

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

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<b>ELCOMMERCE.COM, INC.,</b>	:	<b>CIVIL ACTION</b>
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<b>Plaintiff-Counter-Defendant,</b>	:	
	:	
v.	:	<b>NO. 09 - 4458</b>
	:	
<b>SAP AG and SAP AMERICA, INC.,</b>	:	
	:	
<b>Defendants-Counter-Plaintiffs.</b>	:	

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DuBOIS, J.

February 28, 2011

**MEMORANDUM**

**I. INTRODUCTION**

In this patent infringement case, plaintiff elcommerce.com, Inc. (“elcommerce”) asserts that defendants SAP AG and SAP America, Inc. (collectively “SAP”) willfully infringed United States Patent Number 6,947,903 (the “’903 patent”). SAP filed counterclaims seeking declaratory judgments of non-infringement, invalidity and unenforceability.

On December 1, 2010, the Court conducted a day-long Markman Hearing in which the parties amplified the positions set forth in their briefs on claim construction. The parties’ disputes can be broken down into two categories. First, the parties disagree about the definitions of specific terms. Second, they dispute whether certain terms – known as “means-plus-function” terms – should be declared indefinite under 35 U.S.C. § 112 ¶ 2 for failure to disclose the required corresponding structure under 35 U.S.C. § 112 ¶ 6.

For the reasons that follow, the Court (1) defines the terms requiring construction as set

forth in this Memorandum and (2) concludes that all the disputed means-plus-function claim terms are indefinite.

## **II. BACKGROUND**

The '903 Patent provides a “method for monitoring supply chain activity throughout a plurality of supply chain sites.” ('903 Patent, Abstract.) In sum, the patent attempts to solve the problem presented when different actors within a supply chain – including original equipment manufacturers (“OEMs”), contract manufacturers (“CMs”), distributors and vendors – maintain supply-related data in different formats and, as a consequence, are unable to respond to rapid changes in supply and demand from other actors within the chain. To combat this problem, a “data transfer engine” (“DTE”) is installed at each supply chain site. (Id. at 1:63-64.) The DTE then, inter alia, extracts data from each site and sends it to a “data collection site” (“DCS”) (Id. at 2:2-5.) Any user within the supply chain can then access the data collected at the DCS for its own use. (Id. at 2:37-44.)

elcommerce filed suit against SAP in the U.S. District Court for the Eastern District of Texas on August 31, 2007. After two years of disputes over venue, the case was transferred to this Court on September 29, 2009. The parties briefed the issues relevant to claim construction prior to the Markman Hearing, and then filed supplemental briefs after the hearing. All the disputes related to claim construction are thus ripe for review.

## **III. CLAIM CONSTRUCTION**

The Court has been asked to construe the following terms, and the parties have submitted the following proposals:

<u>Term</u>	<u>SAP's Proposed Construction</u>	<u>elcommerce's Proposed Construction</u>
Independent supply chain site (Phrase or variation thereof appears in Claims 1, 22, 37, 38, 50, 53, 54)	A supply chain entity that is not subject to the control or authority of, and is unrelated to, each other supply chain entity	No construction required; in the alternative, a separate entity within the supply chain
Extracting supply-related data or information (Phrase or variation thereof appears in Claims 1, 22, 37, 38, 50, 53, 54)	Taking out, at each independent supply chain site, the supply-related data or information	No construction required
Scanning for changed supply-related data or information (Phrase or variation thereof appears in Claims 1, 50)	Searching, at each independent supply chain site within the supply chain, for supply-related data or information that has changed by comparing supply-related data or information with data or information previously sent to a data collection site	No construction required
Detecting changed supply-related data or information (Phrase or variation thereof appears in Claims 22, 38, 53)	Determining, at each independent supply chain site, what supply-related data or information has changed by searching for supply-related data or information and comparing it with data or information previously sent to a data collection site	No construction required
Monitoring changed supply-related data or information (Phrase or variation thereof appears in Claims 37, 54)	Keeping track of supply-related data or information, at each supply chain site, to determine what supply-related data or information has changed by searching for supply-related data or information and comparing it with data or information previously sent to a data collection site	No construction required

The Court's definitions for each term are set forth at the end of the section discussing each term. The Court will address the terms in the order in which they were presented at the Markman Hearing.

A. Legal Standard

Construction of disputed patent claims is a question of law and is therefore the province of the court, not the jury. Markman v. Westview Instruments, Inc., 517 U.S. 370, 389-91 (1996). The words in a claim “are generally given their ordinary and customary meaning” from the perspective of one of ordinary skill in the art of the patent at issue. Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc) (citations omitted).

In determining the ordinary and customary meaning, courts look to a variety of sources. “Those sources include ‘the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.’” Id. (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1116 (Fed. Cir. 2004)). While intrinsic evidence – the patent and its prosecution history – is generally given more weight, the Federal Circuit has approved the use of extrinsic evidence, such as dictionaries and treatises. Id. at 1317-18.

There is no precise formula for how a court should weigh the different sources of evidence. Rather, “in weighing all the evidence bearing on claim construction, the court should keep in mind the flaws inherent in each type of evidence and assess that evidence accordingly.” Id. at 1319.

## B. Analysis

### 1. *Independent Supply Chain Site*

elcommerce argues that the term “independent supply chain site” does not need to be defined, or, in the alternative, means simply “a separate entity within the supply chain.” SAP’s preferred definition is “a supply chain entity that is not subject to the control or authority of, and is unrelated to, each other supply chain entity.” The Court adopts SAP’s construction, with the proviso that “each” refers to each supply chain entity referenced in that particular claim term, not necessarily each site in the entire supply chain.

At least three factors support the Court’s conclusion. First, ecommerce’s proposed construction would render the term “independent” mere surplusage. As a general rule, “[c]laims must be ‘interpreted with an eye toward giving effect to all terms in the claim.’” Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP, 616 F.3d 1249, 1257 (Fed. Cir. 2010) (quoting Bicon, Inc. v. Straumann Co., 441 F.3d 945, 950 (Fed Cir. 2006)). Even without use of the term “independent,” supply chain sites would have to be separate entities. (See, e.g., ’903 Patent, 2:23-26 (“The present invention facilitates the relationships between the OEM, distributor, CMs and vendors (collectively, the ‘sites’) in the context of raw materials flow through the supply chain.”).) Defining “independent” as merely “separate” essentially writes the word “independent” out of the term.

Second, SAP’s construction is more consistent with the manner in which the term “independent” is used in the patent specification.<sup>1</sup> “[T]he specification ‘is always highly relevant

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<sup>1</sup> The specification is “that part of a patent application which precedes the claim and in which the inventor specifies, describes, and discloses the invention in detail.” J. Thomas McCarthy, McCarthy’s Desk Encyclopedia of Intellectual Property 408 (2d ed. 1995).

to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” Phillips, 415 F.3d at 1315 (quoting Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996)). In this case, the specification includes the following passage:

In the past, teams of Information Technology software engineers have typically re-engineered the existing systems. This can be a huge data conversion and software integration effort, even at a single site, and becomes much more problematic when trying to make the data uniform across independent contract manufacturers and vendors who likely will not be eager to redesign their business method and database.

(’903 Patent, 5:42-49.) By implication, then, these “independent” sites must be unrelated and not subject to one another’s control. Were it otherwise, getting each site to coordinate its “business method and database” with those of the other sites would not present a challenge requiring use of the invention. Thus, the text of the specification counsels in favor of SAP’s construction.

Third, the prosecution history supports SAP’s construction. “Like the specification, the prosecution history provides evidence of how the [United States Patent and Trademark Office (‘PTO’)] and the inventor understood the patent.” Phillips, 415 F.3d at 1317. In this case, the prosecution history buttresses the determination that “independent” sites must be unrelated.

In 2002, the PTO rejected an earlier version of the ’903 Patent as obvious under 35 U.S.C. § 103(a) in light of the Huang patent (No. 5,953,703). (elcommerce’s Opening Br., Ex. 5\_000231.) To distinguish the eventual ’903 patent from Huang, elcommerce added the term “independent” to the phrase “supply chain sites.” (Id. at Ex. 5\_000220.) elcommerce argued to the PTO that the proposed invention was different from Huang because Huang was addressed to “an intra-enterprise system,” whereas the proposed invention “suggests monitoring of

independent supply chain sites within a supply chain.” (Id. at Ex. 5\_000215) (emphasis in original.) That “independent” was added to distinguish the eventual ’903 Patent from a prior invention that addressed related entities is strong evidence that “independent” limits the phrase “supply chain sites” to only those sites that are not related to one another or subject to one another’s control.

Moreover, elcommerce continues to invoke the term “independent” in reexamination proceedings before the PTO to distinguish the ’903 Patent from prior art. (See SAP Supplemental Br., Ex. A.) These references also support the conclusion that the term “independent,” as used in the patent, means that two supply chain sites must be unrelated to one another. (See, e.g., id., Ex. A at 48 (stating that a prior invention “suggests that . . . ‘inter-enterprise data warehouses’ are for companies that are related to each other, and not directed to companies that are independent entities, as in the present invention.”)) (emphasis added).

Thus, the file history, including the reexamination proceedings, supports SAP’s interpretation of the term “independent supply chain sites.”

Two other points raised by elcommerce on this issue merit further discussion. First, elcommerce argued at the Markman Hearing that using the term “each” in the definition of “independent supply chain sites” was improper because some of the disputed terms refer only to a limited number of sites. (See, e.g., ’903 Patent, 15:67-16:1 (“ . . . the first supply chain site being independent of a second supply chain site . . .”).) This is a red herring. As used in SAP’s proposed definition, the word “each” refers only to each other site referenced in that particular claim term. (See Markman Hr’g Tr. at 69 (“[E]ach is clearly intending to convey each of the claim’s supply chain entities so they put up a slide that said a first and a second. We mean each

to mean the first and second. In other words, it's the supply chain entity in the claims. If you wanted to say each claimed supply chain entity that would be fine.”).)

Second, elcommerce protests against SAP's use of general purpose dictionaries in formulating this and others of its definitions. However, there is no prohibition against using dictionaries to aid in the claim construction process. See Phillips, 415 F.3d at 1314. Moreover, after examining the text of the claims, specification and prosecution history, it is clear that the intrinsic record supports SAP's proposed definition, and not elcommerce's. That SAP's definition of “independent” was originally derived from a general purpose dictionary is no bar to adoption of that definition by the Court.

In conclusion, the Court defines “independent supply chain site” as “a supply chain entity that is not subject to the control or authority of, and is unrelated to, each other supply chain entity,” with the proviso that “each” refers to each supply chain entity referenced in that particular claim term, not necessarily each site in the entire supply chain.

## *2. Extracting Supply-Related Data or Information*

The Court next turns to the meaning of “extracting supply-related data or information.” Though the parties initially debated the meaning of the word “extracting,” at the Markman Hearing, they finally agreed that the term could be defined as “copying data and removing the copy and/or the data.” (Markman Hr'g Tr. at 135.) The Court adopts this construction.

This agreement still leaves for the Court the question of where the data extraction occurs. SAP argues that the extraction must occur at independent supply chain sites, while elcommerce argues that the term is not so limited. SAP again has the better argument.

The language of the specification strongly supports SAP's position. The Abstract to the

'903 Patent begins, "A method of monitoring supply chain activity throughout a plurality of supply chain sites includes extracting, at each supply chain site, supply-related data to be monitored." (emphasis added). The Summary of the Invention<sup>2</sup> includes similar language. (See id. at 2:31-34.)

The Federal Circuit has commented:

Although a statement's location is not "determinative," the location can signal the likelihood that the statement will support a limiting definition of a claim term. Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term. . . . Statements that describe the invention as a whole are more likely to be found in certain sections of the specification, such as the Summary of the Invention.

C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 864 (Fed. Cir. 2004).

The clear language of the Summary of the Invention describes a process wherein a DTE is installed at, and extracts data from, the independent supply chain sites. ('903 Patent, 1:61-66 ("The present invention eliminates much of the confusion which results from redesigning one or more complex legacy systems. Instead, legacy systems are left intact, and a data transfer engine ('DTE') is installed at each site. The DTE monitors the local system continuously, and takes whatever information is available.")) These statements in the specification that "describe the invention as a whole" provide strong evidence that extraction of supply-related data must take place at each independent supply chain site.

Prosecution history also supports SAP's proposed construction. elcommerce's communications with the PTO consistently described extraction of supply-related data occurring

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<sup>2</sup> The Summary of the Invention is a "concise description of the entire claimed invention as conceived at the time of filing." Flexhead Indus., Inc. v. Easyflex, Inc., No. 06-11897, 2008 WL 4813797, at \*3 (D.Mass. Nov. 3, 2008).

at the independent supply chain sites. (See elcommerce’s Opening Br., Ex. 5\_000213 (“The supply chain is monitored by extracting supply-related data from those independent sites.”) (emphasis omitted).)

elcommerce argues that imposing the limitation that extraction must take place at independent supply chain sites runs afoul of the doctrine of claim differentiation. Specifically, elcommerce asserts that since the term “extract” is not used identically in all instances, applying the same definition to each term is inappropriate. Claim differentiation, however, “only creates a presumption that each claim in a patent has a different scope; it is ‘not a hard and fast rule of construction.’” Kraft Foods, Inc. v. Int’l Trading Co., 203 F.3d 1362, 1368 (Fed. Cir. 2000) (quoting Comark Commc’ns, Inc. v. Harris Corp., 156 F.3d 1182, 1187 (Fed. Cir. 1998)). Importantly, the “doctrine of claim differentiation can not broaden claims beyond their correct scope, determined in light of the specification and the prosecution history and any relevant extrinsic evidence. . . . [C]laims that are written in different words may ultimately cover substantially the same subject matter.” Seachange Int’l, Inc. v. C-COR, Inc., 413 F.3d 1361, 1369 (Fed. Cir. 2005) (quoting Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1480 (Fed. Cir.1998)). In this case, the Abstract and the Summary of the Invention make clear that extracting must take place at the independent supply chain sites, and the mere fact that the wording of each claim term is not exactly the same does not change the analysis.

Thus, the Court defines the disputed terms relating to “extracting supply-related data or information” as “copying data or information and removing the copy and/or the data or information” with this extraction process occurring at “each independent supply chain site.” As with the definition of “independent supply chain site,” “each” refers to each site referenced in the

claim term, not necessarily each site in the entire supply chain.

### 3. *Scanning, Detecting and Monitoring for Changed Supply-Related Data*

The three other disputed terms are “scanning,” “detecting” and “monitoring for changed supply-related data.” The parties raise two issues: first, the terms’ meaning, and second, where the activities occur.

On the first point, SAP recommends the words “scanning,” “detecting” and “monitoring” be defined as “searching,” “determining,” and “keeping track of,” respectively. elcommerce argues that the terms should not be construed, and the jury should simply be instructed to give the terms their “plain and ordinary meaning” without further elaboration. A court has the duty to resolve the parties’ claim construction disputes so the issues are not litigated before the jury. See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1361 (Fed. Cir. 2008). That said, elcommerce is correct that a court may resolve the dispute by simply instructing the jury to evaluate a term in light of its “plain and ordinary meaning.” Finjan, Inc. v. Secure Computing Corp., 626 F.3d 1197, 1207 (Fed. Cir. 2010). In this case, the Court concludes that “scanning,” “detecting” and “monitoring” are all common terms with “ordinary meaning that need not be constructed arbitrarily to understand the claim language.” Winstron Corp. v. Samsung Elecs. Co., No. C07-4748, 2008 WL 5055545, at \*7 (N. D. Cal. Nov. 25, 2008). Thus, the jury will be instructed to give these words their “plain and ordinary meaning.”

In addition, SAP asks that the phrase “by comparing supply-related data with data previously sent to the data collection site,” or similar language, be inserted into the definition for each of these terms. SAP’s definition derives from elcommerce’s comments to the PTO. (See, e.g., SAP’s Resp. Br., Ex. A at HBSR00011936-37 (“Supply-related data, which may be

proprietary, is monitored at each of the supply chain sites, and changes in the supply-related data are detected, for example, by comparing the supply-related data with data previously sent to the data collection site.”.) The Court concludes, however, that these references alone, without more support from the language of the patent itself, are insufficient to import the proposed phrase into the three definitions.

As to the second issue, the Court concludes that all three tasks must be performed at “each independent supply chain site.” The Court’s decision is based on similar reasoning to that set forth in the preceding discussion of extraction. The Summary of the Invention, which addresses the patent as a whole, makes clear that these functions take place at each independent supply chain site. (See, e.g., ’903 Patent, 1:63-66 (“[A] data transfer engine (‘DTE’) is installed at each site. The DTE monitors the local system continuously, and takes whatever information is available.”).) The language of the claims themselves offers further support for this conclusion. (See, e.g., id. at 16:5-16:7 (stating that the DTE installed at an independent supply chain site “detect[s] changes in the respective proprietary information . . .”).)

Therefore, the Court defines the final three terms as “scanning for,” “detecting” or “monitoring for, at each independent supply chain site, changed supply-related data or information.” As with the definition of “independent supply chain site,” “each” refers to each site referenced in the claim term, not necessarily each site in the entire supply chain. The jury will be instructed to give the words “scanning,” “detecting” and “monitoring” their “plain and ordinary meanings.”

#### **IV. MEANS-PLUS-FUNCTION TERMS**

The next set of disputes centers on whether a series of terms, expressed as a means for

accomplishing a task, are indefinite under 35 U.S.C. § 112 ¶ 2 because the specification contains insufficient supporting structure under 35 U.S.C. § 112 ¶ 6. The disputed terms are as follows:

- Means for monitoring changed supply-related data (Claim 37)
- Means for extracting (Claim 37)
- Means for publishing (Claim 37)
- Means for translating (Claim 37)
- Means for uploading and collecting (Claim 37)
- Means for formatting (Claim 37)
- Means for monitoring inbound data (Claim 37)
- Encryption means (Claim 25)
- Input means (Claim 22)
- Means for detecting a problem condition (Claim 37)
- Means for responding to a problem condition (Claim 37)

The Court concludes, for the reasons set forth below, that all of the disputed terms are indefinite because the specification contains insufficient structure under 35 U.S.C. § 112 ¶ 6.

#### A. Legal Standard

35 U.S.C. § 112 ¶ 6 provides:

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

This provision allows a patentee to “define the structure for performing a particular function generically through the use of a means expression,” rather than through a description of the structure itself. Kemco Sales, Inc. v. Control Papers Co., 208 F.3d 1352, 1360 (Fed. Cir. 2000).

As a “quid pro quo” for the convenience of employing this paragraph, a patentee must, in the patent, “clearly link or associate structure to the claimed function.” Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1377 (Fed. Cir. 2001). If the specification of the patent does not disclose sufficient corresponding structure, the claim is indefinite under 35 U.S.C. § 112 ¶ 2 and therefore

invalid. See Biomedino, LLC v. Waters Techs. Corp., 490 F.3d 946, 952-53 (Fed. Cir. 2007). Since a patent is entitled to a presumption of validity under 35 U.S.C. § 282, the party urging indefiniteness must adduce “clear and convincing” evidence that the claims are not valid to succeed. Glaxo Grp., Ltd. v. Apotex, Inc., 376 F.3d 1339, 1348 (Fed. Cir. 2004).<sup>3</sup>

Analysis of a means-plus-function term proceeds in two steps. First, the court determines what function is claimed. AllVoice Computing PLC v. Nuance Commc’ns, Inc., 504 F.3d 1236, 1240 (Fed. Cir. 2007). Second, the court identifies which structure performs the function. Id. In assessing whether the asserted structure is sufficient, a court must proceed from the perspective of one ordinarily skilled in the art of the particular patent. Id. at 1241. However, “the testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification.” Default Proof Credit Card Sys., Inc. v. Home Depot U.S.A., Inc., 412 F.3d 1291, 1302 (Fed. Cir. 2005). To the contrary, “the inquiry asks first whether structure is described in [the] specification, and, if so, whether one skilled in the art would identify the structure from that description.” Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374, 1381 (Fed. Cir. 1999) (emphasis in original).

Where a function is implemented in software, the relevant structure is the algorithm or process describing in the specification how the software works, not simply “software” or a “computer” in general. WMS Gaming, Inc. v. Int’l Game Tech., 184 F.3d 1339, 1348 (Fed. Cir. 1999). If the specification does not describe such an algorithm, the claim fails for indefiniteness. Aristocrat Techs. Australia Pty Ltd. v. Int’l Game Tech., 521 F.3d 1328, 1333 (Fed. Cir. 2008).

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<sup>3</sup> The Supreme Court recently granted certiorari in a case that raises the question whether the “clear and convincing evidence” standard applies to all challenges for invalidity. See Microsoft Corp. v. i4i P’ship, Ltd., 131 S. Ct. 647 (2010).

Assessment of definiteness of a means-plus-function term is, like other issues in claim construction, a question of law for the court. Personalized Media Commc'ns, LLC v. Int'l Trade Comm'n, 161 F.3d 696, 702-03 (Fed. Cir. 1998).

## B. Analysis

The parties do not dispute that all of the terms at issue are means-plus-function terms governed by 35 U.S.C. § 112 ¶ 6. They also agree on what function is claimed in each term. Thus, the only issue for the Court to resolve is whether the specification discloses sufficient structure for each claimed function. SAP asserts that the specification discloses no such structure; elcommerce disagrees. The Court concludes that SAP is correct.

### 1. *Means for Monitoring Changed Supply-Related Data*

The first disputed term, appearing in Claim 37, is “means for monitoring changed supply-related data at independent supply chain sites within the supply chain.” The function claimed is “monitoring changed supply-related data at independent supply chain.” elcommerce points to both the DTE and DCS as possible supporting structures. Neither, however, is sufficient structure.

First, the patent describes the DTE almost exclusively in functional terms. As to this disputed term, the specification discloses, “The DTE monitors the local system continuously, and takes whatever information is available.” ('903 Patent, 1:64-66.) But this describes only what the DTE does, not what it is or how it achieves its mission. The DTE is thus “essentially a black box that performs a recited function. But how it does so is left undisclosed.” Blackboard, Inc. v. Desire2Learn Inc., 574 F.3d 1371, 1383 (Fed. Cir. 2009).

The patent does state that the DTE is “preferably implemented in software.” ('903 Patent,

5:58-59.) As noted above, however, where a function is implemented in software, the relevant structure is the algorithm or process describing in the specification how the software works. WMS Gaming, 184 F.3d at 1348. If the specification does not describe such an algorithm, the claim fails for indefiniteness. Blackboard, 574 F.3d at 1384; Aristocrat, 521 F.3d at 1333. In this case, the patent fails to describe an algorithm for how software implementing the DTE would operate. The bare assertion that the DTE is “preferably implemented in software” cannot supply the needed structure for this term.

Therefore, the DTE is not sufficient corresponding structure.

Second, the patent describes the DCS as “preferably a distributor or an OEM.” (’903 Patent, 2:5-6.) A distributor and an OEM are both participants in the supply chain, but the specification fails to link these locations to this particular monitoring task. See Telcordia Techs., Inc. v. Cisco Sys., Inc., 612 F.3d 1365, 1376 (Fed. Cir. 2010) (“[T]he written description must clearly link or associate structure to the claimed function.”). Moreover, the DCS is described in the patent as the location for monitoring inbound data, not changed supply-related data. (See, e.g., ’903 Patent, 3:7-9 (“In a further embodiment, the inbound data received from the multiple supply chain sites is monitored at the data collection site.”) (emphasis added).) Therefore, the DCS is not a sufficient corresponding structure for the term “means for monitoring changed supply-related data.”

In sum, the term “means for monitoring changed supply-related data at independent supply chain sites within the supply chain” in Claim 37 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

## 2. *Means for Extracting*

The next disputed term, also in Claim 37, is “means for extracting, at each supply chain site, the supply-related data to be monitored.” The function claimed is “extracting, at each supply chain site, the supply-related data to be monitored.” elcommerce identifies the DTE, a Web server and a Web browser as corresponding structure. Again, the structure is insufficient.

The DTE fails for the same reasons as with the monitoring term described above: its relationship to extraction is described in purely functional terms. (See, e.g., ’903 Patent, 6:7-14.) Regarding the Web browser and Web server, these purported structures fail because the specification fails to “clearly link” them to the extracting function. Moreover, there is no algorithm describing how they perform their function.

The “means for extracting” term in Claim 37 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

## 3. *Means for Publishing*

The parties next contest the term “means for publishing the formatted data view to the user’s supply chain site,” which also appears in Claim 37. The function claimed is “publishing the formatted data view to the user’s supply chain site.” elcommerce avers that the DCS and publisher are sufficient corresponding structure. The Court concludes otherwise.

The ’903 Patent states that the publisher is “for publishing data.” (’903 Patent, 2:46-47.) This, however, is a purely functional definition and does not reveal what the publisher is. Like the DTE, it is merely a “black box.” Blackboard, 574 F.3d at 1383. In addition, the specification describes the outcome of the publishing process. (’903 Patent, 2:42-44 (“Finally, the formatted data view is published to the user’s supply chain site.”).) Mere description of an outcome,

however, is only “another way of describing the claimed function,” not a description of structure. Aristocrat, 528 F.3d at 1334. Thus, the publisher cannot constitute sufficient structure.

Likewise, the DCS cannot provide the necessary corresponding structure. Its only link to the publishing process is as the location for the publisher. (See ’903 Patent, 6:14-23.) The specification utterly fails to explain how, if at all, the DCS performs any sort of publishing function. Thus, the DCS does not support elcommerce’s position on structure for this term.

The “means for publishing” term in Claim 37 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

#### 4. *Means for Translating*

Next, the Court will examine the term “means for translating the data to a common format,” which also appears in Claim 37. The function claimed is “translating the data to a common format.” elcommerce asserts that the DTE and DCS are corresponding structure; the Court disagrees.

The specification only states that the DTE translates data without explaining what it is or how it performs the task. (See ’903 Patent, 5:59-64.) As for the DCS, the specification describes it as a location where data is translated but does not in any way state that the DCS actually performs the function. (Id. at 2:54-56.) Neither the DCS nor the DTE is sufficient corresponding structure.

The “means for translating” term in Claim 37 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

#### 5. *Means for Uploading and Collecting*

The fifth disputed term is “means for uploading and collecting, from each supply chain

site, the extracted data to a data collection site,” which also appears in Claim 37. The function claimed is “uploading and collecting, from each supply chain site, the extracted data to a data collection site.” elcommerce again points to the DTE and DCS as supporting structure, and again, the Court finds them insufficient.

As with the other terms, the specification merely identifies that the DTE performs the recited function; it does not explain what the DTE is or the process it uses to upload data. Likewise, the specification does not disclose how the DCS collects data. To the contrary, the specification reveals that the DCS is a location where data is collected, not a structure that actually collects data. (See '903 Patent, 5:52-56.)

The “means for uploading and collecting” term in Claim 37 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

#### 6. *Means for Formatting*

Sixth, the Court must address the term “means for formatting, at the data collection site, a portion of the collected data,” which also appears in Claim 37. The claimed function is “formatting, at the data collection site, a portion of the collected data.” elcommerce identifies the DTE, DCS and publisher as corresponding structure; the Court finds them insufficient.

First, there is nothing in the patent that links the DTE to the formatting function. Second, there is nothing that links the DCS to the function, other than the publisher’s location within the DCS. Third, as with the publishing function described above, the specification describes the publisher’s role in terms of its function and the outcomes it generates. (See, e.g., '903 Patent, 3:40-42 (“Data is displayed in a window at a site’s display according to a category selected by a

user at the site, in response to authorization granted, for example, to the site, or to the user.”.)

There is no description of how the publisher formats data or what the publisher is, outside of the functions it performs.

The “means for formatting” term in Claim 37 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

#### *7. Means for Monitoring Inbound Data*

Next, the parties contest the term “means for monitoring, at the data collection site, inbound data from multiple supply chain sites,” which appears in Claim 37. The claimed function is “monitoring, at the data collection site, inbound data from multiple supply chain sites.” elcommerce points to the DCS as corresponding structure, but this response is unavailing. The specification discloses that this monitoring activity takes place at the DCS. (’903 Patent, 3:7-9.) However, this reference fails to establish that the DCS actually performs the monitoring, much less how it does so.

The “means for monitoring inbound data” term in Claim 37 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

#### *8. Encryption Means*

Eighth, the Court will assess the term “encryption means for encrypting the data before transferring,” which appears in Claim 25. The claimed function is “encrypting the data before transferring.” elcommerce argues that the DTE is the corresponding structure. Once again, the Court disagrees.

The specification does disclose that “the DTE comprises encryption means.” (’903

Patent, 14:65-66.) But there is no disclosure of how the DTE accomplishes that task. elcommerce argues that “one of ordinary skill in the art would readily understand how to program the DTE to encrypt data.” (elcommerce’s Opening Br. at 40.) The question under 35 U.S.C. § 112 ¶ 6, however, is not whether one of ordinary skill in the art could conceive of a way to program the DTE to encrypt data; rather, the patent itself must sufficiently disclose the programming for one of ordinary skill in the art to implement. See Aristocrat, 521 F.3d at 1337.

The “encryption means” term in Claim 25 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

#### 9. *Input Means*

Next, the parties contest the term “input means for allowing a user associated with a supply chain site to query the data collector for supply-related data retrieved from one of the supply chain sites other than the site of the user,” which appears in Claim 22. The claimed function is “allowing a user associated with a supply chain site to query the data collector for supply-related data retrieved from one of the supply chain sites other than the site of the user.” elcommerce asserts that the publisher, GUI,<sup>4</sup> monitor, mouse and keyboard are all corresponding structures. The Court concludes that none of them suffices.

First, the publisher, as noted previously, is defined only in terms of function and outcome and cannot provide supporting structure. Second, the specification does not contain any language clearly linking the other purported structures to the function and fails to describe how they “allow[]

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<sup>4</sup> Although not defined by elcommerce, “GUI” is an abbreviation for graphical user interface, “a technology by which the operator performs functions not by typing at the keyboard but by clicks of his mouse.” United States v. Microsoft Corp., 147 F.3d 935, 938 (D.C. Cir. 1998).

a user associated with a supply chain site to query the data collector for supply-related data.” This failure to clearly link purported structure to function is fatal to elcommerce’s position. Telcordia, 612 F.3d at 1376.

The “input means” term in Claim 22 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

#### 10. *Means for Detecting a Problem Condition*

Tenth, the Court must evaluate the term “means for detecting a problem condition if there is a supply chain surplus or shortage detected,” which appears in Claim 37. The claimed function is “detecting a problem condition if there is a supply chain surplus or shortage detected.” elcommerce argues that “filters” are the corresponding structure. The Court concludes otherwise. All of the references to filters in the specification describe either the function filters perform or the outcome of their activity. (See, e.g., ’903 Patent, 10:6-12.) There is no disclosure of an algorithm of how the filters perform their task.

The “means for detecting a problem condition” term in Claim 37 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

#### 11. *Means for Responding to a Problem Condition*

Finally, the parties raise disputes over the term “means for responding to a problem condition by asserting an alert,” which appears in Claim 37. The function claimed is “responding to the problem condition by asserting an alert.” elcommerce argues that the corresponding structures are “alert indicators.” The Court disagrees. The specification discloses only that alert indicators can be used to perform the function, not what alert indicators are or how they

accomplish their task. (See '903 Patent, Abstract.)

The “means for responding a problem condition” term in Claim 37 lacks sufficient corresponding structure under 35 U.S.C. § 112 ¶ 6. The term is therefore indefinite under 35 U.S.C. § 112 ¶ 2.

#### 12. *elcommerce’s Counter-Arguments are Inapposite*

elcommerce raises two further arguments that apply to most if not all of the means-plus-function terms and merit further brief discussion. First, elcommerce maintains that simply referring to items such as a DTE or a publisher can, by itself, satisfy the structure requirement of 35 U.S.C. § 112 ¶ 6. However, the cases elcommerce cites in support of its position are inapposite. Those cases stand for the proposition that a simple recitation of structure can be sufficient where there is evidence that the terms used have a well-understood meaning in the art. See, e.g., S3 Inc. v. Nvidia Corp., 259 F.3d 1364, 1371 (Fed. Cir. 2001) (holding the term “selector” adequate because of “uncontradicted evidence . . . that a selector is [a] well known electronic structure and performs a common electronic function, and is readily implemented from the description in the specification”). There is no such evidence in this case.

Second, elcommerce protests that SAP has not produced “one iota” of evidence about how one of ordinary skill in the art would interpret the terms elcommerce asserts represent corresponding structure for the various means-plus-function terms. (Markman Hr’g Tr. at 245.) However, “the testimony of one of ordinary skill in the art cannot supplant the total absence of structure from the specification.” Default Proof, 412 F.3d at 1302; see also Biomedino, 490 F.3d at 952. As the Court concludes that elcommerce has failed to describe structure at all, there is no need for SAP to introduce evidence, such as expert testimony, about whether one skilled in the

art would perceive the description sufficiently definite to satisfy the dictates of 35 U.S.C. § 112 ¶ 6.

Therefore, contrary to elcommerce's arguments, the Court concludes that all eleven of the disputed means-plus-function terms are indefinite under 35 U.S.C. § 112 ¶ 2.

## **V. CONCLUSION**

For the foregoing reasons, the Court (1) defines the terms requiring construction as set forth in this Memorandum and (2) concludes that all the disputed means-plus-function claim terms are indefinite. An appropriate order follows.

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

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<b>ELCOMMERCE.COM, INC.,</b>	:	<b>CIVIL ACTION</b>
	:	
<b>Plaintiff-Counter-Defendant,</b>	:	
	:	
<b>v.</b>	:	<b>NO. 09 - 4458</b>
	:	
<b>SAP AG and SAP AMERICA, INC.,</b>	:	
	:	
<b>Defendants-Counter-Plaintiffs.</b>	:	

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**ORDER**

**AND NOW**, this 28th day of February 2011, upon consideration of the Joint Claim Construction and Prehearing Statement (Document No. 51, filed September 17, 2010), Plaintiff elcommerce's Opening Claim Construction Brief (Document No. 52, filed October 1, 2010), Defendants' Responsive Claim Construction Brief (Document No. 54, filed October 29, 2010), Plaintiff elcommerce's Reply Claim Construction Brief (Document No. 56, filed November 12, 2010), Letter of David J. Wolfsohn, interpreted by the Court as a Supplemental Claim Construction Brief (Document No. 68, filed January 11, 2011) and Plaintiff elcommerce's Supplemental Claim Construction Brief (Document No. 72, filed January 19, 2011), following a Markman Hearing held December 1, 2010, for the reasons set forth in the Memorandum dated February 28, 2011, **IT IS ORDERED** as follows:

1. The disputed claim terms in U.S. Patent Number 6,947,903 are **DEFINED** as follows:

- a. “Independent supply chain site” – appearing in some form in Claims 1, 22, 37, 38, 50, 53 and 54 – **MEANS** “a supply chain entity that is not subject to the control or authority of, and is unrelated to, each other supply chain entity”;
- b. “Extracting supply-related data or information” – appearing in some form in Claims 1, 22, 37, 38, 50, 53 and 54 – **MEANS** “copying data or information and removing the copy and/or the data or information” with this extraction process occurring at “each independent supply chain site”;
- c. “Scanning for changed supply-related data or information” – appearing in some form in Claims 1 and 50 – **MEANS** “scanning, at each independent supply chain site, for changed supply-related data or information”;
- d. “Detecting changed supply-related data or information” – appearing in some form in Claims 22, 38 and 53 – **MEANS** “detecting, at each independent supply chain site, changed supply-related data or information”;
- e. “Monitoring for changed supply-related data or information” – appearing in some form in Claims 37 and 54 – **MEANS** “monitoring for, at each independent supply chain site, changed supply-related data or information”; and
- f. “Each,” as used in the definitions set forth in 1(a)-(e), supra, **REFERS** to each supply chain entity referenced in the particular claim term, not necessarily each site in the entire supply chain; and

2. The following claim terms are **DECLARED INDEFINITE** under 35 U.S.C. § 112 ¶ 2 for failure to identify corresponding structure, as required by 35 U.S.C. § 112 ¶ 6:
- a. The term “means for monitoring changed supply-related data at independent supply chain sites within the supply chain,” which appears in Claim 37;
  - b. The term “means for extracting, at each supply chain site, the supply-related data to be monitored,” which appears in Claim 37;
  - c. The term “means for publishing the formatted data view to the user’s supply chain site,” which appears in Claim 37;
  - d. The term “means for translating the data to a common format,” which appears in Claim 37;
  - e. The term “means for uploading and collecting, from each supply chain site, the extracted data to a data collection site,” which appears in Claim 37;
  - f. The term “means for formatting, at the data collection site, a portion of the collected data,” which appears in Claim 37;
  - g. The term “means for monitoring, at the data collection site, inbound data from multiple supply chain sites,” which appears in Claim 37;
  - h. The term “means for detecting a problem condition if there is a supply chain surplus or shortage detected,” which appears in Claim 37;
  - i. The term “means for responding to a problem condition by asserting an alert,” which appears in Claim 37;

- j. The term “input means for allowing a user associated with a supply chain site to query the data collector for supply-related data retrieved from one of the supply chain sites other than the site of the user,” which appears in Claim 22; and
- k. The term “encryption means for encrypting the data before transferring,” which appears in Claim 25.

**BY THE COURT:**

**/s/ Hon. Jan E. DuBois**  
**JAN E. DUBOIS, J.**