United States District Court,
E.D. Texas, Marshall Division.

DATATREASURY CORP,
Plaintiff.
v.
WELLS FARGO & CO., et al,
Defendants.
Datatreasury Corp,
Plaintiff.
v.
Bank of America Corp., et al,
Defendants.
Datatreasury Corp,
Plaintiff.
v.
Wachovia Corp., et al,
Defendants.
Datatreasury Corp,
Plaintiff.
v.
Wells Fargo & Co., et al,
Defendants.

Civil Action Nos. 2:05-CV-291, 2:05-CV-292, 2:05-CV-293, 2:06-CV-72

May 11, 2009.

Background: Holder of patents relating to processing of paper and electronic banking transaction data brought action against competitors, alleging infringement.

Holding: The District Court, Folsom, J., held that claim terms pertaining to remote-image capture and centralized processing would be construed.

So ordered.

Court-Filed Expert Resumes

5,910,988, 6,032,137. Construed.

CLAIM-CONSTRUCTION ORDER

DAVID FOLSOM**, District Judge.**

Construing Terms in U.S. Patent Nos. 5,910,988 C1 **and** 6,032,137 C1

Before the Court are DataTreasury's Opening Brief on Claim Construction (Dkt. No. 1107), FN1 Defendant Group 1's Responsive Brief FN2 (Dkt. No. 1119), Defendant Group 2's Responsive Brief (Dkt. No. 1118), DataTreasury's Reply Brief (Dkt. No. 1145), Defendant Group 1's Sur-Reply Brief (Dkt. No. 1147), and Defendant Group 2's Sur-Reply Brief (Dkt. No. 1148). Also before the Court are DataTreasury's Supplemental Claim-Construction Brief (Dkt. No. 1187), Defendants' Supplemental Responsive Brief (Dkt. No. 1193), and DataTreasury's Supplemental Reply Brief (Dkt. No. 1199). FN3 Additionally before the Court are the Local Patent Rule (LPR) 4-3 Joint Claim-Construction and Prehearing Statement (Dkt. No. 1093) and the LPR 4-5 Joint Claim-Construction Chart (Dkt. No. 1151).

A claim-construction hearing, in accordance with Markman v. Westview Instruments, 52 F.3d 967 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), was held in Texarkana on February 6, 2009. *See* Dkt. No. 1162 (transcript). After hearing argument of counsel and reviewing the relevant pleadings, presentation materials, technology tutorials, other papers, and applicable case law, the Court finds the disputed terms of the patents-in-suit should be construed as set forth herein.

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I. BACKGROUND

These patent infringement cases relate to two patents issued to Claudio R. Ballard-U.S. Patent Nos. 5,910,988 ('988 Patent) and 6,032,137 ('137 Patent) (collectively, "Ballard Patents").FN4 DataTreasury asserts that Defendants infringe either the ' 988 Patent or ' 137 Patent, or both. Both of these patents relate to the remote image capture and centralized processing of paper and electronic transaction data. The ' 137 Patent issued from a continuation of the application that eventually issued as the ' 988 Patent and the ' 137 Patent is subject to a terminal disclaimer. Both patents rely on substantially the same written description, although the claims are slightly different. DataTreasury notes that the ' 137 Patent is "a more narrow version of the ' 988 Patent wherein the paper transaction is specifically a check." Dkt. No. 1107, at 9.

This Court has a long history with the Ballard Patents. Indeed, the Court has issued several orders relating to these Patents. Specifically related to claim construction, the Court has previously entered the following Orders in *DataTreasury Corp. v. J.P. Morgan Chase & Co.,* No. 5:02-CV-124 (E.D.Tex.):

-> August 19, 2003-Dkt. No. 120-Report & Recommendations (R & R) on the applicability of 35 U.S.C. s. 112 para. 6 [hereinafter "8/19/03 R & R"].

-> February 19, 2004-Dkt. No. 174-Claim-Construction Order regarding the applicability of 35 U.S.C. s. 112 para. 6 [hereinafter "2/19/04 Order"].

-> November 2, 2004-Dkt. No. 214-R & R Claim-Construction Order [hereinafter "11/02/04 R & R"].

-> March 1, 2005-Dkt. No. 249-Claim-Construction Order [hereinafter "3/1/05 Order"].

On September 29, 2006, the Court additionally entered a claim-construction order in *DataTreasury Corp. v. Magtek, Inc.,* No. 2:03-CV-459, Dkt. No. 156 (E.D.Tex.) that addressed the meaning of the term "image."

Since the time all of these Orders were entered, the Ballard Patents have been through the *ex parte* reexamination process at the U.S. Patent and Trademark Office (PTO). Both patents have been issued reexamination certificates and, as a result, both patents now contain additional claims. *See* Dkt. No. 1187, Exh. A ('988 Patent & Reexamination Certificate); Id., Exh. B ('137 Patent & Reexamination Certificate) [Reexamination certificates hereinafter referenced as "'988 Patent C1" & "' 137 Patent C1"]. However, the new claims have not been asserted in these cases.

II. LEGAL PRINCIPLES

A determination of patent infringement involves two steps: first, the patent claims are construed, and,

second, the claims are compared to the allegedly infringing device. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1455 (Fed.Cir.1998) (en banc). The legal principles of claim construction were reexamined by the Federal Circuit in Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005) (en banc). The Federal Circuit in *Phillips* expressly reaffirmed the principles of claim construction as set forth in Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576 (Fed.Cir.1996), and Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111 (Fed.Cir.2004). Claim construction is to be determined by the judge and not the jury. Markman, 52 F.3d at 979.

The Court, in accordance with the doctrines of claim construction which it has outlined in the past, will construe the claims of the Ballard Patents below. *See Pioneer v. Samsung,* No. 2:07-CV-170, Dkt. No. 94, at 2-8 (E.D. Tex. filed Mar. 10, 2008) (claim-construction order).

III. PATENTS-IN-SUIT

The patents-in-suit are directed to a multi-tiered system for remote data acquisition and centralized processing, storage and analysis of paper and electronic data that may be generated by sales, business, banking, and general consumer transactions. *See* '988 Patent at [57]; '137 Patent at [57]. The '988 Patent issued on June 8, 1999 from an application filed on August 27, 1997. '988 Patent. A reexamination certificate was issued for the ' 988 Patent on October 23, 2007. '988 Patent C1. The reexamination certificate confirmed the patentability of original claims 1-50 and determined new claims 51-123 to be patentable. '988 Patent C1 at 2:46-54. The '988 Patent abstract reads:

A system for remote data acquisition and centralized processing and storage is disclosed called the DataTreasury(TM) System. The DataTreasury(TM) System provides comprehensive support for the processing of documents and electronic data associated with different applications including sale, business, banking and general consumer transactions. The system retrieves transaction data at one or more remote locations, encrypts the data, transmits the encrypted data to a central location, transforms the data to a usable form, performs identification verification using signature data and biometric data, generates informative reports from the data and transmits the informative reports to the remote location(s). The DataTreasury(TM) System has many advantageous features which work together to provide high performance, security, reliability, fault tolerance and low cost. First, the network architecture facilitates secure communication between the remote location(s) and the central processing facility. A dynamic address assignment algorithm performs load balancing among the system's servers for faster performance and higher utilization. Finally, a partitioning scheme improves the error correction process.

'988 Patent at [57]; *see* '988 Patent Certificate of Correction, Oct. 12, 1999 (correcting capitalization error in abstract).

Relying on a substantially similar written description, the '137 Patent issued February 29, 2000 from an application filed on May 19, 1998. '137 Patent at [22], [45]. The '137 Patent generally discloses the same system as the '988 Patent but is focused on a specific kind of data, namely banking transaction data, such as credit card receipts and checks. *See* id. at [57]. The '137 Patent is subject to a terminal disclaimer. Id. at [45]. A reexamination certificate was issued for the '137 Patent on December 25, 2007. '137 Patent C1. The certificate confirmed the patentability of original claims 1-43 and determined new claims 44-67 to be patentable. '137 Patent C1 at 2:37-40. The abstract from the '137 Patent reads:

A system for remote data acquisition and centralized processing and storage is disclosed called the DataTreasury(TM) System. The DataTreasury(TM) System provides comprehensive support for the processing of documents and electronic data associated with different applications including sale, business, banking and general consumer transactions. The system retrieves transaction data ***such as credit card receipts checks in either electronic or paper form*** at one or more remote locations, encrypts the data, transmits the encrypted data to a central location, transforms the data to a usable form, performs identification verification using signature data and biometric data, generates informative reports from the data and transmits the informative reports to the remote location(s). The DataTreasury(TM) System has many advantageous features which work together to provide high performance, security, reliability, fault tolerance and low cost. First, the network architecture facilitates secure communication between the remote location(s) and the central processing facility. A dynamic address assignment algorithm performs load balancing among the system's servers for faster performance and higher utilization. Finally, a partitioning scheme improves the error correction process.

'137 Patent, at [57] (emphasis shows difference between '988 Patent abstract and '137 Patent abstract).

IV. U.S. PATENT NUMBER 5,910,988

A. Overview

DataTreasury has asserted claims 1, 2, 16, 18, 26, 27, 29, 36, 38, 42 and 46 of the '988 Patent against one or more of Defendants. Dkt. No. 1151, Exh. A at 1. For contextual purposes, the claim language for each asserted claim is noted below.

1. A system for central management, storage and report generation of remotely captured paper transactions from documents and receipts comprising:

one or more remote data access subsystems for capturing and sending paper transaction data and subsystem identification information comprising at least one imaging subsystem for capturing the documents and receipts and at least one data access controller for managing the capturing and sending of the transaction data;

at least one central data processing subsystem for processing, sending, verifying and storing the paper transaction data and the subsystem identification information comprising a management subsystem for managing the processing, sending and storing of the transaction data; and

at least one communication network for the transmission of the transaction data within and between said one or more data access subsystems and said at least one data processing subsystem, with the data access subsystem providing encrypted subsystem identification information and encrypted paper transaction data to the data processing subsystem.

2. A system as in claim 1 wherein said one or more data access subsystems further comprise at least one scanner for capturing the paper transaction data.

...

16. A system as in claim 1 wherein said at least one communication network comprises:

at least one first local area network for transmitting data within a corresponding one of said one or more remote data access subsystems;

at least one second local area network for transmitting data within a corresponding one of said at least one data processing subsystem; and

at least one wide area network for transmitting data between said one or more remote data access subsystems and said at least one data processing subsystem.

...

18. A system as in claim 1 further comprising at least one data collecting subsystem for collecting and sending the electronic or paper transaction data comprising a further management subsystem for managing the collecting and sending of the transaction data.

...

26. 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 image of the paper 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.

27. The method as in claim 26 wherein said managing the capturing and sending step comprises the steps of:

successively transforming the captured transaction data to a 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 capturing; and

storing the tagged, encrypted, compressed bitmap image.

...

29. A method as in claim 26 wherein:

said capturing and sending step occurs at a plurality of remote locations; and

said collecting, processing, sending and storing step occurs at a plurality of central locations.

...

36. A method as in claim 29 further comprising the steps of:

collecting and sending the electronic or paper transaction data at intermediate locations;

managing the collecting and sending of the transaction data; and

transmitting the transaction data within the intermediate location and between the intermediate locations and the remote locations and the central locations.

...

38. The method as in claim 36 wherein said transmitting the transaction data step comprises the steps of:

transmitting data within the remote locations;

transmitting data from each remote location to a corresponding intermediate location;

transmitting data within the intermediate locations;

transmitting data from each intermediate location to corresponding central locations; and

transmitting data within the central locations.

...

42. A communication network for the transmission of data within and between one or more remote data processing subsystems, at least one intermediate data collecting subsystem and at least one central subsystem forming a tiered architecture wherein each of said at least one central data processing subsystem communicate with a corresponding some of said at least one data collecting subsystem and each of said at least one data collecting subsystem communicate with a corresponding some of said one or more data processing subsystems, said data processing subsystem including an imaging subsystem for capturing images of documents and receipts, comprising:

at least one first local area network for transmitting data within a corresponding one of said one or more remote subsystems;

at least one second local area network for transmitting data within a corresponding one of said at least one intermediate subsystem;

at least one third local area network for transmitting data within a corresponding one of said at least one central subsystem; and

at least one wide area network for transmitting data between said one or more remote subsystems, said at least one intermediate subsystem and said at least one central subsystem.

...

46. A method for transmitting data within and between one or more remote subsystems, at least one intermediate subsystem and at least one central subsystem in a tiered manner wherein each of the central subsystems communicate with at least one intermediate subsystem and each of the intermediate subsystems communicate with at least one remote subsystems comprising the steps of:

capturing an image of documents and receipts and extracting data therefrom; transmitting data within the remote locations;

transmitting data from each remote location to corresponding intermediate location;

transmitting data within the intermediate locations;

transmitting data from each intermediate location to corresponding central locations; and

transmitting data within the central locations.

'988 Patent at 22:20-28:33; *see* '988 Patent C1 (amendment to claim 1).

B. Claim Construction

1. Agreed terms

The parties have agreed to the constructions as summarized in the table below.

Term	Claims	Proposed Construction
"sending"	1, 18, 26, 29, 36	Sending electronically.
"paper transaction data"	1, 2, 18, 26, 36	Information concerning a transaction reflected on a paper document, where the "paper transaction data" includes an image of the paper document when it is transmitted from the remote data access subsystem.
"data access controller"	1	A computer chip, circuit board, or a computer that interfaces between the imaging subsystem and the remainder of the overall claimed system, and controls the operation of the imaging subsystem.
"processing"	1, 16, 26, 42	The performance of operations upon data and information, in contrast to the processing overhead of the operating system and networks.
"at least one communication network for the transmission of the transaction data"	1	A connection of computers and/or devices to facilitate the transmission of the transaction data between the computers and/or devices. For example, a local area network or a wide

		area network.
"transmission" and "transmitted"	1, 16, 26, 36, 38, 42, 46	The sending of data electronically.
"capturing an image of the paper transaction data"	26	Capturing an image of the documents and receipts (claim 26 of the '988) or Capturing an image of the checks (claim 26 of the '137).
"sending a captured image of the paper transaction data"	26	Sending a captured image of the transaction data, after it has been encrypted, from the remote location to the central location.
"central location"	26, 29, 36, 46	A location that is different from the remote locations where the function of capturing an image of the paper transaction data is performed.
"transmitting the transaction data within the intermediate location"	36	The transaction data is transmitted inside the intermediate location.
Preamble	42	Preamble is limiting.
"at least one first local area network for transmitting data within a corresponding one of said one or more remote subsystems"	42	Each remote subsystem has associated with it a local area network (LAN) for transmitting transaction data between the components of that remote subsystem.
Preamble	46	Preamble is limiting

The Court finds the wording of a few of the agreed constructions to be ambiguous and could potentially lead to *O2 Micro* issues; accordingly, the Court adopts the following constructions, which are substantially similar or identical to the parties' agreed constructions.

Term	**Claims**	**Court's Construction**
"sending"	1, 18, 26, 29, 36	Sending electronically.
"paper transaction data"	1, 2, 18, 26, 36	Electronic information concerning a transaction that comes from a paper document; this information includes an image of the paper document when it is transmitted from the remote data access subsystem.
"data access controller"	1	A computer chip, circuit board, or a computer that interfaces between the imaging subsystem and the remainder of the overall claimed system, and controls the operation of the imaging subsystem.
"processing"	1, 16, 26, 42	The performance of operations upon data and information, in contrast to the processing overhead of the operating system and networks.
"at least one communication network for the transmission of the transaction data"	1	A connection of computers and/or devices to facilitate the transmission of the transaction data between the computers and/or devices. For example, a local area network or a wide area network.
"transmission" and "transmitted"	1, 16, 26,	The sending of data electronically.

	36, 38, 42, 46	
"capturing an image of the paper transaction data"	26	Capturing an image of (1) the documents and receipts or (2) checks.[FN5]
"sending a captured image of the paper transaction data"	26	Sending a captured image of the transaction data, after it has been encrypted, from a remote location to a central location.
"central location"	26, 29, 36, 46	*See infra,* Part IV.B.20
"transmitting the transaction data within the intermediate location"	36	The transaction data is transmitted inside the intermediate location.
Preamble	42	Preamble is limiting.
"at least one first local area network for transmitting data within a corresponding one of said one or more remote subsystems"	42	Each remote subsystem has associated with it a local area network (LAN) for transmitting transaction data between the components of that remote subsystem.
Preamble	4	Preamble is limiting

2. "tiered manner" and "tiered architecture"

These terms appear in asserted claims 42 and 46 of the '988 Patent and have not been previously construed by the Court.FN6 The primary disputes between the parties are (1) whether the term is indefinite, (2) whether a direct connection is required between the tiered subsystems, and (3) whether the hub-and-spoke architecture was disclaimed. The parties offer the following constructions.

DataTreasury	**Defendant Group 1**	**Defendant Group 2**
"tiered manner" is the way in which functional layers of computers are organized	Indefinite.	A layered formation of subsystems comprising one or more remote subsystems with each remote subsystem directly connected to corresponding intermediate subsystems which are directly connected to a central subsystem. A tiered architecture/manner is distinct from a "hub and spoke:" architecture.
	"Tiered" does NOT include: -an architecture that can be described as spoke and hub; -an architecture in which a communication or routing node receives images from and sends images to multiple locations that are remote from the node;	
"tiered architecture" is the conceptual structure and	-an architecture in which data is sent from one entity or bank through a node in a communication or routing	

logical organization of subsystems arranged in functional layers.	network to another entity or bank; -an architecture in which data from multiple originating locations arrives at a server and gets routed by that server to a designated address; -an architecture in which communications use common carrier networks, public switched telephone networks, or other similar networks, such as that provided by AT & T; -an architecture in which images flow from one bank or entity to another bank or entity; -an architecture in which images are sent from a payee location or other image capture location to a bank processing site to an electronic clearinghouse; -an architecture in which an intermediate location is part of a bank or bank facility; -an architecture in which a central location is part of a payment system; and
-any architecture described or depicted in Minoli.	

Dkt. No. 1151, Exh. A at 19-21, 22-23.

a. Parties' Positions

DataTreasury contends its construction of the term is supported by the intrinsic evidence and by a person of ordinary skill in the relevant art. *See* Dkt. No. 1107, at 51 (citing to '988 Patent at 4:24, 4:60-67, 5:2; Fig. 1; claim 36; claims 38-39; claim 40; claims 42-48; Exh. K at 9-10 (Decl. of John Hiles)). DataTreasury further argues that Defendants' laundry list of limitations for "tiered" are improper because prosecution history statements cannot be used to add new limitations to claims. *Id*.

Defendant Group 1 contends DataTreasury's disavowals during prosecution and reexamination of the Ballard Patents have rendered the term "tiered" indefinite. Dkt. No. 1119, at 13. More specifically, Defendant Group 1 first argues that DataTreasury "unambiguously stated that 'tiered' could not be met by a 'Spoke and Hub' arrangement." *Id*. at 15. Defendant Group 1 further contends DataTreasury unequivocally disclaimed all architectures described in the Minoli textbook as well as the Geer patent and numerous other architectures encompassed in the prior art. *Id*. at 15-17.

Defendant Group 2 does not believe the term is indefinite. Dkt. No. 1118 at 14. Defendant Group 2 notes that the '988 Patent specification discusses three architectural tiers. Id. (citing '988 Patent at 5:1-9, 11:12-18; Figures 1 & 4). Defendant Group 2 does contend, however, the term "tiered" as used in claims 42 and 46 should be limited by DataTreasury's disclaimer in distinguishing the Ballard Patents over Campbell as to the "hub and spoke" architecture and any architecture where the tiers are not "directly connected." *Id*. at 14-15.

b. Court's Construction

[1] The Court finds the '988 Patent specification gives adequate guidance to one skilled in the art as to what these terms mean. They are not indefinite. The patent lays out three hierarchical layers or tiers of functional subsystems in Figures 1 and 4 as well in its discussion of those figures. *See* '988 Patent, Figures 1 & 4; id. at 5:1-9 (discussing the three functional tiers); id. at 11:13-14 (discussing the backbone of the tiered architecture).

Defendant Group 1's disclaimer arguments regarding the Campbell, Geer, and Minoli references are not persuasive because (1) when considered in context, DataTreasury's statements were not clear and unequivocal disavowal of claim scope and (2) statements made by DataTreasury during reexamination, when viewed together with the entire intrinsic record, do not make the term "tiered" indefinite as used in the Ballard Patents.

DataTreasury argued to the Examiner during reexamination that the Ballard invention was distinguishable over Campbell for a number of reasons, *only one of which* related to the tiered architecture. *See* Dkt. No. 1119, Exh. A at 60-68. Additionally, in reference to the tiered architecture, the Court finds DataTreasury did not disavow the hub and spoke architecture in wholesale fashion. Rather, all that DataTreasury said is that the hub and spoke architecture, as disclosed in Campbell, without any functional layering of subsystems, or tiered architecture, was distinguishable from the Ballard invention. *See id*. at 63 (arguing that Campbell fails to disclose three tiers of subsystems-remote, intermediate, and central-that communicate with each other in a tiered manner). That is, DataTreasury's argument was not that a hub and spoke architecture could never be used in a tiered manner but rather that the Campbell reference cited by the Examiner failed to disclose functional subsystem layering and communication between layered subsystems. Quite simply, the Court finds the statements made by DataTreasury, when considered in the "context of its overall argument" are not the "clear and unmistakable disavowal of scope during prosecution" that may alter the construction of a claim term. *See* Lucent Techs., Inc. v. Gateway, Inc., 525 F.3d 1200, 1211 (Fed.Cir.2008) (citations omitted).

DataTreasury argued to the Examiner during reexamination that the Ballard invention is patentable over Geer for several reasons, *only one of which* relates to the tiered architecture disclosed in the Ballard Patents. *See* Dkt. No. 1119, Exh. A at 77-82. Regardless, the Court finds the statements made by DataTreasury regarding the tiered architecture do not constitute a clear and unmistakable disavowal of claim scope.

DataTreasury first argues that the "various subsystems" as recited in the Ballard Patents method claims "make up an organized, cohesive method as claimed [that] is not taught or suggested by the Geer patent." *Id.* at 79. DataTreasury then states:

The Geer patent also has no "tiered" structure in relation to the claimed system and subsystem. The Office Action alleges that the "remote subsystem" is the payee 2, the "intermediate subsystem" is the depository bank 10 and the "central subsystem" is the payment system 12. However, there is no tiered or layered nature to the different systems in Geer as presently claimed. The "subsystems" in the present patent [ ] form an interrelated system and method that is lacking in Geer. Merely because data can be transmitted between various institutions in the Geer patent does not render the claims of the present patent [ ] unpatentable because the "systems" of Geer do not depend on each other to form one comprehensive system. Geer has no "intermediate" or "central" subsystems that function in the manner as claimed. There is certainly no "tiered" relationship between the various institutions of Geer in a manner as presently claimed.

Id. at 80. The Court finds these statements, when considered in context, do not indicate any clear disavowal of claim scope. DataTreasury merely asserts that Geer does not teach functional layering of subsystems. These statements regarding Geer's failure to disclose a tiered structure do not make the term "tiered" indefinite.

As with Campbell, DataTreasury argued to the Examiner during reexamination that the Ballard invention is patentable over Minoli for several reasons, only one of which was related to the Ballard tiered architecture. *See* Dkt. No. 1119, Exh. A at 72-77. Defendant Group 1 takes a statement made by DataTreasury out of context to argue that DataTreasury disclaimed all of the teachings of Minoli. *See id.* at 15-16. For contextual reference, DataTreasury's statement, in context, is provided below:

The Office Action alleges that the Minoli textbook shows a multi-tiered architecture and refers to Figures 2.5, 2.6, 2.8, 2.10 and 9.8 to show various LAN and WAN configurations. However, the Minoli textbook is silent as to any type of tiered architecture.

In any case, claims 42-45 require a WAN and LAN interconnection in the recited communication network. The Office Action points out that the Minoli textbook states on page 270 that "Figure 9.8 depicts WAN connectivity using public frame relay service for LANs supporting imaging applications."

However, Figure 9.8 does not include any type of scanner or imaging device.

Id., Exh. A at 73.

Given the context, it is far from clear that DataTreasury disclaimed the entire Minoli textbook, as Defendants suggest. It is just as likely that DataTreasury was merely contending that the figures from Minoli cited by the Examiner do not disclose the tiered architecture taught in the Ballard Patents. Indeed, the Minoli figure that Defendant Group 1 cites is Figure 8. 1, which was not even discussed by DataTreasury in this exchange with the Examiner. This exchange between DataTreasury and the Examiner is not clear disavowal.

Defendant Group 1 quotes additional out-of-context statements made by DataTreasury in its exchange with the Examiner during reexamination in a further attempt to negatively limit the construction of "tiered." *See* Dkt. No. 1119, at 17-18. For reasons quite similar to those stated above, the Court finds none of these

statements rises to the level of clear and unequivocal disavowal of claim scope and therefore do not impact the Court's construction of "tiered." These selected statements were part of a very lengthy exchange between DataTreasury and the Examiner and constitute only a fraction of the arguments made by DataTreasury to distinguish the Ballard Patent from various pieces of prior art. Further, it appears to the Court that many of the arguments made in regard to this term are driven by non-infringement strategies instead of ascertaining what the terms, as gleaned from the intrinsic evidence, actually mean.

Even if the Court was to agree with Defendant Group 1's disclaimer arguments, they would not make the term "tiered" indefinite. The definiteness requirement does not compel absolute clarity; only claims that are "insolubly ambiguous are indefinite." Datamize, LLC v. Plumtree Software, 417 F.3d 1342, 1347 (Fed.Cir.2005). "If one skilled in the art would understand the bounds of the claim when read in light of the specification, then the claim satisfies section 112 paragraph 2." Exxon Research & Eng'g Co. v. United States, 265 F.3d 1371, 1375 (Fed.Cir.2001). The Court concludes that a person of ordinary skill would understand the bounds of the claims in light of the specification text, figures, and the claim language itself. Statements made by DataTreasury during reexamination do not alter this conclusion.

For the same reasons already discussed, Defendant Group 2's disclaimer argument regarding spoke and hub is similarly unpersuasive. Defendant Group 2 also contends DataTreasury's statements to the Examiner regarding the "direct" connection between the tiered layers should be incorporated as a claim limitation through the construction of "tiered." The Court disagrees. DataTreasury's statement, when read in context, was to show that the "tiered" connections between the three tiers required by claim 42 was not taught by Campbell.

First, in Campbell, et al., the logical flow between Payor Banks, Banks of First Deposit, and sending banks is achieved by routing the check images through Campbell's communications structure.

Everything flows into the hub and gets routed outbound to some designated address....

Thus the communications network (topology) is that of SPOKE AND HUB. The flow is from spoke to hub and out to another spoke. There is no direct contact between spokes; all flows must go through the hub before reaching another spoke....

In contrast, a different communications structure is described in present claims 42-50, which describe a tiered architecture, where the flow is from data access to intermediate to central processing. Data Access connects directly to Intermediate and Intermediate connects directly to Central. These locations are the three tiers of the '988 architecture.

Dkt. No. 1119, Exh. A at 65-66.

The Court concludes, from the context of the statements that DataTreasury was merely speaking to the logical flow of data among three hierarchical tiers, rather than a logically "flat" distribution. That is, it is possible, if not probable, that what DataTreasury meant by "connects directly" is just that Campbell et al. failed to teach linkages between functional tiers that define the logical flow of data. The Court finds these statements do not justify importing a "direct connection" limitation into the claim.

Based on the intrinsic evidence, the Court construes **"tiered architecture"** and **"tiered manner"** to mean **"the conceptual structure and logical organization of subsystems in a hierarchy of functional layers."**

3. "subsystem"

This term appears in asserted claims 1, 2, 16, 18, 26, 42, and 46. The Court previously

determined this term was not subject to means-plus-function analysis. 2/19/04 Order at 2-10. The term was previously construed by the Court to mean "an organization of computer components that comprises a functional unit that is part of a larger system." 11/02/04 R & R at 8 (citing 2/19/04 Order at 10). The core disputes between the parties are (1) whether the term is indefinite and (2) whether the term necessarily excludes any components located at the payee's location or in both the payee's location and in the bank. The parties offer the following constructions.

DataTreasury	Defendants
An organization of computer components that comprises a functional unit that is part of a larger system.	Indefinite. Alternatively, "An organization of computer components that comprises a functional unit that is part of a larger system. 'Subsystem' does not include 'any computer components in the payee's location' (or in both 'the payee's location and in the bank')."

Dkt. No. 1151, Exh. A at 2-3.

a. Parties' Positions

DataTreasury contends the Court's prior construction-"an organization of computer components that comprises a functional unit that is part of a larger system-remains the correct construction. Dkt. No. 1107, at 34. In response to Defendants' proposal, DataTreasury notes that the Court previously found that "subsystem" is not indefinite-that it connotes sufficient structure to not fall within the ambit of 35 U.S.C. s. 112 para. 6-and is amenable to construction. *Id*. DataTreasury agrees with the first part of Defendants' alternative proposal, but contends the limitations relating to the location of components relative to the payee and bank are unnecessary and "clearly motivated by [ ] non-infringement theories." *Id*. at 34-35.

Defendants contend DataTreasury's disclaimers during prosecution and reexamination render it "impossible to determine the remaining scope of the claims containing the term 'subsystem.' " Dkt. No. 1119, at 21. Alternatively, Defendants ask the Court to refine its previous construction to prevent DataTreasury from recapturing scope it disclaimed during reexamination. *Id*. at 19. More specifically, Defendants argue that DataTreasury disclaimed scope with regard to "subsystem" based on its arguments to overcome a rejection based on the Geer reference. *Id*. According to Defendants, DataTreasury argued to the Examiner that the computer components at the payee's location, as disclosed in Geer, are not subsystems of the bank and that computer components in the payee's location and in the bank are not subsystems of the check payment system. *Id*. In so arguing, contends Defendants, DataTreasury disclaimed any computer equipment located at the payee's location as well as any computer equipment located at both the payee's location and in the bank. *Id*. at 19-20.

b. Court's Construction

[2] The Court finds the statements made by DataTreasury during reexamination did not render this term indefinite. That is, the Court does not agree with Defendants' assessment of DataTreasury's arguments to the Examiner in regard to computer equipment located at the payee/bank locations. However, the Court does find that its previous construction should be modified to account for statements made by DataTreasury during reexamination that further define what "subsystem" means in the '988 Patent.

Defendants have taken certain statements made by DataTreasury during reexamination out of context and relied on them to support their indefiniteness and disavowal arguments. The statements made by DataTreasury must be read in context of the overall argument. Lucent, 525 F.3d at 1211. In context, the statements relied on by Defendants read:

The Office Action has attempted to identify the elements of Geer in a manner to try to show correspondence between those elements and method steps to the language of patentee's claims 4-50. However, the re-designation of Geer's elements is improper. ***In the present patent [ ], various subsystems make up an organized, cohesive method*** which is not taught or suggested by the Geer patent.

...

The Geer payee's location, or more accurately any computer components in the payee's location, are not subsystems of the bank as recited in the present claims. Similarly, the payee's location and the banks, or more accurately any computer components in the payee's location and in the bank, are not subsystems of the check payment system....

Dkt. No. 1119, Exh. A at 78 (emphasis added).

It seems clear that in the first quoted paragraph, DataTreasury lays out its core argument. In the latter paragraph, DataTreasury argues that computer components, as shown in Geer, are not subsystems as used in the '988 Patent because the Geer components are not part of an organized, cohesive method as required by '988 Patent claim 46. When considered contextually, the Court finds Defendants' reading of DataTreasury's statements is not a clear and unequivocal disavowal of scope and therefore Defendants' alternatively-proposed construction is improper. The Court additionally finds that these statements do not render the term "subsystem" indefinite as it remains amenable to construction.

However, the Court does find that through its arguments to the Examiner, DataTreasury further defined what "subsystem" means in the context of the '988 Patent. Specifically, DataTreasury stated that in the '988 Patent, "various subsystems make up an organized **cohesive** method." Dkt. No. 1119, Exh. A at 79 (emphasis added). DataTreasury further noted that, unlike the '988 Patent, the " 'systems' of Geer do not depend on each other to form one **comprehensive** system." Id. at 80 (emphasis added). Thus, DataTreasury has expressly added the adjectives "cohesive" and "comprehensive" to the meaning of "subsystem," as used in the '988 Patent.

Based on the statements made by DataTreasury during reexamination in combination with the Court's previous construction, Court construes **"subsystem"** to mean **"an organization of computer components that comprises a functional unit that is part of a larger comprehensive and cohesive system."** Given the statements made by DataTreasury during reexamination, this construction is the "meaning that the term would have to a person of ordinary skill in the art at the time of the invention." *See* Symantec Corp. v. Computer Assocs. Int'l, Inc., 522 F.3d 1279, 1291 (Fed.Cir.2008) (discussing the meaning of the term

"system" FN7).

4. "data access subsystems" and "data access subsystems for capturing and sending paper transaction data and subsystem identification information"

At least one of these terms appears in asserted claims 1, 2, and 16. The Court previously construed the term "data access subsystem" as "subsystems that provide for the input of transaction data and subsystem identification information into the overall system and provides that data to other parts of the overall system" and found it not to be in means-plus-function form. 11/02/04 R & R, at 8-10; 2/19/04 Order at 22-24. The core disputes between the parties are (1) whether the term is means-plus-function and (2) whether the entire data access subsystem must be located at the location of image capture. The parties offer the following constructions for the term "data access subsystems for capturing and sending paper transaction data and subsystem identification information." None of the parties proposed a construction for "data access subsystems" standing alone.

DataTreasury	Defendants
Subsystems that provide for the input of transaction data and subsystem identification information into the overall system and provides that data to other parts of the overall system.	Should be construed under 35 USC s. 112, para. 6. *Function:* capturing and sending paper transaction data and subsystem identification information. *Structure:* the DAT structure shown in Fig. 2 (the combination of items 202, 204, 206, 208, 210, 212, 214), as described in the specification, including at 5:26-39; 5:40-45; 6:20-29; 7:31-40; 5:46-57; and 7:41-51; Alternatively, "A subsystem located at the location of image capture that provides for the input of transaction data and subsystem identification information into the overall system and provides the transaction data and subsystem identification information to other parts of the overall system."

Dkt. No. 1151, Exh. A at 3.

a. Parties' Positions

DataTreasury contends the Court's previous construction of this phrase is proper and fully supported by the '988 Patent specification. Dkt. No. 1107, at 26. DataTreasury further argues that 35 U.S.C. s. 112 para. 6 is not in play here, just as the Court previously concluded, and that the Defendants' alternatively-proposed construction improperly imposes a limitation not required by the plain claim language or the specification. *Id*. at 26-27. More specifically, DataTreasury argues that although the '988 Patent discloses a data access controller and imaging subsystem that are both part of the data access subsystem, nothing in the claim language or the specification requires that they both be in the same location, as Defendants contend. Id. at 27.

Defendants contend "the claim language itself mandates that the 'data access subsystem' is located at the

location of image capture." Dkt. No. 1119, at 29. Because the claim specifies that the data access subsystem contains an imaging subsystem and that the data access subsystem is for capturing, Defendants conclude the data access subsystem must be at the location of image capture. *Id*. Defendants additionally argued at the *Markman* hearing that recent changes involving 35 U.S.C. s. 112 para. 6 require the Court to reconsider its previous decision regarding the inapplicability of 35 U.S.C. s. 112 para. 6 to this term. Dkt. No. 1162, at 69-70. Defendants also contend DataTreasury made statements during reexamination that confine the data access subsystem to the location of image capture. *Id*. at 29-30. Specifically, Defendants contend DataTreasury argued to the Examiner that a prior art reference failed to disclose a data access subsystem because it described a data access controller in a different location than the image capture hardware. *Id*. at 30 (citing Dkt. No. 1121).

b. Court's Construction

[3] The Court finds no reason to revisit its previous ruling on the inapplicability of 35 U.S.C. s. 112 para. to this term. The Court finds the case cited by Defendants, Welker Bearing Co. v. PhD, Inc., 550 F.3d 1090 (Fed.Cir.2008) did not announce any change in the law involving means-plus-function claiming. *Welker* merely applied the same legal principles that have been applied by the Federal Circuit for many years, namely that a claim may invoke s. 112 para. 6 without reciting the term "means" if the claim limitation "is determined not to recite sufficiently definite structure to perform the claimed function." Kemco Sales, Inc. v. Control Papers Co., Inc., 208 F.3d 1352, 1361 (Fed.Cir.2000); *see* Mas-Hamilton Group v. LaGard, Inc., 156 F.3d 1206 (Fed.Cir.1998); Raytheon Co. v. Roper Corp., 724 F.2d 951 (Fed.Cir.1983). Interestingly, these Defendants do not argue that the term "subsystem" itself is subject to 35 U.S.C. s. 112 para. 6; it is difficult to understand why "data access subsystem" would necessarily invoke s. 112 para. 6 when "subsystem" itself does not. *See supra,* Part IV.A.3. The Court finds that "subsystem," as previously discussed, and "data access subsystem" convey sufficient structure to a person of ordinary skill in the art at the time of the invention to make 35 U.S.C. s. 112 para. 6 inapplicable.

The Court disagrees with Defendants' logic and assertions regarding their proposed "location of image capture" limitation. The remote data access subsystem as described in claim 1 clearly includes "at least one imaging subsystem" and "at least one data access controller." However, nothing in the claim language requires the imaging subsystem and controller to be co-located at the location of image capture. Although the data access subsystem uses the imaging subsystem to capture "documents and receipts," the claim simply does not require the entire data access subsystem to be at the location of image capture.

The Court additionally disagrees with Defendants' characterization of the statements on this topic made by DataTreasury during reexamination. During reexamination, DataTreasury stated:

The ['988 Patent] Data Access Controller provides two functions, capturing and sending. ***Thus, a controller that only provided for sending and not capturing, would not satisfy the requirement of a Data Access Controller.*** In [the prior art reference], the external Image Capture equipment contains its own controller, while [another controller] is responsible for controlling sending information to the rest of the [system].

Dkt. No. 1121, at 42 (emphasis added). From this statement, the Court concludes the distinguishing characteristic was the fact that the capturing and sending functions in the prior art reference were not controlled by a single controller. The statement does not address the location issue in any regard. Defendants' assertions about this statement and its bearing on the "location of image capture" are simply misguided.

Finding no reason to deviate from its prior analysis or construction, the Court construes **"data access subsystem"** and **"data access subsystem for capturing and sending paper transaction data and subsystem identification information"** to mean **"a subsystem that provides for the input of transaction data and subsystem identification information into the overall system and provides that data to other parts of the overall system."**

5. "data access subsystem providing encrypted subsystem identification information and encrypted paper transaction data to the data processing subsystem"

This term appears in asserted claim 1. The term was previously construed by the Court to mean "the data access subsystem encrypts subsystem identification information and encrypts paper transaction data and provides the encrypted information and encrypted data for transmission to the data processing subsystem." 11/02/04 R & R at 58-59. The core disputes between the parties are (1) whether the data access subsystem must send/transmit the encrypted data and (2) whether the data processing subsystem must receive the encrypted data. The parties offer the following constructions.

DataTreasury	Defendants
The data access subsystem encrypts subsystem identification information and encrypts paper transaction data and provides the encrypted information and encrypted data for transmission to the data processing subsystem.	1) subsystem identification information and paper transaction data are encrypted and then sent/transmitted by the data access subsystem, and 2) the encrypted subsystem identification information and encrypted paper transaction data are received by the data processing subsystem.

Dkt. No. 1151, Exh. A at 11.

a. Parties' Positions

DataTreasury agrees with the Court's previous construction. Dkt. No. 1107, at 27-28. DataTreasury argues Defendants construction is improper because the encrypted data is transmitted by the communications network as stated in the claim. *Id*. at 28. DataTreasury further contends the claim contains no requirement that the data processing system receive the encrypted data as Defendants contend. *Id*.

Defendants contend their construction is proper because it is true to the plain language of the claim. Dkt. No. 1119, at 27. Defendants argue that the claim language makes three things clear: (1) the data must be encrypted *before* it is sent to the data processing subsystem; (2) the data access subsystem *sends* the data to the data processing subsystem; and (3) the term "provides" requires that the data processing subsystem *receive* the encrypted data. *Id*. at 27-28.

b. Court's Construction

[4] Although the Court previously construed this term, two of the three primary arguments presented by the parties here were not previously addressed. The Court previously established that the encryption of data must occur before its transmission to the data processing subsystem. 11/02/04 R & R at 59. The Court did not, however, address whether the data access subsystem must send the data or whether the data processing subsystem must receive the encrypted data.

The Court finds the plain claim language indicates that the data access subsystem sends the encrypted data to the data processing subsystem via the communication network. This reading is also supported by the specification. *See* '988 Patent at 5:34-39, 7:42-44 (DAT embodiment including modem 204, which transmits data to a DAC; Figures 2 & 4 (illustrating same). In view of the specification, the Court finds one of skill in the art would read "providing encrypted information and data" to mean that encrypted data is sent/transmitted by the data access subsystem to the data processing subsystem using the communication network. That is, the communication network provides the conduit for the transfer of the encrypted information.

DataTreasury's argument regarding the communication network is unavailing because that portion of Defendants' proposed construction does not preclude the use of the communication network for transmission. Indeed, that is the purpose of the communication network. DataTreasury seems to imply that the communication network is the active entity, but the textual description and figures previously discussed counsel otherwise. Further, DataTreasury's construction seemingly excludes the preferred DAT embodiment, which expressly shows and describes the DAT transmitting data using a modem. *See* Globetrotter Software, Inc. v. Elan Computer Group, Inc., 362 F.3d 1367, 1381 (Fed.Cir.2004) (a construction that reads out a preferred embodiment is rarely, if ever, correct (citing Vitronics, 90 F.3d at 1583)).

The second part of Defendants' proposed construction, however, goes beyond the plain language of the claim and is not supported by the intrinsic record. The claim language only requires that the data access subsystem "provide" the data to the data processing subsystem. "Provide" cannot properly be read to require affirmative receipt of the data by the data processing subsystem. Such may be a logical result, but that does not make it a claim limitation. The claim simply does not require the data processing subsystem to receive anything; rather, it merely requires the data access subsystem provide data to the data processing subsystem via the communication network. The second part of Defendants' proposed construction is not supported by the plain claim language or the specification and must therefore be rejected.

Based on the plain claim language, read in light of the patent specification, the Court construes **"data access subsystem providing encrypted subsystem identification information and encrypted paper transaction data to the data processing subsystem"** to mean **"the data access subsystem encrypts subsystem identification information and paper transaction data and, via the communication network, transmits the encrypted data to the data processing subsystem."**

6. "imaging subsystem" and "imaging subsystem for capturing the documents and receipts"

These terms, in whole or in part, appear in asserted claim 1 and the preamble of claim 42. The parties agree that the preamble of claim 42 is limiting. Dkt. No. 1151, Exh. A at 18; *See* Bell Commc'ns Research, Inc. v. Vitalink Commc'ns Corp., 55 F.3d 615, 620 (Fed.Cir.1995) (preamble is limiting (1) when the claim body expressly refers back to the preamble or (2) when the preamble and claim body collectively define the subject matter of the claimed invention). The Court previously construed "imaging subsystem" in the context of the Ballard Patents to mean "a subsystem that receives documents and receipts (the '988 Patent) or checks (the '137 Patent) and provides an output that is an image of the documents and receipts, or checks, in digital electronic form." 11/02/04 R & R at 10-11. The core dispute between the parties is whether the terms are subject to means-plus-function analysis. The parties offer the following constructions.

DataTreasury	**Defendants**
A subsystem that receives documents and receipts (the '988 Patent) /checks (the	This phrase should be

'137 Patent) and provides an output that is an image of the documents and receipts (the '988 Patent)/checks (the '137 Patent) in digital electronic form. *Structure:* '988 Patent, Fig. 2, item 202, 5:46-6:19; corresponding disclosure in the '137 Patent.	construed under 35 USC s. 112, para. 6. *Function:* capturing images of documents and receipts

Dkt. No. 1151, Exh. A at 4-5.

a. Parties' Position

DataTreasury agrees with the Court's previous construction, but proposes a construction that is "slightly different in form." Dkt. No. 1107, at 29.

Defendants, through incorporations by reference of arguments already presented to and considered by this Court in previous claim-construction briefing and/or hearings, contend these terms should be construed under 35 U.S.C. s. 112 para. 6. Dkt. No. 1119, at 46.

b. Court's Construction

[5] The Court finds that to a person of ordinary skill in the art at the time of invention, both terms connote sufficient structure to render 35 U.S.C. s. 112 para. 6 inapplicable. *See* Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1583 (Fed.Cir.1996) (concluding that "detent mechanism" was not subject to 35 U.S.C. s. 112 para. 6) (discussed by Welker, 550 F.3d at 1096). Thus, the Court finds no reason to deviate from its previous determination that 35 U.S.C. s. 112 para. 6 is inapplicable. *See* 2/19/04 Order at 11-13.

Accordingly, the Court construes the terms **"imaging subsystem"** and **"imaging subsystem for capturing the documents and receipts"** to mean **"a subsystem that receives (a) documents and receipts or (b) checks and provides an output that is an image of the (a) documents and receipts or (b) checks in digital electronic form."**

7. "data processing subsystem," "central data processing subsystem," and "data processing subsystem for processing, sending, verifying and storing the paper transaction data and the subsystem identification information"

At least one of these terms appears in asserted claims 1, 16 and 42. The Court previously determined that "data processing system" was not subject to 35 U.S.C. s. 112 para. 6. 2/19/04 Order at 31-33. Additionally, the Court previously construed "central data processing subsystem" to mean "a subsystem for centralized execution of processing, sending and storing data received from one or more remote data access subsystems." 11/02/04 R & R at 12-13. The primary dispute between the parties is whether these terms are subject to means-plus-function analysis. The parties offer the following constructions.

DataTreasury	**Defendants**
"central data processing subsystem"	
A subsystem for centralized execution of processing, sending and storing data received from one or more remote data access	Should be construed under 35 USC s. 112, para. 6.

subsystems.

	Function: processing, sending, verifying, and storing paper transaction data and the subsystem identification information.
Structure: '988 Patent, Fig. 6, (items 612, 606, 614, 602, 608, 610, 604), described at 14:19-27; 14:28-33; 15:52-61; 15:53-67; 16:1-11; 16:12-24; 16:38-45; 15:30-44; 14:51-61; and 20:43-48; corresponding disclosure in the '137 Patent.	
"data processing subsystem"	
A subsystem for execution of processing, sending and storing data received from one or more remote data access subsystems.	Same as above.
"data processing subsystem for processing, sending, verifying and storing the paper transaction data and the subsystem identification information"	
A subsystem for execution of processing, sending, verifying and storing paper transaction data and subsystem identification information received from one or more data access subsystems.	Same as above.

Dkt. No. 1151, Exh. A at 7-8.

a. Parties' Positions

DataTreasury contends the Court's previous construction of "central data processing subsystem" is correct and that removing the word "centralized" from the Court's previous construction yields the proper construction for the two terms not containing the word "central." Dkt. No. 1107, at 31-32. DataTreasury also argues these constructions are consistent with the specification, which states that "the DPC 600 stores customer data in a central location, generates informative reports from the data, and transmits the informative reports to customers at remote locations." *Id*. (citing '988 Patent at 5:6-9).

As with the term "imaging subsystem," Defendants incorporate by reference arguments already presented to this Court in previous claim-construction briefing and/or hearings to argue these terms should be construed under 35 U.S.C. s. 112 para. 6. Dkt. No. 1119, at 46. Defendants make no new arguments as to why these terms should be considered to be in means-plus-function form.

b. Court's Construction

[6] [7] [8] The Court finds that a person of ordinary skill in the art at the time of invention, all three of these terms connote sufficient structure to remove them from 35 U.S.C. s. 112 para. 6 analysis. *See* Personalized Media Commc'ns, L.L.C.v. Int'l Trade Comm'n, 161 F.3d 696, 704-05 (Fed.Cir.1998) (concluding the term "detector" connotes sufficiently definite structure, even though it does not specifically evoke a particular structure); Greenberg, 91 F.3d 1580 at 1583. In sum, the Court finds no reason to deviate from its previous determination that 35 U.S.C. s. 112 para. 6 is inapplicable. *See* 2/19/04 Order at 31-33.

Accordingly, the Court construes the terms **"data processing subsystem"** to mean **"a subsystem for execution of processing, sending and storing data received from one or more remote data access subsystems."**

The Court construes **"data processing subsystem for processing, sending, verifying and storing the paper transaction data and the subsystem identification information"** to mean **"a subsystem for execution of processing, sending, verifying and storing paper transaction data and subsystem identification information received from one or more remote data access subsystems."**

The Court construes the term **"central data processing subsystem"** to mean **"a subsystem for centralized execution of processing, sending and storing data received from one or more remote data access subsystems."**

8. "intermediate data collecting subsystem" and "data collecting subsystem for collecting and sending the electronic or paper transaction data"

At least one of these terms appears in asserted claims 18 and 42. The Court previously found that the term "data collecting subsystem" was not subject to means-plus-function analysis. 2/10/04 Order at 25-27. Additionally, after consulting the patent specification, the Court previously construed "data collecting subsystem" to mean "a subsystem that receives data from remote data access subsystems and transmits that data to a central data processing subsystem." 11/02/04 R & R at 15. The core dispute between the parties is whether the terms are in means-plus-function form. The parties offer the following constructions.

DataTreasury	Defendants
A subsystem that receives electronic or paper transaction data from remote data access subsystems and transmits that data to a central data processing subsystem.	This phrase should be construed under 35 USC s. 112, para. 6. *Function:* collecting and sending the electronic and paper transaction data. *Structure:* '988 Patent, 3:39-42, 4:60-67, 9:22-29, 11:12-18, 11:30-43, 11:57-67, 13:10-38, 13:47-67, 14:4-18; corresponding disclosure in the '137 Patent.

Dkt. No. 1151, Exh. A at 13.

a. Parties' Position

DataTreasury contends the Court's previous construction is fully supported by the intrinsic record and should be adopted. Dkt. No. 1107, at 41. DataTreasury further notes that Citigroup, a defendant in a now-settled case, agreed with the Court's prior construction as well. *Id*. (citing *DataTreasury Corp. v. Citigroup, Inc.,* No. 2:05-CV-294, Dkt. No. 196, Exh. A at 2).

As with several of the other "subsystem terms," FN8 Defendants incorporate by reference arguments already presented to this Court in previous claim-construction briefing and/or hearings to argue these terms should be construed under 35 U.S.C. s. 112 para. 6. Dkt. No. 1119, at 47. Defendants make no new arguments as to why these terms should be considered to be in means-plus-function form.

b. Court's Construction

[9] The Court finds that a person of ordinary skill in the art at the time of invention, these terms connote

sufficient structure to remove them from 35 U.S.C. s. 112 para. 6 analysis. *See* Personalized Media, 161 F.3d at 704-05; Greenberg, 91 F.3d 1580 at 1583; 2/19/04 Order at 25-27.

For reasons previously discussed in reference to the other "subsystem" terms, the Court finds no reason to deviate from its previous constructions. Accordingly, the Court construes the terms **"data collecting subsystem"** and **"data collecting subsystem for collecting and sending the electronic or paper transaction data"** to mean **"a subsystem that receives electronic or paper transaction data from remote data access subsystems and transmits that data to a central data processing subsystem."**

9. "management subsystem for managing the processing, sending and storing of the transaction data" and "further management subsystem for managing the collecting and sending of the transaction data"

At least one of these terms appears in asserted claims 1, 18, and 42. The Court previously determined that "data management subsystem," or "management subsystem" in certain claims, is part of the central data processing subsystem and is not in means-plus-function form. 02/19/04 Order at 14-16. Additionally, the Court construed "management subsystem for managing the processing, sending and storing of the transaction data" to mean "a subsystem that manages the processing, sending and storing of the transaction data." 11/02/04 R & R at 14. The core dispute between the parties is whether the terms are in means-plus-function form. The parties offer the following constructions.

DataTreasury	**Defendants**
"management subsystem for managing the processing, sending and storing of the transaction data"	
A subsystem that manages the processing, sending and storing of transaction data.	This phrase should be construed under 35 USC s. 112, para. 6.
No 35 USC s. 112 issues.	*Function:* managing the processing, sending and storing of the transaction data.
	Structure: '988 Patent, 14:28-33; corresponding disclosure in the '137 Patent.
"further management subsystem for managing the collecting and sending of the transaction data"	
Management subsystem for managing the collecting and sending of the transaction data.	This phrase should be construed under 35 USC s. 112, para. 6.
No 35 USC s. 112 issues.	*Function:* managing the collecting and sending of the transaction data. *Structure:* Servers configured to manage the collection and immediate storage of images and data which are received from the remote data access subsystem. ('988 Patent, 11:19-24; item 402 in FIG. 4).

Dkt. No. 1151, Exh. A at 10, 13.

a. Parties' Positions

DataTreasury contends the Court's previous construction for the "management subsystem ..." term remains correct and that the other term, "[f]urther management subsystem," should be construed similarly. Dkt. No. 1107, at 32-33.

Defendants incorporate by reference arguments already presented to this Court in previous claim-construction briefing and/or hearings to argue these terms should be construed under 35 U.S.C. s. 112 para. 6. Dkt. No. 1119, at 47. Defendants make no new arguments as to why these terms should be considered to be in means-plus-function form.

b. Court's Construction

[10] [11] The Court finds that a person of ordinary skill in the art at the time of invention, these terms connote sufficient structure to remove them from 35 U.S.C. s. 112 para. 6 analysis. *See* Personalized Media, 161 F.3d at 704-05; Greenberg, 91 F.3d 1580 at 1583; *see* 2/19/04 Order at 14-16.

For reasons previously discussed in reference to the other "subsystem terms," the Court finds no reason to deviate from its previous constructions. Accordingly, the Court construes the term **"management subsystem for managing the processing, sending and storing of the transaction data"** to mean **"a subsystem that manages the processing, sending and storing of transaction data."** The Court construes **"further management subsystem for managing the collecting and sending of the transaction data"** to mean **"a subsystem that manages the collecting and sending of transaction data."**

10. "data access controller for managing the capturing and sending of the transaction data," "managing the capturing and sending of the transaction data," and "managing the collecting, processing, sending and storing of the transaction data"

At least one of these terms appears in asserted claims 1, 26, 36, and 42. The Court previously determined that the term "data access controller" connotes sufficient structure to render 35 U.S.C. s. 112 para. 6 inapplicable. 02/19/04 Order at 17-21. Similarly, the Court found the method claims "managing ..." steps not to be in step-plus-function format. *Id*. at 33-34. The Court notes here that another method step, "managing the collecting and sending of the transaction data," which appears in claim 36, was disputed and considered by the Court previously but is apparently not disputed by these Defendants. *See* Dkt. No. 1151, Exh. A at 17.

The Court previously construed "data access controller" to mean "a computer chip, a circuit board, or a computer that interfaces between the imaging subsystem and the remainder of the overall claimed system, and controls the operation of the imaging subsystem." *See supra,* Part IV.B.1; 11/02/04 R & R at 18-20. Additionally, the Court previously construed "managing the capturing and sending of the transaction data" to mean "managing, by way of a computer, a controller, or other device, the operation of the device or devices that capture an image of the paper transaction data and send the captured image." 11/02/04 R & R at 48.

The core dispute between the parties as to these terms is whether they are in means-plus-function or step-plus function form. The parties offer the following constructions.

DataTreasury	**Defendants**
"data access controller for managing the capturing and sending of the transaction data"	
A computer chip, circuit board, or a computer that interfaces between the imaging subsystem and the remainder of the overall claimed system, and controls the	Should be construed under 35 USC s. 112, para. 6.

operation of the imaging subsystem, for managing and sending of the transaction data.	*Function:* managing the capturing and sending of the transaction data.
	Structure: '988 Patent, Fig. 2, item 210, 7:31-7:40; corresponding disclosure in the '137 Patent.
"managing the collecting, processing, sending and storing of the transaction data"	
Managing, by way of a computer, a controller, or other device, the operation of the device or devices that capture an image of the paper transaction data and send the captured image.	Should be construed under 35 USC s. 112, para. 6.
	Act: determining if the operations (capturing, sending) executed successfully at the devices that perform the operations through typical processing and Input/Output tasks. If an operation executed successfully, move to the next operation, and if an operation did not execute successfully, notify operator for prompt repair. See, '988 Patent, Figs. 3a, 3b, col. 7:32-11:12; Fig. 5 (items 512-520 and corresponding description); corresponding disclosure; corresponding disclosure from '137 Patent.
"managing the collecting, processing, sending and storing of the transaction data"	
Managing, by way of a computer, a controller, or other device, the operation of the device or devices that collect, process, send, and store the transaction data.	Should be construed under 35 USC s. 112, para. 6.
	Act: determining at a central location, if an intermediate location has transaction data to send; monitoring the intermediate location's transmissions of transaction data; and facilitate reading and writing of transaction data to the database in various storage facilities. See, '988 Patent, Figs. 7-9, col. 20:11-22:12; col. 16:13-65; corresponding disclosure from '137 Patent.

Dkt. No. 1151, Exh. A at 6-7, 14-15.

a. Parties' Positions

DataTreasury agrees with the Court's previous determinations and contends its proffered constructions are consistent with those findings as well as with the intrinsic record. Dkt. No. 1107, at 30-31, 33-34.

Defendants contend the data access controller term should be construed as means-plus-function because it contains a "nebulous term 'controller.' " Dkt. No. 1119, at 56-57. That is, Defendants argue that "data access controller" has no generally understood structural meaning in the art. *Id*. at 57 (citing Mas-Hamilton, 156 F.3d at 1213-14). Defendants further argue that the "managing ..." terms should be construed as step-plus-function terms because they merely claim the underlying function without specifying acts for performing the function. *Id* (citing Seal-Flex, Inc. v. Athletic Track and Court Construction, 172 F.3d 836, 849

(Fed.Cir.1999) (Rader, J., concurring)).

b. Court's Construction

The Court finds no reason to deviate from its prior determinations regarding the inapplicability of 35 U.S.C. s. 112 **para. 6 as to all of these terms. Specifically, the Court finds that "data access controller for managing ..." connotes sufficient structure to a person of ordinary skill in the art at the time of invention.** ***See*** **2/19/04 Order at 17-21. Indeed, the parties agree that "data access controller" alone not subject to means-plus-function analysis.** ***See supra,*** **Part IV.B.1. It is difficult to comprehend how "data access controller" does connote sufficient structure while "data access controller for managing the capturing and sending of the transaction data" does not. The "managing ..." clause merely adds additional functional information about the behavior of the "data access controller."**

[12] [13] [14] With respect to the method steps, the Court finds no reason to deviate from its prior determination that none of them are in step-plus-function form. *See* 2/19/04 Order at 33-34. As previously recognized by this Court, step-plus-function claims exist only when the claim articulates a step for performing a function without specifying the act(s) necessary to achieve the function. O.I. Corp. v. Tekmar Co., 115 F.3d 1576, 1583 (Fed.Cir.1997). Further, method claims that have similar limitations to apparatus claims are not necessarily subject to step-plus-function analysis just because the apparatus claim is subject to means-plus-function analysis. *Id*. In the present case, each "managing ..." term contains an act, namely "managing." Accordingly, the Court finds the "managing" steps are not in step-plus-function form. *See* Masco Corp. v. United States, 303 F.3d 1316, 1327 (Fed.Cir.2002); Epcon Gas Sys. V. Bauer Compressors, Inc., 279 F.3d 1022, 1028 (Fed.Cir.2002).

Accordingly, the Court construes **"data access controller for managing the capturing and sending of the transaction data"** to mean **"a computer chip, circuit board, or a computer that interfaces between the imaging subsystem and the remainder of the overall claimed system, and controls the operation of the imaging subsystem, for managing and sending of the transaction data."**

The Court construes **"managing the capturing and sending of the transaction data"** to mean **"managing, by way of a computer, a controller, or other device, the operation of the device or devices that capture an image of the paper transaction data and send the captured image."**

Finally, the Court construes **"managing the collecting, processing, sending and storing of the transaction data"** to mean **"managing, by way of a computer, a controller, or other device, the operation of the device or devices that collect, process, send, and store the transaction data."**

11. "documents and receipts"

This term appears in asserted claims 1, 26, 42 and 46. This term has not been previously construed by the Court. The primary points of contention between the parties are (1) whether a construction is necessary and (2) whether the phrase requires both documents and receipts. The parties offer the following constructions.

DataTreasury	**Defendants**
No construction required	"Document" means paper document.
Alternatively, a document is "a record regarding a	"Receipt" means a paper acknowledgement of a

transaction." Examples from the specification include sale business banking sale, business, or general consumer transactions. Checks and receipts are types of documents where the specific purpose of a receipt is to evidence a transaction.

transaction given by one who receives payment or other property to one who pays money or delivers property. The receipt evidences a transaction in which the provider of the document was involved.

"Documents and receipts" must include receipts.

Dkt. No. 1151, Exh. A at 5-6.

a. Parties' Positions

DataTreasury contends this term need not be construed because claim 1 is an apparatus claim; because it is not a method claim, "the functional limitation of capturing a document and receipt is unnecessary for purposes of construction." Dkt. No. 1107, at 46 (citing Cross Med. Prods. v. Medtronic Sofamor Danek, 424 F.3d 1293, 1311-12 (Fed.Cir.2005). In the alternative, DataTreasury argues, the term should be construed as proffered because "[c]hecks and receipts are types of documents where the specific purpose of a receipt is to evidence a transaction." *Id*. Thus, DataTreasury essentially argues that document encompasses receipt, so a construction of document is sufficient. DataTreasury further contends that a person skilled in the art would understand the specification to cover all document and receipt types, including checks. *Id*. DataTreasury argues Defendants' constructions include limitations not found in the intrinsic record. According to DataTreasury, Defendants' constructions "are too narrow and are not supported by the claim language or the specification."

Defendants contend documents and receipts are two separate and distinct items; further, the "conjunction 'and' expressly requires the capture of 'receipts.' " Dkt. No. 1119 at 34. That is, DataTreasury's construction renders the term "receipts" superfluous. *Id*. Defendants further argue that the '137 Patent deals with "checks," so the "documents and receipts" in the '988 Patent must not be construed to include checks. Id. at 43-44. Defendants next argue that "documents and receipts" must be paper because otherwise an imaging subsystem would not be necessary to capture them. Id. at 44. Defendants also note several places in the specification that describe "documents and receipts" as paper records. Id. As to "receipts," Defendants argue the intrinsic record mandates that "(1) a receipt must be given by one who receives payment or other property to one who pays money or delivers property to acknowledge the transaction; and (2) the original provider (i.e., the writer) of the receipt is involved in the transaction evidenced." Id. Defendants finally contend that extrinsic evidence also supports their construction of receipts. Id. at 45.

b. Court's Construction

[15] The Court initially finds that a construction of this term is necessary under *O2 Micro* as the parties here have an actual dispute that bears on the scope of the claims at issue. *See* O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., Ltd., 521 F.3d 1351, 1360 (Fed.Cir.2008) ("When the parties raise an actual dispute regarding the proper scope of these claims, the court, not the jury, must resolve that dispute.").

The Court finds, based on the patent specification, that "documents and receipts" is appropriately limited to paper-based sources. The patent specification speaks at some length regarding documents, receipts, and electronic data:

This invention involves the processing of documents and electronic data which are generated, for example,

from sale, business and banking transactions including credit card transactions, smart card transactions, automated teller machine (ATM) transactions, consumer purchases, business forms, W2 forms, birth certificates, deeds and insurance documents.

The enormous number of paper and electronic records generated from documents and electronic data from sale, business and banking transactions contain valuable information. First, these paper and electronic records contain information which can be used to verify the accuracy of the records maintained by consumers, merchants and bankers. For example, customers use paper receipts of sale and banking transactions to verify the information on the periodic statements which they receive from their bank or credit card institution. Merchants use paper receipts to record sale transactions for management of customer complaints. Taxpayers use paper receipts to record tax deductible contributions for use in their tax return preparation. Employees use paper receipts to record business expenses for preparation of business expense forms.

'988 Patent at 1:18-39; *see also id*. at 1:40-2:46.

The Court finds that "documents and receipts" is used in the '988 Patent to refer to the universe of paper-based sources of transaction data that may be captured by the imaging subsystem. The term is more than merely "a record of a transaction," as DataTreasury contends; therefore, its construction must be rejected. Defendants properly read the term as referring to paper-based sources of transaction data, but Defendants improperly seek to require method-like limitations that require the capture of both a document and a receipt. The manner in which the term is used in the specification and in the claims simply does not support that reading.

As used in the claims, and as discussed in the specification, "documents and receipts" merely refers to the universe of paper-based sources of transaction data that the imaging subsystem is designed to capture. However, the claims do not require that an imaging subsystem capture both documents and receipts. Indeed, claims 1 and 42 are apparatus claims where "documents and receipts" is noted as a function or capability of the imaging subsystem-"imaging subsystem for capturing the documents and receipts." In claim 26, the term appears only in the preamble, which no one contends is limiting. Finally, claim 46 is a method claim, but the single capturing limitation reads "capturing an image of documents and receipts and extracting data therefrom." Because "an image" is singular, it is nonsensical to read "documents and receipts" to require both a document *and* a receipt. As used in all of these claims, consistently with the specification, "documents and receipts" simply refers to the collective set of paper-based sources of transaction data.

Given the Court's findings above, Defendants arguments regarding the separate construction of "receipt" is unnecessary and would do nothing but confuse. Defendants contend, based on the sample receipt and surrounding discussion included in the patent specification, along with the term receipt as used in two patents cited during prosecution of the Ballard Patents, that the term receipt is separate and distinct from documents. The Court disagrees with Defendants' analysis; the sample receipt and surrounding discussion in the specification is not in the same context as the patent uses "documents and receipts" in its collective and generic form. Figure 3b in the patent, which shows a sample receipt is for the purpose of describing the information that may be extracted from the receipt after being scanned by the imaging subsystem, a component of the DAT. *See* '988 Patent at 9:9-11:12; Figure 3b. This portion of the patent does not speak of "documents and receipts" in the collective sense. Defendants' reliance on this portion of the written description discussing "receipt" individually to construe the collective term "documents and receipts" used in its generic sense is misguided. The Court finds the intrinsic record provides a more appropriate contextual

discussion of the term "documents and receipts," as used collectively in the claims, earlier in the specification. *See* '988 Patent at 1:17-3:23.

The Court further finds no reason that "documents and receipts" should be construed to exclude checks. The patent specification clearly contemplates "documents and electronic data" that is "generated ... from sale, business and ***banking transactions*** " and "paper receipts of sale and ***banking transactions.***" ' 988 Patent at 1:18-20; 1:31-32 (emphasis added). Indeed, the '137 Patent relies on substantially the same specification. Thus, the Court finds no reason to explicitly exclude "check" from the meaning of "documents and receipts."

The Court construes **"documents and receipts"** to mean **"paper-based sources of transaction data."**

12. "transaction data" and "paper transaction data"

One or both of these terms appear in asserted claims 1, 2, 18, 26, 27 & 36. The parties have agreed to a construction for "paper transaction data." *See supra,* Part IV.B.1. The parties' agreed construction is the same as that previously made by the Court. *Compare supra* Part IV.B.1 *with* 11/02/04 R & R at 25. The Court previously found that "transaction data," when used with an accompanying definite article (e.g., "the" or "said") refers to "the type or types of transaction data for which there is an antecedent in the claim." 11/02/04 R & R at 26. Where "transaction data" is used without an accompanying definite article, it encompasses "any type of transaction data" disclosed in the '988 Patent and is not "limited to 'paper transaction data.' " Id. The central dispute between the parties is whether "transaction data" has the same meaning as "paper transaction data," as used in the asserted claims. The parties offer the following constructions.

DataTreasury	**Defendants**
Information concerning or relating to a transaction.	In the context of the asserted claims, "transaction data" means the same as "paper transaction data."

Dkt. No. 1151, Exh. A at 7.

a. Parties' Positions

DataTreasury contends the Court previously construed "transaction data" to mean "information concerning or relating to a transaction." Dkt. No. 1107, at 36. DataTreasury agrees with this construction and further agrees that "transaction data" must be considered in context of the particular claim in which it is used. *Id*. DataTreasury contends Defendants' construction is improper because, based on context, "transaction data" does not mean the same thing as "paper transaction data" in all of the asserted claims. *Id*. at 36-36. Specifically, DataTreasury contends Defendants' construction fails with respect to claim 18, in which the Court specifically noted "the transaction data" encompasses both electronic and paper transaction data, both of which are recited. *Id*. at 36.

Defendants agree with DataTreasury that when "transaction data" is used with a definite article, "it should be construed to refer to the type or types of transaction data for which there is an antecedent in the claim." Dkt. No. 1119, at 42. Defendants argue, however, that in each of the asserted claims, the antecedent for "transaction data" is "paper transaction data."

b. Court's Construction

[16] The parties agree on the Court's previous determination regarding "transaction data" in the context of the claim language and the presence or absence of a definite article. What they disagree about is how to apply the Court's previously-enunciated rule to the asserted claims. For clarification, the Court construes "the transaction data," in the context of asserted claims 1, 2, 26 and 27 to mean "paper transaction data," as defined in this Order. The Court construes "the transaction data," in the context of claims 18 and 36 to encompass both "paper transaction data" and "electronic transaction data." The Court further construes **"electronic transaction data"** to mean **"information concerning a transaction that is contained in or reflected in a machine-readable medium, such as a credit card, a smart card or a debit card"** This construction is consistent with the Court's previous findings and the use of the term in the patent specification and surrounding claims. *See* 11/02/04 R & R at 49-50 (analyzing the phrase "collecting and sending the electronic or paper transaction data at intermediate locations" as found in claim 36).

13. "subsystem identification information"

This term appears in asserted claims 1 and 26. The Court previously construed this term to mean "information that identifies the remote data subsystem or a subsystem that is a part of the remote data access subsystem." 11/02/04 R & R at 18. The central dispute between the parties is whether the identification information may be the name or location of an organization or whether it must instead identify the "computer components of the remote data access subsystem" or the "specific machine from which images were transmitted." The parties offer the following constructions.

DataTreasury	**Defendant Group 1**	**Defendant Group 2**	**HSB C Defendants**[FN9]
Information that identifies the remote data subsystem or a subsystem that is a part of the remote data access subsystem.	Information that identifies computer components of the remote data subsystem or a subsystem that is a part of the remote data access subsystem, but does not refer to the name or location of an organization such as a bank.	Information, separate and apart from the image, that specifically identifies to the central subsystem, the remote data access subsystem or a subsystem that is a part of the remote data access subsystem that captured the image.	Information that identifies the specific machine from which images were transmitted, but does not refer to the name or location of an organization such as a bank."

Dkt. No. 1151, Exh. A at

a. Parties' Positions

DataTreasury agrees with the Court's previous construction and argues that it is consistent with and supported by the intrinsic record. Dkt. No. 1107, at 35 (citing '988 Patent at 8:14-17; 9:41-43; 10:31-33). DataTreasury contends all three constructions proposed by Defendants are improper because they add limitations that are not required by the plain claim language. *Id*.

Defendant Group 1 contends DataTreasury made unambiguous statements during reexamination to overcome prior art that further define the proper scope of "subsystem identification information." Dkt. No. 1119, at 50. Specifically, Defendant Group 1 argues that the Hiles declaration, submitted by DataTreasury to

distinguish the Ballard invention over the Campbell reference, indicates that subsystem identification information is used to identify the computer components of the remote data access subsystem. *Id*. Defendant Group 1 then concludes, based on this declaration, that such information necessarily does not refer to the name of or location of an organization, such as a bank. *Id*.

The HSBC Defendants rely on three pieces of information to justify its proposed construction: (1) the summary of an interview with the Examiner submitted by DataTreasury; (2) reexamination arguments made by DataTreasury; and (3) DataTreasury's expert's (Hiles) declaration, which was submitted to support DataTreasury's reexamination arguments. *Id*. at 51-53. The HSBC Defendants argue that statements contained in the interview summary show that "subsystem identification information" must identify the specific machine from which data is transmitted. *Id*. at 51-52. DataTreasury's reexamination comments, argues the HSBC Defendants, also shows "subsystem identification information" must identify the specific machine from which images are transmitted. *Id*. at 52. Finally, the HSBC Defendants make the same argument as Defendant Group 1 with respect to the Hiles Declaration: because the "subsystem identification information" identifies computer components, it does not refer to the name or location of an organization such as a bank. *Id*. at 53.

Defendant Group 2 contends the intrinsic record, including statements and disclaimers made by DataTreasury during reexamination, requires that "subsystem identification information" (1) must be separate and apart from the image and (2) must identify the capture system to the central subsystem. Dkt. No. 1118, at 7. Defendant Group 2 recognizes that the patent specification describes two embodiments, one that includes information that is part of a "tag" that is associated with the image and one in which the identification information is the image itself. *Id*. at 8. However, Defendant Group 2 contends DataTreasury disclaimed the second embodiment in its arguments to overcome the Campbell reference. *Id*. To support the second part of their proposed construction, Defendant Group 2 argues that the claim language, combined with the specification and statements made by the inventor during an interview with the Examiner during reexamination, require that the "subsystem identification information" inform the central subsystem as to the identity of the capture system. *Id*. at 9-10.

b. Court's Construction

[17] The Court finds its previous construction, with one minor change, is correct. The fact that three groups of defendants offer differing proposed constructions indicates that the statements made by DataTreasury during reexamination are not "clear and unmistakable disavowal of scope" that may alter the construction of a claim term. *See* Lucent, 525 F.3d at 1211. After examining each statement in the context in which it was given, the Court concludes none of the statements, individually or collectively, constitute a clear and unmistakable disavowal. Further, Defendants attempt to improperly import elements of preferred embodiments into the claims as limitations. *See* Cybor Corp., 138 F.3d at 1471.

Professor Hiles, in his declaration, simply states what he believes "subsystem identification information" must mean in light of the Court's previous *Markman* ruling on the meaning of "subsystem." The Court herein has construed "subsystem" consistently with its previous construction. *See supra,* Part IV.B.3. The Court finds no reason, given its constructions for "subsystem" to restate the meaning of subsystem in the construction of "subsystem identification information." Further, any statements made by Hiles were not even considered by the examiner FN10 and thus do not indicate a "clear and unmistakable disavowal of scope during prosecution" that may alter the construction of a claim term. *See* Lucent, 525 F.3d at 1211.

Mr. Ballard's interview with the Examiner likewise does not indicate any clear and unmistakable disavowal of claim scope, as Mr. Ballard stated "it would be beneficial to include identification of the specific machine from which images were transmitted." *See* Dkt. No. 1119, at 52 (quoting Exh. B at 8-9). First, Mr. Ballard's comments are prefaced by "it would be beneficial" and not "it is required by my invention." Thus, Mr. Ballard's statement could reasonably be read as stating that subsystem identification information *may* include identification of the specific machine from which images were transmitted and not necessarily that it *must* include such information. Second, it is not clear what Mr. Ballard meant by "specific machine." He very well may have been equating "specific machine" with "subsystem" as the term is used in the patent. In sum, the Court finds this statement is not "clear and unmistakable disavowal of claim scope." *See* Lucent, 525 F.3d at 1211.

The Court reaches the same conclusion with regard to Mr. Ballard's statement that "it would be beneficial to include identification information of the specific data access subsystem from which images were transmitted." Dkt. No. 1119, at 52 (quoting Exh. B at 54-55). Once again, this statement is prefaced by "it would be beneficial" and not "it is required" and the statement can thus be reasonably read as stating subsystem identification information may include such information rather than such information is required. Accordingly, this statement is also not a "clear and unmistakable disavowal of scope." *See* Lucent, 525 F.3d at 1211.

Given these findings, the constructions of Defendant Group 1 and the HSBC Defendants must be rejected. Defendant Group 2's construction must also be rejected. Defendant Group 2's argument regarding the construction of "subsystem identification information" is essentially focused on DataTreasury's arguments regarding two other terms-encrypting and verifying.

The Court finds DataTreasury's arguments to the Examiner regarding the encryption taught by Campbell was not clear and unmistakable disavowal. In the exchange between the Examiner and DataTreasury, the Examiner contended Campbell taught the encryption of check images and information about the identity of the sending institution, which the Examiner seemingly equated with "subsystem identification information." Dkt. No. 1119, at 56. According to the Examiner, "information about the identity of the sending institutions," in the context of Campbell was the TCP/IP protocol information that accompanied the check images. *Id*. DataTreasury argued in response that Campbell fails to teach encryption of the TCP/IP protocol information and in fact the Campbell system would not work if such information was encrypted:

In fact, if Campbell et al. encrypted the TCP/IP protocol information, Campbell et al.'s encrypted check images would never be able to reach their destination.

Clearly Campbell et al. does not disclose, teach, or suggest or in any way intend to encrypt TCP/IP protocol information. Thus, as the Examiner agreed during the personal interview, [the relevant claims] are not anticipated by Campbell et al. since Campbell et al. does not teach or suggest encrypted subsystem identification information.

Dkt. No. 1119, Exh. A at 67-57. Although these statements imply that some form of subsystem identification information may exist separately from the image, which is consistent with the "tag" embodiment discussed in the '988 Patent, the Court finds these statements fall short of being "clear and unmistakable disavowal of claim scope." *See* '988 Patent at 8:14-23 & Figure 3a ("tag" embodiment); Lucent, 525 F.3d at 1211 (disavowal must be clear and unmistakable). In the quoted paragraphs, DataTreasury was arguing with the Examiner about encryption and not the content or placement of

subsystem identification information. The conclusion that subsystem identification information *must* be separate from the image based on these statements referencing encryption is simply not clear and unmistakable disavowal.

The Court reaches a similar conclusion with regard to Defendant Group 2's argument that "subsystem identification information" must identify the remote subsystem to the central subsystem. The claim language plainly does not require that the information provide an identity to any particular subsystem. The Court finds Defendant Group 2's argument here really applies to the verification of subsystem identification information as recited in the claims and not to the meaning of "subsystem identification information" itself. Defendant Group 2's argument is undercut by the presence of "subsystem identification information" in claim 26, a method claim that contains no verification limitation at all. In sum, the claims plainly do not require identification to any particular subsystem and Defendant Group 2's arguments do not warrant importing a limitation into the plain claim language. *See* Cybor Corp., 138 F.3d at 1471.

Accordingly, the Court construes **"subsystem identification information"** to mean **"information that identifies the remote data access subsystem or a subsystem that is a part of the remote data access subsystem."**

14. "verifying"

This term appears in asserted claims 1 and 26. The Court previously construed "verifying" to mean "checking or testing the accuracy, exactness or authenticity of." 11/02/04 R & R at 32. The central dispute between the parties is whether "verifying" must also include the form of verification, namely the comparison of received data with a known standard. The parties offer the following constructions.

DataTreasury & Defendant Group 1	**Defendant Group 2**
Checking or testing the accuracy, exactness or authenticity of.	Confirming the truth or truthfulness of by or as if by comparison with known data or a recognized standard or authority.

Dkt. No. 1151, Exh. A at 9-10.

a. Parties' Positions

DataTreasury and Defendant Group 1 agree with the Court's previous construction. Defendant Group 2 contends the term "verify" in all forms is used consistently throughout the patent specification to refer to a comparison of data with some known standard. Dkt. No. 1148, at 11-12.

Defendant Group 2 argues that DataTreasury expressly disclaimed any form of "verification" that is akin to "error detection." Dkt. No. 1118, at 11-12 (citing Dkt. No. 1119, Exh. A at 56-57). Defendant Group 2 further argues statements made by Mr. Ballard in his deposition supports their construction. Dkt. No. 1148, at 11. Defendant Group 2 also argues that the portion of the specification relied upon by the Court in arriving at its construction actually supports Defendant Group 2's proposal. *Id*. at 12. Specifically, Defendant Group 2 argues that when the DPC verifies that the DAC is ready to transmit by checking the DTR (Data Transmit Ready) line, the transmitter is effectively "comparing the recipient's current status to an expected state," which "can only be done by comparing the received data to some known data." *Id*. (citing '988 Patent at 13:26-28 & 20:21-23). In sum, contends Defendant Group 2, the term "verifying" should

include the comparison limitation because the "Court should require a precise definition that is consistent with its purpose in the specification." *Id*.

b. Court's Construction

[18] The Court previously determined that "verify" is used in the specification in both a generic and specific sense. More specifically, the Court found that the term is used in the specification to connote merely "confirming accuracy or authenticity" but is also used more specifically to include the method of verification, namely by "comparing received data with known data." *See* 11/02/04 R & R at 32.

The Court finds Defendant Group 2's arguments must be rejected. The statement quoted by Defendant Group 2 regarding DataTreasury's alleged disclaimer of verification meaning error detection was taken out of context. The complete statement made to the Examiner was:

The system of Campbell et al. does not process or verify anything concerning transaction data. The Office Action asserts that the controller 42 of Campbell et al. may read some data accompanying the images and receive instructions from the work center 54 to "control changes made to the information in the database 46." However, Campbell et al. does not ***process or verify*** anything about the *transaction* data on the check, e.g., the amount of the check, the signature on the check, etc.

Dkt. No. 1119, Exh. A at 56-57 (italic emphasis added). Thus, DataTreasury included both processing and verifying in distinguishing Campbell. DataTreasury did not clearly and unmistakably disclaim error detection verification as Defendant Group 2 contends.

The statement made by Mr. Ballard during his deposition is similarly unavailing to Defendant Group 2. It falls well short of being any sort of disclaimer. In his deposition, Mr. Ballard stated:

And so in the way that I had envisioned ***this one particular implementation*** of the system, that information comes from this remote site, once it's decrypted and analyzed, could be looked up in a secure manner in some other internal databases maintained by the institution that was operating the system and through that look up and analysis, the system could confirm the legitimacy of the origin point of that data, and therefore have a high degree of confidence that the data was untampered with and authentic.

Dkt. No. 1148, at 11 (citing Dkt. No. 1145, Exh. D at 36:21-37:6) (emphasis added). Mr. Ballard's statement is prefaced by "this one particular implementation of the system." It is thus not a statement that confirms the meaning of "verify" as used throughout the specification.

Finally, Defendant Group 2 contends the patent specification uses the term "verify" consistently throughout in the specific sense and is never used in the more general sense as that contained in the Court's previous construction and that proposed by DataTreasury and Defendant Group 1. The Court disagrees. In discussing the frame relay technology employed in the preferred embodiment between the DAC and DPC, the patent states that "[e]ach frame encloses one user packet and adds addressing and verification information." '988 Patent at 12:56-57. As a person of ordinary skill in the art would recognize, this "verification information" is the Frame Check Sequence (FCS) field, which "is a 32-bit sequence based on a standard generator polynomial of degree 32. It is computed using the contents of the [control and user] fields and thus protects these fields against corruption." J DAVID IRWIN, THE INDUSTRIAL ELECTRONICS HANDBOOK 397 (CRC Press & IEEE Press 1997). Thus, at least in this instance, the patent specification uses the term

"verification" to refer to a computation that protects against corruption. Given this usage of the term "verification," which does not involve any comparison with a known standard, the Court concludes that its previous construction remains correct.

Accordingly, the Court construes **"verifying"** to mean **"checking or testing the accuracy, exactness or authenticity of."**

15. "processing, sending, verifying and storing the paper transaction data and the subsystem identification information"

This phrase appears in asserted claim 1. The parties have agreed upon individual constructions for "processing," "sending," and "paper transaction data." *See supra* Part IV.B.1. Further, the Court has construed the term "verifying" and "subsystem identification information" herein. *See supra* Parts IV.B.13-14. The dispute with this phrase centers on whether the phrase requires *both* paper transaction data *and* subsystem identification information to be processed, sent, verified, and stored. The parties offer the following constructions.

DataTreasury	Defendants
"Processing"-The performance of operations upon data and information, in contrast to the processing overhead of the operating system and networks. "Sending"-Sending electronically. "Verifying"-Checking or testing the accuracy, exactness or authenticity of. "Paper transaction data"-Information concerning a transaction reflected on a paper document, where the 'paper transaction data' includes an image of the paper document when it is transmitted from the remote data access subsystem. "Subsystem identification information"-Information that identifies the remote data subsystem or a subsystem that is a part of the remote data access subsystem.	Processing, sending, verifying, and storing both the paper transaction data and the subsystem identification information.

Dkt. No. 1151, Exh. A at 9.

a. Parties' Positions

DataTreasury contends constructions for each of the operative terms either have been agreed upon or will be construed by the Court herein; accordingly, no additional constructions for the remaining words in the phrase are necessary. Dkt. No. 1107, at 48. DataTreasury argues Defendants improperly attempt to import the word "both" into the claim based on written description that discusses preferred embodiments. *Id*. at 48-49.

Defendants contend their construction, while supported by the written description, is also appropriate based on the plain language of the claim itself. Dkt. No. 1119, at 49. According to Defendants, the word "and" between the terms "subsystem identification information" and "paper transaction data" requires that *both* sets of information be processed, sent, verified, and stored in order for the claim limitation to be met. *Id*.

Defendants also note that the patentee chose to use "and" rather than "or" or "and/or" and must now live by that decision. *Id*.

b. Court's Construction

[19] The Court finds there is a genuine dispute between the parties as to the proper scope of the claim. In light of *O2 Micro,* the Court must resolve that ambiguity. The Court finds that a plain reading of the claim language supports Defendants' construction. Further, DataTreasury points to no intrinsic evidence showing that Defendants' construction is improper or contrary to the plain and ordinary meaning of the phrase. Although a patentee can be his own lexicographer, in the absence of a different meaning set forth in the intrinsic record, terms in the claim are to be given their ordinary and customary meaning. K-2 Corp. v. Solomon S.A., 191 F.3d 1356, 1362 (Fed.Cir.1999).

Based on the plain and ordinary meaning of the claim language, the Court construes **"processing, sending, verifying and storing the paper transaction data and the subsystem identification information"** to mean **"processing, sending, verifying and storing both the paper transaction data and the subsystem identification information."**

16. "within and between"

This phrase appears in asserted claims 1, 26, 42 and 46, two apparatus claims and two method claims. The Court previously discussed the term "within and between" in the context of the larger containing phrase "at least one communication network for the transmission of the transaction data within and between said one or more data access subsystem and said at least one data processing subsystem." 11/02/04 R & R & 33-34. In that context, the Court found that "within" means that transaction data may be transmitted within a given subsystem and that "between" means that transaction data may be transmitted from one subsystem to another subsystem. *Id*. The core dispute between the parties is whether the "within and between" limitation requires both "actions" to occur. The parties offer the following constructions.

DataTreasury	Defendants
"Within" means that data is transmitted within a given subsystem or location, i.e., between the various components comprising the subsystem or location, and "between" means that data may be transmitted from one subsystem or location to another subsystem or location. Both actions need not occur in system claims.	"Within" means that data is transmitted within a given subsystem or location, i.e., between the various components comprising the subsystem or location, and "between" means that data is transmitted from one subsystem or location to another subsystem or location. "Within and between" requires that both actions occur.

Dkt. No. 1151, Exh. A at 10-11.

a. Parties' Positions

DataTreasury contends that the phrase "within and between," as used in the apparatus claims, merely requires an appropriate communication network structure to *allow* for transmission of data within a subsystem and between subsystems. Dkt. No. 1107, at 40. Because apparatus claims are structural, argues DataTreasury, the "action" of data transmission need not actually occur both within a subsystem and between subsystems for the apparatus claim limitation to be met. *Id*.

Defendants contend, on the other hand, that the claim language "plainly and grammatically requires both actions to occur." Dkt. No. 1119, at 31. Defendants further argue that unless there is a clear and unambiguous indication to the contrary in the intrinsic record, a claim term should be given the same meaning throughout the claims. *Id*. Defendants also argue that functional language in system claims defines the structure and in this case adds a limitation to the claims, which is perfectly permissible under the law. Dkt. No. 1147, at 21. Accordingly, Defendants contend "within and between" requires data transmission both within a subsystem and between subsystems. *Id*.

b. Court's Construction

[20] The Court agrees with Defendants' general proposition that claim terms should be construed consistently throughout the patent absent contrary indication in the specification. *See See* CVI/Beta Ventures, Inc. v. Tura LP, 112 F.3d 1146, 1159 (Fed.Cir.1997). The Court further finds that DataTreasury's argument regarding functional limitations having no impact on structural claims is without merit. The Court finds Acco Brands, Inc. v. Micro Security Devices, Inc., 346 F.3d 1075 (Fed.Cir.2003) informative on this issue. In *Acco,* one dispute centered around the effect to be given to certain language in an apparatus claim for a locking system that comprised "a pin, coupled through said housing, ***for extending into said security slot*** ...." 346 F.3d at 1077 (emphasis added). The parties disputed whether the "for extending into said security slot" described a "functional attribute of the pin or a structural one." *Id*. The Court concluded that the language, viewed in light of the specification, was a functional restriction on the pin. *Id*. at 1078. The Court also concluded that the functional restriction constituted an additional limitation to the apparatus claim. *Id*. (citing K-2 Corp., 191 F.3d at 1363).

The Court finds the use of "for the transmission of data within and between" in this case to be quite analogous to the use of "for extending into said security slot" in *Acco*. That is, the Court finds the phrase "within and between," when viewed in light of the specification, adds a functional restriction to the structure of the communication network as set forth in apparatus claims 1 and 42.FN11 The specification discloses a communications network between the preferred DAT and DAC as well as a wide area communication network between the DAC and DPC. ' 988 Patent Figures 2, 4 & 6. The specification additionally discloses a local area network within a preferred DAC and within a preferred DPC. Id. Although the written description does not specifically disclose a particular network topology within a preferred DAT, the specification does indicate that the DAT at least has a peripheral bus, used by the DAT controller to communicate with different peripherals. Id. at 5:25-45 & Figure 2. Additionally, claim 16, an original claim that depends from claim 1 specifically sets forth a local area network within a remote data access subsystem, which roughly correlates with discussions of the preferred embodiment DAT. Id. at 23:47-51. Thus, the specification is consistent with a construction that includes a communication network within each of the three major subsystems-remote data access subsystem, intermediate data collecting subsystem, and central data processing subsystem.

he Court construes **"within and between"** as used in the larger phrases "for the transmission of the transaction data within and between said one or more data access subsystems and said at least one data processing subsystem" (claim 1), "transmitting the transaction data and the subsystem identification information within and between the remote location(s) and the central location" (claim 26), "for the transmission of data within and between one or more remote data processing subsystems, at least one intermediate data collecting subsystem and at least one central subsystem" (claim 42), and "for transmitting data within and between one or more remote subsystems, at least one intermediate subsystem and at least one central subsystem" (claim 46) to mean **"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."

The Court construes **"within and between"** as used in the larger phrases "for the transmission of the transaction data within and between said one or more data access subsystems and said at least one data processing subsystem" (claim 1), "transmitting the transaction data and the subsystem identification information within and between the remote location(s) and the central location" (claim 26), "for the transmission of data within and between one or more remote data processing subsystems, at least one intermediate data collecting subsystem and at least one central subsystem" (claim 42), and "for transmitting data within and between one or more remote subsystems, at least one intermediate subsystem" (claim 46) to mean "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."

17. "encrypt"

This term appears in asserted claims 1, 26, 27 & 42. The Court previously construed encrypt to mean "the transformation of data into a form unreadable by anyone without a secret decryption key. 11/02/04 R & R at 36-38. Its purpose is to ensure privacy by keeping the information hidden from anyone for whom it is not intended." Id. The central dispute between the parties is whether this encryption must be separate and apart from security protocols that are part of the communication network. The parties proffer the following constructions.

DataTreasury	Defendants
The transformation of data into a form unreadable by anyone without a secret decryption key. Its purpose is to ensure privacy by keeping the information hidden from anyone for whom it is not intended.	Transformation of data into a form unreadable by anyone without a secret decryption key, where the purpose is to ensure privacy by keeping information hidden from anyone for whom it is not intended, which is apart from the security protocols that are part of a communication network.

Dkt. No. 1151, Exh. A at 11.

a. Parties' Positions

DataTreasury contends the Court's previous construction is correct and that Defendants are attempting to import a limitation that is neither supported by the claim language nor the patent specification. Dkt. No. 1107, at 41. DataTreasury further argues this attempt by Defendants is clearly motivated by their non-infringement theories and should be rejected. *Id*.

Defendants contend the claim language itself requires data-level encryption and not network-level encryption because the claims "refer to encrypting particular data items before sending those data items." Dkt. No. 1119, at 21-22. Defendants further argue that the Court's previous construction of a phrase supports their construction. *Id*. at 22. The Court previously construed the phrase "with the data access subsystem providing encrypted subsystem identification information and encrypted paper transaction data to the data processing subsystem" to mean "that the data access subsystem encrypts subsystem identification information and encrypts paper transaction data and provides the encrypted information and encrypted data for transmission to the data processing subsystem." *Id*. Defendants contend this construction requires that the data be encrypted *before* it is transmitted; thus, network-level encryption is not sufficient. Defendants

also contend that the specification teaches only data-level encryption and that statements made by Mr. Ballard during his deposition also indicate that the Ballard patents speak to data-level and not network-level encryption. *Id*. at 23-24.

b. Court's Construction

[21] The Court did not previously address this dispute, although DataTreasury contends the opposite. However, the Court finds no reason to include Defendants' construction that specifies "apart from the [network] security protocols." The term "encrypt" refers to *what* happens to the data, not *when* it must occur. The Court further finds that the statements made by Mr. Ballard during his deposition do not indicate that data-level encryption is the only encryption envisioned by his invention. The intrinsic record simply does not justify the importation of *when* encryption must occur into the definition of encrypt itself. The Court herein has addressed the *when* aspect of encryption in two separate constructions. *See* supra, Part IV.B.5; *infra* Part IV.B.28. Because the Court finds its previous construction adequately defines the plain and ordinary meaning of the term "encrypt," as it is used in the Ballard Patents, the Court adopts its previous construction and construes **"encrypt"** to mean **"the transformation of data into a form unreadable by anyone without a secret decryption key. Its purpose is to ensure privacy by keeping the information hidden from anyone for whom it is not intended."**

18. "image"

This term appears in asserted claims 26, 27, 42 & 46. The Court previously construed "image" to mean "an electronic representation of an object." 9/29/06 Order at 18. The central dispute between the parties is whether an image must have a pictorial likeness of the object that it electronically represents. The parties suggest the following constructions.

DataTreasury	Defendants
An electronic representation of an object.	Electronic representation of an object having a pictorial likeness of the object.

Dkt. No. 1151, Exh. A. at 14.

a. Parties' Positions

DataTreasury contends the Court's previous construction is correct, as it is supported by the specification of the Ballard Patents. Dkt. No. 1107, at 42.

Defendants contend the "electronic representation" must be a pictorial likeness because DataTreasury, in its Petition to Make Special, distinguished the Ballard invention over other capturing systems, such as those that use magnetic ink character recognition (MICR). Dkt. No. 1119, at 40-41. Defendants additionally argue that the plain meaning of the term and the specification indicate the "pictorial likeness" attribute should be included in the construction.

b. Court's Construction

[22] The Court finds that although its previous analysis and construction remains appropriate, the term "representation" is ambiguous and has led to the present dispute between the parties. Under *O2 Micro,* the Court finds additional clarification as to what constitutes a "representation" is necessary. In its previous

order, the Court dismissed four arguments related to this term: that "image" (1) should be limited to optical scanning; (2) must be bitmapped; (3) must be in digital form; and (4) is limited to documents and receipts. 9/29/06 Order at 14-17. The Court's previous analysis remains correct. However, the parties did not raise and the Court therefore did not address any argument relating to whether an "electronic representation" is a pictorial or visual likeness.

The Court finds that the '988 Patent uses the term "image" in its plain and ordinary sense. Indeed, that was one of the bases for the Court's previous construction. *See* 9/29/05 Order at 17 ("the Court will not read this [digital form] limitation into a term that has such a broad 'ordinary and customary meaning' on its face as 'image.' " (citation omitted)). The patent specification and claims consistently use "image" to refer to a visual representation of an object. *See* '988 Patent at 5:46-48, 7:33-36 (describing the creation of an image by scanning the object and creating a compressed bitmap); *id*. at 22:57-62 (claim 4, discussing the creation of a "bitmap image," a specific image format); *id*. at 11:1-11 (discussing the partitioning of a captured "image" into "snippets" to facilitate error correction).

Based on the intrinsic record, the Court finds that Defendants' proposal is reasonable, resolves the ambiguity as to "representation" and comports with the plain and ordinary meaning of the term "image," as would be known by a person of ordinary skill in the art at the time of invention. However, the Court also finds that its construction should account for partial images, or the "snippets" as discussed in the patent, which might arguably not be considered "visual representations" of an entire object, but that are clearly "images" as the term is used in the patent. Therefore, the Court construes **"image"** to mean **"an electronic, visual representation of at least a part of an object."**

19. "remote" as used in "remote subsystems," "remote data access subsystems," and "remote location(s)"

This term appears in asserted claims 1, 16, 26, 29, 36, 38, 42, and 46. In these claims, the term "remote" appears contextually with-and immediately prior to-"data access subsystems," "location(s)," or "subsystems." *Id*. The Court previously construed "remote" to mean "at physically separate locations; not near or immediate; distant." 11/02/04 R & R at 7. At the *Markman* hearing, the parties proffered the following constructions for the term "remote." Dkt. No. 1151, Exh. A at 1.

DataTreasury	Defendants
At physically separate locations; not near or immediate; distant. (each can be exclusive).	A physically separate location or subsystem, not near or immediate, and distant from the central location or subsystem and from any intermediate or collecting location or subsystem.

Dkt. No. 1151, Exh. A at 1.

a. Parties' Positions

The parties' *Markman* constructions are both taken, in major part, from the Court's previous construction of this term, which was "at physically separate locations; not near or immediate; distant." 11 /02/04 R & R at 7. Based on these proposed constructions, the core dispute between the parties' *Markman* constructions appears to be whether the semicolons in the Court's previous construction are disjunctive or conjunctive.

After hearing oral argument at the *Markman* hearing and reviewing its prior constructions, the Court

requested additional briefing on "remote" and related terms. *See* Dkt. No. 1179. The Court's previous construction of "remote" was based, at least in part, on extrinsic evidence, and was established prior to both Phillips v. AWH Corp., 415 F.3d 1303 (Fed.Cir.2005) and O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co., 521 F.3d 1351 (Fed.Cir.2008). *See* 11/2/04 R & R. Accordingly, the Court requested that the parties brief four issues: (1) whether it is appropriate, under *O2 Micro,* to construe "remote" as a "set" of meanings, regardless of whether the set is disjunctive or conjunctive; (2) whether "remote" should be construed separately or in context with the claim language that it modifies; (3) whether "remote" is used in the '988 Patent in a topological or geographical sense; and (4) whether the Court's previous construction was proper under *Phillips*. Dkt. No. 1179, at 3.

The parties, in their supplemental briefing, proposed the following constructions for "remote.

DataTreasury	**Defendants**
"Remote" as it applies to "data access subsystem(s)" or "subsystem(s)" are "subsystem(s) that are physically separate or located away from central subsystem(s), such that a communication network is required to transmit data between the remote subsystem(s) and the central subsystem(s) [and intermediate subsystem(s) when a claim requires intermediate subsystem(s)]."	A physically separate location or subsystem, not near or immediate, and distant from the central location or subsystem and from any intermediate or collecting location or subsystem.
"Remote" as it applies to "location(s)" are "location(s) that are physically separate and located away from central location(s), such that a communication network is required to transmit data between the remote location(s) and the central location(s) [and intermediate location(s) when a claim requires intermediate location(s)]."	

Dkt. Nos 1187, at 6-7 & 1193, at 5-6.

DataTreasury, in its supplemental briefing, contends "remote" should be construed contextually-with its adjoining claim language. Dkt. No. 1187, at 7-10. DataTreasury also argues that "remote" is used in primarily a topological sense and not a geographical sense. *Id*. at 10-13. DataTreasury concludes by arguing that the Court's previous construction of "remote" is proper in the disjunctive but improper in the conjunctive because requiring the "distant" element would violate both *O2 Micro* and *Phillips*. *See id*. at 13-15. That is, DataTreasury contends that the Court initially arrived at the construction "separated from, or located away from" directly from the intrinsic record. *Id*. at 15 (citing 11/2/04 R & R at 5-6). The Court then consulted an extrinsic source to add the alternative "distant" meaning to its final construction: "at physically separate locations; not near or immediate; distant" *Id*. DataTreasury argues *Phillips* counsels the Court to rely only its intrinsic analysis-"separated from, or located away from"-rather than the construction that was modified by the extrinsic definition-"at physically separate locations; not near or immediate; distant." *Id*. The "separated from, or located away from" construction, contends DataTreasury, is fully supported by the intrinsic record, is consistent with the understanding of those of ordinary skill in the art, and properly relies on network logic and topology rather than geography. *Id*. at 16.

Alternatively, DataTreasury contends the Court's previous construction, read in the disjunctive, is proper under *O2 Micro* and *Phillips* as long as "the three portions of the construction divided by semicolons can be read exclusively of one another," because in the disjunctive, all three meanings are *supported* by the intrinsic record; however, all three meanings are not *required* by the claims or the intrinsic record. *Id*.

Defendants, on the other hand, maintain that their proffered construction is correct under *Phillips* and *O2 Micro* and that "remote" is used primarily in a geographical sense. Dkt. No. 1193, at 5-7, 8-12. When a set of meanings is offered in the conjunctive, argues Defendants, there is no ambiguity about claim scope; however, when a set of meanings is offered in the disjunctive, significant ambiguity as to claim scope persists. *Id*. at 5-6. Defendants further argue that "remote" should be given the same meaning throughout the patent because DataTreasury has failed to show that the specification clearly shows otherwise. *Id*. at 7-8. Defendants contend that the '988 Patent specification is replete with geographic language and provides "no intrinsic evidence for a 'topological' sense of remote." Id. at 10.

Defendants further contend that statements made by DataTreasury regarding the Behera reference-U.S. Patent No. 5,187,750-in a petition to make special also indicate that "remote" is used in a geographic sense in the '988 Patent. Id. at 10. Specifically, Defendants contend that "Behera discloses image capture by devices that are physically and logically (topologically) separate from other devices." Id. Because what DataTreasury "expressly told the Patent office about Behera in seeking allowance of the claims" "directly contradicts" a topological construction, "remote" as used in the Ballard Patents must be geographical.

In further support of its conjunctive construction, Defendants offer the Bednar reference, which is cited on the face of the Ballard Patents and which Defendants claim defines "remote" as "many miles or even states away." Dkt. No. 1119, at 35-36. Defendants further argue DataTreasury's new construction, which contains a "communication network" would render additional claim requirements superfluous. *Id*. at 11. Without the "communication network," Defendants argue DataTreasury's new construction is "essentially the same as its prior erroneous construction." *Id*. Finally, Defendants contend the Court's prior analysis, which involved the use of an extrinsic source, was appropriate because the Court's reference to a dictionary definition was centered around the intrinsic record. *Id*. at 12.

b. Court's Construction

[23] To ascertain the proper meaning of "remote" and to properly scope the claims in which the term appears, the Court must give considerable weight to the intrinsic record, which includes the patent itself as well as those references cited by the patent and the patent prosecution and reexamination histories. Phillips, 415 F.3d at 1315; Kumar v. Ovonic Battery Co., 351 F.3d 1364, 1368 (Fed.Cir.2003). Defendants claim there is "no intrinsic evidence for a 'topological' meaning of remote." Dkt. No. 1193, at 10. The Court disagrees. In the section entitled "Detailed Description of the Preferred Embodiment," the patentee first discusses Figure 1, which depicts the three-tiered architecture of the preferred DataTreasury(TM) System:

FIG. 1 shows the architecture of the DataTreasury(TM) System 100. The DataTreasury(TM) System 100 has three operational elements: the DataTreasury System Access Terminal (DAT) 200 (the ***remote data access subsystem),*** the DataTreasury(TM) System Access Collector (DAC) 400 (the ***intermediate data collecting subsystem***), and the DataTreasury System Processing Concentrator (DPC) 600 (the ***central data processing subsystem***).

'988 Patent at 4:57-67 (emphasis added).

Thus, from the very outset in describing the preferred embodiment, the patentee equates "remote data access subsystem" with the preferred DAT, the third or bottom tier in the system architecture, the intermediate data collecting subsystem with the middle or second tier and the central data processing subsystem with the first,

or top tier. The description goes on to discuss Figure 2, which is a block diagram of the preferred DAT comprising a scanner, modem, digital storage, controller, card interface, and an optional printer and signature pad. '988 Patent at 5:34-39. Similarly, Figures 4 and 6 and accompanying text describe the DAC (tier 2) and DPC (tier 3), respectively.

The patent defines the operating system of the preferred DAT but notes that it "could also be custom designed around a general purpose network computer running other operating systems as long as the chosen operating system provides support for multiprocessing, memory management, and dynamic linking required by the DataTreasury(TM) System 100." '988 Patent at 5:41-45 (emphasis added). From these descriptions and from Figures 1 and 2, the Court concludes that the preferred DAT is a functionally-independent subsystem in that it has its own storage (206) and processing unit (controller/workstation 210). *See id*. That is, the preferred DAT does not depend on the processing or storage resources of any other subsystem to perform its function in the overall system. The communication network is the linkage between the preferred DAT subsystem and the other subsystems in the architecture. *See id*., Figures 2, 4 & 6. The vast majority of figures and discussion in the patent surround the functionally-tiered architecture of the DataTreasury(TM) System. *See* Figures 1, 2, 4, and 6; *see also* Figures 3A, 5, 7, 8, and 9 (describing the operation of various operations undertaken by the subsystems at each tier). There is definitely intrinsic support that "remote," along with "central" and "intermediate," are used in relation to the tiered system architecture-a topological or architectural connotation.

The Court additionally finds that statements made by DataTreasury with regard to the Behera reference in its Petition to Make Special do not foreclose the possibility of "remote" having a topological meaning in the Ballard Patents. Although DataTreasury stated in its petition that "[t]his [Behera] device lacks any remote image capture and does not disclose any sort of information sharing network," the Court finds this statement falls well short of foreclosing any topological connotation to the meaning of "remote" because Behera seemingly does not disclose the tiered subsystem architecture that is described in the Ballard Patents. *See* Dkt. No. 1121, Exh. J (Petition to Make Special); Dkt. No. 1121, Exh. K (Behera Reference).

Further, the Court disagrees with Defendants that the image capture in Behera is physically and logically separate from the overall system. It is clear that in Behera, the image capture is an integrated part of the overall system. Although the image capture modules, as components of the document processors are physically separate from other components in the system, Figure 1A shows that the document processors 8, which contain image capture modules, are logically integrated with the overall system, including a connection to the system host processor 6 and the system storage modules 10. *See* Dkt. No. 1121, Exh. K. at 3:45-4:42 & Figure 1A. That is, in Behera, there is no physically and logically separate "remote image capture function" as the image processing function in Behera *shares* system processing and storage resources with other components. *Id*. The "integral" nature of the image capture in Behera is further shown by the limit of six image capture modules that the system can handle. *Id*. at 4:10-11. DataTreasury argued that its invention, by contrast, performs image capture by remote data access subsystems that are physically and logically separate from the central subsystem. *See* Dkt. No. 1121, Exh. J at 4 (noting that "[Behera] lacks any remote image capture"); Dkt. No. 1119, Exh. A at 60-62 (discussing the logical separation of the three architectural tiers in the DataTreasury system and that the subsystems corresponding to each tier form a part of a larger system); '988 Patent at 5:26-57 and Figures 1 & 2.

In contrast to a topological connotation for "remote," the Ballard Patents also contain intrinsic support for "remote" in a geographic sense, as the written description speaks of "remote location(s)," and "sites." Indeed, the Field of the Invention section reads:

This invention relates generally to the automated processing of documents and electronic data from different applications including sale, business, banking and general consumer transactions. More particularly, it pertains to an automated system to retrieve transaction data at ***remote locations,*** to encrypt the data, to transmit the encrypted data to a ***central location,*** to transform the data to a usable form, to generate informative reports from the data and to transmit the informative reports to the ***remote locations.***

'988 Patent at 1:6-14 (emphasis added). In describing the preferred embodiment, the patent notes that DATs "are located at customer sites" and that customers include "merchants, consumers, and bankers." *Id*. at 5:27-28. When discussing the preferred DACs, or intermediate data collecting subsystems, the patent notes that they form "the backbone of the tiered architecture," and that each DAC "supports a region containing a group of DATs." *Id*. at 11:12-14. The patent further states that in the preferred embodiment, the DACs "are located at key central cites of maximum merchant density." *Id*. at 11:17-18.

Further, the patentee, in describing the problems that his invention helps to solve, noted the following:

First, the [previous data archive] approach is costly and has poor performance because it requires an expensive, ***time consuming physical transportation*** of paper receipts or magnetic tapes from the customer site to the central facility. Further, the approach is not reliable as information can be ***lost or damaged during physical transportation.*** The approach also has limited capability as it does not process electronic records along with the paper receipts within a single system.

'988 Patent at 2:4-12 (emphasis added). Thus, the Ballard invention at least in part seeks to eliminate the need for physical transportation of paper receipts or electronic equivalents from remote sites to the central facility.

The Bednar Reference, cited on the face of the Ballard Patents and noted as one of the most relevant references in DataTreasury's Petition to Make Special, also uses remote in a geographical sense:

In each of these situations, the document processing system is coupled to a local host computer for the local processing of information. **In some cases, however, the bank would prefer to have the document transport at a site remote (many miles or even states away) from its host or central computer.** In some cases, it would be desirable to have multiple remote sites each with one or more document processor (5) and each feeding a central host computer information necessary to maintain the records on the checks processed and balances of each account.

Dkt. No. 1121, Exh. L at 1:43-52 (emphasis added). *See id.,* Exh. J (Petition to Make Special). The Court finds that although the statements made in Bednar are informative, they do not expressly ***define*** "remote" as "distant," as Defendants contend. Rather, taken in context, the passage above merely states that *in some cases,* banks may prefer to have documents captured at a remote site that is many miles or even states away. The passage falls well short of expressly defining remote to always mean "many miles or even states away." In sum, although the Court finds Bednar does indicate that "many miles or even states away" is *sufficient* distance to be considered "remote," Bednar does not define what distance is *necessary* to be considered "remote."

Similarly, the Behera reference, which is cited on the face of the Ballard Patents, uses the word remote in a somewhat geographical sense. In Behera, the archival subsystem has a remote interface, which "permits data

from the archive server to be transmitted to a remote workstation for display to a remote operator." Dkt. No. 1121, Exh. K at 4:49-51; *see id.,* Figure 1A. Thus, the remote interface provides a means for an operator to work at a console that is located away from the archival subsystem. Behera similarly provides for printing at a location that is remote from the archival subsystem. *See id*. at 2:63-66.

The Court finds that the intrinsic record indicates that the subsystem(s) or tiers in the Ballard invention must be, at a minimum, physically separate and located away from one another. Although the specification supports the notion of subsystems and locations that are geographically distant, the intrinsic record does not *require* that any subsystems or locations be geographically distant from one another. That is, the Ballard Patents use terms, such as "region" and "key central sites of maximum merchant density," to describe the preferred layout or deployment of the DACs (intermediate subsystems) in reference to the DATs (remote subsystems). *See* '988 Patent at 11:13-19. These DACs, however, are preferred embodiments and are not even claimed in many instances. *See, e.g.,* '988 Patent, claim 1.

Additionally, the Court finds that the doctrine of claim differentiation suggests that "remote" should not be construed to always mean "distant." In the Ballard Patents, the three tiers of the system architecture are discussed as being separated by communication networks. Specifically, in the preferred embodiment, a WAN separates the DPC and DACs, while a point-to-point dial-up communication network separates the DACs and DATs. *See* '988 Patent, Figures 2, 4 & 6. Indeed, these preferred communication networks suggest significant geographic separation, but it is noteworthy that all of the claims are not as limiting as the preferred embodiment. Many of the claims include limitations for different types of communication networks between subsystems, such as WAN or LAN, which provide additional geographic context for the meaning of "remote," as used in those claims. However, other claims, such as claim 1, do not specify a specific type of network, instead referring only to a "communication network." In the context of claim 1, the meaning of "remote" therefore does not necessarily require separation of subsystems by great geographical distance. That is, because claim terms should normally be construed to have the same meaning as used in all the claims, and because claims are assumed to have different scope, the Court concludes that a construction requiring "remote" to be "distant" would violate both of these canons. *See* D.M.I., Inc. v. Deere & Co., 755 F.2d 1570, 1574 (Fed.Cir.1985) (stating that where some claims are broad and others are narrow, the narrow claim limitations should not be read into the broad ones); CVI/Beta Ventures, 112 F.3d at 1159 (repeating claim terms should be construed consistently throughout).

Stated another way, if "remote" was construed to mean "distant" throughout the claims, the Court would essentially be limiting the "communication network" in claim 1, as between the remote data access subsystems and the data processing subsystem to be a WAN or other network that is capable of performing over significant geographic distance. However, the language of claim 1 clearly does not contain such a limitation. In fact, dependent claim 16, which depends from claim 1, includes the WAN limitation between remote data access subsystem(s) and data processing subsystem(s). Thus, construing "remote" to mean "distant" would effectively import the third limitation of claim 16 into claim 1. Considering all of the claims collectively indicates that the *required* distance between "remote," "central," and "intermediate" locations and/or subsystems was specifically claimed by the patentee to vary. Thus, requiring all locations/subsystems to be geographically "distant" would be contrary to a collective reading of the claims.

In sum, although the Court finds the intrinsic record supports the notion that "geographically distant" satisfies the meaning of "remote," there is no intrinsic support for the notion that for a location or subsystem to be "remote," it *must be* "distant." Finally, the Court finds adopting Defendants' construction, which essentially defines "remote" as "distant" would do little more than lead to additional argument before the

jury about what qualifies as "distant," effectively shifting the role of claim construction to the jury, which is contrary to the teachings of *Markman*. Based on the foregoing, the Court finds that its previous construction must be modified.

The Court finds that the Ballard Patents undoubtedly use "remote" in both topological and geographical senses. Indeed, during reexamination, DataTreasury seemingly used the topological and geographical meanings interchangeably. *See, e.g.,* Dkt. No. 1119, Exh. A at 66 ("In contrast, a different communications structure is described in [system claim 50].... Data Access [subsystem] connects directly to Intermediate [subsystem] and Intermediate [subsystem] connects directly to Central [subsystem]. These locations are the three tiers of the '988 architecture."). Given the dual use of the term "remote" (as well as "central" and "intermediate"), the Court's construction should appropriately reflect both uses. Further, the Court's construction should take into consideration statements made by DataTreasury during reexamination to distinguish its invention-in terms of logical or functional separation of subsystems-from Behera and Campbell.

Accordingly, the Court construes **"remote"** as used in **"remote subsystems"** and **"remote data access subsystems,"** to mean **"subsystems that (1) are physically separate from and located away from central subsystem(s) and, if specified, intermediate subsystem(s); and (2) have storage and processing resources independent of those used by central subsystem(s) and, if specified, intermediate subsystem(s)."** The Court construes **"remote"** as used in **"remote locations"** to mean **"locations that are physically separate from and located away from central location(s) and, if specified, intermediate location(s)."**

The "if specified" clauses have been added to the constructions to account for claims that do not require intermediate subsystem(s)/location(s), such as claim 26. These constructions are consistent with and follow from the use of "remote" in both topological and geographical senses in the written description and they appropriately address statements and arguments made by DataTreasury during patent prosecution and reexamination regarding both the "tiered architecture" and "remote" terms.

20. "central" as used in "central subsystem," "central location(s)" and "central data processing subsystem"

One or more of these terms appear in asserted claims 26, 29, 36 & 46. The Court previously construed the term "central location" to mean "a location that is different from the remote locations where the function of capturing an image of the paper transaction data is performed." 11/02/04 R & R at 57. The parties have agreed to this construction. *See supra,* Part IV.B.1. The parties disagree, however, about the construction for "central subsystem." The core dispute between the parties is whether the central and remote subsystems must always be physically distant from one another. The parties offer the following constructions for "central subsystem" and "central data processing subsystem." As previously discussed, the Court requested that the parties re-brief the term "remote" and any related terms, if necessary. *See supra,* Part IV.B.19. DataTreasury, in its supplemental briefing, proffered the alternative construction.

DataTreasury	Defendants
A subsystem that is remote from the remote subsystems. Alternatively, "a subsystem that is physically	A subsystem that is different from the remote subsystems where the function of capturing an image of the paper transaction data is performed.

separate or located away from the remote subsystems and intermediate subsystems."

Dkt. No. 1151, at 14, 21; Dkt. No. 1187, at 19-20.

a. Parties' Positions

DataTreasury initially argued that "remote" has both a logical and physical meaning and that its proffered construction appropriately takes both into account. Dkt. No. 1107, at 25. DataTreasury argues that its construction "correctly requires that there be physical separateness between these subsystems, but does not impermissibly go so far as to require that they *always* be physically distant from one another. *Id*. In its supplemental briefing, DataTreasury offers a "slight modification" to its previous construction, in light of the Court's questions. Dkt. No. 1187, at 19. The new construction, argues DataTreasury, is supported by the plain claim language as well as the other intrinsic evidence and is consistent with the term "remote." *Id*.

Defendants contend their construction should be adopted because it applies a consistent meaning to the word "central" as used in both "central subsystem" and "central location." Dkt. No. 1119, at 38. In their responsive supplemental briefing, Defendants once again argue that DataTreasury has failed to rebut the presumption that "central" should be construed to have the same meaning throughout the claims. Dkt. No. 1193, at 14.

b. Court's Construction

[24] The Court finds DataTreasury's initial construction is circular and unhelpful. Given the Court's discussion about and construction of "remote," the Court finds the construction of "central" must likewise incorporate both the geographical and topological meanings as discussed in the Ballard Patents. *See supra,* Part IV.B.19. The Court additionally finds that "central" should be construed consistently with both "remote" and "intermediate" as all three of these terms are used in similar fashion throughout the Ballard Patents' written descriptions. *See supra,* Part IV.B.19. Accordingly, the Court construes **"central"** as used in **"central subsystem"** and **"central data processing subsystem"** to mean **"a subsystem that is physically separate from and located away from remote subsystem(s) and, if specified, intermediate subsystem(s)."** The Court construes **"central"** as used in **"central location"** to mean **"a location that is physically separate from and located away from remote location(s) and, if specified, intermediate location(s)."**

21. "intermediate" as used in "intermediate subsystem," "intermediate location(s)," and "intermediate data collecting subsystem"

This term appears in asserted claims 42 and 46. The Court has not previously construed this term. The core disputes between the parties are whether "intermediate" requires (1) geographic distance and (2) the subsystem(s)/ location(s) to be connected. The parties offer the following constructions for "intermediate location."

DataTreasury	Defendants
An intermediate location is a location that exists between a remote location and a central location. An intermediate subsystem is a subsystem that exists	"Intermediate," as applied to a subsystem or location, refers to a subsystem or location connected in between a remote and central subsystem(s) or location(s), which is physically separate from, not near or immediate to, and distant from the

between a remote subsystem and a central subsystem.

remote and central subsystem(s) or location(s).

Dkt. No. 1151, Exh. A at 17.

a. Parties' Positions

DataTreasury contends "intermediate" is consistently used in the Ballard Patent to

indicate subsystem(s) or location(s) that exist logically between remote and central subsystem(s) or location(s). Dkt. No. 1107, at 23. That is, an intermediate subsystem or location *may* exist physically between remote and central subsystem(s) or locations but it *must* exist logically. *Id.* at 23-24. Indeed, DataTreasury contends "it would be possible to have remote, intermediate, and central subsystems present in the same room." *Id.* at 24.

Defendants contend the intrinsic record makes it clear that "intermediate" requires both distant geographical separation from and a connection to the remote and central subsystem(s) or location(s). Dkt. No. 1119, at 36. Defendants bolster their argument by DataTreasury's explanation to the Examiner during reexamination that "Data Access connects directly to Intermediate and Intermediate connects directly to Central." *Id.* at 37 (citing Exh. A at 66). Defendants reiterate their previous arguments made in the context of the term "remote" regarding the subsystem(s) or location(s) needing to be geographically distant: "As explained more fully above in support of Defendants' proposed construction of 'remote,' the specification explicitly provides for geographic distance between each of the remote, intermediate, and central subsystems and locations." *Id.* (citations omitted). Finally, Defendants argue there is "no support" in the specification for DataTreasury's contention that all three subsystems could be present in the same room. *Id.* at 37-38.

In its reply brief, DataTreasury states that "[i]f by 'connected,' Defendants refer to data or network connection (which may be a direct or indirect connection) enabling the transmission for data between subsystems (or locations), then [DataTreasury] agrees." Dkt. No. 1145, at 21. Thus, DataTreasury has no problem with a construction that requires a direct or indirect connection between the intermediate subsystem(s) or locations and the remote and central subsystem(s) or locations(s).

Defendants, in their sur-reply, refuse to clarify what type of connection is meant by "connected." Dkt. No. 1147, at 26. Instead, Defendants state "connected in between" says the connection must be "in a manner consistent with the description of these connections in the specification of the Ballard patents." *Id.*

b. Court's Construction

[25] The Court finds there is no need to re-state the physical proximity portions of the constructions for "remote" and "central" in the construction of "intermediate" because both of those terms adequately state those requirements, as they relate to intermediate subsystem(s) and location(s). Additional geographic limitations may indeed be imposed by other claim limitations, but any such limitations are separate and apart from the term "intermediate."

Further, the Court finds no need for Defendants' "connected" limitation because other claim limitations in claim 42 specifically address the network connections between the subsystems. Claim 46, a method claim, requires no particular structure, but does require that data flow between remote to intermediate and intermediate to central. Defendants' construction may be read to require a "permanent" connection between

the subsystems; the Court disagrees that such is required by the plain claim language or by arguments made by DataTreasury during reexamination. The claims simply do not specify any kind of persistent or permanent connection and DataTreasury never argued that any kind of persistent connection exists between the remote, intermediate, and central subsystems. All that DataTreasury said is that the subsystems "connect" in order to achieve data flow. *See* Dkt. No. 1119, Exh. A at 66. The Court finds the claims speak for themselves and that where a particular structural connection is required, it is found in the claim language as a separate limitation. *See, e.g.,* '988 Patent claim 42 (requiring a wide area network connection for transmission of data between a remote subsystem, an intermediate subsystem, and a central subsystem).

The Court therefore construes **"intermediate"** as used in **"intermediate subsystem"** and **"intermediate data collecting subsystem"** to mean **"a subsystem that exists between a remote subsystem and a central subsystem."** The Court construes **"intermediate"** as used in **"intermediate location"** to mean **"a location that exists between a remote location and a central location."** All other physical and topological separation requirements with respect to "immediate" are addressed either by the Court's constructions of "remote" and "central" or in other claim limitations.

22. "local area network"

This term appears in asserted claims 16 & 42. The Court has not previously construed this term, but the Court did previously construe "communication network" to mean "a connection of computers and/or devices to facilitate the transmission of data between the computers and/or devices, for example, a local area network or a wide area network." 11/02/04 R & R at 35. The central dispute between the parties is whether the term *requires* close physical proximity. The parties offer the following constructions. As previously discussed, the Court requested that the parties re-brief the term "remote" and any related terms, if necessary. *See supra,* Part IV.B.19. DataTreasury, in its supplemental briefing, proffered the alternative construction for local area network.

DataTreasury	**Defendants**
LAN, or local area network, is a communication network that facilitates the transmission of data between computers and devices that are not remote from each other. Alternatively, "a local area network (LAN) is a communication network that facilitates the transmission of data between computers and/or devices that are typically located within a limited area." Dkt. No. 1151, Exh. A at 12.	A connection between computers and/or devices located at the same facility to facilitate the transmission of data between the computers and/or devices.

a. Parties' Positions

DataTreasury contends its construction should be adopted because it is consistent with the Court's prior construction of "communication network," distinguishes local area networks from wide area networks, and is consistent with the usage of the term in the specification. Dkt. No. 1107, at 42-43. DataTreasury argues Defendants' construction is problematic because it is "at odds with the claim language itself, which does not refer to geography or facility distinctions with regard to local area networks and wide area networks, instead

discussing those networks in terms of the subsystems that are linked by them." *Id*. at 43. DataTreasury additionally argues that Defendants' construction is at odds with their own extrinsic evidence, which states that a LAN can operate within a building *or campus*. *Id*. Because a campus can contain several facilities, Defendants' construction does not agree with its own proffered extrinsic evidence. *Id*. Further, contends DataTreasury, Defendants' construction "introduces ambiguity by using the phrase 'connection' between computers." *Id*. Because this term could imply a "physical connection," which is not required by the patent, the inclusion of the "connection" term must be rejected. *Id*. at 43-44. DataTreasury also argues that the portions of the patent specification cited by Defendants in support of their construction (1) describe the preferred embodiment and (2) do not indicate any facility or geographic requirement. Dkt. No. 1145, at 31.

Defendants contend their construction is consistent with the intrinsic record and reflects the "ordinary meaning of the term as of the filing date of the ' 988 patent as evidenced by numerous dictionary definitions." Dkt. No. 1119, at 32. Defendants argue that the meaning of LAN is clear; not only must a LAN connect devices and/or terminals over a network, "the descriptive words "Local Area" express the close physical proximity of the devices connected to the network." *Id*. Defendants argue that DataTreasury's construction is ambiguous because is merely provides that the connected devices are "not remote" from each other. *Id*.

In the supplemental briefing, DataTreasury contends its alternative construction is consistent with the ordinary technical meaning of "local area network" known to persons of skill in the art and that the term is used in its ordinary sense in the patent specification. Dkt. No. 1187, at 18. Further, argues DataTreasury, its alternative construction is consistent with the extrinsic record, including the contemporary dictionary definitions provided by the Defendants. *Id*. (citing Exh. L at 26-30). Finally, DataTreasury submits additional extrinsic evidence to support its constructions for LAN and WAN. *Id*. at 19 (citing Exhs. M, N & O).

In response to DataTreasury's supplemental briefing, Defendants contend DataTreasury's alternative construction would render all claims containing "local area network" indefinite because DataTreasury's inclusion of "typically" phrase essentially translates into "usually it is this way, but sometimes it is not this way." Dkt. No. 1193, at 13. Because Defendants' constructions are definite, they should be adopted. *Id*.

b. Court's Construction

[26] After analyzing the patent specification, the Court agrees with both DataTreasury and Defendants that the term "local area network" is used in its plain and ordinary sense. That is, the term LAN should be construed to have "the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention." Phillips, 415 F.3d at 1313 (citation omitted). Because the patent does not expressly define the term LAN, the Court finds consulting extrinsic evidence appropriate in this context. *See* id. at 1317-1318 (authorizing district courts to rely on extrinsic evidence, such as dictionaries and treatises, when helpful).

Although both DataTreasury and Defendants both claim to capture the meaning of LAN as illustrated in the extrinsic evidence and supported by the intrinsic record, the Court finds all the proffered constructions problematic. DataTreasury's initial construction includes the term "remote," which the Court finds does not comport with the plain and ordinary meaning of the term. Indeed, none of the extrinsic sources define LAN in terms of interconnecting computers that are not "remote." Defendants' construction improperly restricts a local area network to a particular "facility," which is not supported by much of its own proffered extrinsic

evidence. Finally, although the Court disagrees with Defendants that the "typically" phrase included in DataTreasury's alternative construction would render the claims containing that term indefinite, the Court does find that this phase is not necessary and does introduce a level of ambiguity that can be avoided.

The extrinsic sources, in practically unanimous fashion, confine a "local area network" to a small spatial area.FN12 The use of LAN in the Ballard Patents is consistent with this description. *See* '988 Patent at 12:1-45, 15:46-16:12 & Figures 4 & 6. Accordingly, the Court construes **"local area network (LAN)"** to mean **"a communication network that connects computers and/or devices that are located within a short distance of each other, such as within an office, a building, or a university campus."**

23. "wide area network"

This term appears in asserted claims 16 & 42. The Court has not previously construed this term but did previously construe "communication network" to mean "a connection of computers and/or devices to facilitate the transmission of data between the computers and/or devices, for example, a local area network or a wide area network." 11/02/04 R & R at 35. The central dispute between the parties is whether a WAN must be capable of covering a large geographic area. The parties offer the following constructions. As previously discussed, the Court requested that the parties re-brief the term "remote" and any related terms, if necessary. *See supra,* Part IV.B.19. DataTreasury, in its supplemental briefing, proffered the alternative construction.

DataTreasury	**Defendants**
WAN, or wide area network, is a communication network for facilitating the transmission of data between computers and devices that are remote from each other. Alternatively, "a communication network for facilitating the transmission of data between computers and/or devices that are typically located over a larger area than that of a local area network."	A connection that is capable of sending data between geographically distant locations.

Dkt. No. 1151, Exh. A. at 12.

a. Parties' Positions

DataTreasury contends its construction is consistent with the Court's prior construction of "communication network" and appropriately distinguishes a WAN from a LAN. Dkt. No. 1107, at 44. DataTreasury argues that the Defendants' construction is improper because it includes a requirement of geographic distance that is not required by the specification or the plain claim language. *Id*. DataTreasury admits that WANs are typically used to cover wider distances than LANs, but "it is also common to use them when there is no geographical distance, as when two persons in the same room or building email each other or use instant-messaging that occurs over the Internet." *Id*. In sum, DataTreasury contends any requirement for geographic distance is imprecise and ambiguous. *Id*. DataTreasury also makes the same "connection" argument that it made with respect to LAN. *See supra,* Part IV.B.22. DataTreasury argues that Defendants' construction is problematic because "geographically distant" is ambiguous and would require further construction. Dkt. No. 1145, at 32.

Defendants contend their construction is consistent with the use of the term in the patent to describe a

connection between "multiple, physically separate data centers." Dkt. No. 1119, at 32-33. Additionally, Defendants argue each extrinsic definition describes a WAN as having vast coverage and connecting devices that are separated by significant geographic distance. *Id.* at 33. Finally, Defendants argue DataTreasury fails to account for "Wide Area" in its construction. *Id.*

In supplemental briefing, DataTreasury contends its alternative construction is consistent with the ordinary technical meaning to those of skill in the art as well as the manner in which the term is used in the patent specification. Dkt. No. 1187, at 18. DataTreasury argues that its alternative construction is "supported by the specification's recognition of the inherent flexibility for networks and that a WAN typically has a larger size than a LAN." *Id.* Finally, DataTreasury contends its construction is consistent with all extrinsic definitions offered, including three new ones attached to its brief. *Id.* (citing Exhs. M, N & O).

As with LAN, Defendants counter DataTreasury's alternative construction by arguing that the "typically" phrase leaves the term ambiguous, unbounded and therefore indefinite. Dkt. No. 1193, at 13.

b. Court's Construction

[27] After analyzing the patent specification, the Court agrees with both DataTreasury and Defendants that the term "wide area network" is used in the Ballard Patents in its plain and ordinary sense. As stated above, because "wide area network" is not expressly defined in the Ballard Patents, the Court finds extrinsic evidence would be helpful in construing this term. *See supra,* Part IV.B.22. However, the Court finds all the proffered constructions, all of which are supposedly derived from extrinsic sources, problematic. DataTreasury's initial construction includes the term "remote," which the Court finds does not comport with the plain and ordinary meaning of the term WAN. Indeed, none of the extrinsic sources define WAN in terms of connecting "remote" computers. Defendants' construction improperly equates a WAN with a "connection" and adds an ambiguous "geographically distant" requirement. Finally, although the Court disagrees with Defendants that the "typically" phrase included in DataTreasury's alternative construction would render the claims containing that term indefinite, the Court does find that this phase-"that are typically located over a larger area than that of a local area network"-is confusing and does introduce a degree of ambiguity that can be avoided.

The extrinsic sources, in practically unanimous fashion, distinguish a "wide area network" from a "local area network" in terms of geographic coverage or the maximum distance between network nodes.FN13 The Court finds the use of WAN in the Ballard Patents is consistent with the typical use of WAN. *See* '988 Patent at 11:30-43, 12:34-61, 14:34-42, 16:1-12 & Figures 4 & 6. Accordingly, the Court construes **"wide area network (WAN)"** to mean **"a communication network covering a larger geographical area than that served by a LAN that connects LANs, computers, and/or devices that may be separated by large distances. The Internet is an example of a WAN."**

24. "collecting and sending the electronic or paper transaction data at intermediate locations"

This term appears in asserted claim 36. The Court has not previously construed this phrase, although the Court did previously find that "the electronic ... transaction data" did not render the claim indefinite. 11/02/04 R & R at 49. The primary disputes between the parties are whether (1) the term needs construction and (2) whether it is indefinite for lacking antecedent basis. The parties offer the following constructions/comments.

DataTreasury	Defendants

Plain and ordinary meaning. Alternatively, "receiving or gathering the electronic or paper transaction data at intermediate locations and sending that data from the intermediate locations to central locations." No 35 USC s. 112 issue as previously determined by the court.	The phrase "the electronic or paper transaction data" lacks antecedent basis and is therefore indefinite. Also "electronic or paper transaction data" renders the claim invalid under 35 USC s. 112, para. 2 as it is indefinite.

Dkt. No. 1151, Exh. A. at 16-17.

a. Parties' Positions

DataTreasury contends no construction is necessary for this term as it should be given its plain and ordinary meaning, taking into consideration the Court's previous constructions as well as those contained herein. Dkt. No. 1107, at 50. Alternatively, DataTreasury argues its construction is proper and that the phrase is not indefinite. *Id*. DataTreasury contends the Court previously dismissed these same arguments. *Id*. (citing 11/02/04 R & R at 14-16). DataTreasury contends the terms "electronic transaction data" and/or "paper transaction data" are inherent components of the term "transaction data" and are therefore have antecedent basis. *Id*.

Defendants admit that the Court previously found the meaning of "electronic transaction data" clear and the fact that "the" was missing before it did not render claim 36 indefinite. Dkt. No. 1119, at 39 (citing 11/02/04 R & R at 49). Defendants contend, however, the law has changed since that time and that under the law as it exists today, claim 36 is invalid. *Id*. at 39-40.

b. Court's Construction

The Court finds Defendants indefiniteness arguments are without merit. Contrary to Defendants' contentions, Halliburton Energy Svcs., Inc. v. M-I LLC, 514 F.3d 1244 (Fed.Cir.2008) does not represent a change in the law of indefiniteness. In fact. *Halliburton* states the law as it has been applied for a number of years: only claims that are "insolubly ambiguous" are indefinite. 514 F.3d at 1249. "[C]laims are not indefinite merely because they present a difficult task of claim construction. Instead, if the meaning of the claim is discernible, even though the task may be one over which reasonable persons will disagree, we have held the claim sufficiently clear to avoid invalidity on indefiniteness grounds." *Id*. (internal quotation and citation omitted).

The Court previously found that although "the electronic transaction data" does not find antecedent basis in claim 26, from which claim 36 depends, it is clear from companion claims and from the patent specification that "electronic transaction data" refers to "information contained in or reflected in a machine-readable medium, such as a credit card, a smart card or a debit card." 11/02/04 R & R at 49. The Court concluded that the "appearance of the word 'the' before the phrase does not render the claim invalid for indefiniteness." *Id*. at 49-50.

The Court now finds no reason to disturb its previous conclusion. As the *Halliburton* Court stated, a claim having a term that does not have proper antecedent basis may be invalid where a basis is "not otherwise present by implication or the meaning is not reasonably ascertainable." 514 F.3d at 1249. That is precisely what the Court previously found-that the meaning of "the electronic transaction data" is reasonably ascertainable from both the specification and the surrounding claims. 11/02/04 R & R at 49-50. Given that the Court has already construed "electronic transaction data" herein, the Court finds no reason to construe

this phrase in the collective.

25. "at least one wide area network for transmitting data between said one or more remote subsystems, said at least one intermediate subsystem and said at least one central subsystem," "transmitting data from each remote location to a corresponding intermediate location" and "transmitting data from each intermediate location to corresponding central locations"

At least one of these phrases appears in asserted claims 42 & 46. The Court has not previously construed the "at least one wide area network ..." phrase. The Court previously construed "transmitting data from each remote location to a corresponding intermediate location" to mean " 'transmitting data,' as those terms have been previously construed, from each remote location to the intermediate location that corresponds to or services that remote location." 11/02/04 R & R at 50-51. The Court previously construed "transmitting data from each intermediate location to corresponding central locations" to mean " 'transmitting data,' as those terms have been previously defined, from each intermediate location to the central location that corresponds to or services that intermediate location." *Id*. The central disagreement between the parties with respect to all three terms is whether the transmitted data must be encrypted. The parties offer the following constructions.

DataTreasury	**Defendant Group 1**	**Defendant Group 2**
"at least one wide area network for transmitting data between said one or more remote subsystems, said at least one intermediate subsystem and said at least one central subsystem"		
At least one communication network for sending data electronically between said one or more remote subsystems, said at least one intermediate subsystem and said at least one central subsystem.	No construction necessary.	At least one wide area network for transmitting encrypted data between said one or more remote subsystems, said at least one intermediate subsystem and said at least one central subsystem
"transmitting data from each remote location to a corresponding intermediate location"		
Transmitting data from each remote location to the intermediate location that corresponds to or services that remote location.		Transmitting encrypted data from each remote location to the intermediate location that corresponds to or services that remote location.
"transmitting data from each intermediate location to corresponding central locations"		
Transmitting data from each intermediate location to the central location that corresponds to or services that intermediate location.		Transmitting encrypted data from each intermediate location to the central location that corresponds to or services that intermediate location.

Dkt. No. 1151, Exh. A. at 18, 21-22.

a. Parties' Positions

DataTreasury contends its constructions are correct as nothing in the written description

or claims regarding "communication network" requires encryption. Dkt. No. 1107, at 45. DataTreasury further contends the Court previously considered and dismissed this very argument. *Id*. (citing 11/02/04 R & R at 35). With respect to the "transmitting ..." terms, DataTreasury contends the Court previously analyzed and rejected this same "encryption" argument. *Id*. at 38 (citing 11/02/04 R & R at 29-30).

Defendant Group 1 does not seek a construction for the "at least one wide area network ..." term and agrees with DataTreasury with respect to the two "transmitting ..." terms. Defendant Group 2 contends that when DataTreasury amended claims 1, 26, 42, and 46 to overcome rejections, it made representations to the Examiner that effectively disclaimed anything but a "secure network" that has "encrypted communication between subsystems." Dkt. No. 1118, at 12-13. Defendant Group 2 additionally argues that statements made by DataTreasury during reexamination indicates the same disclaimer, namely that the Ballard invention only sends "encrypted transaction data" between subsystems. *Id*. Defendant Group 2 further argues that "recent case law and statements made by [DataTreasury] during reexamination provide additional support for Defendants' construction, thus meriting reconsideration." Dkt. No. 1148, at 12 (citing Ormco Corp. v. Align Tech, 498 F.3d 1307, 1314-16 (Fed.Cir.2007)). Finally, Defendant Group 2 contends that to the extent DataTreasury now argues encryption is not required in claims 42 and 46, those claims must be directed to a different invention, thereby making the '988 Patent unenforceable because DataTreasury previously stated that all the claims in the '988 application were directed to a single invention. Id. at 13.

b. Court's Construction

[28] The Court finds Defendant Group 2's arguments are without merit. As for the claim amendments, DataTreasury's statements, when read in light of the claim amendments themselves, do not indicate a blanket disavowal of scope as Defendants suggest. It is true that DataTreasury amended four claims during prosecution. Two of the claims-1 and 26-were amended to include an encryption limitation. The other two claims-42 and 46-were amended to include a remote image capture limitation. *See* Dkt. No. 1118, Exh. F. Although DataTreasury lumped all four claims together in its argument to the Examiner, the Court finds, as it did before, that the statements made, when read in light of the actual amendments, do not constitute a blanket disavowal of scope. *See id*. at 5; 11/02/04 R & R at 35. The "encryption" limitation was added *only* to claims 1 and 26 and *not* to claims 42 and 46. Therefore, it can reasonably be argued that DataTreasury's statements, with respect to claims 42 and 46, refer only to the amendments it made to those claims-the addition of remote image capture. These statements simply do not constitute clear and unmistakable disavowal of scope. The Court additionally finds Ormco is not helpful to Defendants. See 498 F.3d at 1314-16. In *Ormco,* the disclaimer statements were made as to the "invention" as a whole and were not bounded by very specific amendments made to the claims. *See id*. at 1315. Indeed, the *Ormco* Court refused to apply the disclaimer and limit claims that did not relate directly to the disclaimer. *See id*. at 1317. Quite simply, *Ormco* does not represent a change in the law regarding disavowal of claim scope. The Court's previous analysis continues to be correct.

Defendant Group 2's arguments regarding statements made by DataTreasury during reexamination are likewise misguided. Those statements were made by DataTreasury in reference to Figure 1 and the preferred embodiments relating thereto; the statements are clarified later in the document on a claim-by-claim basis and do not clearly and unmistakably disavow claim scope to justify importing an encryption requirement into claim 42. *See* Dkt. No. 1118, Exh. L at 4-5 & 6-13.

Finally, Defendant Group 2's argument about unenforceability is without merit. Just because one claim recites a limitation that another claim fails to recite does not mean that the two claims are directed to different inventions. That is, two claims, one that recites an encryption limitation and one that does not, are not directed at two different inventions merely because of the difference in recitation of the encryption limitation. Indeed, under Defendant Group 2's logic, one could never have a patent with multiple claims, as some of the claims would certainly have different limitations and would thus be directed at multiple

inventions, thereby resulting in restriction. *See* 35 U.S.C. s. 121 (requiring an applicant to elect a single invention for examination when an application claims plural inventions).

The Court additionally finds, however, that DataTreasury's proposed construction fails to take into account the "wide area network" limitation. Accordingly, the Court construes **"at least one wide area network for transmitting data between said one or more remote subsystems, said at least one intermediate subsystem and said at least one central subsystem"** to mean **"at least one wide area network for sending data electronically between one or more remote subsystems, at least one intermediate subsystem and at least one central subsystem."**

26. "capturing an image of documents and receipts and extracting data therefrom"

This phrase appears in asserted claim 46. The Court previously construed "capturing an image of documents and receipts and extracting data therefrom" to mean "capturing an image of documents and receipts and extracting data from the image." 11/02/04 R & R at 47-48. The central dispute between the parties is whether the capturing must occur at a remote subsystem. The parties offer the following constructions.

DataTreasury	Defendant Group 2
Capturing an image of documents and receipts and extracting data from the image.	Capturing at a remote subsystem, documents and receipts and creating an image of the documents and receipts. Data is extracted from the image of the documents and receipts.

Dkt. No. 1151, Exh. A at 23.

a. Parties' Positions

DataTreasury agrees with the Court's previous analysis and construction. Dkt. No. 1107, at 29-30. DataTreasury contends Defendants attempt to limit the capturing step to a particular location and add the limitation of "creating an image," neither of which are proper. *Id*. at 30.

Defendants contend arguments presented by DataTreasury during reexamination require the Court to revisit its previous construction. Dkt. No. 1119, at 41. Specifically, Defendants contend statements made by DataTreasury in distinguishing the Campbell reference require claim 46 to include both capture and extraction at remote subsystems. *Id*. at 42.

b. Court's Construction

[29] The Court finds Defendants arguments without merit. Defendants mischaracterize the statements made by DataTreasury:

According to the Office Action, Campbell et al. states that "character recognition in the node 12 ... can read the check image and determine its destination from certain characteristics of the image such as the endorsements on the check" (column 4, lines 5-9). Nevertheless, such data extracted in the node would not lead to "transmitting data within the remote locations" as required by present claim 46.

Dkt. No. 1119, Exh. A at 68-69. In this statement, DataTreasury admits that claim 46 requires transmitting data within the remote locations, but that is clearly indicated in the second limitation of claim 46. DataTreasury did not, however, state that the first limitation-"capturing an image from documents and

receipts and extracting data therefrom"-need occur at any particular location. The statement above speaks only to the extraction of data *in Campbell*. The statement says nothing about the location of capture in claim 46. It seems that claim 46 would certainly allow for image capture and extraction at remote locations, but nothing in the claim language requires such a result and nothing in the statement cited by Defendants alters the claim. The Court's previous analysis continues to be correct. The two additional limitations proposed by Defendants are not supported by its arguments or the plain language of the claim.

Therefore, the Court construes **"capturing an image of documents and receipts and extracting data therefrom"** to mean **"capturing an image of documents and receipts and extracting data from the image."** *See* 11/02/04 R & R at 47-48.

27. Relationship between "extract[ed] data" and "transmit[ted] data" in claim 46

The dispute between "extracted" and "transmitted" data is in reference to asserted claim 46. The Court has not previously addressed this argument. The central dispute between the parties is whether the data that is transmitted *is* the data that is extracted or whether the data transmitted can be the image *or* the extracted data. The parties offer the following constructions.

DataTreasury	Defendant Group 2
"Extracting" is "obtaining data from the captured image or the process of capturing the image." The data transmitted can be the image or the extracted data.	The data that is extracted is the data that is transmitted.

Dkt. No. 1151, Exh. A at 23.

a. Parties' Positions

DataTreasury contends its construction should be adopted because it is supported by the intrinsic record and does not impose a limitation that is nowhere to be found in the claim language or the intrinsic record. Dkt. No. 1107, at 56. DataTreasury argues that a person of ordinary skill in the art after reading the patent specification would understand that extracting refers to obtaining data from the captured image *or* the process of capturing the image. *Id*. (citing '988 Patent at 21:1-6, 21:19-24, Figure 9). A person of ordinary skill would also understand, based on the specification and the claim language, that the data transmitted can be the image or extracted data as the term "data" refers to transaction data, which includes the image. *Id*. at 56-57.

Defendant Group 1 takes no position. Defendant Group 2 contends their construction should be adopted because it "flows naturally from the claim language itself." Dkt. No. 1118, at 19. Because claim 46 reads "capturing an image and extracting data therefrom," the later transmitting limitations that refer to "data" must be referring to the "extracted data therefrom" and not the captured image. *Id*. Defendant Group 2 further argues that DataTreasury's construction for "extracting" to also include data from "the process of capturing" is simply not supported by the intrinsic record or the claim language. *Id*. Allowing such a construction would, according to Defendant Group 2, render the "capturing an image of the documents and receipts" language superfluous. Finally, Defendant Group 2 argues that statements made by DataTreasury during reexamination to overcome the Campbell reference confirm that the data transmitted is the extracted data. *Id*. at 20. More specifically, Defendant Group 2 contends DataTreasury stated to the Examiner that Campbell did not teach "extracting data from images of documents and receipts." *Id*. However, Campbell

did teach the process of capturing an image; therefore, "extracting" cannot be read to encompass the "process of capturing an image" as DataTreasury now contends. *Id*. DataTreasury also told the Examiner that "Campbell et al. does not do anything with the particular transaction data on a check." *Id*. Thus, DataTreasury disclaimed "transmitting just the image." *Id*.

b. Court's Construction

[30] The Court finds merit in the criticisms made by both DataTreasury and Defendant Group 2. The plain meaning of the claim language does not support DataTreasury's contention that "extracting" encompasses the "process of capturing an image." As Defendant Group 2 correctly points out, such a broad construction would render "capturing an image of documents and receipts" superfluous. Claim 46 reads "capturing an image of documents and receipts and extracting data therefrom." The plain meaning of this phrase is that an image is captured and data is extracted from that image. Indeed, the patent specification supports this plain meaning in regard to the paper receipt-Figure 3b. In discussion of this figure, the DAT reads information from a scanned paper receipt bitmap image that has been portioned into image snippets that correspond to particular data fields. *See* '988 Patent at 9:33-36, 11:1-12. Thus, the specification indicates that the DAT extracts data from the receipt image snippets separate from the capture and partitioning of the image into the snippets. *See id*.

Additionally, DataTreasury stated that claim 46 "requires a step of extracting data from images of documents and receipts." Dkt. No. 1118, Exh. L at 12. Indeed, DataTreasury distinguished the Ballard invention of claim 46 from the Campbell reference by noting that Campbell does not do anything with the data "in the check images that they simply forward along, and they therefore do not extract data therefrom." *Id*. These comments indicate that unlike Campbell, the Ballard invention of claim 46 requires that data be extracted *from the captured images*.

DataTreasury's reliance on Figure 8 of the patent is misplaced as this discussion is speaking to the data processing being performed by the DPC and not the extraction that occurs with image capture, which is the dispute here with regard to claim 46. Thus, DataTreasury's construction of "extracting" to include "the process of capturing the image" must be rejected.

The Court also finds merit in DataTreasury's criticism of Defendant Group 2's construction. The Court finds no reason to limit the data being transmitted to the extracted data. The plain claim language does not have such a requirement. Defendant Group 2's antecedent basis argument is without merit as the transmitting step does not refer to "the data." Instead, it merely states "transmitting data...." Further, Defendant Group 2's disclaimer argument is misplaced. The statements referenced by Defendant Group 2 do not say anything about the transmitting limitation; rather, they speak only to the extracting limitation. That is, DataTreasury argued to the Examiner that Campbell does not extract data from the images. DataTreasury did not argue anything regarding the transmission of such data:

Campbell et al. is not concerned with the data on the Campbell et al. checks. As stated previously in this response, Campbell et al. is only concerned with transferring checks electronically through a public network. Campbell et al. does not do anything with the particular transaction data on a check. Campbell et al. merely counts the number of checks processed (column 7, line 34) and provides storage of the images in the node 12 so that subscribers may access those images.

Dkt. No. 1119, Exh. A at 68.

The Court has also previously noted that the specification speaks separately of images and data. *See* 11/02/04 R & R at 23-24. Indeed, the specification speaks of different kinds of data: paper transaction data, electronic transaction data, biometric data, and signature data. *Id*. Thus, "data" has a broad meaning within the patent and its meaning in claim 46 should be consistent with the teachings of the specification. Defendant Group 2's construction, which requires that the extracted data be transmitted, must be rejected.

To resolve this dispute, the Court construes **"extracting data therefrom"** in the context of claim 46 to mean **"obtaining data from the captured image."** The Court finds that no additional construction is necessary as Defendant Group 2's limitation on the transmitting step has been rejected.

28. Relationship between "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" and the order of steps in claim 26

The Court has not previously addressed this argument. The central dispute between the parties is whether the transaction data and subsystem identification information that is transmitted must be encrypted beforehand. Stated alternatively, the dispute is whether the "encrypting" step in claim 26 must occur *before* the "transmitting" step. The parties offer the following constructions.

DataTreasury	Defendant Group 1	Defendant Group 2
No order to steps.	The transaction data and subsystem identification information is encrypted and the encrypted transaction data and subsystem identification information is then transmitted within and between the remote location and the central location.	The transaction data and subsystem identification information is encrypted and the encrypted transaction data and subsystem identification information is then transmitted within and between the remote location and the central location.
Alternatively, the transaction data and subsystem identification information are encrypted before being transmitted from the remote location to the central location.		
		The "encrypting ..." step must be performed before the "transmitting ..." step.

Dkt. No. 1151, Exh. A at 15.

a. Parties' Positions

DataTreasury contends Defendants are merely attempting to restyle previous arguments that the Court dismissed with respect to the "transmitting" term. Dkt. No. 1107, at 54 (citing 11/02/04 R & R at 29-30).

DataTreasury first contends there is no required order to the steps in claim 26. However, DataTreasury concedes that the subsystem identification information and transaction data are encrypted prior to transmission from the remote location(s) to the central location but argue that encryption is not required before transmission *within* the remote or central location(s). *Id*. at 55. DataTreasury contends this argument has already been settled by the construction of "sending a captured image of the paper transaction data," which the parties agree should mean "sending a captured image of the transaction data after it has been encrypted from the remote location to the central location." *Id*.

Defendant Group 1 contends the encrypting step must occur before the transmitting step, as dictated by "logic, grammar, and the Patents' specifications." Dkt. No. 1119, at 26. Further, Defendant Group 1 contends DataTreasury asks the Court to find encryption " *only* encompasses network-level encryption" to the exclusion of data-level encryption. *Id*. However, such a finding would not provide any protection to the data *within* a location and this is contrary to statements made by Mr. Ballard in his deposition. *Id*.

Defendant Group 2 contends the real dispute here is whether encryption must occur before transmission *within* the remote and central location(s) because DataTreasury has admitted that encryption must occur before transmission *between* the remote and central location(s). Dkt. No. 1118, at 15. Defendant Group 2 argues that encryption must occur before transmission both *within* and *between* because "the subsystem identification information" in the transmitting step has antecedent basis within claim 26 only to the subsystem identification information that is encrypted in the encrypting step. *Id*. Defendant Group 2 further argues that statements made by Mr. Ballard during reexamination to overcome the Campbell reference also show that encryption of subsystem identification information occurs before it is transmitted. *Id*. at 16.

b. Court's Construction

The Court finds that neither logic, grammar, nor the intrinsic record dictates that encryption *must* occur before the data is transmitted *within* a given location. However, based on reexamination statements made by DataTreasury, the Court agrees with DataTreasury and Defendants that encryption must occur before the data is transmitted *between* two locations.

The Federal Circuit has made it quite clear that "[u]nless the steps of a method actually recite an order, the steps are not ordinarily construed to require one." Altiris v. Symantec Corp., 318 F.3d 1363, 1369 (Fed.Cir.2003). The *Altiris* Court went on to hold that the test for determining whether the steps of a method claim that do not recite an order must nonetheless be performed in an order is to look at the logic and grammar of the claim as well as the intrinsic record. *Id*. Like the *Altiris* Court, this Court concludes that there is nothing in the logic and grammar of the claim to compel Defendants' order and that the intrinsic record likewise does not require an order.

It is true that "the subsystem identification" in the transmitting step has antecedent basis to the subsystem identification information identified in the encrypting step, but antecedent basis is not a matter of logic or grammar that compels the steps to be performed in order. The meaning of subsystem identification information as used in the claims and informed by the written description is readily ascertainable; therefore, antecedent basis does not *dictate* the order of steps.

It is also true that the patent discusses encryption of transaction data prior to its transmission *within* a subsystem. However, this discussion relates to a preferred embodiment and does not address the temporal relationship between the encryption of subsystem identification information and transmission *within* a

subsystem. *See* '988 Patent at 7:34-36, 7:41-45 (discussion of preferred DAT, which creates and then stores a TECBI, a tagged encrypted compressed bitmap image). Reliance on the specification to require a specific order of steps when the specification does not *dictate* such an order was precisely what the Federal Circuit concluded the district court had done wrong in Altiris. 318 F.3d at 1371. This Court refuses to make that same mistake.

However, the Court does find that statements made by DataTreasury in reexamination, in reference to claim 26 and the Campbell reference, require that subsystem identification information and transaction data be encrypted before transmission *between* locations. *See* Dkt. No. 1119, Exh. A at 56-57; Dkt. No. 1107, at 55. Logically, however, because the transmitting step of claim 26 includes transmission of data within *and* between, nothing in the plain claim language would prevent, for example, transmission of data *within* a location followed by encryption of the data followed by transmission *between* two locations.

In sum, there is no logical or grammatical reason to require the order Defendants request. Further, although the specification supports Defendants' requested order, it equally supports DataTreasury's position. The specification simply does not dictate any order of steps. Statements made by DataTreasury during reexamination, however, do require encryption of the data before transmission between locations.

Accordingly, the Court finds that the "encrypting subsystem identification information and the transaction data" step must be performed before "transmitting the transaction data and the subsystem identification information between the remote location(s) and the central location." The encrypting step may, but need not, occur before the transmission of data *within* either the remote or central locations. Having resolved the dispute between the parties, the Court finds no reason for any additional construction.

29. Order of steps in claim 46

As indicated by the section heading, the dispute between DataTreasury and Defense Group 2 is whether the steps in method claim 46 must be performed in the order recited. The parties offer the following constructions.

DataTreasury	Defendant Group 2
There is no requirement of a particular order of steps in Claim 46 of the '988 Patent.	Steps occur in order recited.

Dkt. No. 1151, Exh. A at

a. Parties' Positions

DataTreasury contends the steps in claim 46 need not occur in any specific order. Dkt. No. 1107, at 67. DataTreasury further contends the Court previously determined that steps in a method claim need not be performed in any specific order absent some dictation to the contrary. *Id*. DataTreasury argues there is nothing in the specification that requires any specific order. *Id*.

Defendant Group1 does not seek a construction. Defendant Group 2 contends the "logic and grammar" of the claim language require the steps to be performed in the recited order. Dkt. No. 1118, at 17-18. More specifically, Defendant Group 2 contends the steps must be performed in the recited order because that is the "flow" of data through the DataTreasury system, which was described by DataTreasury to distinguish the

Campbell reference during reexamination. *Id*. at 18. Thus, Defendant Group 2 contends logic and the intrinsic record dictate that the claim 46 steps be performed in their recited order.

b. Court's Construction

The Court agrees with DataTreasury. Claim 46 clearly does not recite an order of steps. *See* '988 Patent at 28:16-35. The patent specification does not dictate an order of steps. Indeed, Defendant Group 2 argues "logic" demands that the steps be performed in their recited order and that the specification "supports" that recitation. Dkt. No. 1118, at 18. However, the question is not whether the specification *supports* an ordering; the question is whether the specification *requires or dictates* an ordering. *See* Altiris, 318 F.3d at 1370-71. Reliance on language that supports but does not dictate an order of steps is precisely why the district court was reversed in *Altiris*. *See id*. at 1369-71.

Further, Defendant Group 2's "logic" defies logic. It seems that what Defendant Group 2 calls "logic" is nothing more than its opinion of the order in which the steps should occur. Although it is true that DataTreasury indicated to the Examiner during reexamination that the general data flow in the DataTreasury system is from remote to intermediate to central, this statement does not define the order of steps in claim 46. There is nothing contained in the statements made by DataTreasury that would preclude the transmitting steps to occur in parallel or in an order other than that specified in the claim. That is, although DataTreasury indicated an overall directional flow of data through the architectural tiers, the order in which the specific data transmissions occur is not dictated by that prescribed direction of data flow. For example, data could be transmitted from a remote location to an intermediate location prior to data being transmitted within a remote location. Numerous other possibilities exist that defy the recited order.

The Court finds there is no prescribed order for the steps recited in claim 46. The claim recites no ordering, logic and grammar do not dictate an ordering, and the intrinsic record also fails to require an ordering. *See* Altiris, 318 F.3d at 1369-71.

V. U.S. PATENT NUMBER. 6,032,137

A. Overview

DataTreasury has asserted claims 1, 2, 16, 18, 26, 27, 29, 36, 38, 42, and 43 against one or more of the defendants. Dkt. No. 1151, Exh. A at 24. For reference, the asserted claims read (disputed terms unique to the '137 Patent emphasized):

1. A system for central management, storage and report generation of remotely captured paper transactions from checks comprising:

one or more remote data access subsystems for capturing and sending ***paper transaction data including a payer bank's routing number, a payer bank's routing information, a payer's account number, a payer's check, a payer bank's draft, a check amount, a payee bank's identification number, a payee bank's routing information, and a payee's account number,*** and further including subsystem identification information comprising at least one imaging subsystem for capturing the checks and at least one data access controller for managing the capturing and sending of the transaction data;

at least one central data processing subsystem for processing, sending, verifying and storing the paper transaction data and the subsystem identification information comprising a data management subsystem for

managing the processing, sending and storing of the transaction data; and

at least one communication network for the transmission of the transaction data within and between said one or more data access subsystems and said at least one data processing subsystem, with the data access subsystem providing encrypted subsystem identification information and encrypted paper transaction data to the data processing subsystem.

2. A system as in claim 1 wherein said one or more data access subsystems further comprise at least one scanner for capturing the paper transaction data.

...

16. A system as in claim 1 wherein said at least one communication network comprises:

at least one first local area network for transmitting data within a corresponding one of said one or more remote data access subsystems;

at least one second local area network for transmitting data within a corresponding one of said at least one data processing subsystem; and

at least one wide area network for transmitting data between said one or more remote data access subsystems and said at least one data processing subsystem.

...

18. A system as in claim 1 further comprising at least one data collecting subsystem for collecting and sending the electronic or paper transaction data comprising a further management subsystem for managing the collecting and sending of the transaction data.

...

26. A method for central management, storage and verification of remotely captured paper transactions from checks comprising the steps of:

capturing an image of the paper transaction data at one or more remote locations ***said transaction data including a payer bank's identification number, a payer bank's routing number, a payer bank's routing information, a payer's account number, a payer's check, a payer bank's draft, a check amount, a payee bank's identification number, a payee bank's routing information, and a payee's account number;*** and sending a captured image of the paper 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.

27. The method as in claim 26 wherein said managing the capturing and sending step comprises the steps of:

successively transforming the captured transaction data to a 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 capturing; and

storing the tagged, encrypted, compressed bitmap image.

...

29. A method as in claim 26 wherein:

said capturing and sending step occurs at a plurality of remote locations; and

said collecting, processing, sending and storing step occurs at a plurality of central locations.

...

36. A method as in claim 29 further comprising the steps of:

collecting and sending the electronic or paper transaction data at intermediate locations;

managing the collecting and sending of the transaction data; and

transmitting the transaction data within the intermediate location and between the intermediate locations and the remote locations and the central locations.

...

38. The method as in claim 36 wherein said transmitting the transaction data step comprises the steps of:

transmitting data within the remote locations;

transmitting data from each remote location to a corresponding intermediate location;

transmitting data within the intermediate locations;

transmitting data from each intermediate location to corresponding central locations; and

transmitting data within the central locations.

...

42. A system for central management, storage and report generation of remotely captured paper transactions

from checks comprising:

one or more remote data access subsystems for capturing and sending paper transaction data and verifying transaction data from the checks comprising at least one imaging subsystem for capturing the checks and at least one data access controller for managing the capturing and sending of the transaction data;

at least one central data processing subsystem for processing, sending, verifying and storing the paper transaction data and the subsystem identification information comprising a management subsystem for managing the processing, sending and storing of the of the transaction data; and

at least one communication network for the transmission of the transaction data within and between said one or more data access subsystems and said at least one data processing subsystem, with the data access subsystem providing encrypted subsystem identification information and encrypted paper transaction data to the data processing subsystem.

42. A method for central management, storage and verification of remotely captured paper transactions from checks comprising the steps of:

capturing an image of the check at one or more remote locations and sending a captured image of the check;

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;

verifying the transaction data from the check; and

transmitting the transaction data and the subsystem identification information within and between the remote location(s) and the central location.

'137 Patent, 22:48-28:45 (emphasis added).

B. Claim Construction

1. Terms already construed in the '988 Patent

Many of the disputed terms in the '137 Patent have already been addressed with respect to the '988 Patent. Because the patents rely on essentially the same written description and because the parties agree the terms should be construed similarly throughout both patents, the Court will only address the terms unique to the '137 Patent in this Part. That is, the construction for those terms that are common to both the '988 and '137 Patents have already been provided and will not be restated here. For reference, the table below lists those terms and refers to the applicable '988 Patent discussion.

Term (claim(s))	Discussion

"remote" subsystem or location (1, 16, 26, 29, 36, 42, 43)	Part IV.B.19
"data access subsystems" and "data access subsystems for capturing and sending paper transaction data" (1, 16, 42)	Part IV.B.4
"subsystem" (1, 2, 16, 18, 26, 42, 43)	Part IV.B.3
"sending" (1, 18, 26, 29, 36, 42, 43)	Part IV.B.1
"paper transaction data" (1, 2, 18, 26, 36, 42)	Part IV.B.1
"subsystem identification information" (1, 26, 42, 43)	Part IV.B.13
"imaging subsystem" (1, 42)	Part IV.B.6
"data access controller" (1, 42)	Part IV.B.1
"data access controller for managing the capturing and sending of the transaction data" (1, 42) and "managing the capturing and sending of the transaction data" (1, 26, 42, 43)	Part IV.B.10
"transaction data" (1, 2, 18, 26, 27, 36, 42, 43)	Part IV.B.12
"central data processing subsystem" (1, 42), "data processing subsystem" (1, 16, 42), and "data processing subsystem for processing, sending, verifying and storing the paper transaction data and the subsystem identification information" (1, 42)	Part IV.B.7
"processing, sending, verifying and storing the paper transaction data and the subsystem identification information" (1, 42)	Part IV.B.15
"verifying" (1, 42)	Part IV.B.14
"processing" (1, 16, 26, 29, 42, 43)	Part IV.B.1
"management subsystem for managing the processing, sending and storing of the transaction data" (1, 42)	Part IV.B.9
"at least one communication network for the transmission of the transaction data" (1, 42)	Part IV.B.1
"transmission" and "transmitted" (1, 16, 26, 36, 38, 42, 43)	Part IV.B.1
"within and between" (1, 26, 42, 43)	Part IV.B.16
"data access subsystem providing encrypted subsystem identification information and encrypted paper transaction data to the data processing subsystem" (1, 42)	Part IV.B.5
"encrypt" (1, 26, 27, 42, 43)	Part IV.B.17
"local area network" (16)	Part IV.B.22
"wide area network (16)	Part IV.B.23
"data collecting subsystem for collecting and sending the electronic or paper transaction data"	Part

(16) and "data collecting subsystem" (16)	IV.B.8
"further management subsystem for managing the collecting and sending of the transaction data" (18)	Part IV.B.9
"capturing an image of the paper transaction data" (26)	Part IV.B.1
"image" (26, 27, 43)	Part IV.B.18
"sending a captured image of the paper transaction data" (26, 43)	Part IV.B.1
"central" subsystem or location" (26, 29, 36, 38, 42, 43)	Part IV.B.20
"managing the collecting, processing, sending and storing of the transaction data" (26, 43)	Part IV.B.10
Relationship between "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" (26)	Part IV.B.28
Order of steps of claim 26	
"intermediate location" (36)	Part IV.B.21
"collecting and sending the electronic or paper transaction data at intermediate locations" (36)	Part IV.B.24
"transmitting the transaction data within the intermediate location" (36)	Part IV.B.25
"transmitting data from each remote location to a corresponding intermediate location" (38)	Part IV.B.25
"transmitting data from each intermediate location to corresponding central locations"	Part IV.B.25

2. "Payer bank's draft"

This term appears in asserted claims 1 & 26. The central disputes between the parties are (1) whether the claim term is limiting and (2) whether a construction is necessary. The parties offer the following constructions.

DataTreasury	**Defendants**
Not a limitation. Alternatively, plain and ordinary meaning.	A written order by a first bank (drawer bank) instructing another bank to pay a specified sum to another party (payee) on demand.

Dkt. No. 1151, Exh. A at 26-27.

a. Parties' Positions

DataTreasury contends this term is not a limitation in the' 137 Patent and does not need to be construed. Dkt. No. 1107, at 52. DataTreasury further contends the patent uses the term in its plain and ordinary sense

and not any special or technical sense. *Id*. Alternatively, the term should be construed to have its plain and ordinary meaning. *Id*. Finally DataTreasury contends Defendants' proposed construction is improper as it requires two banks to be involved, which is not supported by the claim language as "payer bank's draft" refers only to one bank. *Id*. at 53.

Defendants contend payer bank's draft is a claim limitation as the claim specifically states that paper transaction data must include a payer bank's draft. Dkt. No. 1119, at 47. Further, Defendants contend the term, unlike the others listed in the claim, is not well known and will not have an ordinary meaning to the jury; therefore, a construction would be helpful. *Id*. In support of its construction, Defendants offer intrinsic support and an extrinsic definition of "draft." *Id*. Defendants finally argue that DataTreasury's "two bank" argument mistakenly assumes that the term at issue is payer's bank draft rather than payer bank's draft, as the latter term necessarily means the drawer/payer bank-not the payer-wrote the draft. *Id*. at 48.

b. Court's Construction

[31] It is not clear whether "payer bank's draft" has a plain and ordinary meaning to one of skill in the art at the time of the invention. However, even if it does, the parties here seemingly cannot agree as to what it should be. Defendant offers a plain and ordinary meaning, to which DataTreasury alternatively agreed during the previous claim construction. *See* Dkt. No. 1147, at 30. Now, however, DataTreasury contends "plain and ordinary meaning" is fine but fails to explain (1) what the plain and ordinary meaning is and (2) how Defendants' proffered construction is different from the plain and ordinary meaning for the term.

The Court finds that the plain claim language indicates that the term does limit the claim. The claim reads "paper transaction data *including* ... payer bank's draft." '137 Patent at 22:53:58 (emphasis added). Further, the Court finds that Defendants offer a reasonable construction for this term and DataTreasury fails to show how Defendants' definition does not comport with the plain and ordinary meaning of the "payer bank's draft." Therefore, the Court construes **"payer bank's draft"** to mean **"a written order by a first bank (drawer bank) instructing another bank to pay a specified sum to another party (payee) on demand."**

3. "Paper transaction data including a payer's bank routing number, a payer bank's routing information, a payer's account number, a payer's check, a payer's bank's draft, a check amount, a payee bank's identification number, a payee bank's routing information and a payee's account number"

This term appears in asserted claims 1 & 26. The Court previously construed this phrase to be the same as "paper transaction data," which was construed with respect to the '988 Patent. 11/02/04 R & R at 55. The Court concluded that "[t]his phrase from claim 1 of the '137 Patent provides that the 'paper transaction data,' as previously construed by this Court, includes certain information as set forth in the claim phrase. As the parties do not appear to dispute the meanings of the individual components of the 'paper transaction data' found in this phrase, the Court will not construe those terms." Id. The dispute between the parties is whether the "paper transaction data" *must* include the items listed. The parties offer the following constructions.

DataTreasury	Defendants
Not a limitation. Alternatively, plain and ordinary meaning.	Paper transaction data, as previously defined, requires the information set forth in the claim phrase.

Dkt. No. 1151, Exh. A at 26.

a. Parties' Positions

DataTreasury contends this phrase needs no construction. Dkt. No. 1107, at 53. The list of items merely list components of "paper transaction data," which the Court has already construed-no additional construction is necessary. *Id*. The additional terms, contends DataTreasury all have plain and ordinary meanings and need not be construed. *Id*.

Defendant Group 1 contends each of the listed items must be present; any other construction would render the listing of items superfluous. Dkt. No. 1119, at 46. In sum, Defendant Group 1 contends each listed item is a claim limitation. *Id*.

b. Court's Construction

The Court finds that no additional construction is necessary for any of the individual terms included in "paper transaction data" as there no longer appears to be a dispute between the parties. The claim clearly states "paper transaction data including...." With the exception of the term "payer bank's draft," Defendants do not contest the meaning of any individual item in the list. Defendants agree in their sur-reply brief that plain and ordinary meaning is fine. Dkt. No. 1147, at 29. Therefore, the Court finds the phrase "[Paper] transaction data including a payer's bank routing number, a payer bank's routing information, a payer's account number, a payer's check, a payer bank's draft, a check amount, a payee bank's identification number, a payee bank's routing information and a payee's account number" as it appears in claims 1 and 26 should be given its plain and ordinary meaning.

However, the real issue between the parties is not what the meaning of each of the individual items is but whether "paper transaction data" must include that set of items. The Court finds that it does. The claim clearly states that "paper transaction data including...." '137 Patent at 22:53:58. The claim language is clear that the paper transaction data recited must include those items specifically identified. Had DataTreasury wanted the claim to read differently, it could have used a Markush group to indicate a "selection from a group consisting of...." *See* Gilette Co. v. Energizer Holdings, Inc., 405 F.3d 1367, 1372 (Fed.Cir.2005) (discussing Markush groups, noting that "[c]laim drafters often use the term 'group of' to signal a Markush group"). DataTreasury is bound by the claim as written. As the claim is written, "paper transaction data" must include those listed items in the context of the '137 Patent. *See* SRAM Corp. v. AD-II Eng'g, Inc., 465 F.3d 1351, 1359 ("[the Court is] powerless to rewrite the claims and must construe the language of the claim at issue based on the words used"). Having resolved the dispute between the parties regarding whether the "included items" are limiting, the Court finds no additional construction is necessary.

5. Order of steps in claim 43

The central disputes between the parties are whether (1) the encrypting step must occur before the transmitting step and (2) the transmitting step must occur before the verifying step. The parties offer the following constructions.

DataTreasury	Defendant Group 2
There is no requirement of a particular order of steps in Claim 43 of the '137 Patent.	The "encrypting ..." step must be performed before the "transmitting ..." step.

The verifying step has to be performed after the transmitting step.

Dkt. No. 1151, Exh. A at 43-44.

a. Parties' Positions

DataTreasury contends the claim language does not specify an order and nothing in the

specification or prosecution history dictates any order; therefore, no specific order is required. Dkt. No. 1107, at 57-58. DataTreasury does admit, however, that the transaction data and subsystem identification information are encrypted before they are sent from the remote location(s) to the central location. *Id*. at 55.

Defendant Group 1 takes no position. Defendant Group 2 incorporates its arguments with respect to claim 26 of the '988 Patent to contend that the encrypting step must occur before the transmitting step. Dkt. No. 1118, at 16. Defendant Group 2 further contends that because the preamble of claim 43 recites "[a] method for *central* management, storage, and *verification* of remotely captured paper transactions from checks," the verification is necessarily performed at the central location and thus *after* the transmitting step has occurred. *Id*. at 16-17. Defendant Group 2 additionally argues that DataTreasury distinguished its invention over prior art because "those references do not teach central verification or verification at a central location." *Id*. at 17.

b. Court's Construction

For the same reasons noted with respect to claim 26 in the '988 Patent, the Court rejects Defendant Group 2's argument regarding the order of the encrypting and transmitting steps. *See supra,* Part IV.B.28.

As to the order of the verifying and transmitting steps, the Court finds Defendant Group 2's arguments without merit. Interestingly, not only does Defendant Group 2 argue for an order of steps when an order is not recited, it argues that the steps must be performed in an order *contrary* to that of recitation. The Court finds Defendant Group 2 simply has not shown that any order is required with respect to the verifying and transmitting steps. Defendant Group 2's first argument is easily dismissed as the preamble of claim 43 is not limiting. It is not a claim requirement and therefore does not limit the claim in any fashion. Thus, the preamble does not require the steps be performed in any particular order.

As for the statements made by DataTreasury in the petition to make special, the Court finds these statements fall well short of a clear and unmistakable disclaimer. First, they do not speak to claim 43. They speak generically to the Ballard invention and how it compares with specific prior art references and each paragraph in the petition discusses several reasons why each particular reference is distinguishable from the Ballard invention. Reading the statements in context, the Court concludes they do not constitute the clear and unmistakable disavowal required to alter the meaning of claim 43. For sure, nothing in claim 43 precludes verification at the central location *after* transmission; however, nothing in the claim language, patent specification, or other intrinsic record *requires* such an order.

Accordingly, the Court finds that the "verifying the transaction data from the check" and "transmitting the transaction data and the subsystem identification information within and between the remote location(s) and the central location" steps need not occur in any particular order. Having resolved the dispute between the

parties, the Court finds no additional construction of terms is necessary.

VI. CONCLUSION

The Court hereby **ORDERS** the claim terms addressed herein construed as indicated.

IT IS SO ORDERED.

FN1. Unless otherwise noted, all docket entry citations reference cause 2:06-CV-72.

FN2. For purposes of claim construction, the defendants collected into two groups. Group 2 consists of Electronic Data Systems Corp., KeyCorp, KeyBank National Association, SunTrust Bank, and SunTrust Banks, Inc. The remaining defendants constitute Group 1. *See* Dkt. No. 1151.

FN3. The supplemental briefing was submitted in response to the Court's Order of March 9, 2009, which requested additional briefing on certain issues. *See* Dkt. No. 1179.

FN4. There are additional patents asserted by DataTreasury in this litigation and other litigation before the Court, but the Court herein only addresses terms in the Ballard Patents.

FN5. At first blush, this construction seemingly conflicts with the agreed construction of "paper transaction data." However, based on the preamble of claim 26, which refers to the "captured paper transactions from documents and receipts," the Court finds it is reasonable that "the paper transaction data," as used in this term, refers to the documents and receipts ('988 Patent) or checks ('137 Patent) as discussed in the preamble. The Court recognizes, however, the term "paper transaction data" is used to mean something different in the other asserted claims.

FN6. It appears that these terms were not in dispute until the Ballard Patents went through the reexamination process. This is a prime example that reexamination does not always "simplify the issues" but can make them more complex.

FN7. The Court previously found that "subsystem" and "system" connote the same structure in the context of the relevant art. 2/19/04 Order at 11-12.

FN8. *See, e.g.,* "imaging subsystem," "data access subsystem," and "data processing subsystem," Parts IV.B.3-6.

FN9. Defendants HSBC Bank and HNAH argue for a slightly different construction. *See* Dkt. No. 1119, at 51-54.

FN10. *See* Dkt. No. 1145, Exh. B at 8 para. 10 ("The declaration of John E. Hiles filed on 30 January 2007 under C.F.R. 1.131 has not been considered because it fails to specifically address the rejections set forth in the previous Office action mailed on 30 November 2006.").

FN11. The parties seemingly agree that the "within and between" language in the two method claims require data to be transmitted both within a subsystem and between subsystems. *Compare* Dkt. No. 1107, at 40 (arguing "both" actions need not occur in the "system" claims) *with* Dkt. No. 1119, at 31 (responding to DataTreasury's proposed construction "for the system claims."

FN12. The Court has reviewed all of the extrinsic evidence submitted by the parties. *See* Dkt. No. 1187, Exh. L at 27-31, Exhs. M, N & O. In addition to these extrinsic sources, the Court has also reviewed the teachings of DAVID G. MOURSUND, BASIC PROGRAMMING FOR COMPUTER LITERACY 249 (1978) (defining LAN as "a system of interconnection of small computers, microcomputers, or personal computers in a single network configuration at a particular site.... [LANs] are confined to a site or department like a college/university campus, office buildings.").

FN13. The Court has reviewed all of the extrinsic evidence submitted by the parties. *See* Dkt. No. 1187, Exh. L at 27-31, Exhs. M, N & O. In addition to these extrinsic sources, the Court has also reviewed the teachings of DAVID G. MOURSUND, BASIC PROGRAMMING FOR COMPUTER LITERACY 251 (1978) (defining WAN as a collection of network nodes separated by large distances and having a geographical area much wider than that of a LAN).