

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

TRUEPOSITION, INC.,	:	
	:	
Plaintiff,	:	
	:	C. A. No. 12-646-RGA-MPT
v.	:	
	:	
POLARIS WIRELESS, INC.,	:	
	:	
Defendant.	:	

REPORT AND RECOMMENDATION

I. INTRODUCTION

This patent infringement matter was instituted on May 23, 2012 by TruePosition, Inc. (“TP”) against Polaris Wireless, Inc. (“Polaris”) for alleged infringement claims 98, 113 and 114 of U.S. Patent No. 7,783,299 (the “’299 patent”).¹ Polaris answered, which included affirmative defenses, on July 27, 2012,² and subsequently moved to transfer this action to the United States District Court for the Northern District of California (“NDCA”) pursuant to 28 U.S.C. § 1404(a).³ That motion was denied on October 25, 2012.⁴ Thereafter, on June 4, 2013, Polaris filed a petition with the United States Patent and Trademark Office (“PTO”) requesting *inter parties* review (“IPR”) of claims 113 and 114 of the ‘299 patent.⁵ On July 12, 2013, a month later, Polaris moved to stay this action pending the IPR.⁶ That motion was denied on October 21, 2013.⁷ The

¹ D.I. 1.

² D.I. 10.

³ D.I. 14; see D.I. 15.

⁴ *TruePosition, Inc. v. Polaris Wireless, Inc.*, C.A. No. 12-646-RGA/MPT, 2012 WL 5289782 (D. Del. Oct. 25, 2012); see also, D.I. 45.

⁵ Claim 98 is not a subject of Polaris’s IPR petition.

⁶ D.I. 129.

⁷ *TruePosition, Inc. v. Polaris Wireless, Inc.*, C.A. No. 12-646-RGA/MPT, 2013 WL 5701529 (D. Del. Oct. 21, 2013); see also, D.I. 205.

technology tutorial occurred on August 22, 2013, and claim construction briefing began on August 30, 2013 and was completed by September 20, 2013.⁸ The *Markman* hearing occurred on October 18, 2013.⁹

II. BACKGROUND¹⁰

A. Wireless Communications Technology

The parties' geolocation systems involved in this litigation operate with wireless communications using the Global System for Mobile Communications ("GSM") protocol, an accepted air interface protocol employed world-wide. The GSM cellular network includes a mobile device, such as a cell phone, that communicates with a radio tower, called a cell tower, covering a certain area referred to as a cell. Each cell tower is connected to a Base Transceiver Station ("BTS"), and one or more BTSs are connected to a Base Station Controller ("BSC") through an Abis link. The BSCs are, in turn, connected to a Mobile Switching Center ("MSC"), through the A link. The MSC is connected to the device hosting the GSM Mobile Application Protocol ("GSM MAP") by the GSM MAP link. GSM MAP allows for such services as roaming, authentication, intersystem switching and Short Message Service (SMS; "text message") routing.¹¹

Communication by the various network components with each other over the signaling links of the GSM network as noted above occurs through use of network

⁸ See D.I. 160, 163, 169, and 171.

⁹ During the *Markman* Hearing, the parties were required to reorganize and re-file their claim construction briefs and exhibits as ordered. Those briefs were filed on November 4, 2013 and November 6, 2013. As a result, reference in this opinion will be to the re-filed briefs and associated exhibits found at D.I. 200 and D.I. 204.

¹⁰ All information and facts included in this Report and Recommendation are taken primarily from the parties' re-filed joint briefs, associated exhibits, and oral argument.

¹¹ See D.I. 200 at 2-3.

transactions. A network transaction is described as a network event involving a message or message sequence.¹² The GSM network uses standardized messages and message contents published by the 3rd Generation Partnership Project (“3GPP”), which are broken up into standard data fields.¹³ Both the messages and their data are useful in geolocation.

B. The ‘299 Patent

The ‘299 patent, which claims priority to the U.S. Patent 6,782,264 (the “‘264 patent”), was filed on June 10, 2005, and issued on August 24, 2010.¹⁴ In the Abstract, the ‘299 patent is directed to:

Method and systems are employed by wireless location system (WLS) for locating a wireless device operating in a geographic area served by a wireless communications system.¹⁵

As a “substantial extension of the system described” in the ‘264 patent, the ‘299 patent, through the use of a Link Monitoring System (“LMS”), obtains data from a cellular telephone system by expanding the types of signaling links previously described in the ‘264 patent, thus enabling it to detect more messages, which carry additional information, usable to determine the cell phones to locate and when to locate them:¹⁶

For example, while the ‘264 patent describes a system that monitors communications between a base transceiver station [BTS] and base station controller [BSC], and forwards mobile station (MS) information to a Wireless Location System [WLS] for emergency call location, the advanced location-based services application described herein utilize

¹² See *Id.*, Ex. A (the ‘299 patent) at 12:66-67; 26:36-48.

¹³ *Id.*, Ex. A at 7:54-8:11. As an example, plaintiff referenced the CM Service Request message that has a mobile identity field, identifying the mobile station associate with a specific transaction. See *id.*, Ex. A at 23:54-56.

¹⁴ *Id.*, Ex. A at 1:7-19.

¹⁵ *Id.*, Ex. A, Abstract.

¹⁶ *Id.*, Ex. A at 7:43-46.

additional network messages as triggering events and information sources for a wide variety of location-based services.¹⁷

Asserted claims 98, 113 and 114 are independent claims directed to a system for monitoring certain links to detect certain transactions for location services, by addressing the concern of locating a mobile device when it is unknown when the device will transmit or receive.

Described in the '299 patent are "network transactions" and "triggers." A network transaction, also referenced as network events,¹⁸ is described as a "message or message sequence potentially useful to the advanced trigger invention."¹⁹ The patent describes a "trigger" may be the message itself, the content of the monitored messages, or a combination of both with stored information:

LMS triggers include message-type triggers, when the message itself is the location triggering event, and triggers based on the contents of the monitored messages where a network transaction and a filter are both necessary. By combining these triggers with LMS stored information, a third type of trigger, the complex trigger, can be produced. Any of the three types of triggers can be set to cause (trigger) a location estimation procedure.²⁰

III. CLAIMS-AT-ISSUE

TP alleges Polaris infringes claims 98, 113, and 114 of the '299 patent.

Claim 98 of the '299 patent recites:

98. A wireless location system (WLS) configured to be overlaid on a wireless communications system, the WLS comprising:

¹⁷ *Id.*, Ex. A at 7:46-53.

¹⁸ *Id.*, Ex. A at 26:42-43.

¹⁹ *Id.*, Ex. A at 12:66-67. *See also id.*, Ex. A at 26:36-41 which states "[a]dvanced triggers allow for radio or network events (corresponding to specific messages or groups of messages detectable by the LMS 11 or RNM 82) to generate high and low accuracy estimates. A triggering event, one that initiates a location estimation, may be a detection of a particular message or field within a specific message."

²⁰ *Id.*, Ex. A at 22:59-66.

a plurality of location measuring units (LMUs) capable of being co-located with a corresponding base transceiver station (BTS) of the wireless communications system;

a link monitoring system (LMS) including a mechanism for detecting at least one predefined network transaction involving a predefined trigger occurring on at least one predefined signaling link;

a serving mobile location center (SMLC) for locating a wireless device based on radio signals transmitted by the wireless device;

wherein said LMS is configured for monitoring predefined signaling links of the wireless communications system, said signaling links including at least an A link and a GSM-MAP link; and

wherein the system is configured to detect said at least one predefined network transaction and, in response thereto, to correlate mobile identity data (MSID) detected on the A link with a mobile station ISDN (MSISDN) detected on the GSM-MAP link for the wireless device associated with said predefined network transaction, and to launch at least one predefined location service.²¹

Claim 113 of the '299 patent recites:

113. A system for use by a wireless location system (WLS) for locating a wireless device operating in a geographic area served by a wireless communications system, comprising:

means for monitoring a set of predefined signaling links of the wireless communications system, wherein said predefined signaling links include at least an Abis link between a base transceiver station (BTS) and a base station controller (BSC), wherein said monitoring comprises passively monitoring said set of predefined links such that the operation of said wireless device and said wireless communications system is unaffected by said monitoring, and wherein said predefined network transaction comprises at least one of a mobile origination transaction and a mobile termination transaction;

means for detecting at least one predefined network transaction involving a predefined trigger occurring on at least one of said

²¹ '299 patent, claim 98.

predefined signaling links; and

means for initiating at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger.²²

Claim 114 of the '299 patent recites:

114. A system for use by a wireless location system (WLS) for locating a wireless device operating in a geographic area served by a wireless communications system, comprising:

means for monitoring a set of predefined signaling links of the wireless communications system, wherein said predefined signaling links include at least an Abis link between a base transceiver station (BTS) and a base station controller (BSC), wherein said monitoring comprises passively monitoring said set of predefined links such that the operation of said wireless device and said wireless communications system is unaffected by said monitoring;

means for detecting at least one predefined network transaction involving a predefined trigger occurring on at least one of said predefined signaling links, wherein said predefined trigger comprises at least one of a dialed digit trigger and a Mobile Station Identification (MSID) trigger; and

means for initiating at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger.²³

IV. LEGAL PRINCIPLES

A. Claim Construction: Intrinsic and Extrinsic Evidence

Under the guidelines of *Phillips v. AWH Corp.*, the primary evidence for construing patent claims is intrinsic evidence, that is, the words of the claims themselves, the patent specification, and the prosecution history.²⁴ “The words of a

²² '299 patent, claim 113.

²³ '299 patent, claim 114.

²⁴ 415 F.3d 1303, 1312-17, 1319 (Fed. Cir. 2005) (*en banc*).

claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history.”²⁵ The Federal Circuit has stated “[t]here are only two exceptions to this general rule: 1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.”²⁶

“To act as its own lexicographer, a patentee must ‘clearly set forth a definition of the disputed claim term’ other than its plain and ordinary meaning.”²⁷ “It is not enough for a patentee to simply disclose a single embodiment or use a word in the same manner in all embodiments, the patentee must ‘clearly express an intent’ to redefine the term.”²⁸

The standard for disavowal of claim scope is similarly exacting.

‘Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question.’ *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1341 (Fed. Cir. 2001). ‘The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.’ *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d

²⁵ *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*)); see also *Phillips*, 415 F.3d at 1313 (“We have made clear . . . that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” (citing *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004))).

²⁶ *Thorner*, 669 F.3d at 1365 (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1580 (Fed. Cir. 1996)).

²⁷ *Id.* (quoting *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)).

²⁸ *Id.* (quoting *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1381 (Fed. Cir. 2008)).

1313, 1325 (Fed. Cir. 2002).²⁹

As with its explanation of a patentee acting as its own lexicographer, the Federal Circuit stated “[i]t is likewise not enough that the only embodiments, or all of the embodiments contain a particular limitation.”³⁰ The court concluded: “[w]e do not read limitations from the specification into claims; we do not redefine words. Only the patentee can do that. To constitute disclaimer, there must be a clear and unmistakable disclaimer.”³¹

“[T]he single best guide to the meaning of a dispute term” is the specification, which is both “highly relevant to the claim construction analysis,” and usually dispositive.³² The specification, however, cannot be used to read limitations into the claims.³³ Although the specification “provide[s] a context to illuminate the meaning of claim terms,”³⁴ the court should not interpret those claim terms “by adding limitations appearing only in the specification.”³⁵ The general rule is that unless the claims themselves so limit, “the claims of a patent are not limited to the preferred embodiment” set forth in the specification.³⁶ Further, the same claim term “is presumed to have the same meaning throughout all of the claims in the absence of any reason to believe otherwise.”³⁷ Similarly, the prosecution history also provides insight regarding proper

²⁹ *Id.* at 1366.

³⁰ *Id.*

³¹ *Id.* at 1366-67.

³² *Victronics Corp.*, 90 F.3d at 1582.

³³ *Thorner*, 669 F.3d at 1366-67.

³⁴ *Abtox, Inc. v. Exitron Corp.*, 122 F.3d 1019, 1023 (Fed. Cir. 1997).

³⁵ *Electro Medical Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

³⁶ *Karlin Technology, Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 973 (Fed. Cir. 1999); see also *Laitram Corp. v. NEC Corp.*, 163 F.3d 1342 (Fed. Cir. 1998) (stating that “the mere repetition in the written description of a preferred aspect of a claimed invention does not limit the scope of an invention that is described in the claims in different and broader terms”).

³⁷ *Digital-Vending Servs. Int'l, LLC v. Univ. of Phoenix, Inc.*, 672 F.3d 1270, 1275 (Fed. Cir. 2012) (citations omitted).

construction because it is “created by the patentee in attempting to explain and obtain the patent,” thereby providing contemporaneous “evidence of how the PTO and inventor understood the patent.”³⁸

Although extrinsic evidence may be used to assist in the court’s analysis to determine the meaning of claim terms, only when the court is “unable to determine the meaning of the asserted claims after assessing the intrinsic evidence” should the court consider extrinsic evidence.³⁹ That is, only if ambiguity remains as to the meaning of a claim after reviewing the intrinsic evidence should a court consider extrinsic evidence, such as, expert or inventor testimony.⁴⁰

B. Means-Plus-Function Language

The parties agree that claims 113 and 114 contain terms in a means-plus-function format triggering application of 35 U.S.C. § 112, ¶ 6. Where the patentee phrased a claim in a means-plus-function format, the claim term will only cover the corresponding structure or step, or its equivalents, disclosed in the specification.⁴¹ Means-plus-function format is where the limitation does not describe a specific structure, but instead describes a function and claims a “means for” accomplishing that function. Under 35 U.S.C. § 112, ¶ 6, limitations drafted in means-plus-function form are construed to “cover the [functionally] corresponding structure, material, or act described in the specification and equivalents thereof.”⁴² Section 112, ¶ 6 provides a

³⁸ *Phillips*, 415 F.3d at 1317.

³⁹ See *Bell Atlantic Network Servs., Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1269 (Fed. Cir. 2001).

⁴⁰ *Vitronics Corp.*, 90 F.3d at 1584.

⁴¹ *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1368 (Fed. Cir. 2002) (citations omitted).

⁴² *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1266-67 (Fed. Cir. 1999).

compromise to patentees: patentees may express a limitation in their patent claims “as a means or a step for performing a specified function without the recital or structure . . . in support thereof; such a claim, however, will not be interpreted to cover all structures . . . which would perform that function,” but only “the corresponding structure . . . described in the specification and equivalents thereof.”⁴³ The duty to link or associate structure to a claimed function is the *quid pro quo* for the convenience of employing the means-plus-function claiming technique of § 112, ¶ 6.⁴⁴

“Claim construction of a means-plus-function limitation includes two steps. First, the court must determine the claimed function. Second, the court must identify the corresponding structure in the written description of the patent that performs that function.”⁴⁵

Regarding a computer-implemented invention “where the inventor invoked means-plus-function claiming, [the Federal Circuit] has consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor.”⁴⁶ By requiring the patentee to “disclose particular structure in the specification and that the scope of the patent claims be limited to that structure and its equivalents is to avoid pure functional claiming.”⁴⁷ Claiming a means for performing a particular structure by only disclosing a general purpose computer as the structure

⁴³ 35 U.S.C. § 112, ¶ 6; *see also J&M Corp. v. Harley-Davidson, Inc.*, 269 F.3d 1360, 1367 (Fed. Cir. 2001) (“the scope of such [means-plus-function] claim language is sharply limited to the structure disclosed in the specification and its equivalents”).

⁴⁴ *B. Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997).

⁴⁵ *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1333 (Fed. Cir. 2006).

⁴⁶ *Aristocrat Techs. Australia Pty Ltd. v. Int’l Gaming Technology*, 521 F.3d 1328, 1333 (Fed. Cir. 2008).

⁴⁷ *Id.*

“designed to perform that function” constitutes “pure functional claiming.”⁴⁸

The Federal Circuit has also construed the means-plus-function limitation to cover only the algorithm disclosed in the specification, where the corresponding disclosed structure was a special purpose computer programmed to perform the disclosed algorithm, and not a general purpose computer.⁴⁹ In contrast, however, where the claims at issue do not claim “a specific function performed by a special purpose computer” by merely reciting the claimed functions of “processing,” “receiving,” and “storing,” since such “functions can be achieved by any general purpose computer without special programming,” disclosure of additional structure beyond a general purpose processor which performs those functions is unnecessary.⁵⁰

V. CLAIM CONSTRUCTION

1. *means for monitoring* (claim 113)

Function

The parties agree the function of “means for monitoring” in claim 113 is, at least:

monitoring a set of predefined signaling links of the wireless communications system, wherein said predefined signaling links include at least an Abis link between a base transceiver station (BTS) and a base station controller (BSC), wherein said monitoring comprises passively monitoring said set of predefined links such that the operation of said wireless device and said wireless communications system is unaffected by said monitoring.

Polaris includes in its definition of function the above language followed by “and wherein said predefined network transaction comprises at least one of a mobile origination

⁴⁸ *Id.*

⁴⁹ *WMS Gaming, Inc. v. Int'l Game Technology*, 184 F.3d 1339, 1348-49 (Fed. Cir. 1999).

⁵⁰ *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (finding such functions as “coextensive with the structure disclosed, i.e., a general purpose processor”).

transaction and a mobile termination transaction.”

TP argues the additional language suggested by Polaris is incorrect because the “wherein predefined network transaction” clause defines the “means for detecting” clause’s “at least one predefined network transaction.”⁵¹ It contends defining the “predefined network transactions” is not related to the monitoring function.⁵² The court agrees with TP.

Again, claim 113 recites:

113. A system for use by a wireless location system (WLS) for locating a wireless device operating in a geographic area served by a wireless communications system, comprising:

means for monitoring a set of predefined signaling links of the wireless communications system, wherein said predefined signaling links include at least an Abis link between a base transceiver station (BTS) and a base station controller (BSC), wherein said monitoring comprises passively monitoring said set of predefined links such that the operation of said wireless device and said wireless communications system is unaffected by said monitoring, and wherein said predefined network transaction comprises at least one of a mobile origination transaction and a mobile termination transaction;

means for detecting at least one predefined network transaction involving a predefined trigger occurring on at least one of said predefined signaling links; and

means for initiating at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger.

The “predefined network transaction” is defined as “compris[ing] at least one of a mobile origination transaction and a mobile termination transaction.” The claim then

⁵¹ D.I. 200 at 10.

⁵² *Id.*

requires “detecting at least one *predefined* network transaction.” Finally, the claim requires “initiating at least one predefined location service *in response to* the detection of said at least one predefined network transaction.” Thus, the “predefined network transaction” is part of the function of the “means for detecting” limitation rather than part of the function of the “means for monitoring” or “means for initiating” limitations because “a set of predefined signaling links” is monitored, a “predefined network transaction” is then detected, and, finally, a “predefined location service” is initiated in response to “the detection of said at least one predefined network transaction.” Consequently, the court adopts TP’s functional construction for “means for monitoring.”

Corresponding Structure

TP contends the corresponding structure that performs the function of the claimed “means for monitoring” is “hardware programmed to perform the monitoring function. The hardware is a computer(s) or server(s).”⁵³ With regard to the algorithm for “means for monitoring,” TP proposes: “passively monitor for and passively receive data for messages or data fields within messages on the BTS-BSC link and to save messages or data from these messages, which can be formatted according to different air interface standards.”⁵⁴ According to TP, the stepped procedure of receiving and saving (or storing) in its proposed algorithm is sufficient disclosure to support the “means for monitoring” limitation.⁵⁵

⁵³ D.I. 152 at 3 (citing ‘299 patent, 8:37-39; 10:33-41; 11:5-10; 11:15-24; 42:54-60; 42:65-43:1; 21:55-56; 22:39-40; 24:45-46; 26:19-20; 27:2-3; 27:66-67; 30:15-16; 30:48-50; 31:26-27; 31:49-52).

⁵⁴ *Id.* at 4 (citing ‘299 patent, 4:43-44; 9:7-11; 10:32-41; 11:5-24; 21:55-56; 22:39-40; 24:45-46; 26:19-20; 27:2-3; 27:66-67; 30:15-16; 30:48-50; 31:26-27; 31:49-52; 43:17-27).

⁵⁵ See *Typhoon Touch Techs., Inc. v. Dell, inc.*, 659 F.3d 1376, 1384-85 (Fed. Cir. 2011) (In the context of § 112, ¶ 6, “[t]he usage ‘algorithm’ in computer systems has broad meaning . . . whether in mathematical formula, or a word description of the procedure to be implemented by a suitably

Polaris states the '299 patent explains the link monitoring system link monitoring system (LMS 11) performs the function of the “means for monitoring.”⁵⁶ Polaris asserts the “LMS is at least in part a computer that is programmed to perform a series of functions”⁵⁷ but, “[a]lthough the '299 patent states that the LMS performs the above function, the '299 patent does not disclose an algorithm for the LMS to execute and perform that function.”⁵⁸ As a result, Polaris concludes this means-plus-function limitation lacks sufficient disclosure of structure under 35 U.S.C. § 112, ¶ 6 and is, therefore, indefinite under 35 U.S.C. § 112, ¶ 2.⁵⁹

The parties apparently agree that the corresponding structure is hardware, such

programmed computer. . . . [T]he term ‘algorithm’ as a term of art in its broad sense [is] to identify a step-by-step procedure for accomplishing a given result. . . . [T]he preferred definition of ‘algorithm’ in the computer art is: ‘A fixed step-by-step procedure for accomplishing a given result; usually a simplified procedure for solving a complex problem, also a full statement of a finite number of steps.’ Precedent and practice permit a patentee to express that procedural algorithm in any understandable terms including as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure.”) (internal citations and quotation marks omitted).

⁵⁶ D.I. 152 at 3 (citing '299 patent, 9:7-10; 11:5-11; 23:30-24:60; 24:61-26:34).

⁵⁷ *Id.* (citing '299 patent, 8:40-44).

⁵⁸ *Id.*

⁵⁹ Alternatively, if the court rejects Polaris’ indefiniteness argument, it suggests “Link Monitoring system 11: a computer or server configured to capture messages across the Abis link and perform the recited function.” *Id.* at 4 (citing '299 patent, 8:37-44; 9:7-10; 11:5-11; 23:30-24:60; 24:61-26:34; Figure 1). It proposes this alternate structure for each of the means-plus-function terms at issue, although citing different portions of the specification. *See id.* at 5, 7, 10, 11, 13. At the *Markman* hearing, Polaris stated with its alternative proposal, it was trying to explain “that there is . . . one link monitoring system that does all of these different things, but that there is no specific algorithm associated with means for monitoring that does any of these things. . . . We pointed I think to the hardware generally, the link monitoring system that generally does all of these things, but there’s no specific algorithm that discloses the structure for any of these individual means [for monitoring, detecting, or initiating]. . . . [W]e cited to the same LMS, the link monitoring system, as the only thing that’s disclosed, because alternatively, we just decided to cite to the link monitoring system generally. But the problem is still existing.” Tr. *Markman* hearing (Oct. 23, 2013) at 56:14-58:8. Because Polaris’ alternative structure is the same for each of the different means-plus-function terms at issue, and because it insists there is no specific algorithm that discloses the structure for any of those terms, the court rejects Polaris’ alternative structure as to each of the disputed terms.

The parties have the same general disagreements regarding the corresponding structures of the parallel means-plus-function limitations in claim 114, the only difference being claim 114 is directed to transactions involving one of two *specific* predefined triggers, a dialed digit and a Mobile Station Identification (MSID) trigger. *See* D.I. 200 at 32-34. As a result, the court’s determination of adequate disclosure of an algorithm or indefiniteness as to claim 113 applies equally with regard to claim 114.

as a computer or server, programmed to perform the monitoring function.⁶⁰ They disagree as to whether the specification discloses an algorithm to perform the recited function.

TP argues its proposed structure, passively receiving and storing messages or data, is sufficient structure to defeat Polaris' indefiniteness argument. As support it points to the Federal Circuit's decision in *AllVoice Computing PLC v. Nuance Communications, Inc.* where the court found sufficient structure disclosed for the claimed "output means" with the specification's disclosure that "[t]he speech recognition interface application 12 receives the recognized word . . . and outputs the word using the dynamic data exchange . . . protocol in the Windows operating system."⁶¹ The court also noted the record contained a statement from an expert:

set[ting] forth several straightforward ways that the algorithm . . . could be implemented by one skilled in the art using well-known features of the Windows operating system . . . [and the expert] observed that "[a] person skilled in the art reading the #273 specification would know that any of these techniques could be used to determine the position of a recognized word in the third party application, would know the software to use and how to implement it."⁶²

The court concluded "[the expert] supplied the only assessment in this record of the adequacy of the specification to disclose enough steps to constitute an actual algorithm

⁶⁰ For instance, the specification gives as an example, "[t]he LMS can be implemented, with modifications, on the same hardware/software chassis as the Abis Monitor (a set of custom applications with unmodified Agilent Access7 software application running on a cluster of Intel TSEMT2 or TSRLT2 UNIX servers)." '299 patent, 8:39-44.

⁶¹ 504 F.3d 1236, 1241 (Fed. Cir. 2007) (emphasis added). TP also cites *Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1386 (Fed. Cir. 2011) as support where the court found sufficient structure disclosed for the claimed "means for cross-referencing" with the specification's disclosure that "cross-referencing entails the steps of data *entry*, then *storage* of data in memory, then the *search* in a library of responses, then the *determination* if a match exists, and then *reporting* action if a match is found." (emphasis added).

⁶² *AllVoice Computing*, 504 F.3d at 1245-46 (third alteration in original).

for carrying out the functions claimed in the means-plus-function clauses [of the claims at issue].”⁶³

The court agrees with TP that the specification supports its proposed algorithm.

With regard to the “receiving” portion of TP’s construction, the specification recites:

The Link Monitoring System allows for passive, non-intrusive monitoring of, for example, the GSM, GSM-R, GPRS, and UTMS systems. In the exemplary case of a GSM system, the LMS can *passively receive data streams* from the Abis (BTS-BSC) interface⁶⁴

In the exemplary case of a GPRS system, the LMS can *passively receive data streams* from the Abis (BTS-BSC or BTS-PCU) interface⁶⁵

With regard to the “saving” portion of TP’s construction, the specification recites:

The LMS 11 continuously monitors all Abis signaling links 76 . . . in a network 10 to which the LMS 11 is connected. The function of the LMS 11 is *to capture messages in the cell* (e.g., a GMS voice conversation or a GPRS data session) and SMS setup procedure, mid-call control messages, and call termination and release messages for MSs 80.⁶⁶

Thus, the court concludes TP’s proposed algorithm is supported by the disclosure in specification of the ‘299 patent.

Further, TP submits evidence that one of skill in the art would have understood that disclosure. Reviewing the definiteness requirement of 35 U.S.C. § 112, ¶ 2

⁶³ *Id.* at 1246. In *Aristocrat Techs. Australia Pty Ltd. v. International Game Tech.*, the plaintiff relied on the statement in *AllVoice Computing* “that in software cases ‘algorithms in the specification need only disclose adequate defining structure to render the bounds of the claim understandable to one of ordinary skill in the art’” to argue the district court had improperly reached an invalidity determination. 521 F.3d 1328, 1337 (Fed. Cir. 2008). The court distinguished *AllVoice Computing* stating, “[i]t is certainly true that the sufficiency of the disclosure of algorithmic structure must be judged in light of what one of ordinary skill in the art would understand the disclosure to impart. That principle, however, has no application here, because in this case there was *no algorithm at all disclosed in the specification.*” *Id.* (emphasis added) (internal citations omitted).

⁶⁴ ‘299 patent, 11:5-9 (emphasis added).

⁶⁵ ‘299 patent, 11:15-17 (emphasis added).

⁶⁶ ‘299 patent, 9:7-14 (emphasis added). The court agrees with TP’s contention that “capturing” is synonymous with “saving.”

“requires attention to the level of skill assigned to a person of ordinary skill in the art.”⁶⁷

According to TP’s expert, Oded Gottesman, Ph.D.:

I believe that a person of ordinary skill in the art mobile device location and wireless communications systems from 2001 to the present would be someone with a bachelor’s or master’s degree in electrical engineering, physics, computer science, or similar technical discipline, or someone with the equivalent of such a bachelor’s or masters degree with experience or knowledge of cellular communications and mobile device locations techniques. Further, a person of ordinary skill in the art would have the knowledge and ability to program a computer using various programming languages, such as C or C++.⁶⁸

Polaris indicates no disagreement with that characterization of a person of skill in the art pertinent to the ‘299 patent.

Gottesman avers in his declaration: “[t]he stepped procedure of receiving and storing is an algorithm that a person of ordinary skill in the art could readily program computer hardware to perform the ‘means for monitoring’ function of claims 113 and 114 with the knowledge provided in the ‘299 patent.”⁶⁹ He also provided examples of how the algorithm could be implemented by one of skill in the art.⁷⁰ Polaris, though disagreeing with TP that a sufficient algorithm is disclosed, did not present expert evidence that the algorithm proposed by TP could not be implemented by one of skill in the art.

Because Polaris has not established, by clear and convincing evidence that “means for monitoring” is indefinite, the court adopts TP’s proposed corresponding structure and algorithm for this term.

⁶⁷ *AllVoice Computing*, 504 F.3d at 1240.

⁶⁸ D.I. 204, Ex. G (Decl. of Oded Gottesman, Ph.D) at ¶ 39.

⁶⁹ *Id.*, Ex. G at ¶ 61.

⁷⁰ *Id.*, Ex. G at ¶¶ 62-65.

2. *means for monitoring* (claim 114)

Function

The parties agree the function of “means for monitoring” in claim 114 is:

monitoring a set of predefined signaling links of the wireless communications system, wherein said predefined signaling links include at least an Abis link between a base transceiver station (BTS) and a base station controller (BSC), wherein said monitoring comprises passively monitoring said set of predefined links such that the operation of said wireless device and said wireless communications system is unaffected by said monitoring.

Because there is no dispute on this issue, the court adopts the parties’ proposed functional construction.

Corresponding Structure

TP’s proposed corresponding structure and algorithm for “means for monitoring” in claim 114 is the same as for claim 113.⁷¹ For the reasons discussed above, the court adopts TP’s proposed corresponding structure and algorithm for this term.

3. *means for detecting* (claim 113)

Function

The parties agree the function of “means for detecting” in claim 113 is, at least:

detecting at least one predefined network transaction involving a predefined trigger occurring on at least one of said predefined signaling links.

TP includes in its definition of function the above language followed by “wherein said predefined network transaction comprises at least one mobile origination transaction and a mobile termination transaction.”

⁷¹ See D.I. 152 at 9-10.

For the reasons discussed above with regard to the function of the “means for monitoring” limitation in claim 113, the court adopts TP’s proposed functional construction for this limitation.

Corresponding Structure

TP contends the corresponding structure that performs the function of the claimed “means for detecting” is “a computer(s) or server(s) programmed to detect a predefined network transaction that comprises at least one of a mobile origination or a mobile termination transaction involving a predefined trigger occurring on one of the predefined signaling links.”⁷² With regard to the algorithm for “means for detecting,” TP proposes: “[s]etting one or more indicia of a mobile origination or mobile termination transaction⁷³ and detecting a mobile origination or mobile termination transaction by comparing the one or more indicia of a mobile origination or mobile termination transaction with the monitored data to find a match.”⁷⁴ TP states:

The ‘299 patent discloses multiple specific embodiments of the means for detecting algorithm including SMS origination,⁷⁵ SMS termination,⁷⁶ multiple “mobile origination” embodiments,⁷⁷ initial channel assignment,⁷⁸ and multiple “mobile termination” embodiments.⁷⁹ The ‘299 patent discloses multiple trigger embodiments such as: the content of any of a

⁷² *Id.* at 4-5 (citing ‘299 patent, 8:37-39; 8:56-57; 10:32-43; 42:51-43:27).

⁷³ *Id.* at 5 (citing ‘299 patent, Fig. 3B Block 351; Fig. 3C Block 361; Fig. 3D Block 371; Fig. 3E Block 382).

⁷⁴ *Id.* (citing ‘299 patent, 10:42-44; 11:25-27; 13:1-2; and Fig. 3B Blocks 351, 355 (detecting portion); Fig. 3C Blocks 361, 365 (detecting portion); Fig. 3C Blocks 371, 375 (detecting portion); Fig. 3E Blocks 381, 385).

⁷⁵ *Id.* (citing ‘299 patent, Fig. 3B Blocks 351, 355 (detecting portion); 21:33-21:39; 21:54-55; 21:59-60).

⁷⁶ *Id.* (citing ‘299 patent, Fig. 3C Blocks 361, 365 (detecting portion); 22:25-35; 22:37-38; 22:43-45).

⁷⁷ *Id.* at 5-6 (citing ‘299 patent, Fig. 3D Blocks 371, 375 (detecting portion); 23:54-61; 24:9-12; 24:27-37; 24:44-45; 24:48).

⁷⁸ *Id.* at 6 (citing ‘299 patent, 13:66-67).

⁷⁹ *Id.* (citing ‘299 patent, 25:27-34, 25:50-56; 26:1-5; 26:17; Fig. 3E Blocks 381, 385).

SMS origination, SMS termination, mobile origination, initial channel assignment, or mobile termination messages;⁸⁰ a dialed digit trigger;⁸¹ an MSID trigger;⁸² a cell (CGI)/cell ID;⁸³ time;⁸⁴ lists of all mobile devices recently in a set of cells (CGI);⁸⁵ background location of all subscribers in a set of cells (CGI) (which includes MSID trigger);⁸⁶ a cause value;⁸⁷ and a location area code (LAC).⁸⁸

TP argues the stepped procedure of setting and comparing in its proposed algorithm is sufficient disclosure to support the “means for detecting” limitation.

Polaris states the ‘299 patent explains the link monitoring system (LMS 11) performs the function for the “means for detecting.”⁸⁹ Polaris asserts the “LMS is at least in part a computer that is programmed to perform a series of functions”⁹⁰ but, “[a]lthough the ‘299 patent states that the LMS performs the above function, the ‘299 patent does not disclose an algorithm for the LMS to execute and perform that function.”⁹¹ As a result, Polaris concludes this means-plus-function limitation lacks sufficient disclosure of structure under 35 U.S.C. § 112, ¶ 6 and is, therefore, indefinite under 35 U.S.C. § 112, ¶ 2.⁹²

The parties apparently agree that the corresponding structure is hardware, such as a computer or server, programmed to perform the detecting function. They disagree as to whether the specification discloses an algorithm to perform the recited function.

⁸⁰ *Id.* (citing ‘299 patent, 12:50-58; 13:18-14:8; 21:17-22:56; 22:66-26:48).

⁸¹ *Id.* (citing ‘299 patent, 26:48-27:23; 21:17-22:56; 22:66-26:48; 42:25-50).

⁸² *Id.* (citing ‘299 patent, 27:24-28:14; 21:17-22:56; 22:66-26:48; 29:58-30:31; 31:45-67).

⁸³ *Id.* (citing ‘299 patent, 23:9; 29:63; 30:21-22; 31:33-34; 31:50; 34:49-50).

⁸⁴ *Id.* (citing ‘299 patent, 31:24; 31:32-34; 31:53-55).

⁸⁵ *Id.* (citing ‘299 patent, 5:1-2).

⁸⁶ *Id.* (citing ‘299 patent, 5:2-3).

⁸⁷ *Id.* (citing ‘299 patent, 13:66-67).

⁸⁸ *Id.* (citing ‘299 patent, 23:9).

⁸⁹ *Id.* at 4 (citing ‘299 patent 8:59-64; 9:7-10; 9:49-54; 11:5-11; 13:6-15; 23:30-24:60; 24:61-26:34).

⁹⁰ *Id.* (citing ‘299 patent, 8:40-44).

⁹¹ *Id.*

⁹² *Id.* at 5.

The court determines the '299 patent does not disclose an algorithm to perform the “means for detecting” function. The first step of TP’s proposed algorithm is “setting one or more indicia of a mobile origination or mobile termination transaction.” In support, it cites a description of a filter⁹³ and Fig. 3B Block 351; Fig. 3C Block 361; Fig. 3D Block 371; and Fig. 3E Block 382.⁹⁴ Each of those blocks state “The Wireless Location System [“WLS”] Sets the . . . Trigger in the LMS.” Thus, the figures indicate the WLS, not the LMS which performs the detection function, performs the “setting [of] one or more indicia of a mobile origination or mobile termination transaction.” The specification confirms this, reciting:

*At step 371, the WLS sets [sic, sets] the mobile origination trigger in the LMS. The LMS can then begin monitoring for mobile origination at step 372. When a mobile device places a call at step 373, the mobile device and the wireless network exchange data to setup the call at step 374. The LMS can detect the call origination and can begin collecting the Cell-ID, Timing Advance, MSID, and frequency assignment step 375.*⁹⁵

It is the WLS that sets the trigger in the LMS, then the LMS can begin monitoring, after which, the LMS can detect call origination. Therefore, the “setting” function is not part of “detecting.” As a result, there is no algorithm tied to the function of the “means for detecting” and the claim is invalid as indefinite under 35 U.S.C. § 112, ¶ 2.

4. *means for detecting* (claim 114)

Function

The parties agree the function of “means for detecting” in claim 114 is:

⁹³ D.I. 200 at 20 (citing '299 patent, 13:1-2 (“The term ‘filter refers to pre-set rules in the LMS for analysis of the monitored data withing the transaction.”)).

⁹⁴ *Id.*

⁹⁵ '299 patent, 24:44-50 (emphasis added).

detecting at least one predefined network transaction involving a predefined trigger occurring on at least one of said predefined signaling links, wherein said predefined trigger comprises at least one of a dialed digit trigger and a Mobile Station Identification (MSID) trigger.

Because there is no dispute on this issue, the court adopts the parties' proposed functional construction for this limitation.

Corresponding Structure

TP's proposed corresponding structure for "means for detecting" in claim 114 is "a computer(s) or server(s) programmed to detect at least one predefined network transaction occurring on at least one predefined network transaction occurring on at least one of said predefined signaling links, wherein said predefined trigger comprises at least one of a dialed digit trigger and Mobile Station Identification (MSID) trigger."⁹⁶

With regard to the algorithm for "means for detecting" in claim 114, TP proposes:

"[s]etting one or more indicia of a network transaction involving at least one of a MSID or a dialed digit trigger⁹⁷ and detecting a predefined network transaction by comparing the one or more indicia of a network transaction involving at least one of a MSID or a dialed digit trigger with the monitored data to find a match."⁹⁸

For the reasons discussed above, the court determines there is no algorithm tied to the function of the "means for detecting" and the claim is invalid as indefinite under 35 U.S.C. § 112, ¶ 2.

5. *means for initiating* (claim 113)

⁹⁶ D.I. 152 at 11 (citing '299 patent, 8:37-37; 8:56-57; 10:33; 42:51-43:27).

⁹⁷ *Id.* (citing '299 patent, 13:1-2; Fig. 3B Block 351; Fig. 3C Block 361; Fig. 3C Block 371; Fig. 3E Block 382; Fig. 4 Block 410; Fig. 5A Block 510; 42:25-29; 42:29-30).

⁹⁸ *Id.* (citing '299 patent, 10:42-44; 11:25-27; 13:1-2; 26:48-28:14; Fig. 3B Block 355 (detecting portion); Fig. 3C Block 365 (detecting portion); Fig. 3D Block 375 (detecting portion); Fig. 3E Block 385; Fig. 4 Blocks 415, 425; Fig. 5A Blocks 515, 525; 42:35-37).

Function

The parties agree the function of “means for initiating” in claim 113 is:

initiating at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger.

Because there is no dispute on this issue, the court adopts the parties’ proposed functional construction for this limitation.

Corresponding Structure

TP contends the corresponding structure that performs the function of the claimed “means for initiating” is “a computer(s) or server(s) programmed to initiate at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger.”⁹⁹ With regard to the algorithm for “means for initiating,” TP proposes: “storing data associated with the detected network transaction comprising at least one of a mobile origination transaction and a mobile termination transaction involving a predefined trigger and forwarding the data to at least one predefined location service.”¹⁰⁰ TP states:

Multiple specific embodiments of the “means for initiating” algorithm with respect to mobile origination or mobile termination transactions are disclosed in the ‘299 patent. These embodiments include initial channel assignment messages,¹⁰¹ SMS origination messages,¹⁰² SMS termination messages,¹⁰³ multiple “mobile origination” embodiments,¹⁰⁴ and “mobile

⁹⁹ *Id.* at 7 (citing ‘299 patent, 8:40-44; 8:55-56; 8:59-61; 10:44-47; 11:27-38; 42:52-60; 42:65-43:27).

¹⁰⁰ *Id.* (citing ‘299 patent, 10:44-47; 11:27-31).

¹⁰¹ *Id.* (citing ‘299 patent, 13:65-14:5).

¹⁰² *Id.* at 7-8 (citing ‘299 patent, 22:1-3; Fig. 3B Block 359).

¹⁰³ *Id.* at 8 (citing ‘299 patent, 22:52-54; Fig 3C Block 369).

¹⁰⁴ *Id.* (citing ‘299 patent, 23:54-61; 24:35-37; 24:55-57; 27:7-23; 27:53-54; 28:2-4; 28:8-9; 30:22-24; 30:52-57; 42:39-41; 42:43-44; Fig. 3B Block 359; Fig. 3D Block 369; Fig. 3E Block 390; Fig. 4 Block 435 (tasks); Fig. 5A Block 535 (transfers); Fig. 6 Blocks 630, 650; Fig. 7 Blocks 730, 735 (transfers); Fig.

termination” embodiments.¹⁰⁵

TP argues the stepped procedure of storing and forwarding data in its proposed algorithm is sufficient disclosure to support the “means for initiating” limitation.

Polaris states the ‘299 patent explains the link monitoring system (LMS 11) performs the function of the “means for initiating.”¹⁰⁶ Polaris asserts the “LMS is at least in part a computer that is programmed to perform a series of functions”¹⁰⁷ but, “[a]lthough the ‘299 patent states that the LMS performs the above function, the ‘299 patent does not disclose an algorithm for the LMS to execute and perform that function.”¹⁰⁸ As a result, Polaris concludes this means-plus-function limitation lacks sufficient disclosure of structure under 35 U.S.C. § 112, ¶ 6 and is, therefore, indefinite under 35 U.S.C. § 112, ¶ 2.¹⁰⁹

The parties apparently agree that the corresponding structure is hardware, such as a computer or server, programmed to perform the initiating function. They disagree as to whether the specification discloses an algorithm to perform the recited function.

The court agrees with TP that the specification supports its proposed algorithm. For example, Fig. 3D, illustrating a “Mobile Origination Trigger,” (which immediately follows the detection step), contains Block 378 reciting “[t]he LMS stores the collected information locally and forwards the collected information to the WLS.” That information

3D Block 378; 31:29-31; 31:35-36).

¹⁰⁵ *Id.* (citing ‘299 patent, 26:30-32; Fig. 3E Block 390; 25:34-37; 25:56-62; 26:9-11; 27:7-23; 27:53-54; 28:2-4; 28:8-9; 30:22-24; 30:52-57; 42:39-41; 42:43-44; 31:29-31; 31:35-36; Fig. 3C Block 369; Fig. 4 Block 435 (tasks); Fig. 5A Block 535 (transfers); Fig. 6 Blocks 630, 650; Fig. 7 Blocks 730, 735 (transfers)).

¹⁰⁶ *Id.* at 7.

¹⁰⁷ *Id.* (citing ‘299 patent, 8:40-44).

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

is then sent to Block 379 wherein “The Wireless Location System then uses the collected information to generate a low-accuracy location and/or tune the LMU receiver network for a high-accuracy TDOA or AoA location.”¹¹⁰

The specification provides additional support where, for example, it explains explains that “when a match[, or detection,] occurs, the LMS may be further triggered to perform a pre-set action such as a write to storage memory or forwarding of the triggering message and (or) data filed to another system or mode.”¹¹¹

Thus, the court concludes TP’s proposed algorithm is supported by the disclosure in specification of the ‘299 patent and adopts its proposed corresponding structure and algorithm for this term.

6. *means for initiating* (claim 114)

Function

The parties agree the function of “means for initiating” in claim 114 is:

initiating at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger.

Because there is no dispute on this issue, the court adopts the parties’ proposed functional construction for this limitation.

Corresponding Structure

TP’s proposed corresponding structure for “means for initiating” in claim 114 is

¹¹⁰ ‘299 patent, Fig. 3D Blocks 378, 379; see also ‘299 patent, Fig. 3E (“Mobile Termination Trigger”) Blocks 390, 391 (same).

¹¹¹ ‘299 patent, 10:44-47; see also ‘299 patent, 11:27-31 (same); ‘299 patent, 24:55-59 (“The LMS can store the collected information locally and forward the collected information to a WLS for further analysis step 378. The WLS can use the collected information to perform a high or low accuracy location of the mobile at step 379.”).

the same as for claim 113.¹¹² With regard to the algorithm for “means for initiating” in claim 114, TP proposes: “storing data associated with the detected network transaction involving a predefined trigger comprising at least one of a dialed digit trigger and a Mobile Station Identification (MSID) trigger and forwarding the data to at least one predefined location service.”¹¹³ TP states:

Multiple specific embodiments of the “means for initiating” algorithm with respect to MSID and dialed digit triggers are disclosed in the ‘299 patent¹¹⁴ including SMS origination transactions involving a dialed digit or MSID trigger,¹¹⁵ SMS termination transactions involving a dialed digit or MSID trigger,¹¹⁶ multiple “mobile origination” embodiments involving an MSID or dialed digit trigger,¹¹⁷ multiple “mobile termination” embodiments involving an MSID or dialed digit trigger,¹¹⁸ location update transactions involving an MSID trigger,¹¹⁹ identity response messages involving an MSID trigger,¹²⁰ and transactions described above that involve an MSID trigger,¹²¹ and transactions described above that involve a dialed digit trigger.¹²²

For the reasons discussed above, the court the court adopts TP’s proposed structure and algorithm for “means for initiating.”

7. *in response* (claims 98, 113, 114)

TP’s proposed construction of this term is “in reaction to.”¹²³

Polaris’ proposed construction is “a direct reaction to a specific stimulus.”¹²⁴

¹¹² See D.I. 152 at 13.

¹¹³ *Id.* at 13-14.

¹¹⁴ *Id.* at 14 (citing ‘299 patent, Fig. 4 Blocks 430, 435 (transfers); Fig. 5A Block 535).

¹¹⁵ *Id.* (citing ‘299 patent, 22:1-3; Fig. 3B Block 369).

¹¹⁶ *Id.* (citing ‘299 patent, 22:52-56; Fig. 3C Block 369).

¹¹⁷ *Id.* (citing ‘299 patent, 23:54-23:61; 24:16-18; 24:35-36; 24:55-57; 29:55-57; 30:22-24; Fig. 3D block 378).

¹¹⁸ *Id.* (citing ‘299 patent, 13:65-14:5; 25:34-37; 25:56-62; 26:9-11; 26:31-32; Fig. 3E Block 390).

¹¹⁹ *Id.* (citing ‘299 patent, 15:62-15:66).

¹²⁰ *Id.* (citing ‘299 patent, 20:6-10; Fig. 2 Blocks 255, 260).

¹²¹ *Id.* (citing ‘299 patent, 28:8-9; Fig. 5A Blocks 530, 535 (transfers); 42:39-41; 42:43).

¹²² *Id.* (citing ‘299 patent, 27:9; 27:11-13; 42:39-41; 42:43; Fig. 4 Blocks 430, 435 (tasks)).

¹²³ D.I. 200 at 34.

¹²⁴ D.I. 204 at 26.

The claims state, in relevant part: “the system is configured to detect said at least one predefined network transaction and, *in response* thereto, to correlate”;¹²⁵ and “initiating at least one predefined location service *in response* to the detection of said at least one predefined network transaction”¹²⁶ Polaris’ proposed construction limits the term “in response” to a “direct” reaction and excludes the possibility of an “indirect” reaction. The court finds neither the claim language nor the specification requires that narrow construction. Consequently the court adopts TP’s proposed construction and defines “in response” to mean “in reaction to.”

Order: The Court’s Claim Construction

At Wilmington, this 4th day of February, 2014, having heard oral argument, having reviewed the papers submitted with the parties’ proposed claim constructions, and having considered all of the parties’ arguments (whether or not explicitly discussed herein);

IT IS ORDERED that the disputed claim language in asserted claims of the patent-in-suit, as identified by the parties, shall be construed below consistent with the tenets of claim construction set forth by the United States Court of Appeals for the Federal Circuit in *Phillips v. AWH Corp.*,¹²⁷ as follows:

¹²⁵ ‘299 patent, claim 98 (emphasis added).

¹²⁶ ‘299 patent, claims 113 and 114 (emphasis added).

¹²⁷ 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*).

Claim Term	Construction
means for monitoring (claim 113)	<p>Function</p> <p>monitoring a set of predefined signaling links of the wireless communications system, wherein said predefined signaling links include at least an Abis link between a base transceiver station (BTS) and a base station controller (BSC), wherein said monitoring comprises passively monitoring said set of predefined links such that the operation of said wireless device and said wireless communications system is unaffected by said monitoring</p> <p>Corresponding Structure and Algorithm</p> <p>hardware programmed to perform the monitoring function. The hardware is a computer(s) or server(s)</p> <p>passively monitor for and passively receive data for messages or data fields within messages on the BTS-BSC link and to save messages or data from these messages, which can be formatted according to different air interface standards</p>

Claim Term	Construction
means for monitoring (claim 114)	<p>Function</p> <p>monitoring a set of predefined signaling links of the wireless communications system, wherein said predefined signaling links include at least an Abis link between a base transceiver station (BTS) and a base station controller (BSC), wherein said monitoring comprises passively monitoring said set of predefined links such that the operation of said wireless device and said wireless communications system is unaffected by said monitoring</p> <p>Corresponding Structure and Algorithm</p> <p>hardware programmed to perform the monitoring function. The hardware is a computer(s) or server(s)</p> <p>passively monitor for and passively receive data for messages or data fields within messages on the BTS-BSC link and to save messages or data from these messages, which can be formatted according to different air interface standards</p>
means for detecting (claim 113)	<p>Function</p> <p>detecting at least one predefined network transaction involving a predefined trigger occurring on at least one of said predefined signaling links, wherein said predefined network transaction comprises at least one mobile origination transaction and a mobile termination transaction</p> <p>Corresponding Structure and Algorithm</p> <p>indefinite under 35 U.S.C. § 112, ¶ 2</p>

Claim Term	Construction
means for detecting (claim 114)	<p>Function</p> <p>detecting at least one predefined network transaction involving a predefined trigger occurring on at least one of said predefined signaling links, wherein said predefined trigger comprises at least one of a dialed digit trigger and a Mobile Station Identification (MSID) trigger</p> <p>Corresponding Structure and Algorithm</p> <p>indefinite under 35 U.S.C. § 112, ¶ 2</p>
means for initiating (claim 113)	<p>Function</p> <p>initiating at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger</p> <p>Corresponding Structure and Algorithm</p> <p>a computer(s) or server(s) programmed to initiate at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger</p> <p>storing data associated with the detected network transaction comprising at least one of a mobile origination transaction and a mobile termination transaction involving a predefined trigger and forwarding the data to at least one predefined location service</p>

Claim Term	Construction
means for initiating (claim 114)	<p>Function</p> <p>initiating at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger</p> <p>Corresponding Structure and Algorithm</p> <p>a computer(s) or server(s) programmed to initiate at least one predefined location service in response to the detection of said at least one predefined network transaction involving a predefined trigger</p> <p>storing data associated with the detected network transaction involving a predefined trigger comprising at least one of a dialed digit trigger and a Mobile Station Identification (MSID) trigger and forwarding the data to at least one predefined location service</p>
in response (claims 98, 113, 114)	in reaction to

Pursuant to 28 U.S.C. § 636(b)(1)(A) and (B), FED. R. CIV. P. 72(b)(1), and D. DEL. LR 72.1, any objections to the Report and Recommendation shall be filed within fourteen (14) days limited to ten (10) pages after being served with the same. Any response shall be limited to ten (10) pages.

The parties are directed to the Court's Standing Order in Non-Pro Se Matters for Objections Filed under FED. R. CIV. P. 72 dated October 9, 2013, a copy of which is found on the Court's website (www.ded.uscourts.gov).

Dated: February 4, 2014

/s/ Mary Pat Thyng
UNITED STATES MAGISTRATE JUDGE