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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/323,389	05/18/2021	Craig W. Stanfill	30040-A95001	3867

109675 7590 09/16/2021

OCCHIUTI & ROHLICEK LLP
50 Congress Street
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EXAMINER	
WIDHALM DE RODRI, ANGELA MARIE	

ART UNIT	PAPER NUMBER
2452	

NOTIFICATION DATE	DELIVERY MODE
09/16/2021	ELECTRONIC

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

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

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

INFO@ORPATENT.COM

Office Action Summary	Application No. 17/323,389	Applicant(s) Stanfill, Craig W.	
	Examiner Angela Widhalm de Rodriguez	Art Unit 2452	AIA (FITF) Status Yes

-- 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 18 May 2021.

☐ 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) 1-22 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) 1-22 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 18 May 2021 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 19 Aug 2021.

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

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

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

2. The claims 1-22 are pending in this application. This is a non-final office action in response to Application Number 17/323,389 filed on 18 May 2021.

Claim Interpretation

3. The following is a quotation of 35 U.S.C. 112(f):

> (f) Element in Claim for a Combination. – An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

The following is a quotation of pre-AIA 35 U.S.C. 112, sixth paragraph:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

4. The claims in this application are given their broadest reasonable interpretation using the plain meaning of the claim language in light of the specification as it would be understood by one of ordinary skill in the art. The broadest reasonable interpretation of a claim element (also commonly referred to as a claim limitation) is limited by the description in the specification when 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is invoked.

As explained in MPEP § 2181, subsection I, claim limitations that meet the following three-prong test will be interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph:

(A) the claim limitation uses the term "means" or "step" or a term used as a substitute for "means" that is a generic placeholder (also called a nonce term or a non-structural term having no specific structural meaning) for performing the claimed function;

(B) the term "means" or "step" or the generic placeholder is modified by functional language, typically, but not always linked by the transition word "for" (e.g., "means for") or another linking word or phrase, such as "configured to" or "so that"; and

(C) the term "means" or "step" or the generic placeholder is not modified by sufficient structure, material, or acts for performing the claimed function.

Use of the word "means" (or "step") in a claim with functional language creates a rebuttable presumption that the claim limitation is to be treated in accordance with 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph. The presumption that the claim limitation is interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, is rebutted when the claim limitation recites sufficient structure, material, or acts to entirely perform the recited function.

Absence of the word "means" (or "step") in a claim creates a rebuttable presumption that the claim limitation is not to be treated in accordance with 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph. The presumption that the claim limitation is not interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth

paragraph, is rebutted when the claim limitation recites function without reciting sufficient structure, material or acts to entirely perform the recited function.

Claim limitations in this application that use the word "means" (or "step") are being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, except as otherwise indicated in an Office action. Conversely, claim limitations in this application that do not use the word "means" (or "step") are not being interpreted under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, except as otherwise indicated in an Office action.

Claim Rejections - 35 USC § 103

5. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

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

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-22 are rejected under 35 U.S.C. 103 as being unpatentable over Chang et al. (U.S. Patent 5,367,523) in view of Bai et al. (U.S. Patent Publication 2008/0239953).

Regarding claim 1, Chang disclosed a computing system (104) including:

a distributed computing cluster (112) (see Chang Fig. 1, 5:50-68: distributed packet communications network) including:

a plurality of computing nodes (105) interconnected by an interconnect network (107) over which the computing nodes of the plurality of computing nodes communicate with each other by passing messages (see Chang Fig. 1, 5:50-68: distributed packet communications network, packet transmission system includes eight nodes)**, each of at least some of the computing nodes being configured with *a first*** *(see Bai combination below)* **parameter governing transmissions of messages by the computing node over the interconnect network** (see Chang 6:49-60: packet transmission is managed according to SLA and QoS),

wherein the at least some computing nodes are configured to accumulate messages for transmission as a group of messages according to the first parameter (see Chang 14:8-15: accumulating packets at nodes and building up queue lengths), and

wherein the computing system is configured to limit injections of computing requests into the distributed computing cluster according to a

second parameter (see Chang 7:12-14: R_s is the maximum bit rate at which the sending node is allowed to transmit data into the network); and

the computing system further includes a controller (110) configured to receive at least one predetermined service level requirement (see Chang 7:62-8:2: T_q is computed based on QoS requirements and indicates the maximum network queuing time allowed for a given connection and is the sum of individual queuing times for each hop along the path) **and to control a value of the second parameter and *a value of the first parameter*** *(see Bai combination below)* **to control a computational throughput of the distributed computing cluster** (see Chang Fig. 4 #31, 9:53-54: the preferred operating point is the knee point 31 | 9:62-10:7: the goal of the congestion control mechanism is to maintain all paths at or near the optimum operating point 31. Sending rate is adjusted up or down in order to bring the throughput back to near the optimum operating point) **while complying with the at least one service level requirement** (see Chang 14:60-63: if T_s exceeds T_q, the receiving endnode measuring period M_r is increased to reduce the rate R_r fed back to the receiving endnode and thereby force the reduction of the sending rate | 6:49-60: packet transmission is managed according to SLA and QoS).

Chang did not explicitly disclose using the values of two parameter when controlling the throughput, i.e. "**a value of the first parameter**". However in a related art, Bai disclosed optimizing throughput by resizing the congestion buffer size (see Bai 0008). In light of Chang's teachings regarding controlling packet transmission via queue lengths (see Chang 14:8-15), it would have been obvious to one of ordinary skill

in the art before the effective filing date of the claimed invention to combine the teachings of Chang and Bai to further clarify how Chang's queue lengths are represented as a size value that is able to be manipulated in order to control throughput and thereby further reduce congestion (see Bai 0008).

8. Regarding claim 20, the claim contains the limitations, substantially as claimed, as described in claim 1 above and is rejected under Chang-Bai according to the rationale provided above.

9. Regarding claim 21, the claim contains the limitations, substantially as claimed, as described in claims 1 and 20 above and is rejected under Chang-Bai according to the rationale provided above. Chang-Bai further disclosed a computer-readable medium storing software in a non-transitory form, the software including instructions for causing a computing system to perform the method of claim 20 above.

10. Regarding claim 22, the claim contains the limitations, substantially as claimed, as described in claims 1 and 20 above and is rejected under Chang-Bai according to the rationale provided above. Chang-Bai further disclosed a computing system including means for performing the method of claim 20 above.

11. Regarding claim 2, Chang-Bai disclosed the computing system of claim 1 wherein the distributed computing cluster includes a rate limiter (117) configured to limit a rate of injection of the computing requests into the distributed computing system

according to the second parameter (see Chang Fig. 4, 9:62-10:7: limiting sending rate in order to control congestion).

12. Regarding claim 3, Chang-Bai disclosed the computing system of claim 1 wherein each service level requirement of the one or more service level requirements specifies a maximum allowable time difference between injecting a computing request into the distributed computing cluster and receiving a response to the injected computing request from the distributed computing cluster (see Chang 7:62-8:2: T_q is computed based on QoS requirements and indicates the maximum network queuing time allowed for a given connection and is the sum of individual queuing times for each hop along the path | 7:46-56: T_{out} is the timeout value for a roundtrip transmission delay from sending to receiver and back to sender).

13. Regarding claim 4, Chang-Bai disclosed the computing system of claim 1 further including a monitor (119) configured to observe a rate of output of the distributed computing cluster and a processing latency of the distributed computing system (see Chang Fig. 4, 9:65-66: feedback rate indicates that the monitored path is below the optimum point 31).

14. Regarding claim 5, Chang-Bai disclosed the computing system of claim 4 wherein the observed processing latency is measured by determining a time difference between injecting a computing request into the distributed computing cluster and receiving a response to the injected computing request from the distributed computing

cluster (see Chang 14:60-63: if T_s *(queuing time: 7:57-61)* exceeds T_q (*maximum queuing time: 7:62-8-2*)… *this implies monitoring latency* | 7:46-56: T_{out} is the timeout value for a roundtrip transmission delay from sending to receiver and back to sender).

15. Regarding claim 6, Chang-Bai disclosed the computing system of claim 4 wherein requests injected into the distributed computing cluster and results output by the distributed computing cluster pass through the monitor (see Chang 14:60-63: if T_s *(queuing time: 7:57-61)* exceeds T_q (*maximum queuing time: 7:62-8-2*)… *this implies monitoring latency* | 7:46-56: T_{out} is the timeout value for a roundtrip transmission delay from sending to receiver and back to sender. *This also implies monitoring sent and received messages*).

16. Regarding claim 7, Chang-Bai disclosed the computing system of claim 4 wherein the computational throughput is observed by measuring, by the monitor, a rate of data elements outputted by the cluster (see Chang 14:60-63: if T_s *(queuing time: 7:57-61)* exceeds T_q (*maximum queuing time: 7:62-8-2*) | 7:46-56: T_{out} is the timeout value for a roundtrip transmission delay from sending to receiver and back to sender).

17. Regarding claim 8, Chang-Bai disclosed the computing system of claim 4 wherein the controller is configured to process the observed computational throughput of the distributed computing cluster and the observed processing latency to adjust the value of the second parameter and the value of the first parameter (see Chang Fig. 4 #31, 9:53-54: the preferred operating point is the knee point 31 | 9:62-10:7: the goal of

the congestion control mechanism is to maintain all paths at or near the optimum operating point 31. Sending rate is adjusted up or down in order to bring the throughput back to near the optimum operating point | 14:60-63: if T_s exceeds T_q, the receiving endnode measuring period M_r is increased to reduce the rate R_r fed back to the receiving endnode and thereby force the reduction of the sending rate).

18. Regarding claim 9, Chang-Bai disclosed the computing system of claim 8 wherein the controller repeatedly (see Chang Fig. 2, 8:3-4: feedback loop implies a repeated process) processes the observed computational throughput of the distributed computing cluster and the observed processing latency to adjust the value of the second parameter and the value of the first parameter while the distributed computing cluster is processing injected computing requests (see Chang Fig. 4 #31, 9:53-54: the preferred operating point is the knee point 31 | 9:62-10:7: the goal of the congestion control mechanism is to maintain all paths at or near the optimum operating point 31. Sending rate is adjusted up or down in order to bring the throughput back to near the optimum operating point | 14:60-63: if T_s exceeds T_q, the receiving endnode measuring period M_r is increased to reduce the rate R_r fed back to the receiving endnode and thereby force the reduction of the sending rate).

19. Regarding claim 10, Chang-Bai disclosed the computing system of claim 8 wherein the controller implements a feedback loop (see Chang Fig. 2, 8:3-4: feedback loop) with the distributed computing cluster to process the observed computational throughput of the distributed computing cluster and the observed processing latency to

adjust the value of the second parameter and the value of the first parameter (see Chang Fig. 4 #31, 9:53-54: the preferred operating point is the knee point 31 | 9:62-10:7: the goal of the congestion control mechanism is to maintain all paths at or near the optimum operating point 31. Sending rate is adjusted up or down in order to bring the throughput back to near the optimum operating point | 14:60-63: if T_s exceeds T_q, the receiving endnode measuring period M_r is increased to reduce the rate R_r fed back to the receiving endnode and thereby force the reduction of the sending rate).

20. Regarding claim 11, Chang-Bai disclosed the computing system of claim 1 wherein the controller uses an optimization algorithm to control the value of the first and/or second parameter to maximize the computational throughput of the distributed computing cluster while complying with the at least one service level requirement (see Chang Fig. 4 #31, 9:53-54: the preferred operating point is the knee point 31 | 9:62-10:7: the goal of the congestion control mechanism is to maintain all paths at or near the optimum operating point 31. Sending rate is adjusted up or down in order to bring the throughput back to near the optimum operating point | 14:60-63: if T_s exceeds T_q, the receiving endnode measuring period M_r is increased to reduce the rate R_r fed back to the receiving endnode and thereby force the reduction of the sending rate).

21. Regarding claim 12, Chang-Bai disclosed the system of claim 1 wherein the first parameter includes a delay parameter governing a minimum time interval between transmission of messages by the computing node over the interconnect network (see Bai 0008: optimizing throughput by resizing the congestion buffer size, i.e. minimum

transmission time interval). The motivation to combine Chang and Bai is the same as that presented in claim 1 above.

22. Regarding claim 13, Chang-Bai disclosed the system of claim 12 wherein the at least some computing nodes are configured to accumulate messages for transmission as a group of messages (see Chang 14:8-15: accumulating packets at nodes and building up queue lengths) during the minimum time interval (see Bai 0008: optimizing throughput by resizing the congestion buffer size, i.e. minimum transmission time interval). The motivation to combine Chang and Bai is the same as that presented in claim 1 above.

23. Regarding claim 14, Chang-Bai disclosed the system of claim 1 wherein the second parameter includes a rate of input parameter configured to limit a rate of the injection of computing requests into the distributed computing cluster (see Chang 7:12-14: R_s is the maximum bit rate at which the sending node is allowed to transmit data into the network).

24. Regarding claim 15, Chang-Bai disclosed the system of claim 1 wherein controlling the computational throughput of the distributed computing cluster while complying with the at least one service level requirements includes the maximizing a computational throughput of the distributed computing cluster without violating any of the at least one service level requirements (see Chang 6:49-60: packet transmission is managed according to SLA and QoS | Fig. 4 #31, 9:53-54: the preferred operating point

is the knee point 31 | 9:62-10:7: the goal of the congestion control mechanism is to maintain all paths at or near the optimum operating point 31. Sending rate is adjusted up or down in order to bring the throughput back to near the optimum operating point | 14:60-63: if T_s exceeds T_q, the receiving endnode measuring period M_r is increased to reduce the rate R_r fed back to the receiving endnode and thereby force the reduction of the sending rate).

25. Regarding claim 16, Chang-Bai disclosed the system of claim 1 wherein the first parameter governs a number of messages accumulated between transmissions of messages by the computing node over the interconnect network (see Chang 14:8-15: accumulating packets at nodes and building up queue lengths | Bai 0008: optimizing throughput by resizing the congestion buffer size, i.e. minimum transmission time interval). The motivation to combine Chang and Bai is the same as that presented in claim 1 above.

26. Regarding claim 17, Chang-Bai disclosed the computing system of claim 1 further including one or more interface components, each configured to receive input data, inject computing requests into the distributed computing cluster for processing the input data, receive processing results from the distributed computing cluster, and generate output data from the processing results, the interface component being configured to limit a rate of injection of computing requests into the distributed computing system according to the second parameter (see Chang Fig. 1: distributed network components | 5:50-68: distributed packet transmission among nodes, *this*

includes sending, receiving, processing, and outputting messages | 9:62-10:7: the goal of the congestion control mechanism is to maintain all paths at or near the optimum operating point 31. Sending rate is adjusted up or down in order to bring the throughput back to near the optimum operating point).

27. Regarding claim 18, Chang-Bai disclosed the computing system of claim 17 wherein at least some of the one or more interface components execute on a client system (106) separate from systems on which the distributed computing cluster executes (see Chang Fig. 1: distributed network system).

28. Regarding claim 19, Chang-Bai disclosed the computing system of claim 17 wherein at least some of the received input data is associated with priority levels, and the one or more interface components are configured to manage injection of the input data into the distributed data cluster according to the priority levels (see Chang 6:49-60: managing network traffic according to SLA and QoS and packet priority levels).

Conclusion

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Widhalm de Rodriguez whose telephone number is (571)272-1035. The examiner can normally be reached on M-F: 6am-2:30pm.

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, Thu Nguyen can be reached on (571) 272-6967. 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.

/A.W.R./
Examiner, Art Unit 2452
11 September 2021

/Patrice L Winder/
Primary Examiner, Art Unit 2452

Notice of References Cited	Application/Control No. 17/323,389	Applicant(s)/Patent Under Reexamination Stanfill, Craig W.	
	Examiner Angela Widhalm de Rodriguez	Art Unit 2452	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-5367523-A	11-1994	Chang; Rong-Feng	H04L47/10	370/235
*	B	US-20080239953-A1	10-2008	Bai; Haowei	H04L47/11	370/231
*	C	US-20210227042-A1	07-2021	SAWANT; SANDESH	H04L45/16	1/1
*	D	US-10623281-B1	04-2020	Zhao; Junping	H04L41/0681	1/1
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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	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.

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

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

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	17323389
Filing Date	2021-05-18
First Named Inventor	Craig W. Stanfill
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	30040-A95001

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
/A.M.W/	1	5367523		1994-11-22	Chang et al.	

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/A.M.W/	1	20080239953	A1	2008-10-02	Bai 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]

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.M.W/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Filing Date	2021-05-18
First Named Inventor	Craig W. Stanfill
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	30040-A95001

/A.M.W/	1	International Search Report and Written Opinion, International Application No. PCT/US2021/032919, mailed August 6, 2021 (16 pages)
/A.M.W/	2	Nagle's Algorithm, [retrieved from the internet (August 19, 2021):https://en.wikipedia.org/wiki/Nagle%27s_algorithm]

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EXAMINER SIGNATURE

Examiner Signature	/ANGELA M WIDHALM DE RODRIG/	Date Considered	09/11/2021

*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.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /A.M.W/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	17323389
Filing Date	2021-05-18
First Named Inventor	Craig W. Stanfill
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	30040-A95001

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	/ Zachary J. Rimkunas /	Date (YYYY-MM-DD)	2021-08-19
Name/Print	Zachary J. Rimkunas	Registration Number	77,288

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.

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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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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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