IN THE UNITED STATES PATENT TRIAL AND APPEAL BOARD

In re *Post-Grant Review* of:	)	
	)	
U.S. Patent No. 5,910,988	)	U.S. Class: 380/24
	)	
Issued: June 8, 1999	)	
	)	
Inventor: Claudio R. Ballard	)	
	)	
Application No. 08/917,761	)	Petition filed: October 25, 2013
	)	
Filed: August 27, 1997	)	
	)	
For: REMOTE IMAGE CAPTURE	)	FILED ELECTRONICALLY
WITH CENTRALIZED	)	PER 37 C.F.R. § 42.6(b)(1)
PROCESSING AND STORAGE	)	

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Patent Trial and Appeal Board
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PETITION FOR POST-GRANT REVIEW UNDER 35 U.S.C. § 321 AND § 18 OF THE LEAHY-SMITH AMERICA INVENTS ACT

Pursuant to 35 U.S.C. § 321 and § 18 of the Leahy-Smith America Invents

Act ("AIA") and pursuant to 37 C.F.R. § 42.300 *et seq.*, the undersigned hereby

requests post-grant review of claims 1-123 of U.S. Patent No. 5,910,988 ("the '988

patent," attached as Petition Exhibit 1001), which issued to Claudio R. Ballard on

June 8, 1999, now owned by DataTreasury Corp.

An electronic payment in the amount of $115,150.00 for the post-grant review fee specified by 37 C.F.R. § 42.15(b)(1)—comprising the $12,000.00 request fee—plus $25,750.00 for 103 additional claims in excess of 20—and $18,000.00 post-institution fee—plus $59,400.00 for 108 additional claims in excess of 15—is being paid at the time of filing this petition. If there are any additional fees due in connection with the filing of this paper, please charge the required fees to our deposit account no. 06-0916.

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Petition Exhibit 1003:   Declaration of Dr. Peter Alexander

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Petition Exhibit 1005:   S. 610, 111th Cong., 1st Sess. (2009)

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Petition Exhibit 1008:   Lobbying Spending Database-DataTreasury Corp, 2011, http://www.opensecrets.org/lobby (last visited October 5, 2013)

Petition Exhibit 1009:   Original Complaint for Patent Infringement in *DataTreasury Corp. v. Fidelity Nat'l Info. Servs., Inc., et al.*, Case No. 2:13-cv-00432 (E.D. Tex. May 28, 2013)

Petition Exhibit 1010:   Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48,734 (Aug. 14, 2012)

Petition Exhibit 1011:   Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756 (Aug. 14, 2012)

Petition Exhibit 1012:   *SAP Am., Inc. v. Versata Dev. Group, Inc.*, CBM2012-00001, Institution of Covered Business Method Review (P.T.A.B. Jan. 9, 2013)

Petition Exhibit 1013:   Transcript in *DataTreasury Corp. v. Wells Fargo & Co. et al.*, Case No. 2:06-cv-72 (E.D. Tex. Mar. 17, 2010) (Morning Session)

Petition Exhibit 1014:   Schumer Helps Banks With a Patent Problem, New York Times (June 14, 2011), *available at* http://www.nytimes.com/2011/06/15/business/15schumer.html?pagewanted=all&_r=1& (last visited July 26, 2013)

Petition Exhibit 1015:   Changes to Implement Inter Partes Review Proceedings, Post-Grant Review Proceedings, and Transitional Program for Covered Business Method Patents, 77 Fed. Reg. 48,680 (Aug. 14, 2012)

Petition Exhibit 1016:   *SAP Am., Inc. v. Versata Dev. Group, Inc.*, CBM2012-00001, Final Written Decition (P.T.A.B. June 11, 2013)

Petition Exhibit 1017:   Claim Construction Order in *DataTreasury Corp. v. Wells Fargo & Co. et al.*, Case No. 2:05-cv-291 (E.D. Tex. Mar. 11, 2009)

Petition Exhibit 1018:   Transcript in *DataTreasury Corp. v. Wells Fargo & Co. et al.*, Case No. 2:06-cv-72 (E.D. Tex. Mar. 17, 2010) (Afternoon Session)

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Petition Exhibit 1020:   Declaration of Mr. John E. Hiles in *DataTreasury Corp. v. Ingenico S.A.*, Case No. 502CV095V (E.D. Tex. Sept. 23, 2005)

Petition Exhibit 1021:   Excerpts of File History for U.S. Patent Application No. 09/454,492

Petition Exhibit 1022:   Excerpts of File History for Reexamination No. 90/007,829

Petition Exhibit 1023:   U.S. Patent No. 5,373,550 to Campbell et al.

Petition Exhibit 1024:   Congressional Record S. 5432 (Sept. 8, 2011)

I.   PRELIMINARY STATEMENT

During the floor debates discussing section 18 of the AIA,[1] Congress

identified U.S. Patent No. 5,910,988—by patent number—as an "obvious[]

business-method patent[]" eligible for post-grant review. Ex. 1004, p. S1379. Early

versions of patent reform legislation sought limits on financial institutions'

potential liability for infringement of the '988 patent and its companion, U.S.

Patent No. 6,032,137 ("the '137 patent," Ex. 1002, collectively, the "Ballard

patents"). Ex. 1005 at Sec. 13; Ex. 1006 at Sec. 14, Ex. 1007 at 33-34. While these

early patent reform provisions were not adopted, they paved the way for the even

broader section 18 "covered business method" ("CBM") review for patents related

to financial services and products. The Ballard patents, targeted by the early patent

reform provisions, fall squarely within the scope of review offered by section 18.

DataTreasury's lobbying efforts attempting to defeat this legislation further

confirm the applicability of section 18 to the Ballard patents. *See* Ex. 1008. Despite

these efforts, section 18 became the law, and post-grant review of the Ballard

patents should be instituted.

The '988 patent specifically refers to financial services including acquiring

images of paper documents and receipts, transmitting the images to a central

facility, and storing financial information extracted from the documents at the

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[1] Pub. L. No. 112-29, 125 Stat. 284 (2011).

central facility using a combination of prior art devices. DataTreasury has asserted

the '988 patent along with the '137 patent, which specifically relates to checks,

against dozens of financial institutions and financial services providers for more

than a decade. Ex. 1009, ¶¶ 2, 4. In addition to being related to financial products

or services, the '988 patent is a CBM patent under section 18 of the AIA because it

fails to offer a technological solution to the known concept of transmitting

financial information. *See* 37 C.F.R. § 42.301.

DataTreasury contends that the Ballard patents are "foundational to modern

day, image-based check processing." Ex. 1009, ¶ 1. It has sued "dozens of prior

litigants" and has elicited licenses totaling "more than $350 million" from a "vast

majority of the top twenty-five banking institutions in America." *Id.* ¶¶ 2, 4.

Fidelity National Information Services, Inc., ("FNIS") became the latest target of

DataTreasury's pervasive litigation campaign when DataTreasury sued FNIS in

2013, alleging that FNIS's software infringes "one or more claims of the '988

Patent," and specifically, "at least claim 1 of the '988 Patent." *E.g.*, *id.* at ¶¶ 60, 68,

69, 71, 74.

In its complaint against FNIS, DataTreasury asserts that its patent claims

cover: a system that "allows commercial and merchant entities the ability to

capture check images onsite for electronic deposit and processing of these checks,"

a system that "allow[s] consumers to capture check images for electronic deposit

and processing," a system that "allows consumers to capture check images using their mobile device(s) for electronic deposit and processing," a system that "allows a bank to capture check images deposited at the branch or multiple branches to be captured in the branch back office and submitted for electronic deposit and processing," a system that "allows a banking institution to capture check images at a single teller station or enterprise wide for electronic deposition and processing," as well as a system that "provides image capture of check deposits at image-enabled ATM locations." *Id.* ¶ 11. DataTreasury's broad assertions highlight the patents' financial nature and underscore the need to review the Ballard patents under 35 U.S.C. § 101.

The '988 patent's claims are unpatentable under 35 U.S.C. §§ 101 and 112. All of the '988 patent claims are unpatentable under § 101 because they recite abstract ideas with only routine, conventional features added, using standard components to perform their known functions to achieve expected results. The inventor admitted that the patent uses nothing more than readily available technology, known to one of ordinary skill in the art, to perform the known process of sending receipts to storage, either in paper form or electronic form. The inventor, by his own admission, did not invent any new machine or process. Instead, he used off-the-shelf components to perform their known functions exactly as expected by the person of ordinary skill to achieve an ordinary and expected

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result. Ex. 1001; Ex. 1003. The '988 patent is also invalid under 35 U.S.C. § 112

because its claims lack written description and are indefinite.[2]

Section 18 of the AIA charges the USPTO to review business method patents

that are not technological inventions. Congress unambiguously stated its position

that the '988 patent falls under section 18, and that the '988 patent is invalid after

Bilski v. Kappos. Ex. 1004, p. S1379. Therefore, the Board should grant this

petition and should invalidate claims 1-123 of the '988 patent for the reasons set

forth below.

II.   MANDATORY NOTICES

A.   Real Party-in-Interest

In accordance with 37 C.F.R. § 42.8(b)(1), Petitioner identifies the real

party-in-interest as Fidelity National Information Services, Inc.

B.   Related Matters

In accordance with 37 C.F.R. § 42.8(b)(2), Petitioner identifies the following

USPTO and district court proceedings:

Case Name	Docket Number	Filed
U.S. Patent Office Reexamination (pending)	90/012,537	13-Sept-12
U.S. Patent Office Reexamination (closed)	90/007,830	25-Nov-05
DataTreasury Corporation v. Fiserv, Inc.	2-13-cv-00431	28-May-13

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[2] Petitioner notes that the '988 patent is also invalid under at least one of 35 U.S.C. §§ 102 and 103, the grounds of which will be specified in a later filing.

(pending)		
DataTreasury Corporation v. Jack Henry & Associates, Inc. et al. (pending)	2-13-cv-00433	28-May-13
DataTreasury Corporation v. Fidelity National Information Services, Inc. et al. (pending)	2-13-cv-00432	28-May-13
DataTreasury Corporation v. Austin Bancorp, Inc. et al.	6-11-cv-00470	8-Sep-11
DataTreasury Corporation v. U S Bank National Association	2-11-cv-00346	2-Aug-11
DataTreasury Corporation v. U.S. Bancorp et al.	5-11-cv-00108	2-Jun-11
DataTreasury Corporation v. Capital One Financial Corporation et al.	6-11-cv-00092	23-Feb-11
DataTreasury Corporation v. Washington Mutual, Inc. et al	2-08-cv-00356	17-Sep-08
DataTreasury Corporation v. Citizens Bank of Rhode Island et al.	2-08-cv-00187	2-May-08
DataTreasury Corporation v. City National Corporation et al.	2-06-cv-00165	18-Apr-06
DataTreasury Corporation v. Wells Fargo & Company et al.	2-06-cv-00072	24-Feb-06
DataTreasury Corporation v. Remitco LLC et al.	5-05-cv-00173	9-Sep-05
CitiGroup, Inc. et al v. DataTreasury Corporation	1-05-cv-07780	2-Sep-05
Viewpointe Archive Services, L.L.C. v. DataTreasury Corporation	3-05-cv-01355	7-Jul-05
DataTreasury Corporation v. Wells Fargo & Co et al.	2-05-cv-00291	28-Jun-05

DataTreasury Corporation v. Wachovia Corporation et al.	2-05-cv-00293	28-Jun-05
DataTreasury Corporation v. Citigroup, Inc. et al.	2-05-cv-00294	28-Jun-05
DataTreasury Corporation v. Bank of America Corporation et al.	2-05-cv-00292	28-Jun-05
DataTreasury Corporation v. NCR Corporation	2-05-cv-00073	17-Feb-05
DataTreasury Corporation v. Small Value Payments Company	2-04-cv-00085	2-Mar-04
DataTreasury Corp v. Magtek Inc	2-03-cv-00459	19-Dec-03
DataTreasury Corp v. Bank One Corporation	3-03-cv-00059	9-Jan-03
DataTreasury Corp v. J.P. Morgan Chase Co, et al.	5-02-cv-00124	5-Jun-02
DataTreasury Corp v. Ingenico S.A., et al.	5-02-cv-00095	2-May-02

C.   Lead and Back-Up Counsel

In accordance with 37 C.F.R. § 42.8(b)(3), Petitioner identifies Erika Arner

as lead counsel and Darren Jiron as back-up counsel:

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D. Service Information

In accordance with 37 C.F.R. § 42.8(b)(4), Petitioner identifies the following

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III. GROUNDS FOR STANDING

A. At Least One Challenged Claim Is Unpatentable.

As further detailed below, claims 1-123 of the '988 patent are invalid under

one or more of 35 U.S.C. §§ 101 and 112. Thus, for the reasons set forth below, it

is more likely than not that at least one of the claims of the '988 patent is

unpatentable. 35 U.S.C. § 324(a).

B. Congress Specifically Identified the '988 Patent as a Covered Business Method Patent to be Reviewed Under § 18 of the AIA.

Section 18 of the AIA was enacted not only to address patents like the '988

patent, but to specifically provide a mechanism for post-grant review of the '988

patent itself. Ex. 1024 at S5432 ("These [DataTreasury] suits are over exactly the

type of patents that section 18 is designed to address."). After the Supreme Court

explained in *Bilski v. Kappos*, 130 S.Ct. 3218, 3229 (2010), that patents covering

business methods issued in the late 1990s and early 2000s may be too abstract to

be patentable, Congress took action. section 18 grew out of concerns raised in the

110th Congress about "the so called Ballard patents, patents number 5,910,988 and 6,032,137. . . ." Ex. 1004, p. S1379. In particular, Congress raised concerns about validity of the Ballard patents under §§ 101, 102, and 103, stating, "it is difficult to see how they were even novel and nonobvious and otherwise valid under the more liberal State Street standard, much less how they could survive the strictures of Bilski." *Id.*

When enacting section 18, Congress considered the impact of the '988 patent and its continuation-in-part, the '137 patent, based on its understanding that the two patents have historically been asserted together in the financial services industry. *See id.*; Ex. 1009, ¶¶ 1-2. The Senate noted that the '988 patent was "assigned to the class of cryptography inventions, but its specification itself concedes that the invention's 'controller' will 'execute[] an encryption algorithm which is well known to an artisan of ordinary skill in the field.'" Ex. 1004, p. S1379 (alteration in original). Further, they noted that the companion '137 patent, which specifically claims check processing, "is assigned to class 705," suggesting that the '988 patent should have been placed in the same class. *Id.* Congress explained that patents in class 705 are a focus of section 18, defining "covered business method patent" to track the USPTO's class 705 definition. Ex. 1010, p. 48736. And while "technological inventions" are excluded from the definition of covered business methods, "[c]ombining prior art structures to achieve the normal,

expected, or predictable results of that combination," such as done in the '988

patent, does not create a "technological invention." *See* Ex. 1011, p. 48764.

C. Covered Business Method Review Is Appropriate Because the '988 Patent Is Financial in Nature.

The AIA defines a CBM patent as "a patent that claims a method or

corresponding apparatus for performing data processing or other operations used in

the practice, administration, or management of a financial product or service . . . ."

AIA § 18(d)(1); *see also* 37 C.F.R. § 42.301. The USPTO noted that the AIA's

legislative history demonstrates that "financial product or service" should be

"interpreted broadly," encompassing patents "claiming activities that are financial

in nature, incidental to a financial activity or complementary to a financial

activity." Ex. 1010, p. 48735. This Board has explained that based on the

legislative history "[t]he term financial is an adjective that simply means relating to

monetary matters." Ex. 1012, p. 23.

According to the patent owner, the '988 patent is "foundational to modern

day, image-based check processing" including "prime pass image capture, branch

capture, and remote deposit capture processes." Ex. 1009, ¶¶ 1-2. The patent, titled

"Remote Image Capture With Centralized Processing and Storage," describes

capturing an image of transaction data, such as a receipt, and transmitting the

image to a storage facility, where the information about the financial transaction is

recorded and stored. Ex. 1001, Abstract, 3:30-50. Claim 26, for example, claims a

"method for central management, storage, and verification of remotely captured

paper transactions from documents and receipts." *Id.* at 25:11-13. The patent

plainly relates to financial products or services under § 18(d)(1).

Although classified in class 380, the '988 patent is classifiable in class 705,

and contains nearly identical disclosure to the '137 patent in class 705, further

confirming that CBM review is appropriate. As Congress noted, "patents subject to

covered business method patent review are anticipated to be typically classifiable

in Class 705." Ex. 1010, p. 48739. Congress remarked that the '988 patent was

"assigned to the class of cryptography inventions, but its specification itself

concedes that the invention's 'controller' will 'execute[] an encryption algorithm

which is well known to an artisan of ordinary skill in the field.'" Ex. 1004, p.

S1379 (alteration in original). The continuation-in-part child of the '988 patent, the

'137 patent, is classified in class 705 and has substantially similar claims to the

'988 patent. *See* Ex. 1002, 25:43-53 (reciting an identical claim 26 to the '988

patent, but qualifying that the "paper transactions" are "from checks" and

including details of check data). Three additional patent applications,[3] with nearly

identical disclosures, that claim priority to the '988 patent, are classified in class

705, further confirming that the '988 patent is a CBM.

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[3] U.S. Patent Application Nos. 09/454,492; 10/245,232; and 13/236,559.

Because the '988 patent claims methods and corresponding systems for electronically storing and transmitting financial transaction data, is classifiable in class 705, recites disclosure and claims substantially similar to later patents classified in class 705, and relates to management of financial information, it is a CBM patent subject to section 18 review.

D.   A Covered Business Review Is Appropriate Because the Automation of Business Tasks Using Known Technologies for Their Known Purposes Is Not a "Technological Invention."

The AIA excludes "patents for technological inventions" from the definition of CBM patents. AIA § 18(d)(2). To determine when a patent is for a technological invention, "the following will be considered on a case-by-case basis: whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution." 37 C.F.R. § 42.301. To institute a CBM post-grant review, a patent need only have *one* claim directed to a CBM, and not a technological invention, even if the patent includes additional claims. Ex. 1010, p. 48736 (response to comment 8); *see also* Ex. 1012, p. 26. Because the claims of the '988 patent fail to recite a novel and unobvious technological feature *and* fail to recite a technical solution to a technical problem, the patent is not for a technological invention. Rather than claim technological inventions that solve technical problems, the '988 patent describes financial or business problems, which the '988 patent purports to solve

with a system that automates the business task of check processing using known

technologies for their known purposes.

1. The '988 Patent Does Not Claim a Feature That Is Novel and Nonobvious over the Prior Art.

Claim 26 of the '988 patent reads:

> A method for central management, storage and verification of remotely captured paper transactions from documents and receipts comprising the steps of:
>
> capturing an image of the paper transaction data at one or more remote locations and sending a captured images of the transaction data;
>
> managing the capturing and sending of the transaction data;
>
> collecting, processing, sending and storing the transaction data at a central location;
>
> managing the collecting, processing, sending and storing of the transaction data;
>
> encrypting subsystem identification information and the transaction data; and
>
> transmitting the transaction data and the subsystem identification information within and between the remote location(s) and the central location.

Mr. Ballard admits—in the '988 specification, and in prior sworn

testimony— that known devices and routine algorithms accomplish his solution.

Ex. 1003, ¶¶ 105-138. The '988 patent describes the "DataTreasury system," which

captures images of financial papers with a "scanner" and "general purpose thin

client Network Computer," which manages the capturing and sending of data.

Ex. 1001, 5:30-38; Ex. 1003, ¶ 112. The DataTreasury system collects and processes transaction data at a central location, using prior art devices and methods, such as a "workstation . . . available from Compaq," and "Digital Equipment Corporation" server. Ex. 1001, Fig. 6; 14:28-16:45; Ex. 1003, ¶ 105. The DataTreasury system encrypts information using "an encryption algorithm which is well known to an artisan of ordinary skill in the field." Ex. 1001, 8:3-6; Ex. 1003, ¶¶ 105, 110. Finally, the DataTreasury system relies on known devices, algorithms, and protocols for transmitting data, such as a "high speed modem with dial up connectivity" "Telco Carrier Cloud," a "100BaseT/10BaseT communication hardware layer protocol," a "CISCO Catalyst 4700 WAN Router," and "[a]s known to persons of ordinary skill in the art, frame relay." Ex. 1001, 7:46-48; 12:17-13:3; Ex. 1003, ¶¶ 48-51, 105, 111. Although the '988 patent claims its solution provides reliability, performance, increased capacity, the purported improvements come from known technology or are not claimed in claim 26.

As noted in the legislative history of section 18, the Ballard patents "consist of long recitations of technology created by others to implement the supposed 'invention' of transmitting and processing checks and other business records electronically." Ex. 1004, at S1379. The '988 patent gives three "operational elements" of the claimed system special names and acronyms: the DataTreasury

System Access Terminal (DAT) (Ex. 1001, Fig. 1, 200; Fig. 2); the DataTreasury

System Access Collector (DAC) (*Id*. at Fig. 1, 400; Fig. 4); and the DataTreasury

System Processing Concentrator (DPC) (*Id*. at Fig. 1, 600; Fig. 6). *See id*. at 4:60-

68. Despite the '988 patent's use of three-letter acronyms (DAT, DAC, and DPC)

to describe the system components, none of those components, or operations they

perform, are new. Ex. 1003, ¶ 105. According to the '988 patent specification, each

element within the DAT, DAC and DPC refers either to: (1) technologies "known

to persons of ordinary skill in the art," such as "known . . . encryption

algorithm[s]"; (2) generic computer system components, such as a "scanner" or

"modem"; or (3) off-the-shelf technologies readily available from vendors such as

NORTEL, Telco Systems, EMC or CISCO. Ex. 1003, ¶¶ 105-128.

In sworn testimony, Mr. Ballard admitted that he did not invent hardware or

programs, but rather that he combined known components. *See* Ex. 1013, at 63:15-

24. In an interview, Mr. Ballard explained "I didn't invent the scanner . . .

networking, or computers or software . . . . But I am an expert at systems

integration, and I created this complete end-to-end solution." Ex. 1014. But, the

USPTO guidance advises that "[r]eciting the use of known prior art technology to

accomplish a process or method, even if the process or method is novel and non-

obvious," would "not typically render a patent a technological invention."

Ex. 1011, at 48764. The Ballard patents have therefore made no special

contribution with their arrangements of known components—the patents use

known devices in an ordinary and predictable manner, to perform their known

functions.

USPTO guidance confirms that these known devices do not make the '988

patent's alleged business invention "technological." "Mere recitation of known

technologies, such as computer hardware, communication or computer networks,

software, memory, computer readable storage medium, scanners, display devices

or databases, or specialized machines, such as ATM or point of sale device,"

would "not typically render a patent a technological invention." Ex. 1011, at

48764.

2. **The '988 Patent Does Not Solve Technical Problems with Technical Solutions.**

The '988 patent describes non-technical financial or business problems such

as reducing costs. *E.g.*, Ex. 1001, 2:4-7. The '988 patent describes problems with

maintaining, processing, and managing paper documents (and receipts)—the

"enormous number of paper and electronic records generated from documents and

electronic data," that "the information contained in these paper and electronic

records cannot be easily processed because it is scattered among individual

records," and that paper data may be "lost, misplaced, stolen, damaged or

destroyed." Ex. 1001, 1:24-25, 1:47-51. But, none of these problems in handling

paper documents and receipts are technical—that paper transaction data is

voluminous; that the data may be difficult to process and to extract valuable information from; or that the paper is susceptible to becoming lost or damaged.

The '988 patent also describes problems with prior art electronic systems that process paper or electronic transactions—that "these approaches do not have the ability to process both paper and electronic records of transactions within a single, comprehensive system," that "they do not offer signature verification which is typically used on credit card purchases to avoid theft and fraud," that they "require[] an expensive, time consuming physical transportation of paper or magnetic tapes." Ex. 1001, 2:4-7; 2:34-36; 2:46-48. But, none of these problems are technical—that paper and electronic records are uncombined; that they do not verify signatures; that they face costly, expensive, or time consuming issues associated with physical data transport—and even if any of these problems are somehow technical, the '988 patent does not describe a technical solution anywhere in claim 26. The alleged invention combines known devices and algorithms to scan documents and send the electronic data to a central location. *See supra* at Section III.D.1; Ex. 1001, Abstract; 3:11-23.

The '988 patent, as explained above, does not disclose any technology that was not already known to those of ordinary skill in the art, and accordingly none of its claims provide a technical solution. For purposes of instituting post-grant review, however, it is sufficient that at least one claim be directed to a CBM and

not be a technological invention. Because claim 26 does not recite a technological feature that is novel and unobvious over the prior art, and does not solve a technical problem with a technical solution, CBM review is appropriate for the '988 patent.

E. Petitioner Has Been Sued for Infringement of the '988 Patent and Is Not Estopped.

Petitioner has been sued for infringement of "at least claim 1" of the '988 patent in *DataTreasury Corp. v. Fidelity National Information Services, Inc.*, No. 2:13-cv-432 (E.D. Tex). Ex. 1009. This litigation remains pending; therefore, Petitioner is not estopped from challenging the claims on the grounds identified in the petition. 37 C.F.R. § 42.302(b). Petitioner has not been party to any other post-grant review of the challenged claims.

IV. STATEMENT OF PRECISE RELIEF REQUESTED FOR EACH CLAIM CHALLENGED

A. Claims for which Review Is Requested

Petitioner respectfully requests review under 35 U.S.C. § 321 and AIA § 18 of claims 1-123 of the '988 patent, and the cancellation of these claims as unpatentable.

B. Statutory Grounds of Challenge

Petitioner requests that claims 1-123 be cancelled as unpatentable under 35 U.S.C. § 101 and 112. The claim construction, reasons for unpatentability, and specific evidence supporting this request are detailed below.

C. Claim Construction

1. Broadest Reasonable Interpretation

In the instant proceeding, a claim in an unexpired patent is to be given its broadest reasonable construction in light of the specification in which it appears. 37 C.F.R. § 42.300(b); *see also In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984). Even in the situation where the patent claims have been previously construed by a district court using a different standard, the PTO is nevertheless required to apply the broadest reasonable interpretation (BRI) standard. *See* Ex. 1015, p. 48697 (citing *In re NTP, Inc.*, 654 F.3d 1268, 1274 (Fed. Cir. 2011)). This Board also reaffirmed the PTO's use of the BRI standard. Ex. 1016, pp. 7-11. The '988 patent has not expired, and thus its claims, for the purposes of this proceeding, should be given their broadest reasonable interpretation.

Simple statement: Pursuant to the PTO's final Office Patent Trial Practice Guide, a party may provide "a simple statement that the claim terms are to be given their broadest reasonable interpretation, as understood by one of ordinary skill in the art and consistent with the disclosure." Ex. 1011, p. 48764. Petitioner so states for all terms as supplemented by the discussion below as to terms that may be of particular interest in this proceeding. The below constructions and the rationale therefore are supported by the declaration of Dr. Peter Alexander ("Ex. 1003"), for example, at ¶¶ 78-102.

Claim Term	Broadest Reasonable Interpretation in View of the Specification
"encrypt"	"convert into a form unreadable by anyone without a secret decryption key"
"within and between"	"data is transmitted both within a given subsystem (i.e., between the various components comprising the subsystem or location) and between one subsystem or location to another subsystem or location"
"tiered architecture"/"tiered manner"	"the conceptual structure and logical organization of subsystems in a hierarchy of functional layers"

2. Support for Petitioner's Broadest Reasonable Interpretation

Encrypt: The term "encrypted" or "encrypting" is found in claims 1, 4, 5, 26, 27, 120, and 123. Based on the usage of these terms in the claims, the BRI, of "encrypt" is "convert into a form unreadable by anyone without a secret decryption key." The specification of the '988 patent does not provide any special definition of the term "encrypt" that would suggest a different BRI for "encrypt." Ex. 1003, ¶¶ 84, 85.

In previous District Court litigation involving the '988 patent, the term "encrypt" was construed to mean "the transformation of data into a form unreadable by anyone without a secret decryption key. Its purpose is to ensure

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privacy by keeping the information hidden from anyone for whom it is not intended." Ex. 1017, at 58-59. This construction, however, is narrower than the BRI, which is the appropriate standard relied upon in matters before the Patent Trial and Appeal Board. The District Court's construction unnecessarily confines the meaning of "encrypt" to a particular purpose, and it converts the verb "encrypt," as it is used in the claims, into a noun (i.e., the "transformation of data. . ."). *Id.* at 58-59; Ex. 1003, ¶¶ 84, 89. Also, the BRI of "encrypt" should not be limited to an operation on *data*, where, as used in claims 1 and 26, encryption is applied to both "data" *and* "information." Ex. 1003, ¶ 86.

Within and Between: The phrase "within and between" appears in claims 1, 26, 42, 46, 84, 88, 93, 97, 102, 106, 110, 114, 118, and 121 of the '988 patent. In the context of these claims, the BRI of "within and between" means that "data is transmitted both within a given subsystem (i.e., between the various components comprising the subsystem or location) and between one subsystem or location to another subsystem or location." This interpretation encompasses the constructions proposed by DataTreasury, which proposed separate constructions for "within" and "between" as either (A) "data is transmitted within a given subsystem, i.e., between the various components comprising the subsystem or location"; or (B) "data may be transmitted from one subsystem or location to another subsystem or location. Both actions need not occur in system claims." Ex. 1017, at 54. The

District Court consolidated the constructions for "within and between" into the single interpretation above. *Id.* at 57. Notably, regardless of which construction is applied from among the BRI, DataTreasury's proposed, and the District Court's construction, each of these constructions allows for the passage of data between any two subsystems irrespective of the location of those subsystems within the broader system. Ex. 1003, ¶¶ 92, 94-95.

Tiered Manner/Tiered Architecture: The BRI of "tiered manner" and "tiered architecture" is "the conceptual structure and logical organization of subsystems in a hierarchy of functional layers." DataTreasury proposed this same construction for "tiered architecture" in a previous litigation, and the District Court adopted this construction for both "tiered manner" and "tiered architecture." Ex. 1017, at 10, 16. This construction is consistent with the specification of the '988 patent, which describes the embodiment of Figure 1 as having "tiers," including DATs 200, DACs 400, and DPCs 600, which are arranged in a hierarchy according to functions. Ex. 1001, 5:1-9; Ex. 1003, ¶¶ 99-102.

The remaining claim terms in claims 1-123 should be given their plain and ordinary meaning under the BRI standard.

V. CLAIMS 1-123 OF THE '988 PATENT ARE UNPATENTABLE

A. Claims 1-123 Are Invalid Under 35 U.S.C. § 101.

1. This Proceeding Presents the USPTO with the Opportunity to Reevaluate the Ballard Patents in Light of

Significant Changes in the Law.

The law of § 101 has changed significantly since the Ballard patents issued in 1999 and 2000. The Supreme Court has decided three cases interpreting the scope of patentable subject matter under § 101, including *Bilski v. Kappos* and *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012), and the Federal Circuit has decided several cases applying this Supreme Court guidance to computer-related patents. In *Bilski v. Kappos*, the Supreme Court unanimously ruled that claims that cover a fundamental business practice are unpatentable abstract ideas. The *Bilski* claims were drawn to the basic concept of hedging, or protecting against risk, which is a "fundamental economic practice long prevalent in our system of commerce and taught in any introductory finance class." *Bilski*, 130 S. Ct. at 3231 (citing *In re Bilski*, 545 F.3d 943, 1013 (Fed. Cir. 2008) (Rader, J., dissenting)). The Court found the claims unpatentable, explaining that "[a]llowing petitioners to patent risk hedging would pre-empt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea." *Id.* at 3231. The USPTO should use this opportunity to reconsider the '988 patent claims, which purport to cover the fundamental practice of image-based check processing, in light of the new body of precedent and revoke them because they are unpatentable under § 101.

> 2.　　The '988 Patent Claims Add Only Well-Understood, Conventional Activity to Unpatentable Abstract Concepts.

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Abstract ideas cannot be patented. *Bilski*, 130 S. Ct. at 3231; *see also Mayo*, 132 S. Ct. at 1293. The Ballard patents cover abstract business processes including using images of checks for transmitting and processing data about the check transaction (in the '137 patent) and transmitting and processing financial data using images of "documents and receipts" (in the '988 patent). *See, e.g.*, Ex. 1001, 25:10-27, 28:17-34; Ex. 1002, 25:42-65.

To be patentable, claims involving such abstract concepts must contain "other elements or a combination of elements, sometimes referred to as the 'inventive concept,'" sufficient to prevent patenting the underlying concept itself. *Mayo*, 132 S. Ct. at 1294; *see also Parker v. Flook,* 437 U.S. 584, 594 (1978); Ex. 1012, pp. 29-30. In other words, claims to abstract ideas, like the check processing methods of the Ballard patents, must add "significantly more" to be patent-eligible. *Mayo*, 132 S. Ct. at 1294; *Flook*, 437 U.S. at 593-94.

The '988 patent claims, when considered as a whole, do not present any "inventive concept" because they do not add anything significant to the underlying idea of check processing. *See, e.g.*, *Bilski*, 130 S. Ct. at 3258 (emphasizing consideration of claims "as a whole"). The claims describe general business tasks such as imaging checks or financial documents; sending images and/or data between computers in a tiered architecture; and, in some claims, encrypting the images and/or data. To these abstract concepts, the claims add only components

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created by others. The '137 patent discloses that imaging is done with a generic "scanner" and well-known "Bitmap" and "TIFF" imaging protocols, none of which Mr. Ballard invented. Ex. 1002, 7:39-8:7; Ex. 1003, ¶¶ 62, 105, 113, 122. The patent's arrangement of computer components into multiple "tiers" was also well-known in the financial services industry. Ex. 1003, ¶ 34, 48-51, 58, 70-71. And, the patent uses data processing algorithms invented by others and an encryption algorithm "well known to an artisan of ordinary skill in the field." Ex. 1002, 8:11-12; Ex. 1003, ¶¶ 85, 105. Claims that "can be carried out in existing computers long in use, no new machinery being necessary" are not patent eligible under § 101. *Gottchalk v. Benson*, 409 U.S. 63, 67 (1972).

That the well-known imaging, sending, and encrypting techniques might be limited in the claims to the processing of checks or financial documents, or that the process may be carried out in commonly-known "tiered" architecture, does not convert the abstract ideas into a patent eligible invention. The Supreme Court has recently reaffirmed that it is not sufficient under § 101 to limit claims to "a particular technological environment" or to add "insignificant post solution activity" or "well-understood, routine, conventional activity." *Bilski*, 130 S. Ct. at 3230; *Mayo*, 132 S. Ct. at 1294. Moreover, converting data from one format into another has been found unpatentable. *Benson*, 409 U.S. at 63 (finding unpatentable claims to algorithms for converting numbers from binary into binary-coded-

decimal form.

The '988 patent's conventional steps, which involve only "well-understood, routine, conventional activity previously engaged in," do not transform an unpatentable business concept into a patentable application. *See Mayo*, 132 S. Ct. at 1294. Steps that, "when viewed as a whole, add nothing significant beyond the sum of their parts taken separately" are not sufficient to impart patentability under § 101. *Mayo*, 132 S. Ct. at 1298. "[S]imply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable." *Mayo*, 132 S. Ct. at 1300. Here, the patent claims nothing more than an arrangement of generic computer components and processes the inventor admits were known to those of ordinary skill in the art, to the abstract idea of image-based check processing. Ex. 1003, ¶¶ 31-37, 105-138.

Claim 46 of the '988 patent is exemplary, and recites a method comprising the steps of "capturing an image of documents and receipts and extracting data therefrom" then "transmitting [the] data" "from," "within," and "to" various locations within a system. *See, e.g.*, Ex. 1001, 28:17-34. The '988 patent claims to "capturing" and "transmitting" data, and in some claims "encrypting" data, merely arrange and move data and are thus unpatentably abstract. *See Mayo*, 132 S. Ct. at 1294 ("To transform an unpatentable law of nature into a patent-eligible

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application of such a law, one must do more than simply state the law of nature while adding the words 'apply it.'"); *id.* at 1297 (asking "What else is there in the claims before us?").

In recent years, the Court of Appeals for the Federal Circuit has considered several cases involving the application of § 101 to patent claims involving computers, resulting in fractured decisions on the scope of patent-eligibility. *See CLS Bank Int'l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269 (Fed. Cir. 2013) (en banc) (Moore, J., concurring-in-part and dissenting-in-part) ("Our court is irreconcilably fractured over these system claims and there are many similar cases pending before our court . . . ."). After taking the *CLS Bank* case *en banc* to consider questions of when a computer imparts patent-eligibility under §101, *CLS Bank Int'l v. Alice Corp.*, 484 F. App'x 559 (Fed. Cir. 2012), the Court did not reach consensus and instead "propounded at least three incompatible standards, devoid of consensus, serving simply to add to the unreliability and cost of the system of patents as an incentive for innovation." *Id.* at 1321 (Newman, J., concurring-in-part and dissenting-in-part); *compare Accenture Global Servs., GMBH v. Guidewire Software, Inc.*, No 2011-1486, 2013 WL 4749919, at *7, *9 (Fed. Cir. Sept. 5, 2013) (finding unpatentable claims to computer system for processing insurance claims using multiple databases and software modules) *with Ultramercial, Inc. v. Hulu, LLC*, 722 F.3d 1335, 1350 (Fed. Cir. 2013) (upholding claims limiting

abstract idea of advertising as currency, where transaction limited to an Internet website, offering free access conditioned on viewing a sponsor message, and only applying to a media product).

Amid such uncertainty, where patentability could "depend on the random selection of the [Federal Circuit] panel (*id.* at 1321 (Newman, J.)), the Supreme Court's guidance should control. Under the Supreme Court precedent discussed above, claims 1-67 are not patent eligible under § 101 because they do not recite any "inventive concept."

3. The History of the Ballard Patents Bears Out the Supreme Court's Concerns About the Danger of Claims That Could Preempt a Basic Concept.

The Supreme Court has explained that "[t]oo much patent protection can impede, rather than encourage, innovation." *See Lab. Corp. of Am. Holdings v. Metabolite Labs, Inc.*, 438, U.S. 124, 126 (2006) (Breyer, J., dissenting from dismissal of cert.). "[T]here is a danger that the grant of patents that tie up their use will inhibit future innovation premised upon them, a danger that becomes acute when a patent process amounts to no more than an instruction to 'apply the natural law,' or otherwise forecloses more future invention than the underlying discovery could reasonably justify." *Mayo*, 132 S. Ct at 1301-02.

DataTreasury contends that its patents cover the basic concept of image-based check processing and has used them to hold an industry hostage for 15 years.

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According to DataTreasury, banks and financial services companies have spent

hundreds of millions of dollars defending against lawsuits alleging infringement of

the patents. Ex. 1009, ¶ 2. A "vast majority" of America's top banks have been

forced to license the patents in order to perform image-based check processing,

amounting to more than $350 million paid to DataTreasury. *Id.* Congress has

voiced concern that the Ballard patents prevented banks from implementing the

basic function of image-based check processing. Ex. 1004 (Section 18 grew out of

concerns "originally raised in the 110th Congress about financial institutions'

inability to take advantage of the authority to clear checks electronically pursuant

to the Check Clearing for the 21st Century Act . . . without infringing the so-called

Ballard patents, patents number 5,910,988 and 6,032,137").

The claims do not add meaningful limitations to avoid preempting the basic

concept of image-based check processing. The Supreme Court has explained that

to mitigate the danger of preempting a basic concept, claims must add enough

additional features. *Mayo*, 132 S. Ct. at 1294 (explaining that a process that focuses

on the use of a natural law must also "contain other elements or a combination of

elements, sometimes referred to as an 'inventive concept,' sufficient to ensure that

the patent in practice amounts to significantly more than a patent upon the natural

law itself"); *id.* at 1297 (explaining that a claim must add "additional features that

provide practical assurance that the process is more than a drafting effort designed

to monopolize the law of nature itself"). But, the '988 patent's claims to imaging a document, transmitting and storing the document, and (in some claims) encrypting the data, rely solely in expected ways on technology created by others. Ex. 1003, ¶¶ 105-136.

4. The '988 Patent Claims Also Fail the Machine-Or-Transformation Test.

One way a claim may recite "significantly more" than an abstract idea is to be "tied to a particular machine or apparatus" or to "transform[] a particular article into a different state or thing." *Bilski*, 130 S. Ct. at 3225-26, 3227. The '988 patent's admitted use of general purpose computers and devices show that it does not claim any "particular" machines. Ex. 1003, ¶ 105. Mr. Ballard testified that he built his prototypes out of generic components, and that he did not invent any new hardware or programs. Ex.1013, pp. 56-57; Ex. 1018, pp. 4-6; Ex. 1003, ¶¶ 129-136, 138. With no particular machines, the claims fail to satisfy § 101.

The claims, as a whole, also do not result in any transformed articles. Instead, financial data is manipulated—it is duplicated and moved from one place to another. Ex. 1003, ¶¶ 139-141. Manipulating financial information fails to satisfy the transformation prong of the machine-or-transformation test. *See Bancorp Servs., LLC v. Sun Life Assurance Co.*, 687 F.3d. 1266, 1273 (Fed. Cir. 2012); *see also CyberSource*, 654 F.3d at 1375 (reorganizing data is not a patent-eligible transformation). Some of the '988 patent's claims also encrypt data (e.g.,

claims 1, 26), but the Supreme Court has held that converting data from one format to another, through a known process, does not render a claim patent eligible. *See Benson*, 409 U.S. at 63 (refusing to extend 35 U.S.C. § 101 to cover methods using general purpose computers to convert binary-coded decimal numerals into pure binary numerals). The '988 patent relies on known encryption algorithms. *See* Ex. 1001, 8:3-5 ("[T]he DAT controller 210 executes an encryption algorithm which is well known to an artisan of ordinary skill in the field."). The manipulation of financial information and converting data format through an encryption algorithm "well known to an artisan of ordinary skill in the field" does not amount to a patent eligible transformation.

The '988 patent claims nothing more than the abstract idea of image-based check processing, implemented using conventional components, general purpose computers, and using known encryption algorithms and network protocols. The claims lack an "inventive concept" and merely manipulate financial data, and for the reasons stated above, are not patent eligible under § 101.

5. According to Supreme Court Precedent, the Well-Known Routine Operations and Generic Computer Components Recited in Claims 1-123 Do Not Amount to "Inventive Concepts" That Would Impart Patent Eligibility.

The Supreme Court's framework for claim analysis under § 101 requires claiming more than abstract ideas combined with generic computer components and routine, conventional steps. *See Mayo*, 132 S. Ct. at 1294; *see also Flook*, 437

U.S. at 593-94; *Benson*, 409 U.S. at 67. This section examines the remaining claims not discussed in detail above, under the Supreme Court framework.

a. Claims adding routine operations or generic computer components are not patent eligible.

Similar to claims 26 and 46 discussed above, when taken as a whole, the remaining '988 patent claims include the abstract idea of image-based check processing, adding only routine operations and generic computer components. For example, several claims mention routine computer components. Claims 2, 45, 87, 92, 96, 101, 105, and 113 recite, for example, a generic "scanner" for inputting paper data, or claim the capture of "paper transactions from documents and receipts" that would be performed by the generic scanner. *E.g.*, Ex. 1001, 5:46-57 (describing a general purpose scanner).

Claim 7 adds a generic "printer" and claim 8 further claims the use of "data glyphs," which were available from Xerox. *Id.* at 5:37 (referring only to a "printer"); 5:57- 6:19 (describing DataGlyph™ technology from Xerox Corporation).

Claims 9, 30, 55, 64, 70, 75, 76, 77, and 78 add, for example, a generic "report generator" or "automatically generating [reports]" such as "credit card statements" or "tax reports," which were reports to be derived from transaction data known to those of ordinary skill in the art. Ex. 1003, ¶¶ 114. The '988 patent explains that the system "performs data mining and report generation for a wide

variety of applications by returning information from the database" but does not provide any guidance on what might constitute the claimed "report generator" or what methods or devices would be used for report generation. Ex. 1001, 21:49-60; Ex. 1003, ¶ 114.

Claim 6 recites that a "card interface" is used to "initiate the electronic transaction," which is an operation that a credit card interface have always been known to perform. Ex. 1001, 6:21-30 (explaining that a customer "swipes the debit card, smart card or credit card" into the card interface); Ex. 1003, ¶ 115.

Claim 15 recites a "data entry gateway for correcting errors," for which the '988 patent employs generic computer components. Ex. 1003, ¶ 116. Correcting errors using a data entry gateway, as in claim 32, was routine practice in processing financial transactions. *Id.*

Claims 9 and 19 also add generic computer components: a "central processing unit" which the patent explains was well known. Ex. 1001, 15:11-20 ("As is known to persons of ordinary skill in the art, the DataTreasury™ System 100 could use workstations with central processing units from other integrated circuit vendors as long as the chosen workstation has the ability to perform standard operations"); Ex. 1003, ¶ 117.

Claims 18, 19, 58, 59, and 60 add a "data collecting subsystem" or "management subsystem," neither of which does the '988 patent suggest requires

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more than generic computer components performing their known functions.

Ex. 1003, ¶ 117. Adding generic computer components, used in their expected ways, does not impart patent-eligibility. *See Mayo*, 132 S. Ct. at 1294; *see also, e.g., Accenture*, 2013 WL 4749919, at *7, *9 (finding claims using "generic computer components" and "generalized software components arranged to implement an abstract concept on a computer" unpatentable under 35 U.S.C. § 101).

Claims 3, 10, 28, 45, 50, 51 , 62, 63, 87, 92, 96, 101, 105, 110, 113, and 114 add that different types of (well-known) transaction data would be captured, for example, "transactions from credit cards, smart cards and debit cards, signature data or biometric data," (*see*, *e.g.*, claim 3) or "internet transactions" (*see*, *e.g.*, claims 110 and 114), or, as in claims 57, 65, 72, and 81, that the "transaction data" might comprise "more than one type of data." Ex. 1003, ¶ 115. But, changing the type of data in the image-based processing system and method does not make the claims any less abstract. *See Mayo*, 132 S. Ct. at 1300.

b. Claims adding generic or known data storage elements are not patent eligible.

Several claims add only generic data storage components or well-known data storage techniques. For example, claim 5 adds "digital storage," claims 11, 12, and 21 add "jukebox" storage, claim 13 adds "read only memory" and "write once read many disc[s]," and claims 9 and 19 add a "database subsystem." Ex. 1001,

11:25-56 (describing known data storage elements such as EMC's "SYMMETRIX CUBE Disk Storage Systems," a "DLT jukebox," and "a relational database available from Oracle"); 16:12-37 (describing "Write Once Read Many (WORM) based jukebox systems," "HD-ROM" from "NORSAM Technologies" and "Hewlett Packard" jukebox systems, etc.); Ex. 1003, ¶ 118.

Claims 9, 11, 19, 20, 30, and 37 add that memory is arranged in a "memory hierarchy." But, arranging memory into hierarchies was well-known in the art. Ex. 1001, 16:13-37 (describing preferred embodiment of "three tier storage architecture" consisting of "Fiber Channel RAID technology based EMC Symmetrix Enterprise Storage Systems," "DVD based jukebox systems," and "Write Once Read Many (WORM) based jukebox systems," and alternate embodiments with HD-ROM and using "IBM and Philips technology" to read and write data); Ex. 1003, ¶ 118. Similarly, "partitioning . . . data into panels and identifying locations of the panels" (*see* claims 14, 15, 31, and 32) was a well-known data storage technique. *Id.*

Adding known databases or data storage elements to abstract concepts does not satisfy § 101. *See Mayo, 132 S. Ct. at 1294; see also, e.g., Accenture*, 2013 WL 4749919, at *8 (holding invalid under § 101, claims to "the general idea of generating tasks for insurance claim processing, but narrow[ed]" through "recitation of a combination of computer components including an insurance

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transaction database, a task library database, a client component, and a server

component, which includes an event processor, a task engine, and a task

assistant").

c.   Claims adding known data gathering elements are not patent eligible.

Other claims add routine ways of obtaining data, which Mr. Ballard did not

invent. Claims 9, 19, 30, 33, 37, 56, 79, and 80 add a "server for polling" remote

(or intermediate) systems, which was a known way of gathering data in a

distributed system. Ex. 1003, ¶ 119. Claim 29 adds capturing, collecting,

processing and sending data at a plurality of central locations, which was also a

known way of collecting and transmitting data in distributed systems. *Id*. Claims

119, 120, 122, and 123 add that a "remote data processing subsystem uniquely

identifies the remote data processing subsystem." Unique identification of the

originating system was a known technique in distributed systems for keeping track

of information origin. Ex. 1003, ¶ 119. Still other claims add only routine methods

of achieving efficiency, such as "domain name services" programs (claims 9 and

19), and "dynamically assigning [] servers" (claims 9, 19, 30 and 37). Ex. 1001,

11:57-12:9 (describing a "WEB based paradigm using an enhanced Domain Name

Services (DNS), the Microsoft Component Object Model (DCOM) and Windows

NT Application Program Interfaces (APIs) to facilitate communication and load

balancing among the servers" and explaining that "DNS, which is also known as

bind" is "known to persons of ordinary skill in the art"); Ex. 1003, ¶ 122.

Moreover, "mere data gathering steps cannot make an otherwise nonstatutory claim statutory." *CyberSource*, 654 F.3d at 1370 (citing *In re Grams*, 888 F.2d 835, 840 (Fed. Cir. 1989) (quoting *In re Meyer*, 688 F.2d 789, 794 (C.C.P.A. 1982)).

d. Claims adding routine data formats are not patent eligible.

Several claims add only routine data formats. For example, claims 4 and 27 use "bitmap image, a compressed bitmap image, an encrypted, compressed bitmap image and an encrypted, compressed bitmap image tagged with information identifying a location and time of the transaction data capture," which were well known in the art. Ex. 1001, 5:46-48, 7:33-36, 7:60-8:17; Ex. 1003, ¶ 122. Similarly, encrypting and tagging data, as recited in claims 120 and 123, were well-known techniques. Ex. 1001, 5:46-48, 7:32-36, 8:3-17 (describing "conventional image compression algorithm like the Tagged Image File Format (TIFF)" and an "encryption algorithm which is well known to an artisan of ordinary skill in the field"); Ex. 1003, ¶ 122. Converting data from one format into another has been held to be patent-ineligible. *Benson*, 409 U.S. at 71-72 (finding claims to converting binary coded decimal numerals to pure binary numerals patent-ineligible).

e. Claims adding routine networking elements are not patent eligible.

Other claims are directed to routine computer components for networking, or well-known computer network configurations. For example, claims 16, 22, 42, and 84 add a "local area network" and "wide area network" for transmitting data, both of which were well-known. Ex. 1001, 12:17-13:15 (describing LAN and WAN technologies "known to persons of ordinary skill in the art"); Ex. 1003, ¶ 123.

Claims 17, 23, 43, 85, 93, 94, 102, 103, 110, 111, and 118, use a "modem for connecting" LANs, or a "bank of modems" for connecting LANs and WANs. Modems and banks of modems for connecting LANs and WANs, however, we were well-known at the time of the alleged invention. Ex. 1001, 12:10-16 (describing a "bank of modems 404, available as CISCO AS5200"); Ex. 1003, ¶ 124.

Similarly, using a "wide area network router," as in claims 23, 43, 85, 94, 103, 111, and "network switch for routing transaction data" between networks, as in claims 25, 45, 87, 96, 105, 113, were well-known at the time of the alleged invention. Ex. 1001, 12:16-46 (describing a "CISCO 4700 WAN Router" using "frame relay connectivity to connect" the LAN to the WAN and that a "NORTEL Magellen Passport '50' Telecommunication Switch, could be used to facilitate communication"); Ex. 1003, ¶ 124. The "carrier cloud using a frame relay method for transmitting transaction data" and using "frames" for transmitting data, as in

claims 24, 41, 44, 49, 86, 91, 95, 100, 104, 109, 112, and 117, were also well-known at the time of the alleged invention. Ex. 1001, 12:16-61 ("As is known to persons of ordinary skill in the art, frame relay is an interface protocol for statistically multiplexed packet-switched data communications . . . ."); Ex. 1003, ¶ 125. Similarly, connecting remote or intermediate locations to "a corresponding central location" or to each-other, as recited in claims 35, 39, 47, 48, 89, 90, 98, 99, 107, 108, 115, and 116 was well-known at the time of the alleged invention. Ex. 1003, ¶ 125. Additionally, "connecting . . . to an external communication network," as recited in claims 40, 48, 90, 99, 108, 116 was well-known at the time of the alleged invention. Ex. 1003, ¶ 126.

Routine computer components, such as networks or the Internet, are insufficient to convert unpatentable abstract ideas into patent-eligible inventions. *See Mayo*, 132 S. Ct. at 1294; *see also, e.g., Accenture*, 2013 WL 4749919, at *7, *9 (finding claims using "generic computer components" and "generalized software components arranged to implement an abstract concept on a computer" unpatentable under 35 U.S.C. § 101).

> **f.** **Claims to transmitting data and other routine data processing are not patent eligible.**

Many of the '988 patent claims relate to the transmission of data, and others merely recite routine uses of data. For example, claims 34 and 38 "transmit[] data within the remote locations," "from each remote location to a corresponding

central location," and "within the central locations." Nevertheless, such operations were known at the time of the alleged invention. Ex. 1003, ¶ 127. The use of "intermediate locations" and "intermediate subsystems," as in claims 36, 38, 39, 42, 46, 66, 67, 68, 69, 73, 74, 82, 83, 84, 88, 93, 97, 102, 106, 110, 114, 118, and 121, was also well-known at the time of the alleged invention. Ex. 1003, ¶ 127.

The routine uses of data recited in claim 33, "comparing the captured signature data and the captured biometric data to stored signature data and stored biometric data respectively for identification verification," were also well-known at the time of the alleged invention. Ex. 1001, 14:63-15:5 ("As is known to persons of ordinary skill in the art, the workstation 604 could execute other software to perform identification verification by comparing biometric data including facial scans, fingerprints, retina scans, iris scans and hand geometry."); Ex. 1003, ¶ 128. Simply collecting and storing data will not impart patent-eligibility to otherwise unpatentable abstract ideas. *See Mayo*, 132 S. Ct. at 1294; *see also, e.g., CyberSource*, 654 F.3d at 1370 (finding the "mere collection and organization of data" insufficient to satisfy § 101).

None of the claims contain any "inventive concept" with their addition of only well-known, routine, and generic elements, such as described above, so claims 1-123 are invalid under 35 U.S.C. § 101.

B. **Claims 1-123 Are Invalid Under 35 U.S.C. § 112, First Paragraph.**

1. **Claims 1-41 and 51-69 Are Invalid Because "Encrypted/Encrypting Subsystem Identification Information" Lacks Written Description.**

The specification of the '988 patent lacks any disclosure that would have indicated to one of ordinary skill in the art that the patentee possessed the "encrypted subsystem identification information" recited by independent claim 1 or "encrypting subsystem identification information," as recited by independent claim 26. Ex. 1001, 22:40-41, 25:24. Accordingly, claims 1 and 26, and their dependent claims 2-25, 27-41, and 51-69, are invalid under § 112, first paragraph, as lacking written description support.

a. **Written description requires either express or inherent disclosure of every claimed feature; it is insufficient to claim an obvious variation of disclosed subject matter.**

To satisfy the written description requirement, the specification of a patent must reasonably convey to those of skill in the art that, as of the filing date, the inventor had possession of the claimed subject matter. *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). "One shows that one is 'in possession' of *the invention* by describing *the invention*, with all its claimed limitations, not that which makes it obvious." *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571 (Fed. Cir. 1997). "While the meaning of terms, phrases, or diagrams in a disclosure is to be explained or interpreted from the vantage point of

one skilled in the art, all the limitations must appear in the specification. The question is not whether a claimed invention is an obvious variant of that which is disclosed in the specification." *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306 (Fed. Cir. 2008) (quoting *Lockwood*).

In order to find the written description requirement satisfied where the claimed subject matter is not expressly described in the specification, "'the missing descriptive matter must necessarily be present in the [original] application's specification such that one skilled in the art would recognize such a disclosure.'" *TurboCare Div. of Delaval TurboMachinery Corp. v. Gen. Elec. Corp.*, 264 F.3d 1111, 1119 (Fed. Cir. 2001) (quoting *Tronzo v. Biomet, Inc.,* 156 F.3d 1154, 1159 (Fed. Cir. 1998)) (alteration in original). Where a claim element is not either expressly or inherently described, compliance with the written description requirement cannot be established simply by showing the claim element would have been obvious to one skilled in the art. *Id.* (holding that the specification lacked written description where the patentee argued that "one of ordinary skill in the art would recognize" the claimed subject matter, but the subject matter was neither expressly nor inherently disclosed in the specification).

b. The '988 patent specification fails to describe "encrypting subsystem identification information."

Independent claims 1 and 26 expressly require two different types of encrypted information: 1) encrypted paper transaction data, and 2) encrypted

subsystem identification information. While the '988 patent describes encryption

of paper transaction data (e.g., the information on receipts and other documents,

such as TERMINAL_ID, etc.) (Ex. 1001, 8:3-10; 9:33-10:26), the '988 patent fails

to provide any description of encrypted subsystem identification information.

Ex. 1003, ¶¶ 142, 143, 149, 150, 152-161, 183, 184. In fact, contrary to the claims,

the specification suggests that the subsystem identification information, such as

DAT_TERMINAL_ID (Ex. 1001, 8:3-10), remains unencrypted. Ex. 1003, ¶¶ 143,

149-158, 183.

According to the specification of the '988 patent, a scanner associated with a

data access terminal (DAT) is used to scan a financial document, such as a receipt,

to create a bitmap image (BI) of the document. Ex. 1001, 7:52-57. This BI

corresponds to the claimed paper transaction data. *Id.* Next, the DAT compresses

the BI to create a compressed bitmap image (CBI), which is then encrypted

through "an encryption algorithm which is well known to an artisan of ordinary

skill" to create an encrypted compressed bitmap image (ECBI). *Id.* at 7:61-65; 8:3-

10. Once the ECBI has been generated, a tag is prepended to the ECBI to form a

tagged encrypted compressed bitmap image (TECBI). *Id.* at 8:13-20; 10:27-57.

This tag includes a subsystem identification number, such as

DAT_TERMINAL_ID, which identifies the data access terminal used by the

customer. *Id.* at 10:27-57. Nowhere does the specification of the '988 patent

describe encryption of the tag or the information included in the tag prepended to the encrypted compressed bitmap image. Ex. 1003, ¶¶ 149, 150, 154-158.

On the contrary, the specification of the '988 patent suggests that the tag prepended to the ECBI remains unencrypted. First, the only encryption described in the specification is aimed at the compressed bitmap image, not at the tag, and the described encryption process occurs prior to adding the tag. Ex. 1003, ¶¶ 149, 150, 154, 155, 158. Second, the description of the steps for processing the TECBI further confirms that the tag remains unencrypted. According to the specification of the '988 patent, the TECBI is transmitted to the DPC 600 for processing. Ex. 1001, 14:20-22, 14:59-61; 20:66-21:13; 21:3-24. There, the tag header is extracted from the TECBI to obtain the ECBI, and the ECBI is decrypted to obtain the CBI. *Id.* at 21:3-10. While the specification expressly describes a decryption process for accessing the information in the ECBI (e.g., the paper transaction data), there is no similar decryption process described for accessing the information included in the tag header (e.g., the subsystem identification information). Ex. 1003, ¶¶ 156, 157. Thus, while the specification of the '988 patent would have conveyed to one of ordinary skill in the art that the applicant possessed an invention including the claimed "encrypted paper transaction data," the specification would have failed to convey possession of the claimed invention

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requiring "encrypted subsystem identification information." Ex. 1003, ¶¶ 143, 161, 183, 184.

c. Encrypted subsystem identification information is not inherently disclosed in the '988 patent.

When subject matter is not expressly disclosed in the patent, the written description may be satisfied when the subject matter is inherent in the specification, which requires a finding that the subject matter is "necessarily" included in the description. *See King Pharms., Inc. v. Eon Labs, Inc.*, 616 F.3d 1267, 1274 (Fed. Cir. 2010).

Encrypted subsystem identification information is not inherent to the specification of the '988 patent because encryption of the subsystem identification information is not *necessarily* required by the described system. Rather, even to the extent that one skilled in the art would have recognized that subsystem identification could have occurred, such an artisan also would have recognized alternatives to encrypting the subsystem identification information of the tag header. Ex. 1003, ¶¶ 162-170, 176-179. The specification of the '988 patent, in fact, suggests at least one such alternative by associating the described encrypting/decrypting processes solely with the CBI and not with the tag header appended to the CBI after encryption of the CBI. Based on this disclosure, one of ordinary skill in the art would have recognized that the system could have sent the TECBI through the network without encrypting either the tag header or encrypting

the subsystem identification information. Ex. 1003, ¶¶ 162-170, 176-179.

DataTreasury's expert, Mr. Hiles, has also acknowledged that encryption of the

subsystem identification information is not necessary in the described system.

Ex. 1019, pp. 54568-54569; Ex. 1020, ¶ 10.

DataTreasury will likely argue that the '988 patent discloses sending

"encryption keys" in the tag header, Ex. 1001, 21:3-6, and therefore the person of

ordinary skill in the art would have encrypted the entire tag header, including the

subsystem identification information. Ex. 1019, p. 54569; Ex. 1020, ¶ 10. This

argument fails to establish, however, that the claimed system identification

information is *necessarily* encrypted. First, claims 1 and 26 lack any limitations

requiring the transmission of encryption keys. Therefore, whether or not

encryption keys would have been encrypted, has no relevance to at least those

embodiments covered by claims 1 and 26, where encryption keys are not included

in the tag headers. Ex. 1003, ¶ 165, 176-178. Second, the '988 patent specification

suggests that encryption keys need not be included in the tag header along with the

subsystem identification information. A detailed listing in the specification of

items included in the tag, in fact, lacks any mention of encryption keys. Ex. 1001,

10:27-57; Ex. 1003, ¶¶ 164-165. Third, the '988 patent never describes encryption

or decryption of the encryption keys, even in embodiments where such keys are

included in the tag. Ex. 1001, 21:3-10; Ex. 1003, ¶¶ 149, 150, 156, 160, 161, 164.

Fourth, the person of ordinary skill in the art generally would have avoided sending encryption keys together with encrypted information over a network. Ex. 1003, ¶¶ 160, 166, 167, 176-178. Fifth, even in embodiments where encryption keys are included in the tag header, any encryption of those keys would not necessarily require encryption of other fields in the tag header. Ex. 1003, ¶¶ 168, 169, 179. For at least these reasons, the specification of the '988 patent fails to convey that the claimed "subsystem identification information" is necessarily encrypted.

> **d.   DataTreasury's own expert has confirmed the lack of written description support for encrypted subsystem identification information.**

DataTreasury's own expert witness, Mr. Hiles, acknowledged in two previous litigations that the '988 patent does not disclose encrypting the tag header or the subsystem identification information. Ex. 1019, pp. 54568-54569; Ex. 1003, ¶¶ 160, 161. For example, Mr. Hiles, acknowledged that TERMINAL_ID 372 is not the "subsystem identification information." *Id.* at pp. 54561-54563. Rather, Mr. Hiles agreed that TERMINAL_ID 372 is part of the paper transaction data and does not relate to either a data access terminal or a scanner used to scan the receipt. *Id.* at p. 54562-54563. Mr. Hiles acknowledged that the tag header pre-pended to the ECBI includes the subsystem identification, and he further acknowledged that the '988 patent does not describe encrypting the tag header. Ex. 1019, pp. 54568-

54569 ("Q . . . But there's nothing in this patent that describes what you just

described [encrypting the tag header], is there? A: That's correct."). This testimony

is also consistent with Mr. Hiles's previous declaration that the '988 patent fails to

describe any encryption of subsystem identification information.[4] Ex. 1020, ¶¶ 7-8

(referring to passages that describe encryption in the Ballard patents, none of

which refer to encrypting subsystem identification information). As Mr. Hiles has

confirmed, other than a description of encrypting paper transaction data and a few

general references to encryption, there is no description in the '988 patent of

encrypting the tag header or the subsystem identification information included in

the tag header. *Id.*

> e. **Arguing obviousness cannot remedy the lack of written description for encrypted subsystem identification information.**

Having no description of the claimed encryption of subsystem identification

information to rely upon, DataTreasury is expected to argue that the written

description requirement of § 112 is satisfied because one of ordinary skill in the art

would have found it obvious to encrypt the subsystem identification information.

DataTreasury's argument fails because it applies the wrong standard. The

obviousness of a claim term cannot substitute for a failure to comply with the

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[4] Mr. Hiles attempted to remedy this lack of express written description by asserting that it would have been obvious to encrypt the tag header. Ex. 1019, pp. 54568-54569; Ex. 1020, ¶ 10. As explained below, however, obviousness of a claim element cannot remedy a lack of written description.

written description requirement. *See, e.g.*, *PowerOasis*, 522 F.3d at 1306, 1310

(holding that a parent application describing a user interface as part of a vending

machine did not provide written description for a user interface remote from the

vending machine, and rejecting the patentee's expert's conclusion that the

specification provided sufficient written description because a remote user

interface would have been well-known to the person of ordinary skill in the art,

even though it was not expressly disclosed); *Lockwood*, 107 F.3d at 1572 (holding

that a claim to an obvious variation fails to satisfy the written description

requirement, and rejecting the patentee's expert's conclusion that there was

sufficient written description because one of ordinary skill in the art would

recognize that the disclosure could have been modified as recited in the claims,

even though the specification did not expressly disclose such modifications).

Because there is no express or inherent disclosure of "encrypted/encrypting

subsystem identification information," claims 1 and 26 are invalid for lack of

written description under § 112 ¶ 1. Claims 2-25, 27-41, and 51-69 depend from

claims 1 and 26, and are also invalid for at least the same reasons as claims 1 and

26.

> **2. The Limitation Regarding Transmission "Within and Between" the Subsystems Lacks Written Description Support in Claims 1-123.**

Independent claims 1, 26, 42, 46, 84, 88, 93, 97, 102, 106, 110, 114, 118, and 121 are invalid because the term "within and between" lacks written description. In the context of the claims, the broadest reasonable interpretation of "within and between" is "data is transmitted both within a given subsystem (i.e., between the various components comprising the subsystem or location) and between one subsystem or location to another subsystem or location." This construction, which conforms with previous constructions proposed by DataTreasury and adopted in District Court, includes at least three possible communication paths: (1) transmitting data within a single subsystem (e.g., within DAT 200), (2) transmitting data between different subsystems of different hierarchical levels (e.g., between DAT 200 and DAC 400), and (3) transmitting data between subsystems of the same hierarchical level (e.g., between DAT 200 and another DAT 200). Ex. 1003, ¶¶ 191-193, 195, 197-199. Indeed, data transmission "between one subsystem or location to another subsystem or location" allows any subsystem to communicate with any other subsystem, regardless of whether the subsystems are on the same hierarchical level, or on different hierarchical levels.

The '988 patent, however, does not describe the transmission of data between subsystems of the same hierarchical level. Ex. 1003, ¶¶ 194, 196, 198, 201. Rather, the '988 patent only describes communications between subsystems

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of different tiers (e.g., DAT 200 and DAC 400). *See* Ex. 1001, Fig. 1, 5:3-6;

Ex. 1003, ¶¶ 187, 190-194, 198. For example, as shown in FIG. 1 (reproduced

below), DAC 200 can communicate with a DAC 400. Ex. 1001, Fig. 1, 5:3-5.

There is no disclosure, however, of communications or a communication path

between subsystems of the same tier, such as two DACs 400 or two DATs 200. *See*

Ex. 1001, Fig. 1; Ex. 1003, ¶¶ 194, 196, 198, 201, 202. Therefore the '988 patent

specification fails to provide written description support for the full scope of the

claimed "within and between" limitations.
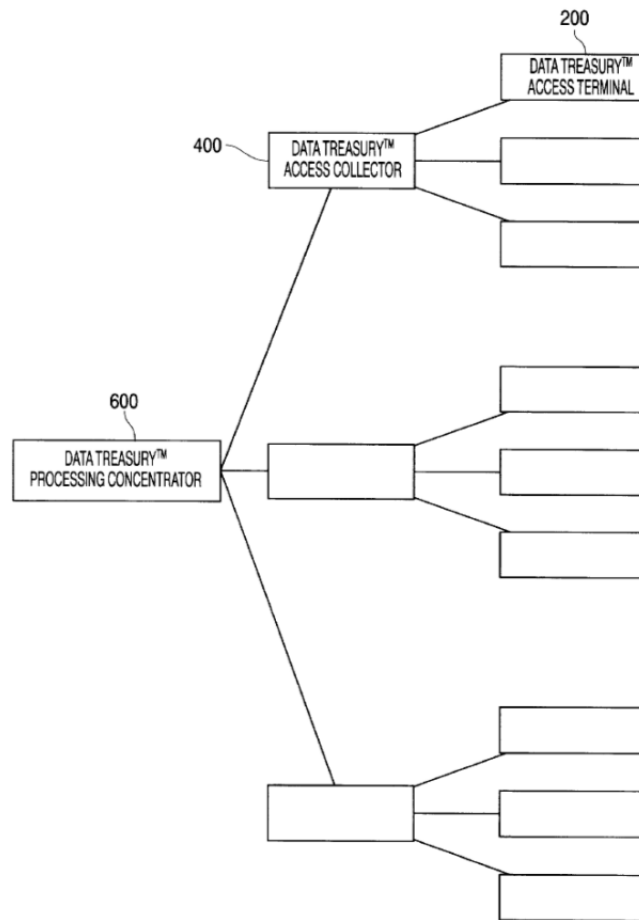
FIG. 1

Further, the communication paths required by the "within and between" claim language are not inherent. As the '988 patent describes, it is possible to construct a system without any intra-tier communication. Thus, one skilled in the art would have concluded from the '988 patent description that intra-tier communication was not a necessary feature of the system. Ex. 1003, ¶¶ 194, 198.

Because the '988 patent fails to provide written description support for the full scope of independent claim 1, this claim is invalid under 35 U.S.C. § 112, first paragraph. Independent claims 26, 42, 46, 84, 88, 93, 97, 102, 106, 110, 114, 118, and 121, as well as dependent claims 2-25, 27-41, 43-45, 47-83, 85-87, 89-92, 94-96, 98-101, 103-105, 107-109, 111-113, 115-117, 119, 120, 122, and 123, all include the same limitation of transmitting data "within and between" various subsystems, and therefore, are also invalid under § 112, first paragraph.

C. Claims 42-51 and 70-123 Are Invalid Under 35 U.S.C. § 112, Second Paragraph.

1. Claim 42 is Indefinite Because the Phrase "Said Data Processing Subsystem" Is Ambiguous.

Claim 42 is indefinite and, therefore, invalid under 35 U.S.C. § 112 ¶ 2. Specifically, claim 42 recites two types of data processing subsystems—i.e., "remote data processing subsystems" and a "central data processing subsystem." Later, however, claim 42 refers only generally to "said one or more data processing systems" and "said data processing subsystem" without specifying to which of the

previously recited data processing subsystems these limitations correspond. This ambiguity renders claim 42 indefinite. Ex. 1003, ¶¶ 203-205.

Indeed, the USPTO has previously considered this exact claim language during prosecution of U.S. patent application 09/454,492 ("the '492 application"), which is a divisional application of the '137 patent, determining that this claim language was indefinite under § 112 ¶ 2. The '492 application contained claim 42 with the same preamble, which included "remote data processing subsystems," a "central data processing subsystem," and the later reference to "said one or more data processing systems" and "said data processing subsystem." Ex. 1021, Second Preliminary Amendment filed December 6, 2000, at 1-2. The Examiner for the '492 application rejected claim 42 under § 112 ¶ 2, noting that "[t]his subsystem is not defined with particularity" and that "[t]he [antecedent] basis for the claim limitations is confusing." Ex. 1021, Non-Final Rejection dated July 3, 2001, at 2. The USPTO has, therefore, already agreed that the claimed "data processing subsystem" is ambiguous.

Consequentially, claim 42 and its dependent claims 43-45 and 70-74 are invalid under § 112 ¶ 2.

> ### 2. The Terms "Tiered Architecture" and "Tiered Manner" Render Claims 42-51 and 70-123 Indefinite and Invalid.

Where a patentee distinguishes a claim limitation over the prior art, the patentee must clearly explain how the claim is different from the art. *See*

Halliburton Energy Servs., Inc. v. M-I LLC, 514 F.3d 1244, 1252-53 (Fed. Cir.

2008) (holding that a patent claim was indefinite where the patentee failed to

adequately describe the boundaries of the invention with respect to the

distinguished prior art). In *Halliburton*, the patentee distinguished prior art drilling

fluids from the claimed "fragile gel" alleging that the prior art failed to disclose the

"fragility" of the claimed gel. *Halliburton*, 514 F.3d at 1252-53. The prior art fluid,

however, exhibited properties similar to the claimed gel, and because the patent

owner's arguments did not sufficiently define the how the properties of the claimed

"fragile gel" distinguished it from the properties of the prior art, the Court found

the claims indefinite. *Id.* at 1253, 1256.

Like the patent owner in *Halliburton*, DataTreasury made vague arguments

during reexamination of the '988 patent (reexamination no. 90/007,829, "the '829

reexam," Ex. 1022) that fail to adequately describe the boundaries of the claimed

"tiered architecture" and "tiered manner" relative to the prior art. Because of this

failure, one of ordinary skill in the art would have been unable to ascertain the

meaning of "tiered architecture" and "tiered manner." Ex. 1003, ¶¶ 206, 207, 220,

222-236. Therefore, applying the Federal Circuit's guidance in *Halliburton*, claims

42-51 and 70-123, which include at least one of these terms, are invalid as

indefinite under 35 U.S.C. § 112 ¶ 2.

In the '829 reexam, DataTreasury argued that a system taught by U.S. Patent

No. 5,373,550 ("Campbell") was different from the claimed invention because it

had a "hub-and-spoke" architecture instead of the claimed "tiered architecture."

See Ex. 1022, Response under 37 CFR 1.111 and Proposed Amendment under 37

CFR 1.530, Jan. 30, 2007, pp. 59-66; *see also* Office Action in Ex Parte

Reexamination, June 29, 2007, p. 4 (summarizing DataTreasury's arguments

regarding "tiered architecture"). DataTreasury further argued that Campbell lacked

the "functional layering" of a "tiered" system. Ex. 1022, Response under 37 CFR

1.111 and Proposed Amendment under 37 CFR 1.530, Jan. 30, 2007, pp. 59-66;

Ex. 1003, ¶¶ 216, 217, 230, 233. DataTreasury, however, fails to define the

properties of its "tiered" system with "functional layering" or explain how these

properties were absent from the Campbell system. And, indeed, like in the

Halliburton case, the prior art Campbell system is strikingly similar to

DataTreasury's claimed system. For example, applying the BRI, it is apparent that

Campbell discloses a conceptual structure and logical organization of subsystems,

in a hierarchy of functional layers. Ex. 1003, ¶¶ 210-215, 218, 219, 235. For

example, the Campbell system includes an organization of banks and nodes

arranged in a hierarchy of functional layers.

FIG. 1
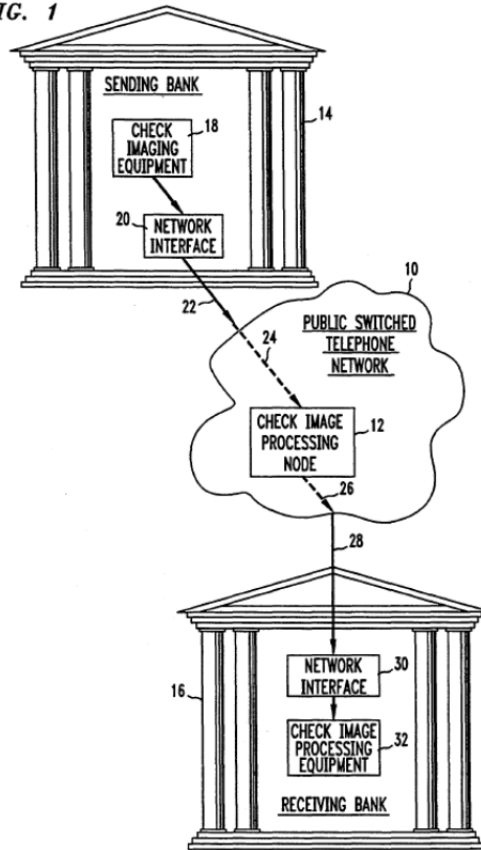
Ex. 1023, Figure 1.

In the first functional layer, and similar to the DAT in the '988 patent, a sending institution 14 scans a check and transmits the check image data to an upstream node. Ex. 1003, ¶¶ 213-215, 218, 233, 235. In a second functional layer, the check image processing node 12 processes the check image, like the DPC 600 in the '988 patent. Ex. 1003, ¶¶ 213-215, 235. The fact that the lowest level functional layer in <u>Campbell</u> may include a plurality of sending institutions further confirms that the <u>Campbell</u> system, like the system of the '988 patent, is arranged in a hierarchy of functional layers. Ex. 1003, ¶¶ 210-215, 235.

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While DataTreasury argued that the <u>Campbell</u> system lacked functional layers and a tiered structure, it did not provide any reasoning to support its conclusion. Ex. 1003, ¶¶ 216, 217, 218, 232-235. As the <u>Campbell</u> system appears to include functional layers arranged in a tiered hierarchy, one of ordinary skill in the art would have been left wondering how the claimed "tiered architecture" "perform[s] differently than the disclosed prior art." *Halliburton*, 514 F.3d at 1253; Ex. 1003, ¶¶ 207, 234-236. With no way for one of ordinary skill to determine the scope of the claimed "tiered manner" or "tiered architecture" based on DataTreasury's arguments relative to the prior art, claims 42-51 and 70-123 of the '988 patent are insolubly ambiguous, and therefore, indefinite under § 112 ¶ 2.

CONCLUSION

For the foregoing reasons, claims 1-123 of the '988 patent are unpatentable. Petitioner therefore requests that a post-grant review of these claims be instituted pursuant to 35 U.S.C. § 324. Petitioner reserves the right to submit additional arguments, depending on what arguments and/or amendments Patent Owner might present. Petitioner also reserves the right to apply any additional arguments that may be responsive to the Patent Owner or develop as the post-grant review proceeds.

The undersigned attorneys welcome a telephone call should the Office have any requests or questions. If there are any additional fees due in connection with

the filing of this paper, please charge the required fees to our deposit account

no. 06-0916.

Respectfully submitted,

Dated: October 25, 2013   By: _____

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CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing Petition for Post Grant Review,

Power of Attorney, and Associated Exhibits under 35 U.S.C. § 321 and § 18 of the

Leahy-Smith America Invents Act was served on October 25, 2013, by Express

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