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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.



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***EX PARTE* REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. 90/019,035.

PATENT UNDER REEXAMINATION 7814170.

ART UNIT 3992.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Order Granting Request For Ex Parte Reexamination	Control No. 90/019,035	Patent Under Reexamination 7814170	
	Examiner Luke S Wassum	Art Unit 3992	AIA (FITF) Status No
--The MAILING DATE of this communication appears on the cover sheet with the correspondence address-- The request for <i>ex parte</i> reexamination filed <u>11/19/2021</u> has been considered and a determination has been made. An identification of the claims, the references relied upon, and the rationale supporting the determination are attached. Attachments: a) ☐ PTO-892, b) ☒ PTO/SB/08, c) ☐ Other: _____ 1. ☒ The request for <i>ex parte</i> reexamination is GRANTED. RESPONSE TIMES ARE SET AS FOLLOWS: For Patent Owner's Statement (Optional): TWO MONTHS from the mailing date of this communication (37 CFR 1.530 (b)). EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c). For Requester's Reply (optional): TWO MONTHS from the date of service of any timely filed Patent Owner's Statement (37 CFR 1.535). NO EXTENSION OF THIS TIME PERIOD IS PERMITTED. If Patent Owner does not file a timely statement under 37 CFR 1.530(b), then no reply by requester is permitted.			
		/LUKE S WASSUM/ Primary Examiner, Art Unit 3992	
cc:Requester (if third party requester)			

U.S. Patent and Trademark Office
PTOL-471G (Rev. 01-13)

Office Action in *Ex Parte* Reexamination

Part of Paper No. 20211207

This Order granting *ex parte* reexamination of US 7,814,170 ('170 patent) is being re-mailed, since the Order mailed January 10, 2022 was mailed to the incorrect address for Patent Owner. The period to file a patent owner statement pursuant to 35 USC 304 and 37 CFR 1.530 is restarted and is two (2) months from the re-mailing of this Order.

Decision Granting *Ex Parte* Reexamination

A substantial new question of patentability affecting claims 1, 2, 6, 8, 9, 12, and 15 of United States Patent Number 7,814,170 ("the '170 patent") is raised by the request for *Ex Parte* Reexamination filed 19 November 2021 ("the Request"). Claims 1, 2, 6, 8, 9, 12, and 15 are subject to reexamination.

The application which issued as the '170 patent was application no. 11/354,224 ("the '224 application"), filed 13 February 2006.

Priority

The '170 patent is a continuation of U.S. Patent Application 09/661,222, filed 13 September 2000, now U.S. Patent 7,103,640, which is a continuation-in-part of U.S. Patent Application 09/111,896, filed 8 July 1998, now abandoned.

The '170 patent also claims priority under 35 U.S.C. § 119(e) to U.S. Provisional Application 60/153,709, filed 14 September 1999.

Therefore, the earliest claimed priority date of the '170 application is 8 July 1998,
to the extent that the claimed subject matter is fully supported.

Claim Interpretation

The Office notes that the '170 patent contains a specific reference to several earlier filed applications to which priority is claimed under 35 U.S.C. § 120. The '170 patent is also subject to two terminal disclaimers, limiting the patent term not to extend beyond the expiration of related patents 7,103,640 ("the '640 patent") and 7,233,978 ("the '978 patent"). Since both the '640 patent and the '978 patent have expired, the '170 patent has likewise expired.

In a reexamination proceeding involving claims of an expired patent, claim construction pursuant to the principle set forth by the court in *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316, 75 USPQ2d 1321, 1329 (Fed. Cir. 2005) (words of a claim "are generally given their ordinary and customary meaning" as understood by a person of ordinary skill in the art in question at the time of the invention) should be applied since the expired claim are not subject to amendment. See *Ex parte Papst-Motoren*, 1 USPQ2d 1655 (Bd. Pat. App. & Inter. 1986).

Upon review of the original specification and prosecution history, the examiner has found several instances of lexicographic definitions.

Specifically, the following terms were defined at col. 4, lines 8-27:

Identifier/identifier string – a unique string with which zero or more locations strings are associated in a network distributed tracking protocol (NDTP) server.

Data location/location – a string that is a member of a set of strings associated with an identifier string in an NDTP server.

NDTP client/client – a network-attached component that initiates update or lookup of identifier/location mappings from an NDTP server with NDTP request messages.

Location server¹/server – a network-attached component that maintains a set of identifier/location mappings that are modified or returned in response to NDTP request messages from NDTP clients.

These claim terms will be interpreted consistent with Patent Owner's lexicographical definitions. Since these terms have been expressly defined in Patent Owner's disclosure, these definitions will take precedence over any other proposed construction.

¹ The Office notes that the term 'location server', although claimed, does not appear in Patent Owner's specification. That said, the analogous term 'NDTP server' is defined in the specification. The claimed 'location server' will be interpreted consistent with the 'NDTP server' definition provided in the specification.

In addition, Patent Owner offered proposed construction for a number of other claim terms during pending litigation².

Specifically, Patent Owner proposed the following claim term construction:

Location information – information pertaining to one or more locations of data and/or identities of one or more location servers.

Hash table – a data structure that stores values in a table, where values are stored and retrieved by applying a hash function to an input and using the function result as an index into the table.

A hash function used to organize the data location information across the plurality of location servers – a hash function that maps identifier strings to one or more of the data location servers.

Data pertaining to the entity – data pertaining to a person or thing (real, digital, or abstract).

Requester does not object to the proposed construction for the purposes of the instant reexamination proceeding (see Request, pages 14-15).

These claim terms will be interpreted consistent with the above construction.

² *Kove IO, Inc. v. Amazon Web Services, Inc.*, 1:18cv08175 (N.D. Ill.)

The Claimed Invention

The invention provides a network distributed tracking wire transfer protocol for storing and retrieving data across a distributed data collection. The protocol includes a location string for specifying the network location of data associated with an entity in the distributed data collection, and an identification string for specifying the identity of an entity in the distributed data collection. According to the protocol, the length of the location string and the length of the identification string are variable, and an association between an identification string and a location string can be spontaneously and dynamically changed. The network distributed tracking wire transfer protocol is application independent, organizationally independent, and geographically independent. A method for using the protocol in a distributed data collection environment and a system for implementing the protocol are also provided. See Abstract.

Relevant Prosecution History

The '224 application was originally filed with claims 1-16. A preliminary amendment canceled claims 1-16 and added new claims 17-32.

In a first action mailed 28 October 2008, the Office rejected all claims under 35 U.S.C. § 102, and rejected independent claims 17, 20, and 30 under non-statutory double patenting.

After extensive claim amendments, the prior art rejections were withdrawn, while the double patenting rejections were maintained, in a final rejection mailed 2 September 2009.

After the filing of a terminal disclaimer, the Office mailed a notice of allowance on 18 November 2009.

Therein, the reasons for allowance of independent claim 17 (issued claim 1) was the use of a hash function to organize the data location information across a plurality of data location servers, and wherein the data location server containing the desired data location information is determined based on the application of a hash function to the identifier string.

The reason for allowance of independent claims 20 and 30 (issued claims 6 and 15 respectively) was that the location server returns a redirect message comprising a list of at least one other location server known to have the location information for the desired entity in the case where the location server lacks such location information.

Information Disclosure Statement

Applicants' Information Disclosure Statement (IDS), filed 19 November 2021, has been received and entered into the record. Since the IDS complies with the provisions of MPEP § 2280, the references cited therein have been considered by the examiner.

See attached form PTO-1449.

The Substantial New Question of Patentability

The standard for establishing a Substantial New Question of Patentability is defined in the following sections of the MPEP:

MPEP § 2242(I) provides, in pertinent part:

A prior art patent or printed publication raises a substantial question of patentability where there is a substantial likelihood that a reasonable examiner would consider the prior art patent or printed publication important in deciding whether or not the claim is patentable.

Over the course of the original prosecution of the '224 application, the limitations that were not found in the prior art were

data location information for a plurality of data entities is stored in the data location server network, at least one of the plurality of data location servers includes location information associated with the identifier string, each one of the plurality of data location servers comprises a processor and a portion of the data location information, *the portion of the data location information included in a corresponding one of the data location servers is based on a hash function used to organize the data location information across the plurality of data location servers*, and each one of the data location servers is configured to *determine the at least one of the plurality of data location servers based on the hash function applied to the identifier string* (issued independent claim 1); and

programming logic is configured to return, in response to a location query related to a desired entity, a location message... if the location server contains location information for the desired entity, and wherein the programming logic is further configured to *return a redirect message if the location server lacks the location information for the desired entity, the redirect message comprising a list of at least one other location server known to have the location information for the desired entity* (issued independent claims 6 and 15).

Thus, prior art which teaches or suggests the above-cited claim features would raise a Substantial New Question of Patentability with respect to claims 1, 2, 6, 8, 9, 12, and 15 of the '170 patent.

Prior Art Cited in the Request

The following reference was cited by the third party Requester in the Request for *Ex Parte* Reexamination:

Oracle Names Administrator's Guide, Release 2.0 (Oracle Corp., Redwood City, CA) ("**OracleNamesAdminGuide**")

Joseph B. Greene, *Oracle DBA Survival Guide*, 1st ed. (Sams Publishing, Indianapolis, Ind.), ISBN: 0672306816 ("**OracleSG**")

U.S. Patent 5,777,989 to John McGarvey ("**McGarvey**")

U.S. Patent 5,301,286 to Purshotam Rajani ("**Rajani**")

None of the references relied upon by the Requester were of record or considered by the Office during the original prosecution of the '224 application.

Proposed Substantial New Question of Patentability

Ex Parte Reexamination of claims 1, 2, 6, 8, 9, 12, and 15 of the '170 patent has been requested, based upon the following issues presented in the form of proposed claim rejections:

Issue 1: Whether claims 1 and 2 are obvious under 35 U.S.C. § 103(a) in view of **OracleNamesAdminGuide**, **OracleSG**, and **Rajani**.

Issue 2: Whether claims 6, 8, and 15 are obvious under 35 U.S.C. § 103(a) in view of **OracleNamesAdminGuide**, **OracleSG**, and **McGarvey**.

Issue 3: Whether claims 9 and 12 are obvious under 35 U.S.C. § 103(a) in view of **OracleNamesAdminGuide**, **OracleSG**, **McGarvey**, and **Rajani**.

Analysis

The Examiner agrees that based upon the following analysis, the teachings of the cited prior art raises a substantial new question of patentability with regard to claims 1, 2, 6, 8, 9, 12, and 15 of the '170 patent.

Issue 1: OracleNamesAdminGuide, OracleSG, and Rajani

The combination of OracleNamesAdminGuide, OracleSG, and **Rajani** raises a substantial new question of patentability with respect to claims 1 and 2 of the '170 patent, for the reasons discussed below.

With respect to claim 1, OracleNamesAdminGuide discloses an Oracle 7 distributed database management system (DBMS) for managing data stored in a distributed network. The DBMS allows users to request and manage data that is located in the distributed system using Oracle Names Servers.

The Oracle Names Servers store names and addresses for network services such as databases, as well as the names and addresses of other Oracle Names Servers. After services (e.g., databases) have been defined in Oracle Names, users only need to refer to them by name to connect to a database or network service (see page 23).

The Names Server has a single purpose: to resolve or assist in resolving a client-initiated name request. It interprets the request, then looks up the name in its cache, then sends the response back to the client (pages 52-53).

OracleSG discloses that Oracle 7 utilizes the use of a rule-based optimizer in executing SQL queries in the Oracle 7 database manager. Specifically, it is disclosed

that hashing is utilized by the rule-based optimizer in order to execute queries in the most effective manner (see page 633 et seq.).

Rajani discloses hashing the locations of data entities (e.g., files) to make them more easily accessible. For instance, claim 1 discloses a method of locating a file in memory whereby said file is identified by a name comprising a component in a sequence of N components identifying a path name associated with said file, including storing each component in an available location of a first table of locations such that the address of said available location defines a unique identify value of the component stored thereat, and deriving for each component an associated hashing number and storing in a second table of locations at a location identified by said hashing number the address of the available location (col. 8, lines 38-60).

Also disclosed is a process of locating or creating a record associated with a file that is either being stored or unloaded from one memory through the use of a hash table and a string space table. Upon receipt of the file, or path name (e.g., /etc/services), the computer maps the path name into a unique identity that can be used to locate the file after it has been stored. Specifically, the computer generates each identity by passing each component of the pathname through a conventional hashing algorithm to obtain a memory offset. The computer then retrieves from the hash table the contents of

the location defined by the offset, which is used as an index into the string space table where the desired component can be retrieved (col. 4, lines 1-63 et seq.).

Thus, the combination of **OracleNamesAdminGuide**, **OracleSG**, and **Rajani** discloses the claimed data location information for a plurality of data entities is stored in the data location server network, at least one of the plurality of data location servers includes location information associated with the identifier string, each one of the plurality of data location servers comprises a processor and a portion of the data location information, *the portion of the data location information included in a corresponding one of the data location servers is based on a hash function used to organize the data location information across the plurality of data location servers*, and each one of the data location servers is configured to *determine the at least one of the plurality of data location servers based on the hash function applied to the identifier string* (issued independent claim 1).

In light of these teachings, there is a substantial likelihood that a reasonable examiner would consider the combination of **OracleNamesAdminGuide**, **OracleSG**, and **Rajani** important in deciding whether or not claim 1 (and therefore also dependent claim 2) of the '170 patent are patentable.

The teachings of the combination of **OracleNamesAdminGuide**, **OracleSG**, and **Rajani** are new and non-cumulative with respect to the teachings of the prior art applied during the prosecution of the '170 application. Furthermore, the teachings of the combination of **OracleNamesAdminGuide**, **OracleSG**, and **Rajani** have not been considered in a final holding of invalidity by a federal court. Accordingly, the combination of **OracleNamesAdminGuide**, **OracleSG**, and **Rajani** raises a substantial new question of patentability with regard to claims 1 and 2 that has not been decided in a previous examination, reexamination, or other proceeding before the Office.

Issue 2: **OracleNamesAdminGuide**, **OracleSG**, and **McGarvey**

The combination of **OracleNamesAdminGuide**, **OracleSG**, and **McGarvey** raises a substantial new question of patentability with respect to claims 6, 8, and 15 of the '170 patent, for the reasons discussed below.

With respect to claims 6 and 15, **OracleNamesAdminGuide** discloses an Oracle 7 distributed database management system (DBMS) for managing data stored in a distributed network. The DBMS allows users to request and manage data that is located in the distributed system using Oracle Names Servers.

The Oracle Names Servers store names and addresses for network services such as databases, as well as the names and addresses of other Oracle Names Servers. After services (e.g., databases) have been defined in Oracle Names, users only need to refer to them by name to connect to a database or network service (see page 23).

The Names Server has a single purpose: to resolve or assist in resolving a client-initiated name request. It interprets the request, then looks up the name in its cache, then sends the response back to the client (pages 52-53).

Additionally, **OracleNamesAdminGuide** discloses that when configured with name request forwarding off (for instance, for performance reasons), if a Names Server receives a request for data that it cannot fulfill, the Names Server simply tells the requestor the address of the Names Server that can answer the request (page 137).

Thus, the combination of **OracleNamesAdminGuide**, **OracleSG**, and **McGarvey** discloses the claimed programming logic is configured to return, in response to a location query related to a desired entity, a location message... if the location server contains location information for the desired entity, and wherein the programming logic is further configured to *return a redirect message if the location server lacks the location information for the desired entity, the redirect message comprising a list of at least one other*

location server known to have the location information for the desired entity (issued independent claims 6 and 15).

In light of these teachings, there is a substantial likelihood that a reasonable examiner would consider the combination of **OracleNamesAdminGuide**, **OracleSG**, and **McGarvey** important in deciding whether or not claims 6 and 15 (and therefore also dependent claim 8) of the '170 patent are patentable.

The teachings of the combination of **OracleNamesAdminGuide**, **OracleSG**, and **McGarvey** are new and non-cumulative with respect to the teachings of the prior art applied during the prosecution of the '170 application. Furthermore, the teachings of the combination of **OracleNamesAdminGuide**, **OracleSG**, and **McGarvey** have not been considered in a final holding of invalidity by a federal court. Accordingly, the combination of **OracleNamesAdminGuide**, **OracleSG**, and **McGarvey** raises a substantial new question of patentability with regard to claims 6, 8, and 15 that has not been decided in a previous examination, reexamination, or other proceeding before the Office.

Issue 3: OracleNamesAdminGuide, OracleSG, McGarvey, and Rajani

The combination of OracleNamesAdminGuide, OracleSG, McGarvey, and Rajani raises a substantial new question of patentability with respect to dependent claims 9 and 12 of the '170 patent, by virtue of the inclusion of OracleNamesAdminGuide, OracleSG, and McGarvey (a combination of references which itself raises a substantial new question of patentability as discussed above with respect to Issue 2).

Conclusion

As discussed above, the prior art cited in the request raises a SNQ as to the claims of the '170 patent. Specifically, there is a substantial likelihood that a reasonable examiner would consider the new non-cumulative teachings of **OracleNamesAdminGuide**, **OracleSG**, **McGarvey**, and **Rajani**, regarding the claimed feature of:

data location information for a plurality of data entities is stored in the data location server network, at least one of the plurality of data location servers includes location information associated with the identifier string, each one of the plurality of data location servers comprises a processor and a portion of the data location information, *the portion of the data location information included in a corresponding one of the data location servers is based on a hash function used to organize the data location information across the plurality of data location servers*, and each one of the data location servers is configured to *determine the at least one of the plurality of data location servers based on the hash function applied to the identifier string* (issued independent claim 1); and

programming logic is configured to return, in response to a location query related to a desired entity, a location message... if the location server contains

location information for the desired entity, and wherein the programming logic is further configured to *return a redirect message if the location server lacks the location information for the desired entity, the redirect message comprising a list of at least one other location server known to have the location information for the desired entity* (issued independent claims 6 and 15) as discussed above, to be important in deciding whether or not the claims are patentable.

Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

The Patent Owner is reminded of the continuing responsibility under 37 CFR 1.565(a), to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving U.S. Patent No. 7,814,170 throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

The Patent Owner is reminded that any proposed amendment to the specification and/or claims in the reexamination proceeding must comply with the provisions of 37 C.F.R. § 1.530(d)-(j), must be formally presented pursuant to 37 C.F.R. § 1.52(a) and (b), and must include any fees required by 37 C.F.R. § 1.20(c). See MPEP § 2250(IV) for examples to assist in the preparation of proper amendments in reexamination proceedings.

All correspondence relating to this *ex parte* reexamination proceeding should be directed:

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Any inquiry concerning this communication should be directed to the Central
Reexamination Unit at telephone number 571-272-7705.

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