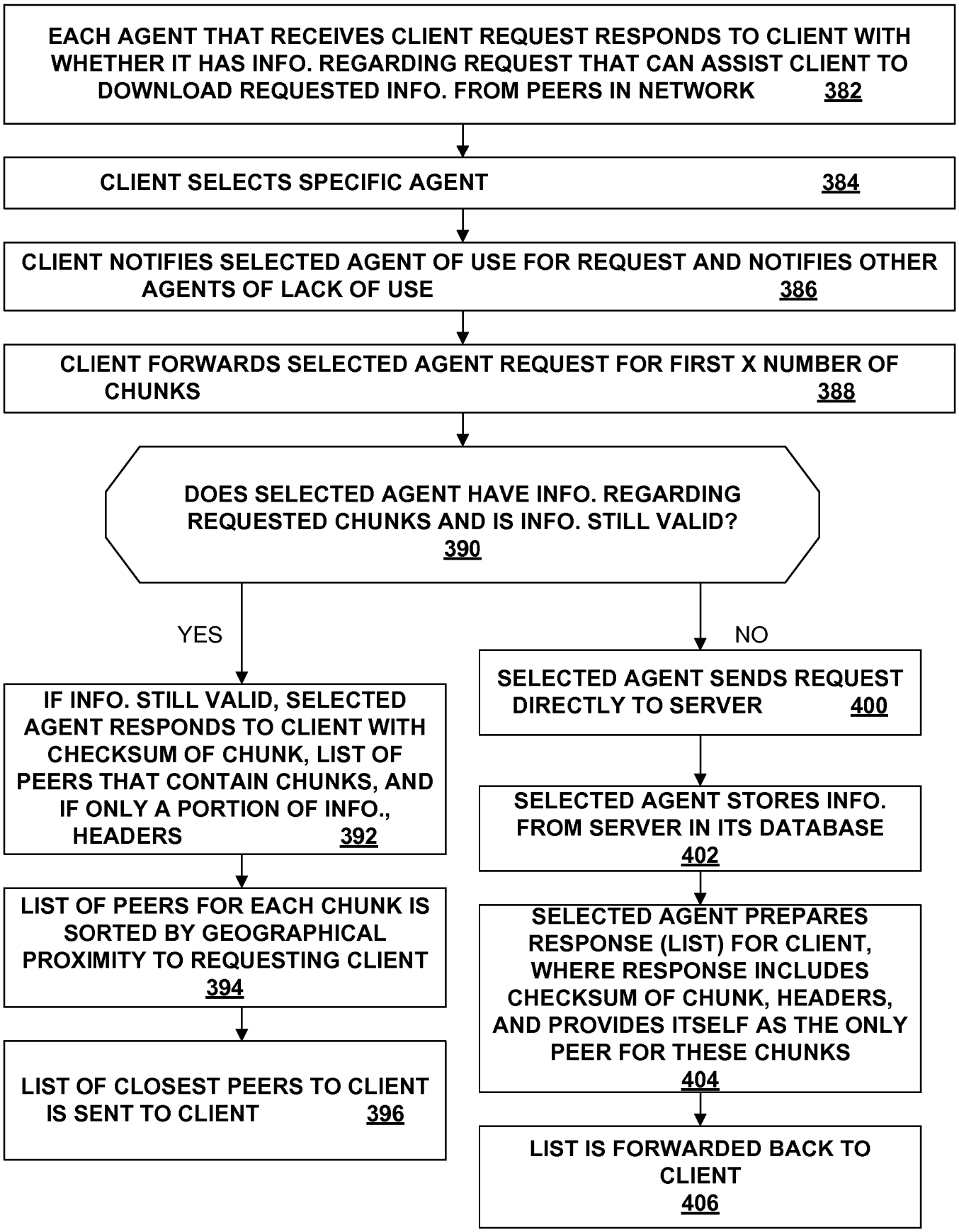

EACH AGENT THAT RECEIVES CLIENT REQUEST RESPONDS TO CLIENT WITH WHETHER IT HAS INFO. REGARDING REQUEST THAT CAN ASSIST CLIENT TO DOWNLOAD REQUESTED INFO. FROM PEERS IN NETWORK 382
CLIENT SELECTS SPECIFIC AGENT 384
CLIENT NOTIFIES SELECTED AGENT OF USE FOR REQUEST AND NOTIFIES OTHER AGENTS OF LACK OF USE 386
CLIENT FORWARDS SELECTED AGENT REQUEST FOR FIRST X NUMBER OF CHUNKS 388
DOES SELECTED AGENT HAVE INFO. REGARDING REQUESTED CHUNKS AND IS INFO. STILL VALID? 390
YES
NO
IF INFO. STILL VALID, SELECTED AGENT RESPONDS TO CLIENT WITH CHECKSUM OF CHUNK, LIST OF PEERS THAT CONTAIN CHUNKS, AND IF ONLY A PORTION OF INFO., HEADERS 392
LIST OF PEERS FOR EACH CHUNK IS SORTED BY GEOGRAPHICAL PROXIMITY TO REQUESTING CLIENT 394
LIST OF CLOSEST PEERS TO CLIENT IS SENT TO CLIENT 396
SELECTED AGENT SENDS REQUEST DIRECTLY TO SERVER 400
SELECTED AGENT STORES INFO. FROM SERVER IN ITS DATABASE 402
SELECTED AGENT PREPARES RESPONSE (LIST) FOR CLIENT, WHERE RESPONSE INCLUDES CHECKSUM OF CHUNK, HEADERS, AND PROVIDES ITSELF AS THE ONLY PEER FOR THESE CHUNKS 404
LIST IS FORWARDED BACK TO CLIENT 406

FIG. 10

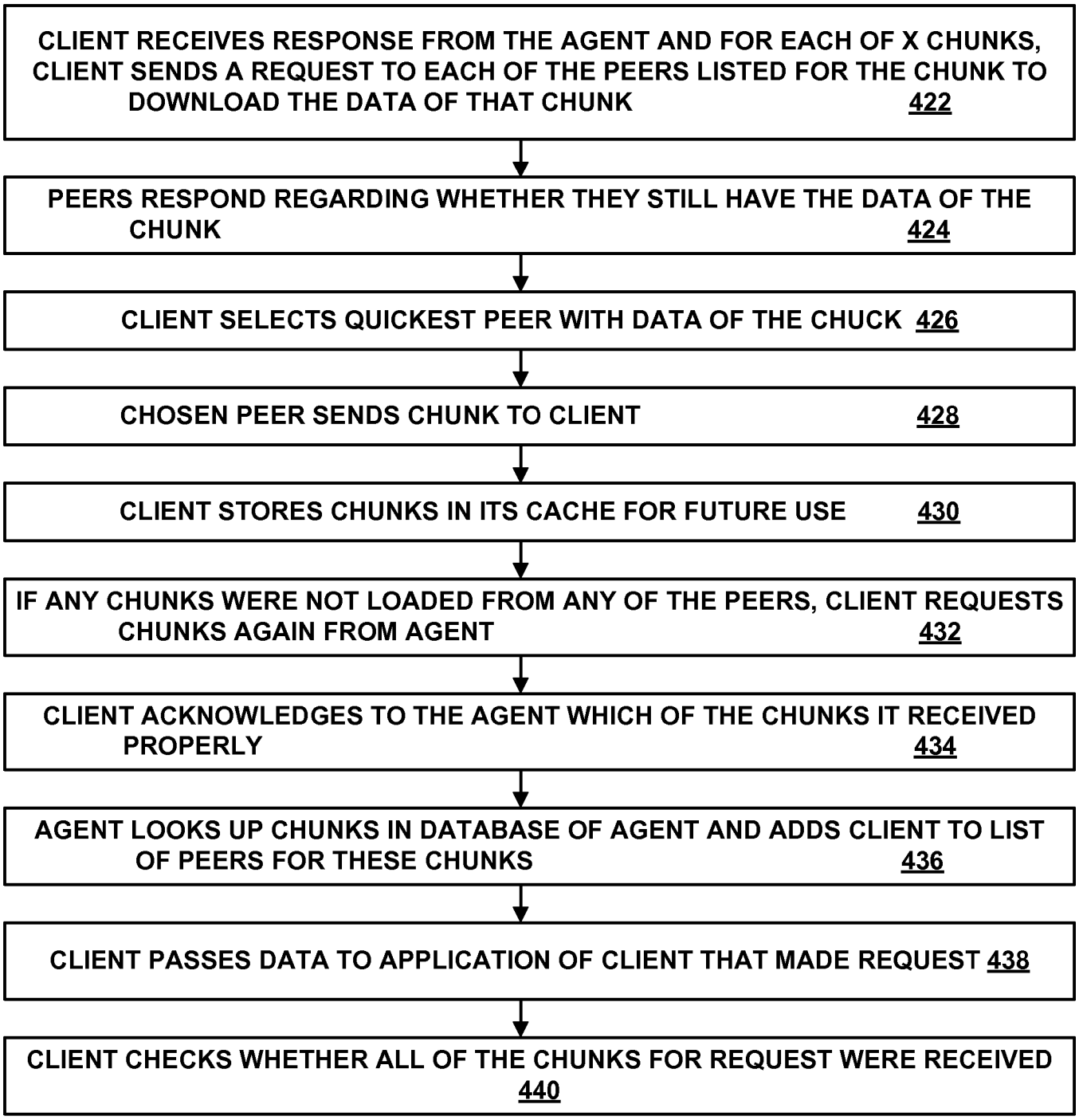

CLIENT RECEIVES RESPONSE FROM THE AGENT AND FOR EACH OF X CHUNKS, CLIENT SENDS A REQUEST TO EACH OF THE PEERS LISTED FOR THE CHUNK TO DOWNLOAD THE DATA OF THAT CHUNK 422
PEERS RESPOND REGARDING WHETHER THEY STILL HAVE THE DATA OF THE CHUNK 424
CLIENT SELECTS QUICKEST PEER WITH DATA OF THE CHUCK 426
CHOSEN PEER SENDS CHUNK TO CLIENT 428
CLIENT STORES CHUNKS IN ITS CACHE FOR FUTURE USE 430
IF ANY CHUNKS WERE NOT LOADED FROM ANY OF THE PEERS, CLIENT REQUESTS CHUNKS AGAIN FROM AGENT 432
CLIENT ACKNOWLEDGES TO THE AGENT WHICH OF THE CHUNKS IT RECEIVED PROPERLY 434
AGENT LOOKS UP CHUNKS IN DATABASE OF AGENT AND ADDS CLIENT TO LIST OF PEERS FOR THESE CHUNKS 436
CLIENT PASSES DATA TO APPLICATION OF CLIENT THAT MADE REQUEST 438
CLIENT CHECKS WHETHER ALL OF THE CHUNKS FOR REQUEST WERE RECEIVED 440

FIG. 11

420

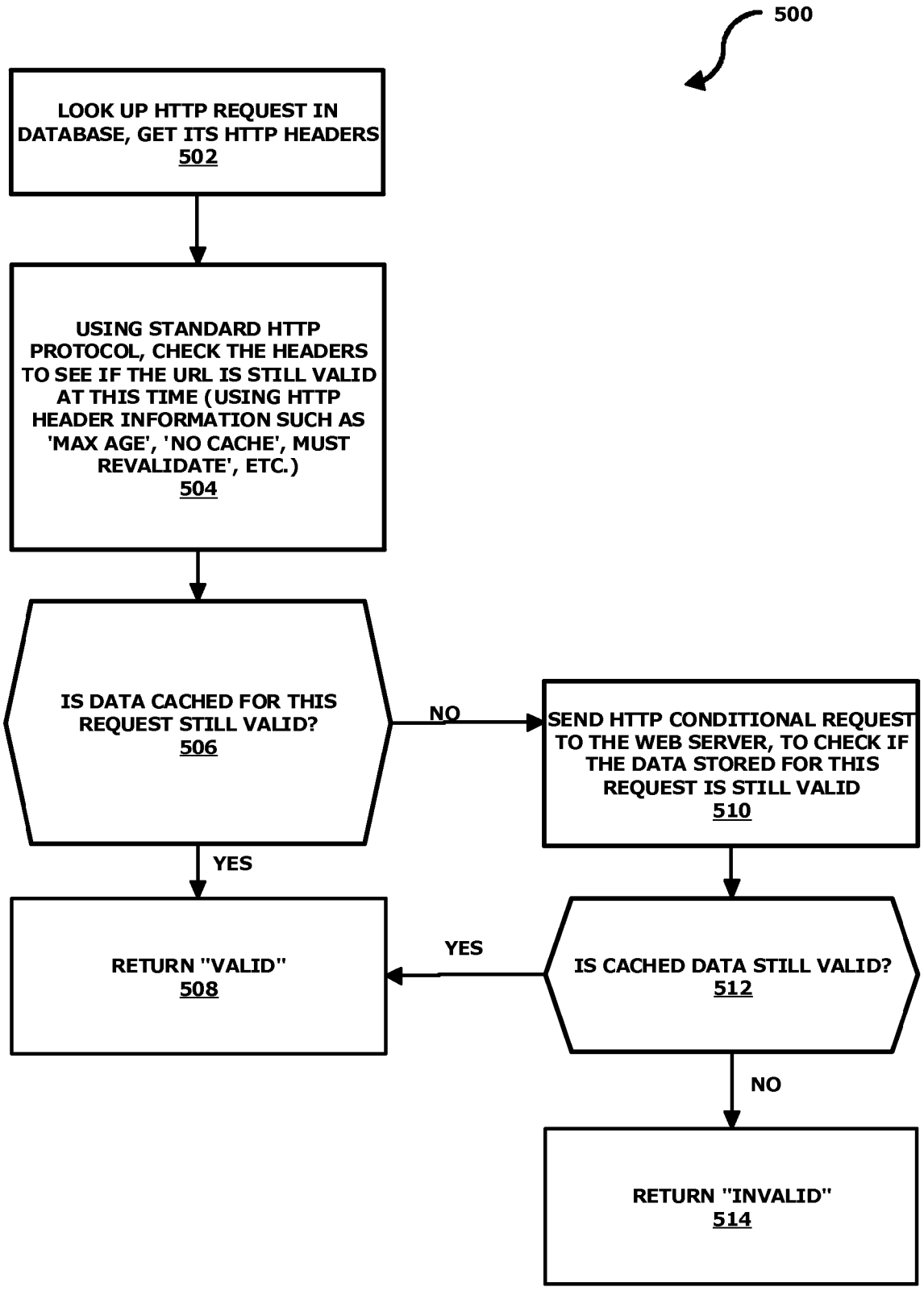

500
LOOK UP HTTP REQUEST IN DATABASE, GET ITS HTTP HEADERS
502
USING STANDARD HTTP PROTOCOL, CHECK THE HEADERS TO SEE IF THE URL IS STILL VALID AT THIS TIME (USING HTTP HEADER INFORMATION SUCH AS 'MAX AGE', 'NO CACHE', MUST REVALIDATE', ETC.)
504
IS DATA CACHED FOR THIS REQUEST STILL VALID?
506
NO
SEND HTTP CONDITIONAL REQUEST TO THE WEB SERVER, TO CHECK IF THE DATA STORED FOR THIS REQUEST IS STILL VALID
510
YES
RETURN "VALID"
508
YES
IS CACHED DATA STILL VALID?
512
NO
RETURN "INVALID"
514

FIG. 12

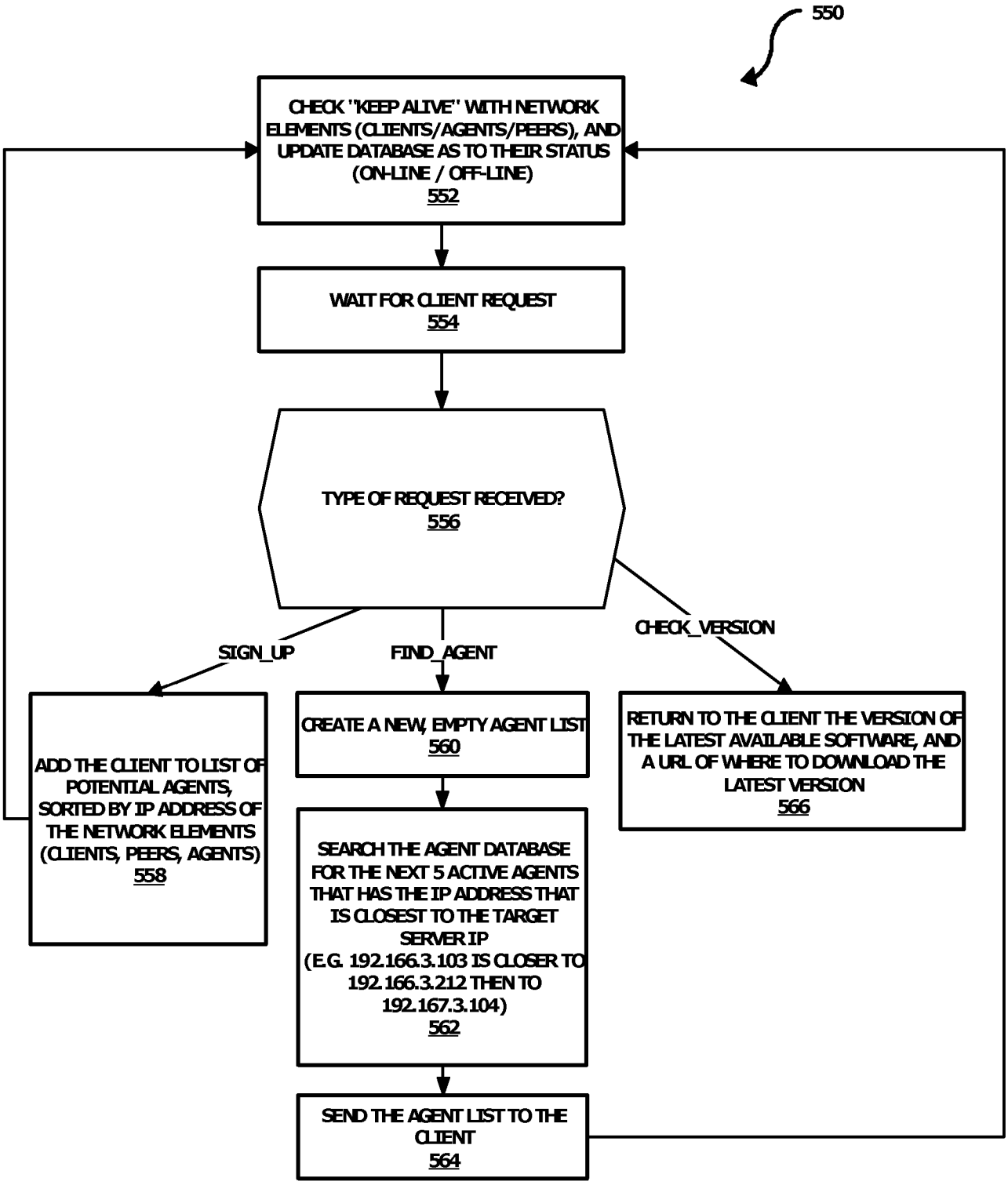

550
CHECK "KEEP ALIVE" WITH NETWORK ELEMENTS (CLIENTS/AGENTS/PEERS), AND UPDATE DATABASE AS TO THEIR STATUS (ON-LINE / OFF-LINE)
552
WAIT FOR CLIENT REQUEST
554
TYPE OF REQUEST RECEIVED?
556
SIGN_UP
FIND_AGENT
CHECK_VERSION
ADD THE CLIENT TO LIST OF POTENTIAL AGENTS, SORTED BY IP ADDRESS OF THE NETWORK ELEMENTS (CLIENTS, PEERS, AGENTS)
558
CREATE A NEW, EMPTY AGENT LIST
560
SEARCH THE AGENT DATABASE FOR THE NEXT 5 ACTIVE AGENTS THAT HAS THE IP ADDRESS THAT IS CLOSEST TO THE TARGET SERVER IP (E.G. 192.166.3.103 IS CLOSER TO 192.166.3.212 THEN TO 192.167.3.104)
562
SEND THE AGENT LIST TO THE CLIENT
564
RETURN TO THE CLIENT THE VERSION OF THE LATEST AVAILABLE SOFTWARE, AND A URL OF WHERE TO DOWNLOAD THE LATEST VERSION
566

FIG. 13

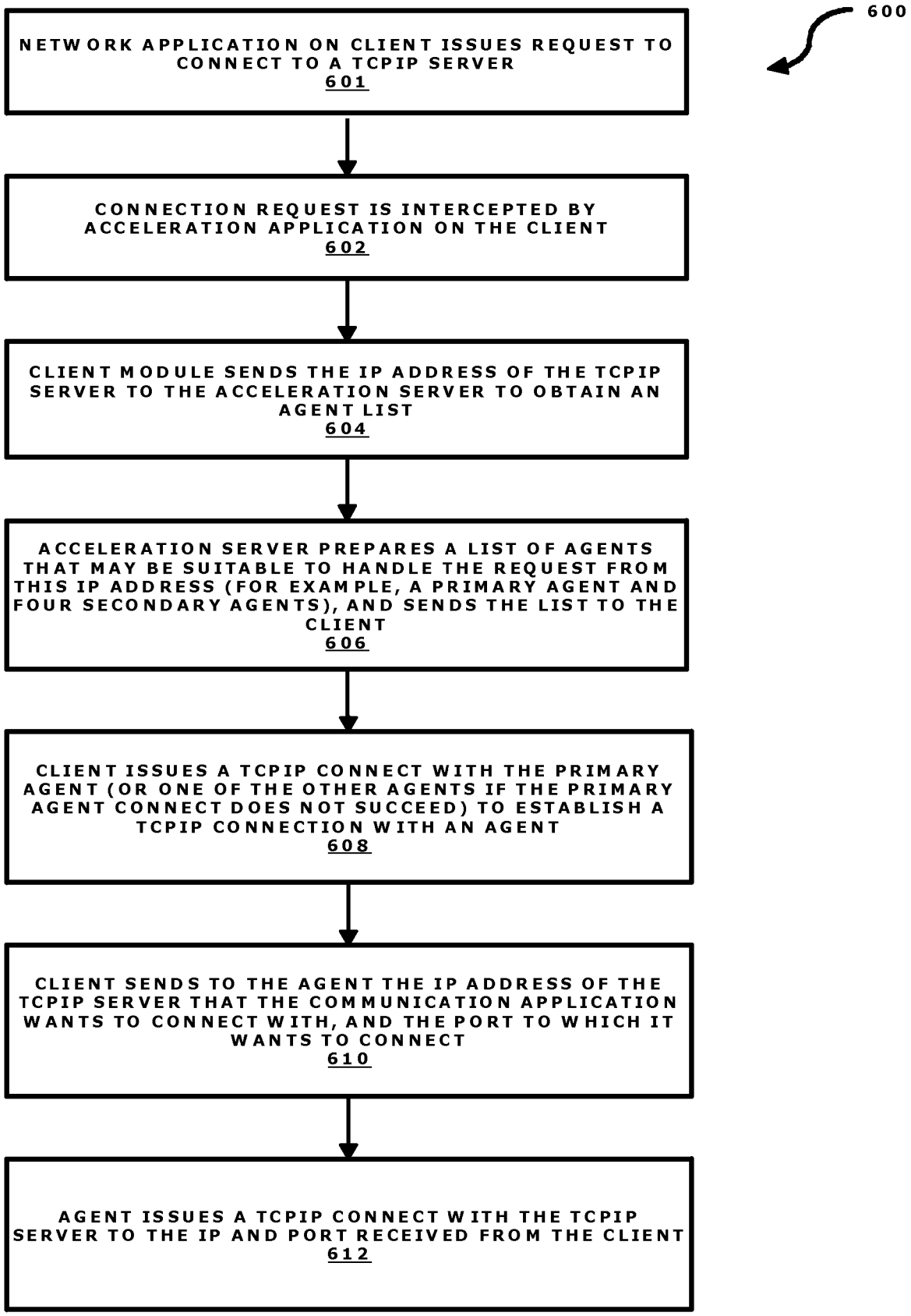

600
NETWORK APPLICATION ON CLIENT ISSUES REQUEST TO CONNECT TO A TCPIP SERVER
601
CONNECTION REQUEST IS INTERCEPTED BY ACCELERATION APPLICATION ON THE CLIENT
602
CLIENT MODULE SENDS THE IP ADDRESS OF THE TCPIP SERVER TO THE ACCELERATION SERVER TO OBTAIN AN AGENT LIST
604
ACCELERATION SERVER PREPARES A LIST OF AGENTS THAT MAY BE SUITABLE TO HANDLE THE REQUEST FROM THIS IP ADDRESS (FOR EXAMPLE, A PRIMARY AGENT AND FOUR SECONDARY AGENTS), AND SENDS THE LIST TO THE CLIENT
606
CLIENT ISSUES A TCPIP CONNECT WITH THE PRIMARY AGENT (OR ONE OF THE OTHER AGENTS IF THE PRIMARY AGENT CONNECT DOES NOT SUCCEED) TO ESTABLISH A TCPIP CONNECTION WITH AN AGENT
608
CLIENT SENDS TO THE AGENT THE IP ADDRESS OF THE TCPIP SERVER THAT THE COMMUNICATION APPLICATION WANTS TO CONNECT WITH, AND THE PORT TO WHICH IT WANTS TO CONNECT
610
AGENT ISSUES A TCPIP CONNECT WITH THE TCPIP SERVER TO THE IP AND PORT RECEIVED FROM THE CLIENT
612

FIG. 14

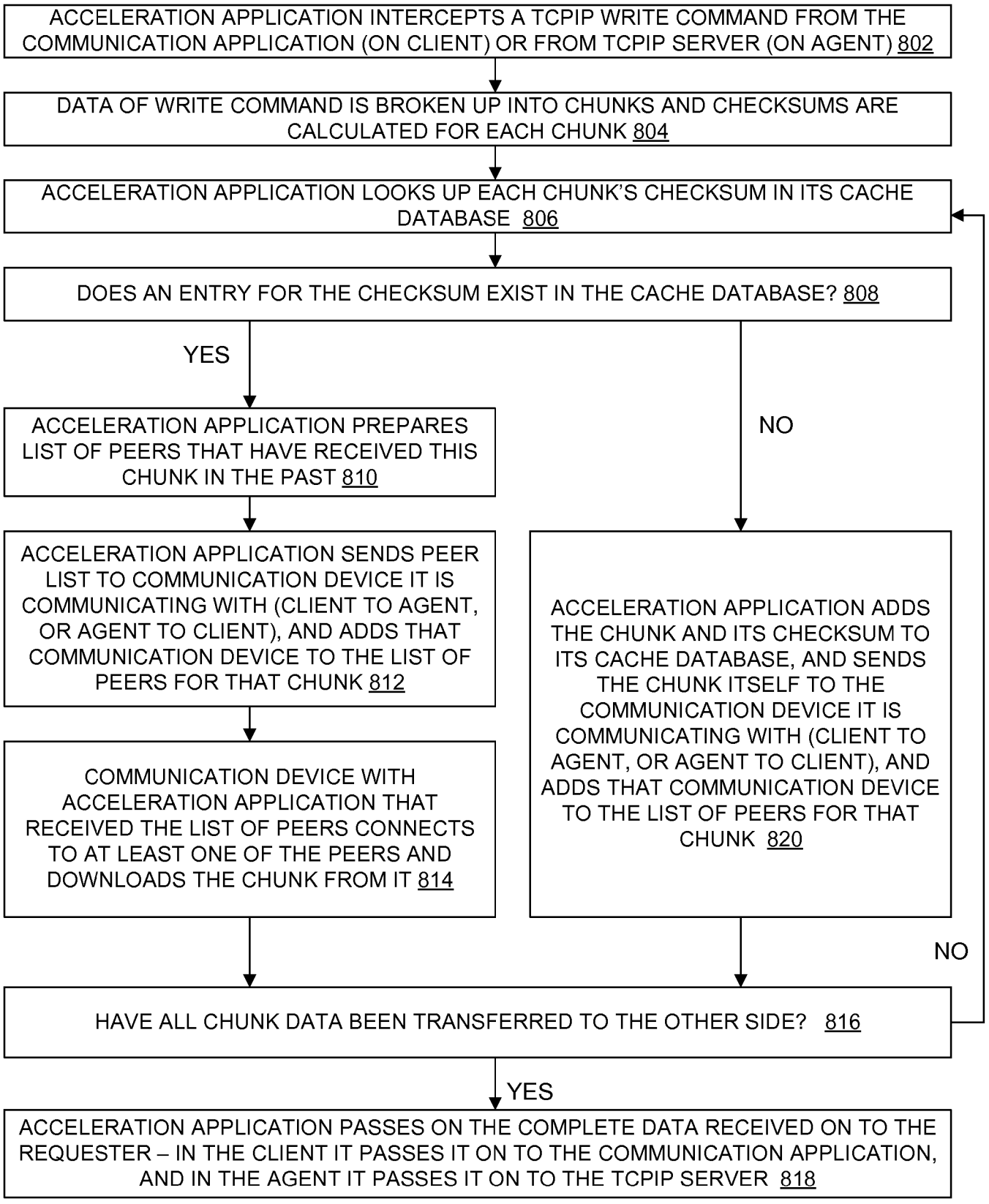

ACCELERATION APPLICATION INTERCEPTS A TCPIP WRITE COMMAND FROM THE COMMUNICATION APPLICATION (ON CLIENT) OR FROM TCPIP SERVER (ON AGENT) 802
DATA OF WRITE COMMAND IS BROKEN UP INTO CHUNKS AND CHECKSUMS ARE CALCULATED FOR EACH CHUNK 804
ACCELERATION APPLICATION LOOKS UP EACH CHUNK'S CHECKSUM IN ITS CACHE DATABASE 806
DOES AN ENTRY FOR THE CHECKSUM EXIST IN THE CACHE DATABASE? 808
YES
NO
ACCELERATION APPLICATION PREPARES LIST OF PEERS THAT HAVE RECEIVED THIS CHUNK IN THE PAST 810
ACCELERATION APPLICATION SENDS PEER LIST TO COMMUNICATION DEVICE IT IS COMMUNICATING WITH (CLIENT TO AGENT, OR AGENT TO CLIENT), AND ADDS THAT COMMUNICATION DEVICE TO THE LIST OF PEERS FOR THAT CHUNK 812
COMMUNICATION DEVICE WITH ACCELERATION APPLICATION THAT RECEIVED THE LIST OF PEERS CONNECTS TO AT LEAST ONE OF THE PEERS AND DOWNLOADS THE CHUNK FROM IT 814
ACCELERATION APPLICATION ADDS THE CHUNK AND ITS CHECKSUM TO ITS CACHE DATABASE, AND SENDS THE CHUNK ITSELF TO THE COMMUNICATION DEVICE IT IS COMMUNICATING WITH (CLIENT TO AGENT, OR AGENT TO CLIENT), AND ADDS THAT COMMUNICATION DEVICE TO THE LIST OF PEERS FOR THAT CHUNK 820
NO
HAVE ALL CHUNK DATA BEEN TRANSFERRED TO THE OTHER SIDE? 816
YES
ACCELERATION APPLICATION PASSES ON THE COMPLETE DATA RECEIVED ON TO THE REQUESTER – IN THE CLIENT IT PASSES IT ON TO THE COMMUNICATION APPLICATION, AND IN THE AGENT IT PASSES IT ON TO THE TCPIP SERVER 818
800

FIG. 15

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Derry		Shribman	

Residence Information (Select One) US Residency ● Non US Residency Active US Military Service

City	Country of Residence [i]
Tel Aviv	IL

Mailing Address of Inventor:

Address 1	9/6 Beylinson St.,
Address 2	
City	Tel Aviv
State/Province	
Postal Code	6356709
Country [i]	IL

Inventor 2 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Ofer		Vilenski	

Residence Information (Select One) US Residency ◉ Non US Residency Active US Military Service

City	Country of Residence [i]
Moshav Hadar Am	IL

Mailing Address of Inventor:

Address 1	8 Hahollandim Street
Address 2	
City	Moshav Hadar Am
State/Province	
Postal Code	42935
Country [i]	IL

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	131926	
Email Address		Add Email / Remove Email

Application Information:

Title of the Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION		
Attorney Docket Number	HOLA-005-US16	**Small Entity Status Claimed**	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	15	**Suggested Figure for Publication (if any)**	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	● Customer Number	US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	131926		

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending				Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
	Continuation of	16/278105	2019-02-17		
Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16/278105	Continuation of	15/957950	2018-04-20	10225374	2019-03-05
Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
15/957950	Continuation of	14/025109	2013-09-12	10069936	2018-09-04
Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14/025109	Division of	12/836059	2010-07-14	8560604	2013-10-15
Prior Application Status	Expired				Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
12/836059	Claims benefit of provisional	61/249624	2009-10-08		

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Remove

Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 — Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

● Assignee	Legal Representative under 35 U.S.C. 117	Joint Inventor
Person to whom the inventor is obligated to assign.	Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name	WEB SPARK LTD.		
Mailing Address Information For Applicant:			
Address 1	3 Hamahshev St.,		
Address 2			
City	Netanya	**State/Province**	
Country	IL	Postal Code	42507
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
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Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

Remove

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add

Signature:

Remove

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Yehuda Binder/			Date (YYYY-MM-DD)	2019-10-10
First Name	Yehuda	Last Name	BINDER	Registration Number	73612

Additional Signature may be generated within this form by selecting the Add button. Add

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	HOLA-005-US16
	Application Number	
Title of Invention	SYSTEM PROVIDING FASTER AND MORE EFFICIENT DATA COMMUNICATION	

This collection of information is required by 37 CFR 1.76. 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 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet 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.**

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 records.

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 CooperationTreaty.

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.