

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

**COMCAST CABLE
COMMUNICATIONS, LLC, TV WORKS,
LLC, and COMCAST MO GROUP, INC.,
Plaintiffs,**

v.

**SPRINT COMMUNICATIONS
COMPANY, LP, SPRINT SPECTRUM,
LP, and NEXTEL OPERATIONS, INC.,
Defendants.**

CIVIL ACTION

NO. 12-859

**SPRINT COMMUNICATIONS
COMPANY, LP, and SPRINT
SPECTRUM, LP,
Counterclaim-Plaintiffs,**

v.

**COMCAST CABLE
COMMUNICATIONS, LLC, COMCAST
IP PHONE, LLC, COMCAST BUSINESS
COMMUNICATIONS, LLC, and
COMCAST CABLE COMMUNICATIONS
MANAGEMENT, LLC,
Counterclaim-Defendants.**

DuBois, J.

August 15, 2014

MEMORANDUM

I. INTRODUCTION

Plaintiffs and counterclaim-defendants, Comcast Communications, LLC and related corporate entities (collectively “Comcast”), brought this action against defendants and counterclaim-plaintiffs, Sprint Communications Co., LP and related corporate entities (collectively “Sprint”), alleging infringement of its U.S. Patent No. 6,885,870 (“the ‘870 patent”) and U.S. Patent 5,987,323 (“the ‘323 patent”). Sprint filed a Counterclaim alleging infringement of its U.S. Patent No. 6,754,907 (“the ‘4,907 patent”), U.S. Patent No.

6,757,907 (“the ‘7,907 patent”), and U.S. Patent No. 6,727,916 (“the ‘916 patent”). After a five-day pre-*Markman* and *Markman* hearing, the Court construes the disputed claim terms identified by the parties in each of the remaining patents-in-suit.

II. PROCEDURAL BACKGROUND

Comcast filed the instant patent-infringement suit on February 17, 2012 against Sprint, alleging infringement of four of its U.S. Patents.¹ On May 14, 2012, Sprint filed an Answer and a Counterclaim, alleging infringement of seven of its U.S. Patents.² On June 6, 2012, Comcast filed a First Amended Complaint for Patent Infringement.³ Sprint filed an Amended Answer and Counterclaim on June 25, 2012.⁴

Pursuant to Case Management Order No. 1, the parties submitted a Joint Claim Construction Chart on October 4, 2013, setting forth their proposed constructions. Thereafter, on November 1, 2013, Comcast and Sprint each filed an Opening Claim Construction Brief, addressing the construction of the disputed terms in its own patents, and, on November 22, 2013, an Answering Claim Construction Brief, addressing the

¹ In its Complaint, Comcast alleged infringement of its U.S. Patent No. 7,684,391 (“the ‘391 patent”), U.S. Patent No. 6,885,870 (“the ‘870 patent”), U.S. Patent No. 5,987,323 (“the ‘323 patent”), U.S. Patent No. 6,112,305 (“the ‘305 patent”).

² In its Counterclaim, Sprint alleged infringement of its U.S. Patent No. 6,754,907 (“the ‘4,907 patent”), U.S. Patent No. 6,757,907 (“the ‘7,909 patent”), U.S. Patent No. 7,602,886 (“the ‘886 patent”), U.S. Patent No. 7,043,241 (“the ‘241 patent”); U.S. Patent No. 7,054,654 (“the ‘654 patent”), U.S. Patent No. 6,727,916 (“the ‘916 patent”), and U.S. patent No. 6,965,666 (“the ‘666 patent”).

³ In its First Amended Complaint, Comcast alleged infringement of the ‘870 patent, the ‘323 patent, the ‘305 patent, and U.S. Patent No. 5,991,271 (“the ‘271 patent”). Comcast has since withdrawn its allegations of infringement with respect to the ‘305 patent and ‘271 patent.

⁴ In its Amended Counterclaim, Sprint alleged infringement of the same seven patents included in its initial Counterclaim. Sprint has since withdrawn its allegations of infringement with respect to the ‘886 patent, the ‘241 patent, the ‘654 patent, and the ‘666 patent.

construction of the disputed terms in each other's patents. Through the meet-and-confer and briefing process, the parties significantly narrowed the number of terms, claims, and patents in dispute.

On January 22, 23, and 24, 2014, the Court held the first part of a pre-*Markman* and *Markman* hearing, which included technology tutorials and oral argument on the proper construction of the disputed claim terms in Sprint's '4,907, '7,907, and '916 patents and Comcast's '323 and '870 patents.⁵ During that hearing, it became apparent that the parties' initial Joint Claim Construction Chart was deficient.

At the conclusion of the third day of the *Markman* hearing on January 24, 2014, the Court issued an Order requiring that the parties submit an amended joint claim construction chart. In this Order, the parties were directed to include in that updated chart, *inter alia*, (1) a statement of the impact of each disputed claim term on the parties' infringement and invalidity contentions in order to place claim construction in proper context, and (2) with respect to those terms as to which a party asserts that "the plain and ordinary meaning of the term should control," a statement of "precisely what that 'plain and ordinary meaning' is in the form of a proposed alternative construction." After submission of the Amended Joint Claim Construction Chart on February 14, 2014, the Court conducted the second part of the *Markman* hearing on February 24 and 25, 2014, at which it briefly returned to Sprint's '916 patent to ask several follow-up questions, which had been left unanswered.⁶

⁵ The Court also heard argument on Sprint's '886 patent at the hearing on January 24, 2014. By letter dated June 17, 2014, counsel for Sprint and Comcast notified the Court that Sprint withdrew its infringement allegations with respect to this patent.

⁶ The Court also heard argument on Comcast's '271 patent at the hearing on February 25, 2014 and Comcast's '654 patent at the hearing on February 26, 2014. By letter dated June 17, 2014, counsel for Sprint and Comcast jointly notified the Court that "Sprint has agreed to withdraw from this case [*inter alia*] all claims based on Sprint's U.S. Patent

Finally, given the complexity of the issues presented in this case and by agreement of the parties, on March 20, 2014, the Court appointed Dr. A. J. Nichols as technical advisor to assist the Court by explaining, when requested, the relevant technology required for claim construction with respect to the patents-in-suit. His role has been limited to that contemplated by the Memorandum and Order dated April 1, 2014, as revised by the Order dated April 21, 2014, setting forth the authority for, and terms and conditions of, his appointment.

III. 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 Court is not bound by the proposed constructions presented and argued by the parties. *See Marine Polymer Techs., Inc. v. HemCon, Inc.*, 672 F.3d 1350, 1359 n.4 (Fed. Cir. 2012) (en banc).

In construing claim terms, a court may look to any “source[] available to the public that show[s] what a person of skill in the art would have understood disputed claim language to mean.” *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004). “It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). “Such intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language.” *Id.* There are three primary sources of “intrinsic evidence”: (1) the claims, (2) the specification, and (3) the prosecution history. The Court addresses each category of intrinsic evidence in

No. . . . 7,054,654,” and “Comcast has agreed to withdraw from this case all claims based on Comcast’s U.S. Patent No. 5,991,271.”

turn.

First, a court must examine the language of the claims, as “[i]t is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water*, 381 F.3d 1111 at 1115). “[W]ords of a claim ‘are generally given their ordinary and customary meaning.’”⁷ *Id.* (quoting *Vitronics*, 90 F.3d at 1582). In examining the claims of the patent, both “the context in which a term is used in the asserted claim” and “[o]ther claims of the patent in question” “provide substantial guidance as to the meaning of particular claim terms.” *Id.* at 1314. “Differences among claims also can be a useful guide in understanding the meaning of particular claim terms.” *Id.* For example, under the doctrine of claim differentiation, “the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Id.* at 1315.

The second source of intrinsic evidence is the patent specification, which “contains a written description of the invention that must enable one of ordinary skill in the art to make and use the invention.” *Markman*, 52 F.3d at 979. “In light of the statutory directive that the inventor provide a ‘full’ and ‘exact’ description of the claimed invention, the specification necessarily informs the proper construction of the claims.” *Phillips*, 415 F.3d at 1316. For example, the specification may reveal “a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess” or “an

⁷ As reiterated by the U.S. Court of Appeals for the Federal Circuit in *Phillips v. AWH Corp.*, “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.” 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).

intentional disclaimer, or disavowal, of claim scope by the inventor.” *Id.* Not only is “[t]he specification . . . always highly relevant to claim construction,” but “[u]sually, it is dispositive.” *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002) (quoting *Vitronics*, 90 F.3d at 1582). The U.S. Court of Appeals for the Federal Circuit has described the specification as “the single best guide to the meaning of a disputed term.” *Id.* (quoting *Vitronics*, 90 F.3d at 1582); *see also, e.g., Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.3d 448, 452 (Fed. Cir. 1995) (“The specification is, thus, the primary basis for construing the claims.”).

The third source of intrinsic evidence is the patent’s prosecution history, which consists of “the complete record of proceedings before the [Patent and Trademark Office (PTO)] and includes the prior art cited during the examination of the patent.” *Phillips*, 415 F.3d at 1317. Like the specification, the prosecution history may be useful in revealing either a special meaning assigned by the patentee to the term or a disclaimer clarifying what the claims do not cover. *Id.* That said, “because the prosecution history represents an ongoing negotiation between the PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is [typically] less useful for claim construction purposes.” *Id.*

While the intrinsic record is most “significant . . . in determining the legally operative meaning of claim language,” the Court also may examine extrinsic evidence during the claim-construction process. *Id.* (quoting *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)) (internal quotation marks omitted). “Extrinsic evidence consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980.

“Because dictionaries, and especially technical dictionaries, endeavor to collect the accepted meanings of terms used in various fields of science and technology, [they] have been properly recognized as among the many tools that can assist the court in determining the meaning of particular terminology to those of skill in the art of the invention.” *Phillips*, 415 F.3d at 1318. Further, “it is entirely proper for . . . trial . . . judges to consult these materials at any stage of a litigation, regardless of whether they have been offered by a party in evidence or not.” *Tex. Digital Sys., Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1203 (Fed. Cir. 2002), *overruled on other grounds by Phillips*, 415 F.3d 1303.

Finally, there is no precise formula for how a court should weigh the different sources of evidence. Nor is “[t]he sequence of steps used by the judge in consulting various sources . . . important.” *Phillips*, 415 F.3d at 1324. Instead, “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; *see also id.* at 1324 (“[W]hat matters is for the court to attach the appropriate weight to be assigned to those sources in light of the statutes and policies that inform patent law.”).

IV. ‘916 PATENT

Sprint’s ‘916 Patent, entitled “Method and System for Assisting User to Engage in a Microbrowser-Based Interaction Chat Session,” was filed on December 21, 2000 and issued on April 27, 2004. Described in general terms, the patented invention consists of “a method and system for assisting a user to engage in an interactive chat session on a wireless handheld device,” which eliminates unnecessary keystrokes and reduces the need to switch back and forth between multiple screens while chatting. ‘916 patent at 1:10-12.

The parties have asked the Court to construe six terms in the ‘916 patent: (1) “card,”

(2) “choice card,” (3) “choice-items,” (4) “choice-item segment,” (5) “actuator,” and (6) “scrolling.”

A. “card”

COMCAST	SPRINT
<i>at least one tag that describes the layout of one display screen</i>	<i>the layout of a display screen</i>
“Tag” is defined as <i>an instruction of a markup language, such as WML or HDML</i>	

The first term that the Court must construe is “card.” Although “card” is not found as a stand-alone term in the claims, the Court agrees with the parties that construction of the term is nonetheless appropriate to provide necessary context for the jury to understand the meaning of “choice card,” which does appear in the language of several of the claims. *Cf. Advanced Fiber Techs. (AFT) Trust v. J & L Fiber Servs., Inc.*, 674 F.3d 1365, 1373 (Fed. Cir. 2012) (noting that, “in those cases in which the correct construction of a claim term necessitates a derivative construction of a non-claim term, a court may perform the derivative construction in order to elucidate the claim’s meaning”).

Comcast proposes a two-part construction, defining “card” as “at least one tag that describes the layout of one display screen,” and “tag” as “an instruction of a markup language, such as WML or HDML.” Sprint asserts that “card” should be defined as “the layout of a display screen.” During oral argument, counsel clarified the issues in dispute. The parties are now in agreement that the term “card” refers to computer instructions called “tags,” which describe the layout of a display screen, rather than to the layout of the display screen itself.⁸ However, the parties’ positions diverge as to (1) whether the tags must be

⁸ *See, e.g.*, Tr. 1/23/14 at 90:5-6 (Counsel for Sprint: “It certainly is that you have instructions that have to generate the display screen. We’re not going to dispute that.”); *id.*

written in a markup language, *see* Tr. 2/26/14 at 85:23-24 (counsel for Sprint); *id.* at 87:8-11 (counsel for Sprint); *id.* at 87:20-24 (counsel for Sprint); and (2) whether “the jury need . . . be burdened with the interpretation step,” *see* Tr. 1/23/14 at 91:12-13 (counsel for Sprint); *id.* at 90:7-11 (counsel for Sprint). The Court addresses each dispute in turn.

First, the Court concludes that the tags must be encoded in a markup language.⁹ The specification defines “tags” when it states: “‘Tags’ are generally the instructions of the markup language.”¹⁰ ‘916 patent at 2:26-27. The patentee’s uses of the verb “are” and of quotation marks around “tags” are classic hallmarks of a patentee’s lexicography. *See Sinorgchem Co., Shandong v. Int’l Trade Comm’n*, 511 F.3d 1132, 1136 (Fed. Cir. 2007);

at 91:1-13 (Counsel for Sprint: “We are not disputing that the tags are displayed, that the cards were referred to as tags. The other way around.” Court: “That the tag is referred to as a card?” Counsel for Sprint: “That’s right and that’s true. We’re not disputing that And so it’s true that . . . you can refer to these as cards”).

⁹ Although the doctrine of claim differentiation counsels against this construction with respect to dependent claims 7 and 8, Sprint’s definition of “card” similarly violates the doctrine, but with respect to independent claim 1 and dependent claim 7. During oral argument, the Court pointedly asked counsel for Sprint to identify how, under its definition of “card,” dependent claim 7 adds any limitation not recited in independent claim 1. In response, counsel for Sprint stated only that “the concept of a card . . . ha[s] a set of requirements about [how] cards interact on the screen,” without further elaboration. Tr. 1/23/14 at 99:25-100:1 (counsel for Sprint).

More importantly, however, “claim differentiation is ‘not a hard and fast rule and will be overcome by a contrary construction dictated by the written description or prosecution history.’” *Marine Polymer Techs., Inc. v. HemCon, Inc.*, 672 F.3d 1350 (Fed. Cir. 2012) (en banc) (quoting *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368-69 (Fed. Cir. 2005)); *Laitram Corp. v. Rexnord, Inc.*, 939 F.3d 1533, 1538 (Fed. Cir. 1991) (“Claim differentiation is a guide, not a rigid rule.”). While the doctrine of claim differentiation creates a presumption that a limitation included in a dependent claim is not also recited in the claim from which that claim depends, that presumption is overcome in this instance by the weight of the intrinsic evidence.

¹⁰ During the *Markman* hearing, counsel for Sprint also characterized this statement as defining “what a tag is.” *See* Tr. 1/23/14 at 88:19-24 (Counsel for Sprint: “Going back to slide 15, it walks through the progression of what a tag is and how it relates to the display of a card. . . . Column 2, lines 26 through 32, tags are generally the instructions o[f] the mark-up [sic] language.”).

see also Netscape Commc'ns Corp. v. ValueClick, Inc., 684 F. Supp. 2d 678, 688 (E.D. Va. 2009) (“Significantly, the patentee’s intention to act as lexicographer is evidenced by two recognized indicators: (i) the use of quotation marks around the claim term and (ii) the patentee’s use of the word ‘are.’”). Because the patentee “has elected to be a lexicographer by . . . explicit[ly] defin[ing]” “tags” in the specification, “th[is] definition . . . controls.” *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1249 (Fed. Cir. 1998).¹¹

Also highly instructive is the patentee’s statement that “[t]he conversation choice card may be encoded in a markup language such as WML or HDML, for instance. But other markup languages and other ‘non-cards’ constructs may be used instead.” ‘916 patent at 4:56-59. A person of ordinary skill in the art would understand the juxtaposition between the description of a “choice card . . . encoded in a markup language” and the statement that “‘non-cards’ constructs may be used instead” to mean that cards are encoded in markup languages. The permissive word “may” in the first sentence does not alter this conclusion. Applying conventional rules of grammar, the reader can infer from the absence of a comma

¹¹ That the patentee used the word “generally” in this sentence does not alter the Court’s conclusion. It is true that the word “generally” can be used to mean “usually,” but the most natural meaning in this context is, instead, “without reference to specific details or facts.” *Collins English Dictionary* 493 (21st century ed. 2000); *see The American Heritage Dictionary of the English Language* 732 (4th ed. 2000) (defining “generally,” as, *inter alia*, “[w]ithout reference to particular instances or details; not specifically; generally speaking”); *Random House Webster’s College Dictionary* 544 (2d Random House ed. 1999) (defining “generally” as, *inter alia*, “in a general way: in a way that is not detailed or specific”); *Webster’s Third New International Dictionary of the English Language Unabridged* 945 (2002) (defining “generally,” as, *inter alia*, “in a general manner” and “on the whole: as a rule”); *see also Negotiated Data Solutions, LLC v. Dell, Inc.*, 596 F. Supp. 2d 949, 972 (E.D. Tex. 2009) (noting that the patentee “defin[ed] the [given] term in a broad, high-level manner” by using the introductory phrase “in general terms”).

Moreover, the meaning that the Court ascribes to the word “generally” in this sentence is consistent with the only other use of the word “generally” in the specification: “The title segment may *generally* describe the category of items in the at least one choice-item segment, e.g. Menu.” ‘916 patent at 9:61-63 (citations omitted) (emphasis added).

between “markup language” and “such as” that the patentee used the term “such as” in a restrictive manner to convey that a choice card *may* be encoded in a markup language of this type.¹² See, e.g., *The Chicago Manual of Style* § 6.27 (16th ed. 2010) (explaining that “such as,” when not set off by commas, introduces a restrictive clause (e.g., “Words such as matutinal and onomatopoetic are best to be avoided in everyday speech.”)). Thus, this sentence in no way implies that a card may be used in the absence of a markup language.¹³

The Court next turns to the parties’ second dispute, which pertains not to the meaning of the term “card,” but how it should be presented to the jury. During the *Markman* hearing, counsel for Sprint repeatedly argued that Sprint’s construction is superior to Comcast’s because of its potential to facilitate juror comprehension. See, e.g., Tr. 1/23/14 at 90:7-11 (counsel for Sprint); *id.* at 93:12-15 (counsel for Sprint). Specifically, counsel for Sprint stated that, while “technically, it might be right,” Comcast’s “tag construction . . . will do nothing but introduce confusion” because “if the[jury is] told that a card is instructions,” when a card is shown to the jurors, “they’re going to be looking for instructions,” not how those instructions are interpreted to generate the display. *Id.* at 87:9-

¹² The specification explains that WML and HDML are similar markup languages, as they both can be interpreted by a microbrowser. See ‘916 patent at 2:22-25. However, because the patent does not require use of a microbrowser, it is logical that other types of markup languages “may be used instead.” See, e.g., *id.* at 4:56-59.

Moreover, the patentee appears to have understood this rule of grammar, as is evidenced by his use of “such as” in conjunction with a comma elsewhere in the specification. Compare ‘916 patent at 4:56-59, with *id.* at 12:21-24 (“The Quick Text Choice card may allow the conversation participant to readily select a canned text message, such as ‘Hello’ or ‘How are you?’ in a specific category.” (citation omitted)).

¹³ The same is true for other statements in the specification describing the encoding of a choice card in a markup language of this type. See, e.g., ‘916 patent at 5:35-36 (“Still further, the choice cards *may* be encoded in a markup language *such as* WML, HDML, or cHTML.” (emphasis added)); *id.* at 6:7-9 (“The method may also include encoding the choice card in a markup language such as WML, HDML, or cHTML.”); *id.* at 7:36-37 (“The tag documents may be written in a markup language such as WML, HDML, or cHTML.”).

11, 90:9-11 (counsel for Sprint). Sprint’s proposal, he further explained, “skips the confusing interpretation[step and] . . . go[es] straight to the concept that . . . tags are interpreted to create a display.” *See id.* at 93:12-15 (counsel for Sprint).

The Court declines to read the choice-card limitation out of the claims on the ground advanced by Sprint. The claims that use the term “choice card” do not define a display screen, but, rather, *inter alia*, “a choice card defining [a] user interface.” *See, e.g.*, ‘916 patent at 14:13-14. Sprint cannot rewrite and broaden these claims under the guise of simplifying their language for the jury. *Halo Elecs., Inc. v. Bel Fuse Inc.*, No. 07-cv-06222, 2010 WL 4774774, at *3 (N.D. Cal. Nov. 16, 2010) (“The court fails to see why such a construction would be confusing to the jury, particularly since it would clarify a limitation of the claimed invention that the parties agree exists.”).

For these reasons, the Court adopts Comcast’s proposed construction and construes “card” as “at least one tag that describes the layout of the display screen” and “tag” as “an instruction of a markup language, such as WML or HDML.”

B. “choice card”

COMCAST	SPRINT
<i>a card that has at least one title segment and at least one choice-item segment</i>	Plain and ordinary meaning, or Should the Court deem a construction of the ordinary meaning necessary: <i>a display screen that includes at least one history-of-communications segment and at least one choice-item segment</i>

The parties also disagree as to the meaning of “choice card,” which is included in claims 7, 16, 22, and 23 of the ‘916 patent. For example, claim 23 recites:

A method of assisting a user to engage in an interactive chat session via a device coupled with a telecommunications network, the device having a display screen and at least one actuator, the method comprising:

(a) scrollably displaying a display block of a *choice card* on the display screen such that only a portion of the display block is viewable on the display screen at a given time, the display block of the *choice card* comprising:

(1) at least one history-of-communication segment having a history-of-communications between the first device and at least one remote entity; and

(2) at least one choice-item segment having a plurality of choice-items each (i) selectable by the user through actuation of the at least one actuator and (ii) defining an action item related to the interactive chat session;

(b) in response to an indication from the user, scrolling some of the choice-items into view on the display screen while scrolling some of the communications out of view.

‘916 patent at 16:7-28 (emphasis added).

Comcast contends that the specification defines a “choice card” as “a card that has at least one title segment and at least one choice-item segment.” Sprint rejects Comcast’s proposal, arguing that a choice card with a title segment is only one embodiment of the choice card that is claimed. *See, e.g.*, Tr. 1/23/14 at 94:7-9 (counsel for Sprint); *id.* at 94:19-20 (counsel for Sprint); *id.* at 95:19-22 (counsel for Sprint). Sprint asserts that “choice card” requires no construction; but if construction is necessary, the Court should define “choice card” as “a display screen that includes at least one history-of-communications segment and at least one choice-item segment.”

The Court agrees with Comcast that the specification explicitly defines the term “choice card” as containing two elements: (1) “a title segment” and (2) “a list of selectable options” (i.e., a “choice-item segment”). *See* ‘916 patent at 3:42-44 (“Like the entry card, the choice card has a title segment, which usually identifies the subject matter of the card. The choice card, however, has a list of selectable options instead of a text-entry segment.”). Again, because the “patentee [has] explicitly define[d the] claim term in the patent

specification, the patentee’s definition controls.” *Martek Biosciences Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1380 (Fed. Cir. 2009).

Further, the Court rejects Sprint’s argument that Figure 6-A in the specification illustrates “an example of an embodiment that does not . . . display a title segment,” *see* Tr. 1/23/14 at 96:8-10 (counsel for Sprint). One of ordinary skill in the art would have understood that the title segment of the choice card shown in Figure 6-A is the part of the drawing in which the history of communications is displayed. *See, e.g.*, ‘916 patent at 4:49-52 (“The choice card may conveniently. [sic] include, as its title segment, a history-of-communications, and conveniently include, as its choice-items, a number of functional choices related to the chat session.”); *id.* at 8:61-64 (“[T]he title segment of the text-entry card may be set as a history-of-communications and the text-entry segment may be set as a response-entry field.” (citations omitted)). Thus, contrary to Sprint’s contention, Comcast’s proposed construction does not exclude an embodiment disclosed in the specification.

Finally, the Court rejects Sprint’s argument that the danger of confusing the jury outweighs the utility of construction. During the *Markman* hearing, counsel for Sprint argued that if the Court instructs the jury that a “choice card” must have a title segment, jurors will be confused if that title segment is used to display a history of communications instead of a subject heading. Jurors can easily grasp, however, that, while a title segment is “usually [used to] identif[y] the subject matter of the choice card,” *see id.* at 3:42, it also can be used to display a history of communications.

For the stated reasons, the Court construes “choice card” as “a card that has at least one title segment and at least one choice-item segment.”

C. “choice-items” and “choice-item segment”

	COMCAST	SPRINT
“choice-items”	<i>options selectable by a user and listed in a choice-item segment of a choice card</i>	Plain and ordinary meaning, or Should the Court deem a construction of the ordinary meaning necessary: <i>options selectable by a user</i>
“choice-item segment”	<i>a segment of a choice card listing one or more choice-items</i>	<i>a segment of a display listing one or more choice items</i>

Next, the Court must construe the terms “choice-items” and “choice-item segment,” which are contained in claims 1, 2, 7, 13, 14, 16, 22 and 23 (*supra* at 12-13) of the ‘916 patent. For example, claim 1 states:

A user interface for providing an interactive chat session on a wireless handheld device, the wireless handheld device having a display screen and at least one actuator, the user interface comprising:

(a) a display block including:

(1) at least one history-of-communications segment displayed on the display screen, the at least one history-of-communications segment having communications between the wireless handheld device and at least one remote entity; and

(2) at least one *choice-item segment* displayed on the display screen, the at least one *choice-item segment* having a plurality of *choice-items* each (i) selectable by a user through actuation of the at least one actuator and (ii) defining an action item related to the chat session;

wherein only a portion of the display block is viewable on the display screen at any given time; and

(b) a mechanism to allow the user to scroll through the display block to move some of the *choice-items* into view on the display screen while moving some of the communications out of view.

‘916 patent at 13:44-65 (emphasis added).

In arguing that both “choice-items” and “choice-item segments” are necessarily elements of a “choice card,” Comcast asserts that “[t]he progression and interrelationship of

these terms—‘choice-items’ to ‘choice-item segment’ to ‘choice card’—is laid out plainly in the specification and should be reflected in the constructions of the terms, regardless whether all of three of them are expressly included in a given claim.” Comcast’s Answering Claim Construction Br. at 26. Sprint contends that “a ‘choice card’ is merely one embodiment of the present invention disclosed by the specification and recited by only some of the asserted claims.” Sprint’s Opening Claim Construction Br. at 24.

The Court agrees with Sprint and concludes that neither a “choice-item” nor a “choice-item segment” must be contained in a “choice card.” First, Sprint’s position is buttressed by the differences between the patent claims. Under the doctrine of claim differentiation, “the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Phillips*, 415 F.3d at 1315. This doctrine stems from “the common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope.” *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1368 (Fed. Cir. 2005).

Applying the doctrine of claim differentiation to Sprint’s ‘916 patent, the plain language of claim 1 does not require a “choice card,” but only a “user interface comprising,” *inter alia*, “a display block,” which “include[es, in relevant part] . . . at least one history-of-communications segment” and “at least one choice-item segment . . . having a plurality of choice-items.” ‘916 patent at 13:48-56. Claim 1 is followed by dependent claim 7, which requires that “a choice card defines the user interface.” *Id.* at 14:13-14. Because the only distinction between claim 1 and claim 7 is the inclusion of a choice card, Sprint is entitled to a presumption that this limitation is not found in claim 1, the

independent claim from which claim 7 depends. *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004).

Although Comcast correctly notes that the doctrine of claim differentiation only creates a rebuttable presumption, this presumption is at its strongest “when the limitation in dispute is the only meaningful difference between an independent and dependent claim.” *SunRace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003). Moreover, unlike the case of the markup-language limitation, Comcast has produced no persuasive evidence to rebut this presumption, nor can the Court find any in the specification. Rather, it is clear from the intrinsic evidence that the discussion of a choice card in the specification merely reflects the fact that “[o]ne of the best ways to teach a person of ordinary skill in the art how to make and use the invention is to provide an example of how to practice the invention in a particular case.” *Phillips*, 415 F.3d at 1323.

In the “Summary” section of the patent, the patentee consistently described the use of a “choice card” as an “exemplary embodiment of the present invention,” *see, e.g.*, ‘916 patent at 4:47-48; *see also id.* at 6:32-34, and explained that, in defining the claimed user interface, “‘non-cards’ constructs may be used instead.”¹⁴ *Id.* at 4:58-59; *see also id.* at 7:40-42 (“Of course other markup languages are possible and those skilled in the art will appreciate that other arrangements may be used instead.”). The absence of a specific embodiment describing a non-card construct does not prevent the “user interface” recited in

¹⁴ The Court is not persuaded by Comcast’s attempt to minimize this language as “a very brief reference to the use of non-card constructs,” which is “never followed up on in the rest of the patent.” Tr. 1/23/14 at 151:13-15 (counsel for Comcast). It is well established that “[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Decisioning.com, Inc. v. Federated Dep’t*, 527 F.3d 1300, 1309 (Fed. Cir. 2008) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)).

claim 1 from being afforded its plain and ordinary meaning at the relevant time.¹⁵ Because one of ordinary skill in the art would have understood that both card and non-card constructs could define this user interface, the patentee is entitled to the full scope of that claim term.

Finally, the prosecution history supports Sprint’s construction. “Statements about a claim term made by an examiner during prosecution of an application may be evidence of how one of skill in the art understood the term at the time the application was filed.” *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1347 (Fed. Cir. 2005). In his reasons for acceptance, the examiner distinguished between those claims that do require a choice card and those that do not. Comcast’s Answering Claim Construction Br., Ex. Z, at 2 (“The features combined in independent claims 1 (user interface), 14 (method), 24 (user interface *bringing out the choice card* having the display, and 25 (method *bringing out the choice card* having the display), all amended, are not set forth in the prior art of record.” (emphasis added)). By differentiating between the claims with a choice-card limitation (claims 24 and 25) and those without (claims 1 and 14), the examiner’s statements reveal that he did not interpret the limitation of a choice card to be implicitly incorporated into every claim. The examiner’s interpretation therefore is in accord with the interpretation of the Court.

Accordingly, the Court concludes that neither a “choice-item” nor a “choice-item segment” must be included in a choice card. Because the Court rejects Comcast’s construction and because Sprint’s construction provides no additional insight into the

¹⁵ Similarly, the mere fact that the patentee introduces and explains the terms “choice-item segment” and “history-of-communications segment” in the context of a choice-card embodiment is insufficient reason to import the “choice card” limitation into the claims. *See Phillips*, 415 F.3d at 1323 (cautioning against importing limitations from the specification into the claims).

meaning to either term, the Court concludes that further construction is unnecessary. *See O2 Micro Int'l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (noting that “[c]laim construction ‘is not an obligatory exercise in redundancy’” (quoting *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997))). Thus, “choice-items” and “choice-item segment” are assigned their plain and ordinary meanings.

D. “actuator”

COMCAST	SPRINT
<i>a mechanical device for triggering an action</i>	<i>a mechanism for triggering an action</i>

The parties also are unable to agree on a construction of “actuator.” “Actuator” is found in claims 1 (*supra* at 15), 13, 22, and 23 (*supra* at 12-13) of the ‘916 patent. For example, claim 1 requires, *inter alia*, that the “display block include[es] . . . at least one choice-item segment having a plurality of choice-items each (i) selectable by a user through actuation of . . . at least one *actuator* and (ii) defining an action item related to the chat session.” ‘916 patent at 13:48-59 (emphasis added).

Comcast argues that the Court should construe “actuator” as “a mechanical device for triggering an action,” while Sprint proposes “a mechanism for triggering an action.” The crux of the dispute is whether an actuator must be “mechanical” or whether it may take the form of a non-mechanical device, such as certain types of touchscreens.¹⁶ The Court agrees with Sprint that the claimed actuator need not be mechanical.

The primary support for Comcast’s argument that an “actuator” must be mechanical is its assertion that “the only thing that’s specifically referred to as . . . actuator[s] in the patent, are . . . two [softkey] buttons.” Tr. 1/23/14 at 138:6-8 (counsel for Comcast). The

¹⁶ The parties agree that the term “touchscreen” does not necessarily imply a device that is mechanical. *See, e.g.*, Tr. 1/23/14 at 86:5-12 (counsel for Sprint); *id.* at 136:4-137:1 (counsel for Comcast).

U.S. Court of Appeals for the Federal Circuit, however, “ha[s] expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” *Phillips*, 415 F.3d at 1323. Further, the specification expressly refers to other methods for selecting choice-items. For example, the specification states that a user may select a choice-item (1) by choosing a number assigned to the choice-item on a “numeric character-entry device” or (2) by “us[ing] scroll keys” to highlight the preferred choice-item and, then, “press[ing] an ‘OK’ softkey . . . or engag[ing] in another designated actuator to select the highlighted item.”¹⁷ See ‘916 patent at 8:8-13, 10:7-12 (citations omitted). Although silent as to what forms the “another designated actuator” might take, the specification states that “[t]he character-entry device may be [*inter alia*] . . . a touch interface, a touch interface with handwriting recognition, a touch interface with virtual character-entry, or a voice recognition system.”¹⁸ *Id.* at 8:8-13; *see also id.* at 1:39-47. Because Comcast’s proposed construction improperly excludes these non-mechanical embodiments, it must be rejected absent “highly persuasive evidentiary support” to the contrary. *Vitronics*, 90 F.3d at 1583.

The two dictionaries cited by Comcast in support of its construction cannot fill this evidentiary void. Even assuming that Comcast’s dictionary evidence necessarily equates an

¹⁷ The specification also states repeatedly that a user may select a choice-item *either* by “press[ing] or select[ing]” a given number on the character-entry device. See, e.g., ‘916 patent at 10:27 (emphasis added).

¹⁸ When questioned during the *Markman* hearing about this language, counsel for Comcast argued that this description of touch interfaces pertains to only the scrolling function. Tr. 1/23/14 at 140:9-12 (counsel for Comcast). This assertion, however, is contradicted by the fact that, in the same paragraph describing touch interfaces, the specification explains that “there may *also* be a pair of scroll keys for displaying text that may not fit at once in the viewable area of the display screen.” ‘916 patent at 8:18-20 (citation omitted) (emphasis added). Moreover, while the character-entry device is never used for scrolling, it is repeatedly described as a method for selecting choice-items.

actuator to a mechanical device, other dictionary definitions contain no such limitation.

See, e.g., Alan Freedman, *McGraw Hill Computer Desktop Encyclopedia* 11 (9th Cir. 2001) (defining “actuator” as “[a] mechanism that causes a device to be turned on or off, adjusted or moved.”); *Random House Webster’s College Dictionary* 14 (2d revised and updated ed. 2000) (defining “actuator” as “a person or thing that actuates” or “a servomechanism that supplies and transmits a measured amount of energy for the operation of another mechanism,” and defining “actuator” as “to incite or move into action; impel; motivate” or “to put into action”); *The Webster’s Third New International Dictionary of the English Language Unabridged* 22 (2002) (defining “actuator,” as, *inter alia*, “any of the various electric, hydraulic, or pneumatic mechanisms by means of which something is moved or controlled indirectly instead of by hand”). In light of the intrinsic evidence supporting a construction of “actuator” that is not limited to a “mechanical device,” these broader dictionary definitions are consistent with the use of the term in the specification.¹⁹

Accordingly, Court defines “actuator” to mean “a mechanism for triggering an action.”

¹⁹ Because the Court has resolved the parties’ dispute by concluding that an actuator need not be a mechanical device, the Court declines to decide whether any of the additional limitations described in the cited dictionary definitions constrain the claim term further. *See Columbia Sportswear N. Am., Inc. v. Cerf Bros. Bag Co.*, No. 05-cv-1960, 2007 WL 1792304, at *11 (D. Or. June 19, 2007) (noting that a court need not “construe the claim terms with greater specificity than necessary to resolve the . . . dispute [of the parties]”).

E. “scrolling”

COMCAST	SPRINT
<i>selection of a choice-item to view additional choice-items is not scrolling</i>	Plain and ordinary meaning, or Should the Court deem a construction of the ordinary meaning necessary: <i>causing some of the choice-items to move into view on the display screen while causing some of the communications to move out of view</i>

The final term that the Court must construe in Sprint’s ‘916 patent is “scrolling.” Some form of the verb “to scroll” is found in claims 1 (*supra* at 15), 13, 22, and 23 (*supra* at 12-13) of the ‘916 patent. For example, claim 1 states, in relevant part, that the claimed user interface comprises, *inter alia*, “a mechanism to allow the user to *scroll* through the display block to move some of the choice-items into view on the display screen while moving some of the communications out of view during prosecution.” ‘916 patent at 13:62-65 (emphasis added).

Comcast argues that, of the ‘916 patent application, the applicant disclaimed the “selection of a choice-item to view additional choice-items” from the scope of the term “scrolling.” Sprint asserts that the Court should not read this negative limitation into the claim language. Further, Sprint argues that the term needs no construction or should be defined according to its “ordinary meaning”: “causing some of the choice-items to move into view on the display screen while causing some of the communications to move out of view.”

The Court starts from the premise that, while “generally not favored,” “negative limitations, which describe the invention in terms of what it is not rather than what it is, are . . . permissible when they are justified by clear disavowal or disclaimer.” *Medicines Co. v. Mylan Inc.*, No. 11-cv-1285, 2012 WL 3234282, at *15 (N.D. Ill. Aug. 6, 2012).

Thus, “[i]f [an] applicant unequivocally disavows claim scope [during prosecution], the doctrine of prosecution disclaimer applies even if the disclaimer results in a negative claim limitation.” *RFID Tracker, Ltd. v. Wal-Mart Stores, Inc.*, 342 F. App’x 628, 630 (Fed. Cir. 2009). One way that the applicant may disavow claim scope is “by clearly characterizing the invention in a way to try to overcome rejections based on prior art.” *Computer Docking Station Corp. v. Dell, Inc.*, 519 F.3d 1366, 1374 (Fed. Cir. 2008).

During prosecution, the examiner rejected the ‘916 patent application as anticipated by U.S. Patent No. 6,519,771 (“Zenith”). In response to the examiner’s objection, the “[a]pplicant acknowledge[d] that Zenith discloses a user interface that contains chat dialogue and choice-items,” but further explained:

Zenith also discloses that a user can scroll through the chat dialog. Applicant submits, however, that Zenith does not disclose that the user can scroll through a display block to move choice-items into view on the display screen while moving some of the chat dialogue out of view. Instead for a user to view additional choice items, the user would have to select a choice item, which would cause the device to display another set of choice items in the place of the choice-items previously displayed. (Col. 6, line 9-11). *The selection of a choice-item to view additional choice-items is functionally different from scrolling through the display block to move choice-items and communications cooperatively into and out of view, as presently claimed.*

Applicant submits that Zenith does not disclose scrolling through the display block, in the manner presently claimed.

Comcast’s Answering Claim Construction Br., Ex. Y, at 9-10 (emphasis added).

After carefully scrutinizing the prosecution history, the Court agrees with Comcast that the patentee disclaimed the “selection of a choice-item to view additional choice-items” from the scope of the term “scrolling” in order to “to try to overcome [a] rejection[] based on prior art.” *Computer Docking Station*, 519 F.3d at 1375. Indeed, during the *Markman* hearing, counsel for Sprint agreed “that the patentee drew a fundamental distinction between . . . the Zenith patent and the scrolling that [the ‘916 patentee] claimed,” Tr.

1/23/14 at 113:6-8 (counsel for Sprint), and that “pressing a button, making a choice[,] and getting a new set of choices” is “not scrolling,” *id.* at 111:3-5 (counsel for Sprint).²⁰ In short, counsel for Sprint conceded that the “disavowing . . . statements made during prosecution [were] both clear and unmistakable.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1326 (Fed. Cir. 2003).

Notwithstanding Sprint’s agreement as to the existence of a disclaimer, counsel for Sprint took issue at the hearing with Comcast’s characterization of the disclaimer as the “selection of a choice-item *to move* additional choice-items into view is not scrolling.” Joint Claim Construction Chart at 23 (emphasis added). Specifically, he argued that Comcast “took the statement during prosecution” — “[t]he selection of a choice-item *to view* additional choice-items is functionally different from scrolling” (emphasis added) — and replaced the infinitive “to view” with “to move.”²¹ After counsel for Sprint explained its client’s objection, Comcast agreed to “replace [‘]to move[’] with [‘]to view[’]” in order to “track[] precisely what [was] said” to the examiner.²² Tr. 1/23/14 at 144:21-24 (counsel

²⁰ See also Tr. 1/23/14 at 110:23-111:1 (Counsel for Sprint: “I agree with what Sprint’s attorney said during prosecution, moving items, substituting your items on the screen like Zenith — no one is going to argue that’s scrolling.”); *id.* at 114:4-8 (Court: “Well, they’ve disclaimed the type of scrolling at issue in Zenith, do you agree with that?” Counsel for Sprint: “I think they disclaimed the movement, the moving to view additional — the selection of the — they certainly disclaimed, if that was ever considered scrolling . . .”).

²¹ Tr. 1/23/14 at 110:9-14 (Counsel for Sprint: “The problem with Comcast’s argument is they’ve changed the verbs. They took the statement during prosecution, the view aspect, . . . and the[y] took the [‘]to move[’] and they put it in their disclaimer.”); *id.* at 110:18-22 (Counsel for Sprint: “So when we’re talking about movement of items, it clearly is not disclaimed and . . . Comcast took it upon themselves to move the moving into the disclaimer and to discount the viewing.”); see also Sprint’s Claim Construction Slides, Ex. 4, at 30 (graphically depicting Sprint’s objection to Comcast’s proposal).

²² In the parties’ Amended Joint Claim Construction Chart, Comcast articulated the disclaimer as “selection of a choice-item to view additional choice-items is not scrolling.”

for Comcast). Despite Comcast's having modified its proposal to overcome the sole objection articulated by Sprint, counsel for Sprint continued to object to any construction as "unnecessary" because "[w]e're talking about something that no one's [sic] ever said was scrolling." *Id.* at 146:22-24 (counsel for Sprint).

The Court declines to accept Sprint's argument that construction of the term "scrolling" is "unnecessary." According to Comcast, the construction of "scrolling" is relevant to its defense of non-infringement,²³ and the Court is unable to conclude that, absent construction, there is no danger of jurors being confused or misled. Thus, to "provide the jury . . . with instructions adequate to ensure that the jury fully understands . . . what the patentee covered by the claims," *Sulzer Textil A.G. v. Picanol N.V.*, 358 F.3d 1356, 1366 (Fed. Cir. 2004), the Court will exclude "selection of a choice-item to view additional choice-items" from the scope of the term "scrolling."

Beyond this disclaimer, the Court deems the claim language to be sufficiently clear so as not to require additional construction. "Scrolling" is a commonplace word to which the patentee ascribes no special meaning. Lay jurors can be expected to use this term in the same manner as would a person of ordinary skill in the art. *Cf. Performance Pricing, Inc. v. Google Inc.*, No. 07-cv-432, 2009 WL 2497102, at *7 (E.D. Tex. Aug. 13, 2009) ("The term is not confusing because the lay meaning of this term is the same meaning as that which a person having ordinary skill in the art would attribute to the term."), *aff'd sub nom. Priceplay, Inc. v. Google, Inc.*, 410 F. App'x 325 (Fed. Cir. 2011). Further, Sprint's

²³ Am. Joint Claim Construction Chart at 15-16 ("Under Comcast's proposed construction, there can be no genuine issue of material fact that the accused Comcast service does not infringe any asserted claim of the '916 patent. The chat session interface of the accused Comcast service does not allow a user to scroll additional choice-items into view while scrolling some of the communications out of view. At most the accused service permits a user to select a choice-item to view additional choice items.").

proposed definition, despite purporting to reflect the term’s ordinary meaning, is overly broad because it fails to capture the “continuous and smooth movement” that “scrolling implies.” Freedman, *supra*, at 869.²⁴ For these reasons, additional construction “would only introduce confusion and ambiguity into a clear and unambiguous phrase.” *Callpod, Inc. v. GN Netcom, Inc.*, No. 06-cv-4961, 2009 WL 590156, at *7 (N.D. Ill. March 6, 2009).

Accordingly, the Court assigns the term “scrolling” its plain and ordinary meaning, with the clarification that “selection of a choice-item to view additional choice-items is not scrolling.”

F. Summary of Constructions

The Court’s constructions with respect to the ‘916 patent are set forth in the following chart.

²⁴ See also, e.g., Douglas Downing, Michael Covington & Melody Mauldin Covington, *Dictionary of Computer and Internet Terms* 430 (7th ed. 2000) (defining “scroll” as “to move information across the screen as if the screen a window or porthole through which you are looking”); Brad Hansen, *The Dictionary of Multimedia* 276 (1999) (defining “scroll” as “[t]o cause text or graphics on the computer screen to move up or down, progressively revealing more data”); Xerxes Mazda & Fraidoon Mazda, *The Focal Illustrated Dictionary of Telecommunications* 547 (1999) (defining “scrolling” as “[t]he process of continuously moving the content of a *Visual Display Unit (VDU)* vertically or horizontally”); Harry Newton, *Newton’s Telecom Dictionary* 694 (15th ed. 1999) (“[S]crolling is the continuous movement of information either vertically or horizontally on a video screen as if the information were on a paper being rolled under it.”). The Court also notes that Sprint bases its proposal on a general-purpose dictionary published in 1995, five years before the application filing date.

TERM	CONSTRUCTION
“card”	At least one tag that describes the layout of one display screen “Tag” is defined as an instruction of a markup language, such as WML or HDML
“choice card”	A card that has at least one title segment and at least one choice-item segment
“choice-items”	Plain and ordinary
“choice-item segment”	Plain and ordinary
“actuator”	A mechanism for triggering an action
“scrolling”	Plain and ordinary, with the clarification that selection of a choice-item to view additional choice-items into view is not scrolling

V. ‘907 PATENTS

Sprint’s ‘4,907 Patent, entitled “Remote Control of Video-on-Demand System,” was filed on February 9, 2000 and issued on June 22, 2004. Sprint’s ‘7,907 Patent, entitled “Display Selection in a Video-on-Demand System,” was filed on February 9, 2000 and issued on June 29, 2004. Despite almost identical specifications, each patent describes a separate invention. At a high level, the invention of the ‘4,907 patent is “a video-on-demand system that provides a [television] viewer with remote control,” *see* ‘4,907 patent at 1:8-9, while the invention of the ‘7,907 patent is a “video-on-demand system that provides a [television] viewer with a selection of displays for viewing video,” *see* ‘7,907 patent at 1:20-21.

The parties have identified five terms in the ‘907 patents that require Court construction: (1) “operating a video-on-demand system,” (2) “video control signal,” (3) “viewer control signal,” (4) “transferring [video content signals/the video content signals],” and (5) “transferring [first/second] video signals.” Further, Comcast asserts that an additional four terms are indefinite: (1) “second communication system,” (2) “the video content signals,” (3) “the first communications interface,” and (4) “the second

communications interface.”

A. “operating a video-on-demand system”

COMCAST	SPRINT
<i>operating a video-on-demand system without the use of a set-top box for remote control</i>	Plain and ordinary meaning, or Should the Court deem a construction of the ordinary meaning necessary: <i>operating a system that provides video-on-demand</i>

The term “operating a video-on-demand system” appears in claim 10 of the ‘4,907 patent and claim 21 of the ‘7,907 patent. For example, claim 10 of the ‘4,907 patent states:

A method of *operating a video-on-demand system*, the method comprising:

transferring a control screen signal to a second communication system;

receiving a video control signal from the second communication system;

implementing a viewer control selection indicated by the video control signal; and

transferring video content signals to a first communication interface if the first communication interface is indicated by the video control signal received from a second communication interface or transferring the video content signals to the second communication interface if the second communication interface is indicated by the video control signal.

‘4,907 patent at 7:6-21 (emphasis added).

The dispute with respect to these two terms is narrow. The parties disagree as to whether the claimed methods for operating a video-on-demand system must exclude the use of a set-top box for remote control of the video-on-demand system. Comcast argues that the patent disclaims the use of a set-top box for remote control by disparaging the prior art’s reliance on set-top boxes and by not including a set-top box in any one of the patents’ embodiments. Sprint disagrees, asserting that the allegedly “disparaging” language cited by Comcast merely “discuss[es] certain disadvantages of prior systems that relied *exclusively*

on set-top boxes to process video and control signals.” Sprint’s Answering Claim Construction Br. at 12.

“The standard for disavowal of claim scope is . . . exacting,” however, “[w]here 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.” *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012) (quoting *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 141 (Fed. Cir. 2001)); *see also Teleflex*, 299 F.3d at 1325 (“The patentee may demonstrate an 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.”).

The disparaging language at issue is found in the “Background of the Invention” and “Summary of the Invention” sections of the patents, both of which are typically understood to be parts of a specification that “broadly describe the overall invention[.]” *Microsoft Corp. v. Multi-Tech. Sys., Inc.*, 357 F.3d 1340, 1348 (Fed. Cir. 2004). In describing the prior art, the patentee noted that “[v]ideo-on-demand systems use a television set-top box for remote control,” which allows the “viewer [to] view a video content menu on the television,” “order video content for display on the television,” and “play, stop, pause, rewind, and fast forward the video content on the television.” ‘4,907 patent at 1:24-30; ‘7,907 patent at 1:36-39. The problem with this arrangement, the patentee explained, is that “the set-top box is a special component that is closely coupled to the television” and “does not have other uses.” ‘4,907 patent at 1:30-32; ‘7,907 patent at 1:39-40. Besides that it is

“not mobile,” “[t]he set-top box does not have a video display” and “does not offer a selection of displays or bandwidths.” ‘7,907 patent at 1:41-43.

While “eliminat[ing] the cost of a special television set-top box,” “[t]he invention[s] solve[.]” these shortcomings, *see* ‘4,907 patent at 1:35, :42-46; ‘7,907 patent at 1:46, :54-55, by “disclos[ing] an enhanced video-on-demand system whereby [a] user[] ‘use[s] a portable computer connected over a second communications system for remote control’ such that the user ‘can control the video display using [his or her] portable computer.’” Sprint’s Opening Claim Construction Br. at 9 (quoting ‘4,907 patent at 1:35-44). Replacement of the set-top box with a portable computer allows the viewer to control the television remotely through the computer or to select the option of watching content on the portable computer itself.

The instant case is akin to others in which courts have found disavowals of claim scope. In *In re Abbott Diabetes Care, Inc.*, for instance, the question was whether an “electrochemical sensor,” used to provide information to diabetes patients about glucose levels in their bloodstreams, necessarily was devoid of cables and wires connecting the electrochemical sensor to the sensor unit. 696 F.3d 1142, 1143 (Fed. Cir. 2012). In reversing the PTO’s holding that the sensor could, in some configurations, be attached to external cables and wires, the U.S. Court of Appeals for the Federal Circuit focused on the fact that (1) “the specification contain[ed] only disparaging remarks with respect to the external cables and wires of the prior-art sensors”; and (2) “every embodiment disclosed in the specification show[ed] an electrochemical sensor without external cables or wires.” *Id.* at 1149. Likewise, the ‘907 specifications contain only disparaging remarks about the use of a set-top box for remote control of a video-on-demand system. Set-top boxes also are not used for remote control of the video-on-demand system in any of the disclosed

embodiments.

Moreover, this case can be distinguished from others in which disparaging statements have not risen to the level of disavowals. For example, unlike *In re Rambus*, 694 F.3d 42, 47 (Fed. Cir. 2012), in which “[t]here [were] no words of manifest exclusion or clear disavowals of multichip devices,” the ‘907 patents clearly state in their “Summary of Invention” sections that “[t]he portable computer . . . *eliminates the cost* of a special television set-top box.”²⁵ ‘4,907 patent at 1:41-43 (emphasis added); ‘7,907 patent at 1:53-55 (same). Nor is this a case like those in which “courts have found no disclaimer of claim scope” because “the specification [only] describe[d] certain features as ‘preferable’ or as examples.” *Colucci v. Callaway Golf Co.*, No. 08-cv-288, 2010 WL 324771, at *6 (E.D. Tex. Jan. 21, 2010).

Sprint’s counterarguments as to why the Court should not find a disclaimer are unavailing. First, Sprint argues that such a disclaimer would subvert the “aim” of the two patents, which Sprint vaguely characterizes as “to give user’s [sic] *more ways* to access video-on-demand content by *combining* conventional techniques for operating a video-on-demand system with, *e.g.*, newer Internet-based technologies.” Sprint’s Opening Claim Construction Br. at 11. But the intrinsic evidence is devoid of support for this assertion. In fact, during the *Markman* hearing, counsel for Sprint acknowledged that the object of the ‘4,907 patent is not the combination of new and old technologies, but “the ability to

²⁵ Sprint tries to negate the import of the “eliminates” language by arguing that the patentee was simply referring to the elimination of the need for a *second* set-top box, which ordinarily would have been required with the addition of a second display. See Tr. 1/22/14 at 118 (counsel for Sprint). This rationale is unpersuasive, however, given the clear intent of the patentee to *replace* the set-top box with a portable computer with respect to the remote-control function. In fact, the patents state that the “[second] display could omit the viewer and simply provide VCR type control over the [first] display.” ‘4,907 patent at 6:3-5 (citations omitted); ‘7,907 patent at 6:17-19 (same).

remotely control how the video is presented,” Tr. 1/22/14 at 31:4-5 (counsel for Sprint); *see also id.* at 32:5-8 (counsel for Sprint), while the object of the ‘7,907 patent is to “giv[e] the user the ability to select the display of the video that [he or she is] purchasing or previewing, or interested in buying,” *see id.* at 18:24-19:1 (counsel for Sprint); *see also id.* at 20:2-4 (counsel for Sprint).

Indeed, if a viewer was required to control the television through a set-top box, it is difficult to see what value the ‘4,907 patent would add to the prior art. Adopting Sprint’s argument, the viewer would be forced to use “the very [prior art] that the patent criticized,” *Tech. Patents LLC v. T-Mobile (UK) Ltd.*, 700 F.3d 482, 493 (Fed. Cir. 2012), rather than being able to remotely control the video content through the portable computer. While the remote-control functions presumably could be divided between the set-top box and the portable computer, this arrangement would provide little or no advantage over the prior art.

Likewise, the Court disagrees with Sprint’s argument that, because the term “operating a video-on-demand system” is located in the claims’ respective preambles, the term “should not be construed in a limiting manner.” Sprint Opening Claim Construction Br. at 11. It is proper to construe a preamble as limiting when “the preamble is ‘necessary to give life, meaning and vitality to the claims or counts.’” *On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1343 (Fed. Cir. 2006) (quoting *Kropa v. Robie*, 187 F.2d 150, 861 (CCPA 1951)). The patents identify the inventions as “video-on-demand systems,” yet, aside from the preambles, there is no mention of a video-on-demand system in the claims. Because a reader would not understand that the claimed methods pertain to video-on-demand systems absent the preamble language, the preambles must limit the

claims.²⁶ *See Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1358 (Fed. Cir. 2012) (holding that the preamble-phrase “rotary cutter deck” was a limitation when the specification referred to “the present invention” as “a rotary cutter deck”); *Poly-Am, LP v. GSE Lining Tech., Inc.*, 383 F.3d 1303, 1310 (Fed. Cir. 2004) (construing the preamble, which disclosed a “fundamental characteristic of the claimed invention,” as limiting).

Finally, the Court rejects Sprint’s argument that it is improper to construe such a structural limitation into a method claim. *See, e.g., Akamai Techs., Inc. v. Limelight Networks, Inc.*, 629 F.3d 1311, 1329 (Fed. Cir. 2010) (rejecting the argument that it is improper to incorporate structural limitations into a method claims), *rev’d on other grounds*, 692 F.3d 1301, 1319 (Fed. Cir. 2012) (en banc) (per curium), *rev’d*, 134 S. Ct. 2111 (2014). It is well established that “[m]ethod claim preambles often recite the physical structures of a system in which the claim method is practiced.” *Microprocessor Enhancement Corp. v. Tex. Instruments, Inc.*, 520 F.3d 1367, 1374 (Fed. Cir. 2008); *see also Eaton Corp. v. Rockwell Int’l Corp.*, 323 F.3d 1332, 1342 (Fed. Cir. 2003) (construing a method claim as including “steps that require the operation or manipulation of the particular structure identified and described by the preamble”).

Accordingly, the Court construes “operating a video-on-demand system” as “operating a video-on-demand system without the use of a set-top box for remote control of the video-on-demand system.”

²⁶ The Court also rejects Sprint’s argument that the term “video-on-demand system” refers to the “back end architecture” of the system and “not to . . . anything that’s at the customer’s house.” Tr. 1/22/14 at 32:15-20 (counsel for Sprint). The specification repeatedly uses the term “video-on-demand system” to refer not only to the “back end architecture,” but also to the “operating environment” or “video distribution system” in which the system is located. *See, e.g.*, ‘4,907 patent at 1:61-62, 5:18-21; ‘7,907 patent at 2:8-10, :29-31.

B. “video control signal” and “viewer control signal”

	COMCAST	SPRINT
“video control signal”	<i>a video control signal generated and processed without the involvement of a set-top box</i>	Plain and ordinary meaning, or Should the Court deem a construction of the ordinary meaning necessary: <i>a signal relating to the control of a video</i>
“viewer control signal”	<i>a viewer control signal generated and processed without the involvement of a set-top box</i>	Plain and ordinary meaning, or Should the Court deem a construction of the ordinary meaning necessary: <i>a signal reflecting viewer control</i>

The next two terms are “video control signal,” which is located in claim 10 (*supra* at 28) of the ‘4,907 patent, and “viewer control signal,” which is located in claims 21, 23, and 31 of the ‘7,907 patent. For example, claim 21 of the ‘7,907 patent states:

A method of operating a video-on-demand system, the method comprising:

transferring a control screen signal indicating a control screen to a second communication system;

receiving a *viewer control signal* from the second communication system; and

transferring first video signals to a first communication system using a first bandwidth if the first communication system is indicated by the viewer control signal or transferring second video signals to the second communication system using a second bandwidth if the second communication system is indicated by the *viewer control signal* wherein the second bandwidth is less than the first bandwidth.

‘7,907 patent at 7:58-8:4.

The dispute over these two terms is intertwined with that of the last. As discussed *supra*, the Court concludes that neither a video control nor a viewer control signal may be generated and processed using a set-top box for remote control of the video-on-demand system. However, in characterizing the disclaimers as they relate to these two terms,

Comcast's proposals go too far. The specifications are precise in defining a set-top box as a "special component that is closely coupled to the television," which serves a single function: that of a remote control. *See* '4,907 patent at 1:24-25; :31-32 ("Video-on-demand systems use a television set-top box for remote control. . . . The set-top box does not have other uses."); '7,907 patent at 1:36-37 ("Video-on-demand systems use a television set-top box for remote control."). The specification does not disparage the use of a set-top box for other purposes, such as for "decod[ing a video signal] and present[ing] it to a television." Tr. 1/22/14 at 30:1-2 (counsel for Sprint); *see also* Tr. 1/22/14 at 49:13-17 (counsel for Sprint). Thus, in requiring that the two control signals be "generated and processed without [any] involvement of a set-top box," Comcast overreaches.

For the foregoing reasons, the Court rejects the constructions of these terms — "video control signal" and "viewer control signal" — proposed by the parties. The Court construes "video control signal" as "a video control signal generated and processed without the involvement of a set-top box for remote control of the video-on-demand system" and "viewer control signal" as "a viewer control signal generated and processed without the involvement of a set-top box for remote control of the video-on-demand system."

C. “transferring [video content signals/the video content signals]” and “transferring [first/second] video signals”

	COMCAST	SPRINT
“transferring [video content signals/the video content signals]”	<i>in response to the video control signal, transferring [video content signals/the video content signals]</i>	Plain and ordinary meaning, or Should the Court deem a construction of the ordinary meaning necessary: <i>sending [video content signals/the video content signals]</i>
“transferring [first/second] video signals”	<i>in response to the viewer control signal, transferring [first/second] video signals</i>	Plain and ordinary meaning, or Should the Court deem a construction of the ordinary meaning necessary: <i>sending [first/second] video signals</i>

The Court also addresses the next two terms as a pair. “Transferring [video content signals/the video content signals]” is located in claim 10 (*supra* at 28) of the ‘4,907 patent, and “transferring [first/second] video signals” is located in claims 21, 23, 25, 31, 33, 34, 36, and 37 of the ‘7,907 patent. For example, claim 10 of the ‘4,907 patent states, in relevant part, “*transferring video content signals* to a first communication interface if the first communication interface is indicated by the video control signal received from a second communication interface or *transferring the video content signals* to the second communication interface if the second communication interface is indicated by the video control signal.” ‘4,907 patent at 7:15-21 (emphasis added).²⁷

Comcast asserts that the Court should construe these terms to reflect the fact that, as described in the specifications, “the video signals are transferred in response to the

²⁷ Claim 21 of the ‘7,907 patent states, in relevant part, “*transferring first video signals* to a first communication system using a first bandwidth if the first communication system is indicated by the viewer control signal or *transferring second video signals* to the second communication system using a second bandwidth if the second communication system is indicated by the viewer control signal wherein the second bandwidth is less than the first bandwidth.” ‘7,907 patent at 7:64-8:4 (emphasis added).

video/viewer control signal received from the computer.” Comcast’s Answering Claim Construction Br. at 14. Sprint offers only two arguments as to why the Court should reject Comcast’s proposal, neither of which are persuasive.

First, Sprint argues that judicial construction is unnecessary because “[t]he claimed ‘transferring’ of video signals is set forth with plain and non-technical language that will be easily understood by the jury without judicial construction.” Sprint’s Opening Claim Construction Br. at 13. This argument ignores that the parties do not disagree about what it literally means to transfer a video content signal or video signal; rather, their positions diverge on the issue of whether the video signal must be sent in response to a video or viewer control signal. *O2 Micro*, 521 F.3d at 1361 (“A determination that a claim term ‘needs no construction’ or has the ‘plain and ordinary meaning’ may be inadequate . . . when reliance on a term’s ‘ordinary’ meaning does not resolve the parties’ dispute.”). Thus, even if the terms are in plain English, the Court must “determine what claim scope is appropriate in the context of the patents-in-suit.” *Id.*

Similarly unpersuasive is Sprint’s argument that Comcast’s construction fails to “demonstrate[e] that the transferring of video content signals is not ‘in response to’ a particular signal, but is instead responsive to a host of signals that may be transmitted within the system.” Sprint’s Opening Claim Construction Br. at 13. Not only does Sprint fail to identify any other type of signal besides a “control signal” to which the video or viewer content signal responds, but its argument is plainly contradicted by the specifications, including parts on which it relies. *See, e.g.*, Joint Claim Construction Chart at 14 (citing ‘7,907 patent at 2:61-3:14, which states, in relevant part, “The processing system transfers video signals . . . in response to the viewer control signal.” (citation omitted)); *see also, e.g.*,

‘4,907 patent at 2:54-57 (same); ‘7,907 patent at 4:5-7 (“The processing system . . . responsively transfer[s] a preview of the selected video content as video signals.” (citation omitted)); ‘4,907 patent at 3:57-59 (same); ‘4,907 patent at 2:47-49 (“In response to viewer input to the control screen, the second display transfers a corresponding viewer control signal” (citation omitted)).

Accordingly, because Sprint has provided no legitimate basis for objecting to Comcast’s proposed constructions, which are amply supported by the specifications, the Court construes the terms as follows in accordance with Comcast’s proposed constructions: (1) “transferring [video content signals/the video content signals]” is construed as “in response to the video control signal, transferring [video content signals/the video content signals]”; and (2) “transferring [first/second] video signals” is construed as “in response to the viewer control signal, transferring [first/second] video signals.”

D. Allegedly Indefinite Claim Terms

The final set of disputes between parties with respect to the ‘907 patents pertain to a series of terms that Comcast contends are indefinite. Specifically, Comcast argues the following terms are “insolubly ambiguous” and, thus, incapable of being construed: (1) “second communication system,” (2) “the video content signals,” (3) “the first communications interface,” and (4) “the second communications interface.”²⁸

As a preliminary matter, the Court notes that the parties filed their briefs prior to the recent decision of the Supreme Court in *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct.

²⁸ Although Sprint defined the plain and ordinary meaning of these terms in the Amended Joint Claim Construction Chart, in compliance with the Order of the Court dated January 24, 2014, neither party argues that if found to be definite, these terms should be construed. Thus, the Court only rules on Comcast’s indefiniteness arguments and does not construe the terms further.

2120 (2014). In *Nautilus*, the Court clarified that the relevant inquiry is not whether a claim term is “insolubly ambiguous,” but whether the “claim[], read in light of the specification delineating the patent, and the prosecution history, fail[s] to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Id.* at 2124.

Accordingly, this Court is guided by the standard set forth in *Nautilus*.

I. “second communication system”

Comcast argues that the term “second communication system” in claims 10 through 18 of the ‘4,907 patent is indefinite because claim 10 — from which claims 11 through 18 depend — refers to a “second communication system” without any reference to a “first communication system.” The Court rejects this argument. Although claim 10 does not recite a “first communication system,” it does recite a first and a second communication interface. One of ordinary skill in the art would understand that the “second communication system” logically pertains to the “second communication interface.”

Moreover, to the extent that there is any ambiguity left by the words of the claims, the specification and independent claim 1 of the patent make the relationship between the second communication interface and second communication system abundantly clear. *See, e.g.*, ‘4,907 patent at 2:17-24 (noting in the specification that “[t]he video-on-demand system comprises a first communication interface and a second communication interface that are each coupled to a processing system,” and while “[t]he first communication interface is coupled to a first communication system,” “[t]he second communication interface is coupled to a second communication system” (citation omitted)); *id.* at 6:28-47 (claim 1) (reciting both a “first communication system” and a “second communication system”). Accordingly, the term “second communication system” is not indefinite.

2. “the first communications interface” and “the second communications interface”

Next, Comcast argues claims 23, 24, and 25 of the ‘7,907 patent are indefinite because the terms “the first communications interface” and “the second communications interface,” contained therein, lack antecedent bases. Again, the Court finds Comcast’s arguments with respect to these two terms unconvincing.

The requirement that each claim term have an antecedent basis is a rule of patent drafting, administered during patent examination. *Energizer Holdings, Inc. v. Int’l Trade Comm’n*, 435 F.3d 1366, 1370 (Fed. Cir. 2006). In order to provide an explicit antecedent basis, a claim must introduce a given term using an indefinite article (e.g., “a” or “an”) before referring to it in definite form, using “the” or “said.” *See* Morgan D. Rosenberg, *The Essentials of Patent Claim Drafting* app. B, at 183 (2012) (“Antecedent basis: Any term that is referred to in a patent claim as ‘the . . .’ or ‘said . . .’ must have been recited previously in that claim, or one upon which it depends.”).

Failure to provide an explicit antecedent basis, however, does not automatically render a term indefinite. *See Energizer Holdings*, 435 F.3d at 1370-71. In this case, the patent provides sufficient detail that a person of ordinary skill in the art would still understand the scope of these claims even absent strict compliance with grammatical rules. Just as the specification of the ‘4,907 patent, the specification of the ‘7,907 patent explains the relationship between the first communications interface and the first communications system and between the second communications interface and the second communications system. The specification of the ‘7,907 patent recites:

If the first communication interface is used, then the first communication interface transfers the video signals to the first communication system. . . . If the second communication interface is used, then the second communication

interface transfers the video signals to the second communication system. The second communication system transfers the video signals to the second display. The second display displays the video.

‘7,907 patent at 3:4-13 (citations omitted). Other claims of the patent, such as claim 1, also reflect the relationships between the two interfaces and communication systems. *See, e.g., id.* at 6:42-58. Accordingly, because the identifiers “first” and “second” allow the reader to discern the communications system to which each interface pertains, neither “the first communications interface” nor “the second communications interface” is indefinite.

3. “the video content signals”

Finally, Comcast argues that the term “the video content signals,” contained in claims 23, 24, and 25 of the ‘7,907 patent, are indefinite. Comcast makes two separate arguments. First, Comcast contends that the term “the video content signals” has no explicit antecedent basis. Second, Comcast asserts that there is mention of “video content signals” in the specification. The Court disagrees.

First, although Comcast is correct that “the video content signals” has no explicit antecedent basis, a claim term is not invalid for indefiniteness if its antecedent basis is present by implication. *Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.*, 424 F.3d 1293, 1319 (Fed. Cir. 2005) (holding that an antecedent basis can be present by implication). In this case, it is clear that the term “the video content signals” recited in dependent claim 23 refers to the “first video signals” and “second video signals” in claim 21, which is the independent claim from which claim 23 depends.

Likewise, the Court disagrees that the given claims are invalid because the term “the video content signals” is absent from the specification. It is a well-established rule of patent drafting that “[t]here is no requirement that the words in the claim must match those in the

specification disclosure.” *In re Skvorecz*, 580 F.3d 1262, 1268-69 (Fed. Cir. 2009) (quoting *Manual of Patent Examining Procedure* § 2173.05(e)). While the precise term “the video content signals” does not appear until claim 23, all references in the specification to the transfer of “video signals” are made in connection with a description of the delivery of video content. *See, e.g.*, ‘7,907 patent at 4:5-7 (“The processing system processes the video preview selection signal to responsively transfer a preview of the selected video content as video signals.” (citation omitted)); *id.* at 4:38-40 (“The processing system process the video content menu selection signal to responsively transfer the selected video content as video signals.” (citation omitted)).

Thus, Comcast’s arguments are rejected. The Court concludes that the term “the video content signals” is not indefinite on either ground.

E. Agreed Constructions

The parties agree that: (1) “control screen signal” should be construed as “a signal that defines a control screen” and (2) “implementing a viewer control selection” should be construed as “in response to the video control signal, implementing a viewer control section.” The Court adopts these two constructions.

F. Summary of Constructions

The Court’s constructions with respect to the ‘907 patents are set forth in the following chart.

TERM	CONSTRUCTION
“operating a video-on-demand system”	Operating a video-on-demand system without the use of a set-top box for remote control of the video-on-demand system
“video control signal”	A video control signal generated and processed without the involvement of a set-top box for remote control of the video-on-demand system
“viewer control signal”	A viewer control signal generated and processed without the involvement of a set-top box for remote control of the video-on-demand system
“transferring [video content signals/the video content signals]”	In response to the video control signal, transferring [video content signals/the video content signals]
“transferring [first/second] video signals”	In response to the viewer control signal, transferring [first/second] video signals
“second communication system”	Plain and ordinary
“the video content signals”	Plain and ordinary
“the first communications interface”	Plain and ordinary
“the second communications interface”	Plain and ordinary
“control screen signal”	A signal that defines a control screen
“implementing a viewer control selection”	In response to the video control signal, implementing a viewer control selection

VI. ‘323 PATENT

Comcast’s ‘323 patent, entitled “Starting a Short Message Transmission in a Cellular Communication System,” was filed on February 8, 1996 and issued on November 16, 1999. Described at a high level, the ‘323 patent consists of a method for transmitting stored SMS messages to a mobile-phone subscriber who “become[s] active in the cellular communication network area” after a period of temporary unavailability. *See* ‘323 patent at 2:5-12. The invention improves upon the prior art by allowing the network to store subscriber-specific preferences that dictate when and in which order each subscriber’s

messages should be sent to his or her phone upon reentry into the network. *Id.* These subscriber preferences are stored in and transmitted from “a subscriber location register” (“SLR”). SLR is the only term in the ‘323 patent requiring Court construction.

A. “a subscriber location register”

COMCAST	SPRINT
<i>a cellular communication system’s platform for persistently maintaining data pertaining to a subscriber’s mobile phone, regardless of where the mobile phone is currently located, or</i>	<i>a home location register</i>
<i>a permanent database used in a cellular communication system to identify a subscriber and to contain subscriber data, such as location data, related to features and services</i>	<i>“home location register” is defined as a term of art that refers to a permanent location registry in a mobile telecommunication network containing subscriber data and that is used by the network to identify a subscriber’s location so as to enable redirection of incoming calls intended for the subscriber to the coverage area that the subscriber currently is located</i>

The term “a subscriber location register” appears in claims 1, 3, and 4 of the ‘323 patent. For example, claim 1 states:

A method for starting a short message transmission in a cellular communication network, comprising:

storing information in *a subscriber location register* based on the fact that at least one short message service center stores short messages to be transmitted to a subscriber to whom said short messages cannot be transmitted for the time being;

transmitting from said *subscriber location register* of said subscriber to said at least one short message service center, a short message transmission starting message when it is possible again to transmit short messages to said subscriber, wherein

information on conditions under which said short message service center is transmitted short message transmission starting messages is maintained specific to said short message service center and to said subscriber in said *subscriber location register*.

‘323 patent at 9:7-24 (emphasis added).

The parties’ proposed constructions of this term have gone through multiple

iterations. Through briefing and oral argument, the parties have made progress in crystalizing their dispute. As reflected in the parties' latest proposals, all parties agree that, pursuant to the specification of the '323 patent, the functions of an SLR and a "home location register" (HLR) overlap to some extent. However, the parties disagree as to which characteristics an SLR and HLR share and whether an SLR must take the form of a unitary structure or device.

In the parties' initial Joint Claim Construction Chart, Sprint asserted that "SLR" should be defined as an "HLR" without elaboration, while Comcast proposed "a cellular communication system's platform for persistently maintaining data pertaining to a subscriber's mobile phone, regardless of where the mobile phone is currently located." However, at the *Markman* hearing, the Court advised Sprint that its definition was inadequate because it substituted one technical term (SLR) for another (HLR), thus, begging the question of how to define the latter. *See, e.g.*, Tr. 1/24/14 at 3-4 (Court).

Thereafter, Sprint changed its construction at least three times. First, counsel for Sprint submitted an excerpt from *Newton's Telecom Dictionary* (11th ed. 1996), defining "home location register" as "[a] permanent database used in GSM (Global System for Mobile Communications) to identify a subscriber and to contain subscriber data related to features and services." *See* Sprint's Claim Construction Slides, Ex. 5 at 18. When the Court sought to confirm that this in fact was Sprint's definition of SLR, counsel for Sprint proposed two modifications: (1) an SLR may exist in systems other than a GSM system, *see* Tr. 1/24/14 at 41:20-24 (counsel for Sprint), and (2) an SLR "has to include a permanent database to identify contained subscriber data related to at least location and features and services," *id.* 42:24-43:1 (counsel for Sprint). But when Comcast agreed to accept Sprint's

Newton's Telecom Dictionary definition, as modified by Sprint, counsel for Sprint recanted, substituting the following proposal: "a permanent location register database that identifies a subscriber and contains subscriber data related to features and services." *Id.* at 52:3-10 (counsel for Sprint).

After the first part of the *Markman* hearing, at which construction of the '323 patent was argued, Sprint proposed a new construction in the parties' Amended Joint Claim Construction Chart, this time setting forth a two-part definition:

- (1) "a subscriber location register" is "a home location register"; and
- (2) "a home location register" is "a permanent location registry in a mobile telecommunication network containing subscriber data and that is used by the network to identify a subscriber's location so as to enable redirection of incoming calls intended for the subscriber to the coverage area that the subscriber currently is located."

Am. Joint Claim Construction Chart at 19. In that Amended Joint Chart, Comcast submitted its original proposal, along with the modified *Newton's Telecom Dictionary* definition it agreed to during the *Markman* hearing: "a permanent database used in a cellular telecommunication system to identify a subscriber and to contain subscriber data, such as location data, related to features and services." *Id.*

The Court substantially adopts Comcast's alternative proposal with two modifications: (1) to state that an SLR need not take the form of a single structure or one-piece device, as discussed *infra*; and (2) to clarify that data contained within the SLR must include location data. This proposal is based on the definition of HLR set forth in *Newton's Telecom Dictionary*, which Sprint submitted and modified during the *Markman* hearing. Further, in stating that "the home location register performs basically the same tasks as the subscriber location register of the invention," the patentee was specifically referencing the storage tasks described in the immediately preceding sentence. *See* '323 patent at 5:21-26

(“A GSM network, which is shown in FIG. 1, usually comprises one home location register H[LR], which is a database in which the data of a mobile phone, such as the location data, is permanently stored. The home location register performs basically the same tasks as the subscriber location register of the invention.”). Comcast’s construction captures this core characteristic shared by an HLR and SLR. This characteristic is included both in the specification and in the *Newton’s Telecom Dictionary* definition submitted by Sprint.

In contrast, Sprint’s latest iteration of “SLR” attempts improperly to import limitations from the description of a preferred embodiment in the specification into the claims. In asserting that an HLR — and, thus, by implication, an SLR — must perform “many, many, many functions,” Tr. 1/24/14 at 49:23 (counsel for Sprint), including that of call routing, Sprint focuses solely on the specification’s “detailed description” of an HLR in “the preferred field of application of the invention,” which is “the digital GSM mobile telephone system.” *See* ‘323 patent at 5:8-13. In doing so, Sprint ignores the fact that the specification expressly notes that the patented method “can also be used in a radio system of a different type.”²⁹ *Id.* at 9:2-4. Thus, while the specification states that “[t]he basic structure and facilities of the GSM mobile telephone system [including a GSM HLR] . . . [are] defined relatively precisely in the GSM system specifications,” *see id.* at 5:14-20, these “relatively precise[.]” definitions may not be read as limitations on the claims.

Not only does Sprint’s proposed construction import limitations of a preferred embodiment, it includes detail that will needlessly confuse the jury without meaningfully impacting the questions of infringement and invalidity. During the *Markman* hearing, it

²⁹ *See also* ‘323 patent at 5:11-16 (“In the following, the method of the invention will be described as applied in the digital GSM mobile telephone system, which is the preferred field of application of the invention. The method of the invention can, however, also be applied in other radio systems of a similar type or in adaptations of the GSM system.”).

became apparent that Sprint's accused system does have "a conventional, old-fashioned database that's called a home location register," *see* Tr. 1/24/14 at 17:25-18:2 (counsel for Comcast); *see also id.* at 19:7-10 (counsel for Comcast), which performs a call-routing function highlighted by the most recent construction proposed by Sprint. Thus, the only material dispute for claim-construction purposes is whether this "conventional HLR" operating in conjunction with "an additional database that . . . performs some of the[] inventive elements of the claim," *see* Tr. at 1/24/14 at 19:8-10 (counsel for Comcast), *together* may constitute the SLR, which is claimed.³⁰ The Court can more efficiently address this dispute over scope by directly ruling on the issue, rather than by adding unnecessary language about call routing into the claims.

The Court agrees with Comcast that the various components of an SLR need not all be housed in a unitary structure, such as a single database or physical device. "Unless the claims, the specification, or the prosecution history require that the particular component be a single, one-piece structure, a court normally will not read that limitation into the

³⁰ Tr. 1/24/14 at 55:25-56:11 (Counsel for Comcast: "[T]here are two devices [in Sprint's accused system] with two sets of data and they work in conjunction with one another. . . . And the question is . . . does the construction encompass both of these devices or if we — or are they going to be able to get a construction that says, you can only look at the one device and the one device has to do everything and you can't consider the fact that there's, you know, two devices and two sets of data working together as a kind of a unit functionally."); *id.* at 35:22-36:3 (Counsel for Sprint: "[Sprint] do[es] not have a single HLR that performs each of the claimed steps by itself. Now, perhaps they could contend that the accused HLR in conjunction with another database or another system perform [sic] all of the steps and that would be the platform. That's why they use the term platform in their construction, because they don't want to be limited to one device."); *id.* at 55:25-56:8 (counsel for Comcast).

Sprint's statement as to the impact of the term on Comcast's allegations of infringement also makes clear that the reason Sprint wants to include this language about call routing in the definition of SLR is "[t]he accused Sprint functionality does not perform the [functions identified by the claims *and* this call-routing function] using only the home location register." Am. Joint Claim Construction Chart at 19-20.

claim.” *Textron Innovations Inc. v. Am. Eurocopter Corp.*, 498 F. App’x 23, 30 (Fed. Cir. 2012). In this case, the claims themselves explain that an SLR is comprised of multiple elements without limitation as to how they physically relate. Further, there is no support in the specification for the proposition that an SLR must be composed of a single, integrated device. If anything, the specification contemplates multiple components working together to perform the SLR’s functions.³¹

In arguing that an SLR must take the form of a single database or one-piece structure, Sprint’s reliance on the HLR embodiment is misplaced. Even if an HLR in a GSM system is composed in a single, physical “box,” *see* Tr. 1/24/14 at 49:14-15 (counsel for Sprint); *id.* at 68:22-23 (counsel for Sprint), “a disclosure of a preferred or exemplary embodiment encompassing a singular element does not disclaim a plural embodiment,” *KJC Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1536 (Fed. Cir. 2000). Outside of its explanation of the GSM system, the patentee only equates the HLR and SLR in terms of the *tasks* that the two registers perform, never the *structural* forms that they take.³² *See* ‘323 patent at 5:24-26 (“The home location register performs basically the same *tasks* as the subscriber location register of the invention.” (emphasis added)).

More fundamentally, however, there is no support for Sprint’s assertion that an HLR

³¹ For example, in Figure 2, the SLR is depicted as composed of multiple separate boxes all contained within a larger box. Notably, the label “HLR functions” is in a box separate from the “subscriber data” box, in which the preferences may be contained. The patent also contemplates flexibility as to where particular data is stored. *See* ‘323 patent at 6:66-67 (“The database *may* be located in the subscriber database **11** as shown in FIG. **3**.” (emphasis added)).

³² Moreover, the Court notes that the term “i.e.,” is only used to relate “SLR” to “subscriber home location register” or “home location register” in the context of the preferred embodiment, which is an SLR in a GSM system. *See, e.g.*, ‘323 patent at 6:58-60 (“A subscriber location register, which corresponds to a home location register HLR in the GSM system, contains an HLR function block.” (citations omitted)).

must take the form of a single physical “box,” *see* Tr. 1/24/14 at 49:14 (counsel for Sprint), even in a GSM system. While an operator may choose to house all of the elements that perform HLR functions in a single structure, the GSM specifications expressly refrain from requiring that this be the case:

The HLR, as described in this and all other GSM recommendations, *is not a physical entity and need not be implemented as such*, it is, rather, a set of functions which are required to manage the mobile nature of subscribers belonging to the HLR. . . . HLR functions *may be incorporated into a single physical entity or distributed and combined* with other PLMN entities such as a MSC.

Home Location Register Specification, GSM 11.31, at 2 (emphasis added).³³ Accordingly, the Court declines to read this limitation of scope into the claims.

In sum, the court construes “a subscriber location register” as “a permanent database used in a cellular communication system to identify a subscriber and to contain subscriber data, including location data, related to features and services, which needs not take the form of a single structure or one-piece device.”

B. Agreed Construction

The parties agree that “short message” should be construed as “an SMS message.”

The Court adopts that construction.

C. Summary of Constructions

The Court’s constructions with respect to this patent are set forth in the following chart.

³³ During a conference call with the parties, through counsel, on April 17, 2014, the parties expressly approved use of the GSM specifications in addressing the *Markman* issues. Further, the ‘323 patent incorporates GSM 11.31 by reference as a preferred embodiment. *See* ‘323 patent at 5:16-20 (“The basic structure and facilities of the GSM mobile telephone system are known to ones skilled in the art and defined relatively precisely in the GSM system specifications, especially in ‘GSM Recommendations 01.02; 11.30; 11.31; 11.32; and 03.40.’”).

TERM	CONSTRUCTION
“a subscriber location register”	A permanent database used in a cellular communication system to identify a subscriber and to contain subscriber data, including location data, related to features and services, which needs not take the form of a single structure or one-piece device
“short message”	An SMS message

VII. ‘870 PATENT

Comcast’s ‘870 Patent, entitled “Transferring a Message,” was filed on February 22, 2001 and issued on April 26, 2005. On December 14, 2010, Comcast initiated an *ex parte* reexamination request that the Patent Office reevaluate the patentability of all claims in light of additional prior art. The Patent Office granted the request for reexamination and, by certificate dated October 4, 2011, confirmed the validity of the claims under reexamination³⁴ and added ninety-three new claims.

The primary purpose of the invention of the ‘870 patent is to allow a message to be sent from a mobile subscriber of an “external” cellular network to a mobile subscriber of an “internal” cellular network, even when the mobile subscriber of the internal network to which the message is addressed has a PDP address that is “dynamically assigned,” meaning the address is constantly in flux. The patent specification describes the invention as a “new solution” to the following problem posed by the prior art:

[O]n receiving a message addressed to a given wireless terminal [in an internal network], it is expedient for [a] messaging server [external to the network] to make sure, by making an inquiry, that the wireless terminal in question is actually ready to receive the message . . . before transmitting the message to the [internal] network . [sic] In cellular networks, dynamic PDP addresses . . . are often allocated to terminals. In this case, a wireless terminal [in the internal network] does not necessarily always have use of the same PDP address

³⁴ Minor modifications were made to existing claims 1 and 16.

When using dynamic IP [or PDP] addresses there is a problem associated with performing the previously mentioned inquiry to identify said wireless terminal from outside the cellular network . . . : How can a wireless terminal be identified from outside a cellular network so that inquiries relating to the wireless terminal can also be carried out reliably when the wireless terminal has a dynamic PDP address?

‘870 patent at 2:18-41.

Without delving into unnecessary detail, the method, in its most general form, consists of four steps. *First*, “[a]n inquiry is sent from the [external] messaging server to the cellular network, comprising an external . . . identifier for identifying [the] terminal” to which the message is addressed. *Id.* abstract. *Second*, “[i]n the cellular network[,] the [external] identifier is mapped to a[n] . . . internal identifier.” *Id.* *Third*, “[t]he [required] information relating to the terminal (MS) [e.g., the dynamic IP or PDP address] is determined with the aid of [the internal] identifier.” *Id.* And *fourth*, “a responsive message is sent from the cellular network to [the external] messaging server,” in which the required “information relating to the terminal is indicated by the [external] identifier.” *Id.*

The Court must construe two terms in the ‘870 patent: (1) “a specific identifier external to the cellular network” and (2) “an internal identifier of the cellular network.”

A. “a specific identifier external to the cellular network”

COMCAST	SPRINT
<i>a specific identifier used outside the cellular network to identify a wireless terminal</i>	<i>an identifier used to identify a wireless terminal unequivocally and independently of the wireless terminal’s address</i>

The first term the Court must construe is “a specific identifier external to the cellular network” (“external identifier”). This term is located in claim 1, as reexamined, and claim 112 of the ‘870 patent. For instance, claim 1, as reexamined, recites:

A method for inquiring about information relating to a wireless terminal of a cellular network, from the cellular network by a messaging server external to

the cellular network, wherein the method comprises:

sending an inquiry from the messaging server to the cellular network to determine said information relating to the terminal, the inquiry comprising a first identifier identifying said terminal, the first identifier being *a specific identifier external to the cellular network*;

mapping said first identifier to a specific second identifier in the cellular network, the second identifier being an internal identifier of the cellular network;

determining said information relating to the terminal with the aid of said second identifier;

sending a response message in response to said inquiry from the cellular network to said messaging server external to the cellular network, in which response message the information relating to said terminal is indicated with the aid of said first identifier.

‘870 patent reexamination certificate at 1:27-44 (emphasis added).

Comcast argues that its “construction captures the [two] key characteristics” of the term, which are that the external identifier (1) is used outside the cellular network, (2) to identify the wireless terminal.” In opposing Comcast’s construction, Sprint contends that Comcast fails to make clear that the identifier must “unequivocally” identify the wireless terminal and do so “independently of the wireless terminal’s address.” Sprint proposes that the term instead be construed as “an identifier used to identify a wireless terminal unequivocally and independently of the wireless terminal’s address.”

The primary support for Sprint’s proposal is the following statement in the specification:

According to the present invention, an identifier external to a cellular network is used to identify a wireless terminal MS, such as an MMS-ID, *which identifies the wireless terminal MS in question unequivocally, independent of the wireless terminal’s address* in RFC822 format used at any given time.

‘870 patent at 13:61-66 (emphasis added). Relying on the clause “[a]ccording to the present invention,” Sprint argues that the allegedly limiting language (italicized in the block quote

above) is definitional and pertains to the invention as a whole. In contrast, Comcast asserts that the clause that begins “which identifies the wireless terminal MS in question” only modifies the immediately preceding clause, “such as an MMS-ID.”

Comcast explains that this distinction is important because an MMS-ID is only an exemplary embodiment of the external identifier of the invention. Specifically, an MMS-ID is described in the specification as an example of one type of external identifier, the specific details of which are not germane for claim construction. *Id.* at 7:24-42. While the majority of the specification is devoted to discussing this embodiment of the external identifier, the patentee leaves no doubt that something other than an MMS-ID may be used instead. *See, e.g., id.* at 4:49-52 (noting that the external identifier, “in connection with a preferred embodiment of the invention, is called an MMS-ID”).

The Court agrees with Comcast and concludes that the external identifier of the invention need not identify the wireless terminal unequivocally and independently of the wireless terminal’s address. From the outset, Sprint’s proposal is flawed because it fails to include the entirety of the statement in the specification on which it relies. Specifically, Sprint excludes the last part of the sentence, which explains that the identifier must only “identif[y] the wireless terminal . . . independent of the wireless terminal’s *address in RFC822 format used at any given time.*” *Id.* at 13:63-66 (emphasis added). Although Sprint asserts that it omitted this language from its proposal because “a lay juror is not likely to appreciate the format referenced by RFC822,” Sprint’s Answering Claim Construction Br. at 5, this information is crucial; the specification explains that an “address in RFC822 format” is a very specific type of address, namely one formatted as a conventional email address. *See* ‘870 patent at 6:55-61. By excluding this information, Sprint broadens the

meaning of this key sentence.

Indeed, without the last part of the sentence, “*in RFC822 format used at any given time*,” Sprint’s proposal does not make any sense. As Sprint recognized during oral argument and in its briefing, the external identifier is itself an address, which, as noted by the examiner during reexamination, also may be “comprised [of] sub-addresses.” *See* Comcast’s Opening Claim Construction Br., Ex. D, at 8.³⁵ Thus, an external identifier cannot be independent of *every* type of address because that would include requiring the external identifier to be independent both of itself and of its components. The Court will not construe the term to produce such a nonsensical result. *Interactive Gift Exp., Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1336 (Fed. Cir. 2001) (rejecting a construction that was “illogical” and “d[id] not accord with the plain import of the claim language”); *LifeNet Health v. LifeCell Corp.*, No. 13-cv-486, 2014 WL 3615985, at *8 (E.D. Va. July 18, 2014) (“declining to adopt a nonsensical construction that [was] not supported by the specification language”); *Baxter Int’l Inc. v. McGaw, Inc.*, No. 95-cv-2723, 1996 WL 66139, at *4 (N.D. Ill. Feb. 12, 1996) (noting that the court would “disregard” a construction that was “nonsensical and border[ed] on ridiculous”).

More fundamentally, however, the Court disagrees with Sprint’s assertion that the limiting language in question pertains to the invention as a whole, rather than only to one embodiment in which the external identifier is an MMS-ID. While Sprint attempts to read the language on which it relies in isolation, “words, in context, receive their meaning according to their placement in grammatical structure.” *Finisar Corp. v. DirecTV Grp.*,

³⁵ Comcast’s Opening Claim Construction Br., Ex. D, at 8 (noting that “the Aho patent . . . describes the first identifier (e.g., MMS-ID) as a textual format comprised [of] sub-addresses/identifiers”).

Inc., 523 F.3d 1323, 1336 (Fed. Cir. 2008). A basic rule of grammar is that “[m]odifiers should be place next to the words they modify.” *HTC Corp. v. IPCom GmH & Co., KG*, 667 F.3d 1270, 1274-75 (Fed. Cir. 2008) (citing William Strunk Jr. & E.B. White, *The Elements of Style* 30 (4th ed. 2000)); *see also* Tex. L. Rev., *Manual on Usage & Style* A:8, at 8-9 (8th ed. 1995) (“If necessary to avoid ambiguity, place subordinate clauses introduced by relative pronouns such as **who**, **which**, and **that** immediately after their antecedents.”). Accordingly, a reader may assume that the phrase that begins “which identifies the wireless terminal,” modifies the immediately preceding clause, “such as an MMS-ID.”

Further, if Sprint were correct that the allegedly limiting invention applied to the first two clauses in the sentence rather than to the third, the third clause, “such as an MMS-ID,” theoretically could be removed from the sentence while leaving the remainder intact. But removing “such as an MMS-ID” results in a sentence that reads:

According to the present invention, an identifier external to a cellular network is used to identify a wireless terminal MS, *which identifies the wireless terminal MS in question unequivocally, independent of the wireless terminal’s address in RFC822 format used at any given time.*

Because the final clause now modifies “a wireless terminal MS” rather than “an identifier external to the cellular network,” it is nonsensical and disjointed. Thus, given the way that the sentence is structured in the specification, the limiting language in question must pertain to “such as an MMS-ID” and to the specific embodiment that this clause describes.

Finally, that the language in question pertains only to a single embodiment is also the most consistent with the remainder of the paragraph in which the sentence was placed. Immediately after stating that “the MMS-ID . . . identifies the wireless terminal MS in question unequivocally, independent of the wireless terminal’s address in RFC822 format used at any given time,” the patentee further explains:

[The] use of an MMS-ID provides the advantage that if the address of the wireless terminal in RFC822 format changes, no changes are required in the cellular network (GPRS network). It is sufficient to update a new RFC822 address in the messaging server to correspond to the MMS-ID of the wireless terminal, which can still be used in communication between the messaging server and the cellular network.

‘870 patent at 14:2-9. When placed in context, the allegedly “definitional” statement on which Sprint relies clearly relates to a preferred embodiment of the invention, namely an MMS-ID, not the invention as a whole. *See, e.g., Magna Donnelly Corp. v. 3M Co.*, No. 07-cv-016688, 2012 WL 2952382, at *8 (E.D. Mich. June 15, 2012) (noting that “one would not expect to find a definition of a claim term in a paragraph discussing a single feature of the claimed invention where the paragraph is, in turn, within a section providing examples or preferred embodiments of the claimed invention”).³⁶

Although the Court substantially agrees with Comcast’s proposal, the Court concludes that two slight modifications are warranted. First, at oral argument, counsel for Comcast agreed with Sprint that the external identifier must be used to “specifically . . . identify the wireless terminal.” *See, e.g.,* Tr. 1/23/14 at 64:16-20 (Counsel for Comcast: “[O]ur construction would identify my sister, Katie, in Colorado. It’s not going to identify a

³⁶ Although not an argument raised by the parties, the Court also notes that the mapping of an RFC822 address to the external identifier is only relevant to dependent claim 5 of the ‘870 patent, which recites:

A method according to claim 2, wherein the method comprises:

mapping an address associated with the message addressed to the terminal to said first identifier of the terminal to the messaging server before sending said inquiry to the cellular network.

‘870 patent at 14:62-67 (emphasis added); *see also id.* at 14:54-56 (claim 2) (“A method according to claim 1, wherein said inquiry is made in response to a message addressed to the terminal arriving at the messaging server.”). Under the doctrine of claim differentiation, the Court concludes that there is no limitation in independent claim 1 that prevents the external identifier from being an RFC822 address, let alone one that requires the external identifier to be an address that is *independent* of the wireless terminal’s address in RFC822 format.

building in Colorado, with lots of people in it. It’s specifically going to identify the wireless terminal.”). Because the parties agree and because Comcast’s proposed definition is ambiguous on this point, the Court will amend Comcast’s proposed construction to state that the external identifier is used to identify a *specific* wireless terminal.

Second, the Court is concerned that, by defining an external identifier as an “identifier used *outside* the cellular network,” Comcast’s proposal could be read as implying that the external identifier need not or cannot also be used *inside* the network. However, the specification makes clear that this is not the case and that the external identifier is used by both the external and internal networks. *See, e.g.*, ‘870 patent abstract (“An inquiry is sent from the messaging server to the cellular network, comprising an external first identifier for identifying said terminal. In the cellular network[,], the first identifier is mapped to a second internal identifier.”). The Court therefore also will modify Comcast’s proposal to state that the identifier is used *both* inside *and* outside the network to identify the wireless terminal.

Accordingly, the Court construes the term “a specific identifier external to the cellular network” as “a specific identifier used outside and inside the cellular network to identify a specific wireless terminal.”

B. “an internal identifier of the cellular network”

COMCAST	SPRINT
<i>an identifier used inside the cellular network to identify the wireless terminal</i>	<i>an identifier used to identify the terminal inside the cellular network and it is not revealed to network elements external to the cellular network</i>

The second term at issue in the ‘870 patent is “an internal identifier of the cellular network” (“internal identifier”), which is also located in claim 1 (*supra* at 52-53) as reexamined, and claim 112. For example, claim 1 recites, in relevant part: “A method for

inquiring about information relating to a wireless terminal of a cellular network . . . , wherein the method comprises [*inter alia*] . . . mapping said first identifier to a specific second identifier in the cellular network, the second identifier being *an internal identifier of the cellular network*.” ‘870 patent reexamination certificate at 1:27-45 (emphasis added).

Comcast proposes that the term be construed as “[a]n identifier used inside the cellular network to identify the wireless terminal,” while Sprint advocates for “an identifier used to identify the terminal inside the cellular network and it is not revealed to network elements external to the cellular network.” A comparison of the two proposals reveals that the crux of the parties’ dispute is whether the “internal identifier” may be revealed outside of the cellular network.

The Court agrees with Comcast that the internal identifier may, but need not, be revealed outside of the network. The primary support for the more limiting construction proposed by Sprint is the patentee’s statement that the “second identifier . . . is used to identify the terminal inside the cellular network and it is not revealed to network elements external to the cellular network.” *Id.* at 4:54-59. However, in interpreting the language of the specification, “**context matters.**” *DDR Holdings, LLC v. Hotels.com, L.P.*, No. 06-cv-42, 2012 WL 4742809, at *5 (E.D. Tex. Oct. 3, 2012), *appeal dismissed* (Apr. 21, 2014). The paragraph from which the statement in question is excerpted is plainly a continuation of the patent’s description of a particular embodiment of an internal identifier, an IMSI, which begins in the preceding paragraph. *See, e.g., Advanced Software Design Corp. v. Fiserv, Inc.*, 641 F.3d 1368, 1379 (Fed. Cir. 2011) (noting that the statements drawn “from a paragraph that discusses a particular embodiment” are “most naturally interpreted as being limited to embodiments of the invention”). Thus, a person of ordinary skill in the art would

interpret the patentee's statement about not revealing the internal identifier as pertaining to this specific embodiment, rather than the invention as a whole.

That the patentee's statement pertains only to a single embodiment is reinforced by subsequent statements in the specification, which clarify that secrecy of the internal identifier is merely an option rather than a requirement. Specifically, the patentee stated elsewhere in the written description that (1) "the Gi interface is *preferably* not used" in communicating between networks "because, for security reasons, *there is a desire* not to reveal the secret IMSI code [i.e., one embodiment of the internal identifier] of the wireless terminal to network elements external to the GPRS network," '870 patent at 9:62-10:2 (emphasis added), and, (2) "the IMSI code . . . *does not have to be* revealed to outside the cellular network," *id.* at 13:66-14:1 (emphasis added). Such permissive language falls short of requiring secrecy of the internal identifier. *See, e.g., i4 Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 844 (Fed. Cir. 2010), *aff'd*, 131 S. Ct. 2238 (2011); *Cordis Corp. v. Medtronics AVE, Inc.*, 339 F.3d 1352, 1357 (Fed. Cir. 2003).

Moreover, Sprint's construction would exclude a disclosed embodiment from the scope of every claim. Before noting that "the Gi interface is preferably not used because . . . there is a desire not to reveal the secret IMSI code," the specification states that "[i]nvestigation messages *can be sent* to . . . another operator . . . over the Internet *via the Gi interface*." '870 patent at 9:62-65 (emphasis added) (citation omitted). Thus, despite the patentee's preference for other types of interfaces, the Gi interface is nevertheless an embodiment disclosed in the specification in which the internal identifier is revealed outside the internal network. Claim interpretations that exclude a disclosed embodiment of the invention are disfavored. *See In re Katz Interactive Call Processing*

Patent Litig., 639 F.3d 1303, 1324 (Fed. Cir. 2011) (“[T]here is a strong presumption against a claim construction that excludes a disclosed embodiment.”); *Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1383 (Fed. Cir. 2008) (“[O]ur court has cautioned against interpreting a claim term in a way that excludes disclosed embodiments, when that term has multiple ordinary meanings consistent with the intrinsic record.”); *Vitronics*, 90 F.3d at 1583-84 (same).

Finally, revelation of the internal identifier to elements external to the network would not subvert the invention’s entire purpose, as Sprint claims. Sprint is correct that, “[i]n construing claims, the problem the inventor was attempting to solve . . . is a relevant consideration.” *CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1146, 1160 (Fed. Cir. 1997). However, in the case of the ‘870 patent, the desire to keep at least certain embodiments of the internal identifier secret (e.g., the IMSI), is secondary to the patentee’s primary aim, which is to ensure that “inquiries relating to the wireless terminal can . . . be carried out reliably when the wireless terminal has a *dynamic PDP address*.” ‘870 patent at 2:33-40 (emphasis added). Because “there is no requirement that the asserted claims accomplish all of the objectives of the patents-in-suit,” this rationale does not justify reading Sprint’s proposed limitation into the claims. *St. Clair Intellectual Prop. Consultants, Inc. v. Matsushita Elec. Indus. Co.*, 691 F. Supp. 2d 538, 548 (D. Del. 2010); *see also Liebel-Flarsheim*, 358 F.3d at 908 (“The fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives.”).

Although it rejects Sprint’s proposal, the Court does find merit in Sprint’s assertion

that Comcast’s proposed construction fails to differentiate between the internal and external identifiers. Specifically, Sprint notes that because both the internal and external identifiers of the invention are used in the *internal* network to identify the wireless terminal, Comcast’s proposed construction — “an identifier used inside the cellular network to identify the wireless terminal” — applies equally to both identifiers. Amending Comcast’s proposal to add that an internal identifier “may, but need not, be revealed outside the cellular network” clarifies this point of confusion. The Court also modifies Comcast’s proposal to clarify that the internal identifier must identify a “specific” wireless terminal, consistent with Comcast’s agreement that this must be the case. *See supra* at 57-58.

Accordingly, the Court substantially adopts Comcast’s proposal and construes “an internal identifier of the cellular network” as “an identifier used inside the cellular network to identify a specific wireless terminal, which may, but need not, be revealed outside the cellular network.”

C. Summary of Constructions

TERM	CONSTRUCTION
“a specific identifier external to the cellular network”	A specific identifier used outside and inside the cellular network to identify a specific wireless terminal
“an internal identifier of the cellular network”	An identifier used inside the cellular network to identify a specific wireless terminal, which may, but need not, be revealed outside the cellular network

VIII. CONCLUSION

An appropriate order, setting forth the meaning of the construed terms and phrases, follows.