

**NOT FOR PUBLICATION**UNITED STATES DISTRICT COURT  
DISTRICT OF NEW JERSEY

GREENVILLE COMMUNICATIONS, LLC,	:	CIVIL ACTION NO. 07-4222 (MLC)
	:	
Plaintiff,	:	<b>MEMORANDUM OPINION</b>
	:	
v.	:	
	:	
CELLCO PARTNERSHIP, d/b/a	:	
VERIZON WIRELESS, et al.,	:	
	:	
Defendants.	:	
	:	

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**COOPER, District Judge**

Nineteen terms require construction in this action concerning the alleged infringement of United States Patent No. 5,321,740 (“’740 patent”) and No. 5,428,670 (“’670 patent”), which are directed toward telephone and communications marketing systems. (Dkt. entry no. 242, 2d Am. Compl., Exs. A & B.) The parties have submitted opening and responsive briefs for claim construction. (Dkt. entry nos. 182, 183, 198, 199.) The parties submitted supplemental briefing after reexamination of the patents-in-suit. (Dkt. entry nos. 246, 248, 264, 265.) The Court has considered the papers and has conducted a claim construction hearing.

**BACKGROUND**

The ’740 patent and ’670 patent are assigned to Plaintiff. The ’740 patent is directed toward a telephone marketing system. The ’670 patent is a continuation-in-part of the ’740 patent and claims a communications marketing system. The United States Patent and Trademark Office (“PTO”) granted requests for

reexamination of both patents in June of 2008, and issued reexamination certificates for them confirming patentability of the original claims and adding new claims in 2010.

The patented technology involves marketing systems that modify call processing software to replace audible call progress signals with announcements. (Dkt. entry no. 1-2, '670 patent, 1:11-19.) When making a call to a telephone that is in use, for example, a busy signal is heard. (Dkt. entry no. 1-1, '740 patent, 3:16-21.) But "[m]any calling parties become frustrated when encountering a busy signal, especially since the tone used to signify a busy signal is normally annoying". ('740 patent, 1:18-20; see '670 patent, 1:29-32.) If the called telephone is not in use, an idle or ringback signal is heard. (Id. at 3:16-20.) Yet "the period of time in which a calling party remains on the line while waiting for a party to answer the phone can be considered to be wasted time and money". ('740 patent, 1:28-31; see '670 patent, 1:37-39.) The patented technology thus seeks to productively occupy a caller's time while on the line. ('740 patent, 1:40-42.) The '740 patent contemplates a "telephone network" in which busy and ringback signals are partially or completely replaced with announcements. (Id. at 1:42-45.) The '670 patent contemplates a "communications network" that is capable of replacing part or all of a call progress signal with announcements.

The nineteen disputed terms appear in independent claim 1 and dependent claims 6-10, 13, 19, and 21 of the '740 patent, and in independent claims 1 and 8 and dependent claims 2, 6-7, 9, 13, 19, and 21 of the '670 patent. Claim 1 of the '740 patent is representative of the claims at issue. It reads as follows:

1. A marketing system for selectively modifying an existing telephone network by modifying a portion of the call processing software of the existing telephone network and by replacing at least a portion of an audible call progress signal including either a busy signal or a ringback signal generated by the telephone network by a generally continuous prerecorded announcement, the system comprising:

means for placing a telephone call by a calling party at a first telephone;

means for connecting the telephone call to an identified call station at a second telephone having a particular calling status;

means for initially determining the busy/idle status of the second telephone, said determining means thereafter checking the busy/idle status of the second telephone at predetermined intervals prior to completion of the call;

means for playing at least one generally continuous announcement to the calling party for a predetermined period of time during a time period when an audible call progress signal would have been provided to the calling party, said playing means determining the announcement to play based upon criteria established exclusively by the marketing system and independently of the identity of the called station; and

means for terminating the playing of the announcement and completing the call to the called station, in the case of the second telephone having an initial idle status, said announcement terminating and call completing means completing the call when the second telephone is answered and, in the case of the second telephone having an initial busy status, said announcement terminating and call completing means completing the call when the status of the second

telephone changes to an idle status and the second telephone is thereafter answered.

('740 patent, 11:1-12:2.)

## DISCUSSION

### I. Legal Standard

A court must engage in claim construction to define the meaning and scope of patent claims, as it is a matter of law exclusively for a court. Markman v. Westview Instruments, 52 F.3d 967, 976, 979 (Fed.Cir. 1995), aff'd 517 U.S. 370 (1996). A claim term receives its ordinary and customary meaning, which is the meaning that a "person of ordinary skill in the art" would give the term on the effective filing date of the patent application. Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed.Cir. 2005); see NTP, Inc. v. Research In Motion, 392 F.3d 1336, 1346 (Fed.Cir. 2004).<sup>1</sup> A person of ordinary skill in the art is deemed to have read the claim terms in the context of the entire patent. Phillips, 415 F.3d at 1313. Ordinary meaning may be derived from a variety of sources, including the claim language, the written description, drawings, prosecution history, dictionaries, and treatises. NTP, 392 F.3d at 1346.

A court looks to the intrinsic evidence when construing claims. The focus here is on the language of the claims, "for it is that language that the patentee chose to use to 'particularly

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<sup>1</sup> The effective filing date of the '740 patent is June 20, 1991. The '670 patent is a continuation-in-part and claims the June 20, 1991 priority date of the '740 patent.

point[] out and distinctly claim[] the subject matter which the patentee regards as his invention.'" Interactive Gift Express v. Compuserve, Inc., 256 F.3d 1323, 1331 (Fed.Cir. 2001) (quoting 35 U.S.C. § 112, ¶ 2). The intrinsic record includes the claims, specification, and complete prosecution history; it is the most significant source for the legally operative meaning of disputed claim language. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed.Cir. 1996). A court considers the context in which a term is used within both the claim at issue and claims not at issue. Phillips, 415 F.3d at 1314. A term appearing in different claims should be given the same meaning unless it is clear from the specification and prosecution history that the term at issue has a different meaning from claim to claim. Fin Control Sys. Pty v. OAM, Inc., 265 F.3d 1311, 1318 (Fed.Cir. 2001). Differences between claims are also useful in determining the proper construction of a term. Phillips, 415 F.3d at 1314. A dependent claim adding a limitation raises a presumption that the same limitation is not present in the independent claim. Id. at 1315.

A patent specification is relevant to claim construction and is the best guide to the meaning of a disputed term. Honeywell Int'l v. ITT Indus., 452 F.3d 1312, 1318 (Fed.Cir. 2006). But it is improper to read a limitation from the specification into the claims. Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313,

1326 (Fed.Cir. 2002). A court should “not import limitations from a preferred embodiment” described in the specification. Seachange Int’l v. C-COR Inc., 413 F.3d 1361, 1377 (Fed.Cir. 2005).

A patent’s prosecution history consists of the record of proceedings before the PTO and the prior art cited during the patent’s examination. Phillips, 415 F.3d at 1317. Prosecution history is evidence of “how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be”. Id. But this form of intrinsic evidence is often less clear and less useful than the specification. Id.

A court may also consider extrinsic evidence, including “expert and inventor testimony, dictionaries, and learned treatises”. Id. Such evidence generally is less reliable than intrinsic sources, but in some situations, ordinary meaning of claim language may involve nothing more than application of generally accepted meanings of commonly understood words. Id. at 1314, 1318. In such situations, general purpose dictionaries may be helpful. Id. at 1314. Extrinsic evidence, however, may never be used to contradict intrinsic evidence. Id. at 1322-23.

## **II. Application**

The Court will group similarly-worded terms from the nineteen terms requiring claim construction and analyze them as one. There are also two other claim construction issues: the parties (1)

dispute whether the preambles to the patents' independent claims are limiting, and (2) differ on the order of claim functions in claim 1 of the '740 patent and claims 1 and 8 of the '670 patent.<sup>2</sup>

#### **A. Preambles of Independent Claims**

A preamble is limiting only if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim. Symantec Corp. v. Computer Assocs. Int'l, 522 F.3d 1279, 1288 (Fed.Cir. 2008). Terms appearing in the preamble are not limiting if a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention. Id.

When an inventor "chooses to use both the preamble and the body to define the subject matter of the claimed invention, the invention so defined, and not some other, is the one the patent protects". Bell Commc'ns Research v. Vitalink Commc'ns Corp., 55 F.3d 615, 620 (Fed.Cir. 1995). The preamble also is limiting if it is essential to understanding limitations or terms in the claims. See Catalina Mktg. Int'l v. Coolsavings.com, 289 F.3d 801, 808 (Fed.Cir. 2002). The specification also might underscore as important structures or steps found in a preamble. Id. Further, "reliance on the preamble during prosecution to

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<sup>2</sup> The parties identified the term "busy signal" as requiring construction in their Final Joint Claim Construction and Prehearing Statement. (Dkt. entry no. 284-3, Final Joint Claim Construction Stmt., Ex. C.) But the parties now agree on the definition of this term. (Dkt. entry no. 289.)

distinguish the claimed invention from prior art” requires a court to consider the preamble limiting. Id.

Defendants argue that elements appearing in the preambles are not in the body of the claims, thus requiring the Court to find the preambles limiting. Defendants argue that “modifying a portion of the call processing software of the existing telephone network”, and “modifying a portion of the processing software of the existing communications network”, are additional steps not found in the body of the claims. (Dkt. entry no. 182, Def.’s Opening Br. at 54-55 (citing ‘740 patent, 11:2-3; ‘670 patent, 12:52-53).) Those steps, however, are in the body of the claims; they are simply worded differently. The preambles’ description of “modifying a portion of call processing software” is embraced collectively by the elements reciting a “means for initially determining the busy/idle status of the called station”, followed by a “means for playing at least one generally continuous announcement to the calling party . . . during a time period when a call progress signal would have been provided”, and ending with a “means for terminating the playing of the announcement”. (‘670 patent, 12:64-13:11; ‘740 patent, 11:16-31.)

The preambles also recite the clause “replacing at least a portion of a call progress signal . . . by a generally continuous prerecorded announcement”. (‘740 patent, 11:5-8; ‘670 patent, 12:55-58, 14:5-6.) Defendants argue that those are also



limitations. In particular, Defendants assert that the step of "replacing" the call progress signal is an additional step not found in the claims. It is true that the word "replacing" does not appear in the claims. Nonetheless, the bodies of the claims recite a "replacing" step, albeit in different language. Specifically, claim 1 of the '740 patent requires a "means for playing at least one generally continuous announcement . . . during a time period when an audible call progress signal would have been provided to the calling party". ('740 patent, 11:21-25.) In other words, the claim recites a means for replacing the call progress signal with a generally continuous announcement. Consequently, the preambles and elements of the claims cover the same subject matter. The preambles are not limiting because the bodies of the claims already incorporate the "replacing" limitation. Therefore, the claims describe a structurally complete invention unlimited by superfluous language in the preambles.

The parties also disagree as to whether Plaintiff relied upon the preambles to overcome prior art. Defendants point out that the applicants explained to the PTO that the invention was patentable over a piece of prior art, designated as "the Baral reference."<sup>3</sup> The Baral reference claimed an invention directed

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<sup>3</sup> The Baral Reference is U.S. Patent No. 4,932,042 directed toward "spontaneous voice and data messaging". (Dkt. entry no. 182-12, Baral Reference, Findley Cert., Ex. 13.)

toward "prerecorded announcements either between or superimposed on the call progress signals". (See Baral Reference, abstract.) The applicants distinguished the invention, explaining that the telephone marketing system operated by "modifying a portion of the call processing software of the existing telephone network and by replacing at least a portion of an audio call progress signal". (Dkt. entry no. 182-16, Response to 9-2-92 PTO Office Action at 7-8.) Defendants conclude that because the applicants used preamble language to distinguish the invention from the Baral reference, the preambles limit the scope of the claims. Yet the preambles' language used to distinguish the Baral reference is recited in the claim language.

As noted above, the claims require playing an "announcement to the calling party . . . during a time period when a call progress signal would have been provided". (See, e.g., '670 patent, 13:1-5.) Thus, the claims themselves can be used to distinguish the prior art, as they cite a means for substituting or replacing a call progress signal with an announcement. That the applicants chose to use redundant language from the preambles for this purpose is not fatal and does not convert them into a limitation. See Bell Commc'ns Research, 55 F.3d at 620.

The parties also disagree whether the phrase "a marketing system" provides an antecedent basis for the term "the marketing system" appearing in the body of the claims. "When limitations

in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention". Eaton Corp. v. Rockwell Int'l Corp., 323 F.3d 1332, 1339 (Fed.Cir. 2003). But if the body of the claims presents a complete invention, "then the language of the preamble may be superfluous". Id. Here, the second situation is true. The claim term "the marketing system" does not rely on a preamble for clarification. For example, the preamble does not explain any constituent parts of a "marketing system" that do not already appear in the claims. The term simply refers to the invention as a whole and will be defined by the Court as part of the claim construction process. To decide otherwise would be unnecessary and confusing.

The Court finds that the preambles of claim 1 of the '740 patent and claims 1 and 8 of the '670 patent are not limiting. The elements contained in the body of each of the claims combine to describe a structurally complete invention, while the preambles merely state the intended purpose and use of the invention.

#### **B. Order of Claim Functions**

The independent claims of the patents-in-suit recite, at their core, three functions: (1) "initially determining the busy/idle status of the second telephone"; (2) "playing at least one generally continuous announcement to the calling party for a predetermined period of time during a time when an audible call

progress signal would have been provided"; and (3) "terminating the playing of the announcement and completing the call". ('740 patent, claim 1; '670 patent, claim 1, 8.)

While the parties agree that the third "termination" step must occur last, they dispute the order of the first two steps: the "initially determining" step and the "playing" step. (Dkt. entry no. 183, Pl.'s Opening Br. at 36; Def.'s Opening Br. at 38.) Plaintiff argues that the first two steps can occur in any order and may be repeated. Defendants assert that the "initially determining" step must come before the "playing" step.

"Unless the steps of a method actually recite an order, the steps are not ordinarily construed to require one. However, such a result can ensue when the method steps implicitly require that they be performed in the order written." Interactive Gift Express, 256 F.3d at 1342. To determine whether steps must be performed in a particular order, a court must look to (1) "the claim language to determine if, as a matter of logic or grammar, they must be performed in the order written", and (2) "the rest of the specification to determine whether it" requires steps be performed in a certain order if the claim language does not answer the question. Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1370 (Fed.Cir. 2003). If neither the claims nor the specification direct a certain order, "the sequence in which such steps are written is not a requirement". Id.

The claim language in this case indicates the steps should be performed in the order written. The announcement is played "during a time period when a call progress signal would have been provided", the call progress signal being either an idle or busy tone. ('670 patent, 13:3-4.) So before the "playing" step, which replaces the call progress signal, the system must have already determined the call progress signal. Indeed, the claim expressly calls for a means for "initially determining the busy/idle status". (Id.; '740 patent, claim 1.)

The specification confirms that the performance of the steps must be in the order written. In particular, the specification demonstrates that an announcement is not played simultaneously with determining the call progress signal. Rather, the message generator, which plays the announcement, is triggered only after the call signal is determined.

The switch or the ANSS first determines the initial busy/idle status of the telephone. On a busy condition, the switch or the ANSS suspends call processing for a predetermined period of time. Simultaneously, the switch or ANSS signals [the] message generator to initiate an announcement sequence . . . . If the second telephone is idle, i.e., the telephone is not being used, the second switch or the ANSS can either activate the audible signal generator to produce a conventional audible ringback signal or can activate the message generator to play a series of prerecorded announcements ('740 patent, 3:58-4:9.)<sup>4</sup> This language shows that the first step is to determine the initial busy/idle status. Then, two things

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<sup>4</sup> "ANSS" stands for "attached network signaling system". The parties have identified this term as requiring construction, and it will be explained in further detail below.

happen simultaneously: the switch suspends the call processing, and the system activates a message generator that plays an announcement. The "playing" step, contrary to Plaintiff's assertion, is not simultaneous with the "determining step".

During the claim construction hearing, Plaintiff suggested that there is no need to define an order of functions. Rather, the independent claims in which the steps at issue appear compose a "system" where "each of the means plus function terms" is a structural element. (Dkt. entry no. 288, Markman Tr., 9-28-11 at 168:16-169:10.) Plaintiff analogizes the system and its components to a cake and its ingredients; the ingredients can be added in any order because what one will ultimately end up with is a cake. (Id. at 169:20-25.) Similarly, Plaintiff suggests that the means plus function terms can be in any order because one will always end up with the marketing system. (Id.) Yet the order that ingredients or elements are combined does matter. For example, the recipe for *pâte à choux* (a type of pastry dough) calls for flour, eggs, milk, water, and butter. But a chef could not simply combine all the elements in a bowl and end up with *pâte à choux*. The chef would need to combine the flour, milk, water, and butter and then heat and stir this mixture. Only after the flour, milk, water, and butter are heated and mixed are eggs added to the mixture and the combination baked. Likewise, according to the "recipe" for the telephone marketing system, the

"playing step" must come after the "initially determining step" in order for the invention to make sense.

The claim language and specification demonstrate that the steps must occur separately and in the order written. Therefore, the steps occur in the following order: (1) means for initially determining the busy/idle status of the second telephone; (2) means for playing at least one generally continuous announcement to the calling party for a predetermined period of time during a time when an audible call progress signal would have been provided; and (3) means for terminating the playing of the announcement and completing the call.

### **C. "marketing system"**

The term "marketing system" appears in claim 1 of the '740 patent and in claims 1 and 8 of the '670 patent. Plaintiff defines the term to mean "a system capable of replacing a busy signal or an audible ringback signal with one or more announcements". Defendants' construction is "a system for advertising products or services".

The Court must give terms the full breadth of their ordinary meaning. NTP, 392 F.3d at 1346. Here, there are two components to the term: marketing and system. A proper construction will give meaning to each component. Defendants argue that their construction best accomplishes this goal because it incorporates the ordinary meaning of marketing, citing to a dictionary

definition that defines marketing as "the act or process of buying and selling in a market". (Dkt. no. 182-20, American Heritage Dictionary 2d ed. at 767.)

But Plaintiff's construction is more appropriate, as it defines the term within the context of the invention. Defendants' definition looks at the ordinary meaning of the term in a vacuum, but the Court must consider the ordinary meaning in the context of the written description and the prosecution history. Phillips, 415 F.3d at 1313. Here, the patents' abstracts and the claims' preambles are helpful. The '740 patent abstract states that "[a] marketing system selectively modifies an existing telephone network by . . . replacing at least a portion of an audible call progress signal generated by the telephone network by a prerecorded announcement". ('740 patent, abstract.) Similarly, the preamble of claim 1 of the '670 patent describes "[a] marketing system" for "replacing at least a portion of a call progress signal" with a "generally continuous prerecorded announcement". ('670 patent, 12:52-58.) Plaintiff's construction integrates that intrinsic evidence, which ensures the term is given context.

Defendants counter that Plaintiff's construction reads out the term "marketing". To understand this argument, it is necessary to look at Plaintiff's definition of "announcement", which is part of its definition of "marketing system". According



to Plaintiff, "announcement" means "live or recorded audio or video played to a calling party". Read together, Plaintiff defines "marketing system" to mean "a system capable of replacing a busy signal or an audible ringback signal with one or more live or recorded audio or video played to a calling party". The Court agrees with Defendants that this definition is too broad and reads "marketing" out of the term. But that issue is best addressed in construing the term "announcement".

For the purposes of defining "marketing system", Plaintiff's construction lends ordinary meaning to the term, is supported by the specification, and is informed by the context of the invention. Therefore, "marketing system" means "a system capable of replacing a busy signal or an audible ringback signal with one or more announcements".

#### **D. "announcement"**

This term appears in claims 1 and 6 of the '740 patent and in claims 1, 2, 6, 7, 8, and 9 of the '670 patent. Plaintiff defines "announcement" to mean "live or recorded audio or video played to a calling party". Defendants' construction of the term is "an advertisement or message that provides useful information about a product or service".

Plaintiff's construction is too broad, since it endeavors to capture subject matter that is not covered by the patents. "[B]road and vague statement[s] cannot contradict the clear

statements in the specification describing the invention more narrowly". Honeywell Int'l, 452 F.3d at 1319. Plaintiff cites several embodiments that explain that an announcement's "information is translated to audio and/or video signals". ('740 patent 7:48-52; '670 patent, 9:18-22.) But Plaintiff's definition would cover subject matter that (1) falls beyond the scope of the patents and (2) was disclosed by the prior art. For example, in distinguishing the Baral reference, the applicants stated to the PTO that Baral "is primarily directed to a system for providing voice message services and not for providing announcements such as advertisements to the calling party". (Response to 9-2-92 PTO Office Action at 8.) But Plaintiff's definition would cover voice messages because a voice message is recorded audio played to a calling party. Indeed, it would cover audio and video that has no relation to a marketing system.

Defendants' definition, on the other hand, more accurately describes the nature of the announcement played to the calling party. Upon reading both patents, a person of ordinary skill in the art would understand that an "announcement", as used by the patentees, is limited to certain material.

In characterizing the problem addressed by their invention, the inventors stated, "The time that a calling party and/or the calling station equipment remains on the line and attempts to redial the called network address or station line normally

represents wasted time and unnecessarily occupies network equipment without generating network income". ('670 patent, 1:32-37.) The solution is "to have a communications system which would replace the audible or visual ringback and/or busy signals initiated by the communications network with a series of pre-recorded announcements which would provide the calling party with useful information". ('670 patent, 1:54-58.) See Decisioning.com v. Federated Dep't Stores, 527 F.3d 1300, 1307-11 (Fed.Cir. 2008) (relying on invention's purpose to limit claim scope). Thus, a person of ordinary skill would conclude that the invention aims to provide a caller with useful information that generates income. (See Markman Tr., 9-28-11 at 53:7-21) This is consistent with the invention itself: a telephone/communications marketing system.

Not surprisingly then, the specification consistently refers to "messages", "advertisements", and "messages and/or advertisements". (See, e.g., '740 patent, Figs. 4-8, 5:39-43, 6:43-46; '670 patent, Figs. 4-8, 9:14-17.) The specification includes a telling description of these announcements:

The types of advertisements or messages which can be directed to the calling party can refer to certain types of business machines, certain communications systems, or the products manufactured and/or sold, or services provided by a particular corporation. It is to be understood by those skilled in the art, that the advertisements can be of any particular subject matter and are not restricted to those mentioned above. The message generator is also capable of inquiring if the calling party wishes to be sent follow up information . . . . The message generator can also provide calling parties with a directory type service whereby a calling

party could browse through an advertiser's product listings

('740 patent, 10:1-24.) This is consistent with providing "useful information" to a caller in order to generate income. Again, incorporating the concepts of advertising and providing useful information about products and services is consistent with the overarching invention: a marketing system.

The Court is mindful not to read in limitations from the preferred embodiment. Phillips, 415 F.3d at 1323. But when an embodiment explicitly limits the subject matter, or the inventor limited the invention during prosecution, "the claims are not entitled to a broader scope". SciMed Life Sys. v. Advanced Cardiovascular Sys., 242 F.3d 1337, 1341 (Fed.Cir. 2001); see Abbott Labs. v. Sandoz, Inc., 566 F.3d 1282, 1290 (Fed.Cir. 2009) (limiting definition of "crystalline" to only form disclosed in specification and file history). In other words, even if the claims purport to cover broader subject matter, a patent must be limited to what was actually invented. Here, the Court is presented with such a situation. For example, in distinguishing a dependent claim reciting a "video terminal" over a piece of prior art called the Sleevi reference, the applicants explained how their system was different.<sup>5</sup> "Sleevi specifically refers to

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<sup>5</sup> The Sleevi reference is a patent claiming "a system for applying messages or data to the customer lines of calling parties during the 'ringback' period of telephone call set up". (U.S. Patent No. 4,811,382, abstract.)

data transmission via a modem and ultimately it is assumed that the modem is connected to a computer which may have a monitor. This is not the intention of the present invention. The present invention is directed to a system for providing visual advertising". (Response to 9-2-92 PTO Office Action at 13.) The preferred embodiments likewise require messages and/or advertisements. ('670 patent, 8:13-16; '740 patent, 6:41-46.) Nothing in the claims, specification, or prosecution history demonstrates that the patentees' invention covered anything more than advertisements and/or messages that are related to marketing.

The possibility of other types of announcements, such as public service announcements, was discussed at the hearing. (Markman Tr., 9-28-11 at 50:15-51:9.) For example, the caller might hear a weather forecast or a reminder to get a flu shot. Consistent with one of the invention's goals, these announcements provide "useful information". But the Court is concerned that these announcements would be inconsistent with the revenue-generating goal of the patentees' marketing system and would impermissibly broaden the claims. Also, nothing in the intrinsic evidence suggests that the inventors had such public service announcements in mind when defining the scope of the invention.

The extrinsic evidence further supports construing the term "announcements" with an emphasis on marketing. The Court may "rely on extrinsic evidence, which 'consists of all evidence

external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.'" Phillips, 415 F.3d at 1317 (quoting Markman, 52 F.3d at 980). Generally, inventor testimony given during litigation is afforded little probative value; it "often is a self-serving, after-the-fact attempt to state what should have been part of his or her patent application". Bell & Howell Doc. Mgmt. Prods. Co. v. Altek Sys., 132 F.3d 701, 706 (Fed.Cir. 1997). Here, the Court is presented with what is essentially inventor testimony. Yet the extrinsic evidence here consists of what the patentees thought of their invention when the patent issued. This is far more helpful than testimony given in anticipation of or during litigation. See Middleton, Inc. v. Minn. Mining & Mfg. Co., 311 F.3d 1384, 1389 (Fed.Cir. 2002) (explaining usefulness of contract that defines patent terms and that was executed at or near time when patent was issued).

The patentees consistently referred to the invention as a way to increase advertising revenue when the patents issued. Quantum Systems Inc. ("Qsi"), the original assignee of the patents-in-suit, explained that the invention provided "advertising and other messages that replace the busy and ringback tones during call processing on communications networks". (Dkt. entry no. 182-21, Qsi 1995 Product Stmt. at 5.) Qsi claimed that its technology offered the "ability for local advertisers to deliver a message

with the power and punch of a national sponsor". (Id.) One of the inventors stated, "We're talking about the nooks and crannies of dead space where phone companies can play advertising and not offend customers." (Dkt. entry no. 182-5, 6-27-94 N.Y. Times article at D2.) Ultimately, this extrinsic evidence is consistent with the intrinsic evidence and supports the Court's conclusion that the term "announcement" must be defined in light of the patents' subject matter of a marketing system.

Defendants' construction also provides the needed meaning to the definition of "marketing system", ensuring that both terms are compatible and consistent with the invention's subject matter. Plaintiff's definition of "marketing system" is proper only if incorporating Defendants' definition of "announcement". Thus, the meaning of "announcement", supported by the intrinsic and extrinsic evidence, is "an advertisement or message that provides useful information about a product or service".

**E. "thereafter checking the busy/idle status of the second telephone" and "thereafter checking the busy/idle status of the called station"**

The first of these nearly identical terms appears in claim 1 of the '740 patent. The second term appears in claims 1 and 8 of the '670 patent. Plaintiff defines the terms as meaning "rechecking whether [second telephone/second station] is in a busy or an idle state". Defendants construe the terms to mean "after it is known that the [second telephone/called station] is

busy, retesting the status of the [second telephone/called station] to know whether it is still busy or is now idle”.

To understand the differences between these constructions, it is necessary to distinguish the claims in which the terms appear. Claim 1 of the '740 patent calls for a “means for initially determining the busy/idle status of the second telephone, said determining means thereafter checking the busy/idle status of the second telephone”. ('740 patent, 11:15-18.) But claims 1 and 8 of the '670 patent add conditional language. Those claims require a “means for initially determining the busy/idle status of the called station and, if the called station has an initial busy status, for thereafter checking the busy/idle status of the called station at predetermined intervals”. The parties dispute the effect, if any, of the added condition on construing the terms.

Defendants include the condition in their construction of the term. They argue that, even though the condition does not appear in the language of claim 1 of the '740 patent, it nonetheless is present in both the '740 and '670 patents and therefore should be including in the terms' definition to assist the jury. Indeed, the specification of the '740 patent states:

If the second telephone is idle, i.e., the telephone is not being used, the second switch or the ANSS can either activate the audible signal generator to produce a conventional audible ringback signal or can activate the message generator to play a series of prerecorded announcements to the calling party for a predetermined period of time . . . If the second telephone is busy,



i.e., a party is currently using the telephone, the second switch or an ANSS can either activate the audible signal generator to generate a busy signal or activate the message generator to play a series of prerecorded announcements to the calling party at intervals for a predetermined period of time while periodically checking to determine if the called station is still busy.

(`740 patent, 4:4-23.)

The specification accordingly shows that the system “thereafter [checks] the busy/idle status of the second telephone” only if it initially received a busy signal. Of course, the message generator can be activated regardless of whether it is initially determined that the called phone is idle or busy. But the sequence “thereafter checking the busy/idle status of the second telephone” occurs only if the initial determination reveals a busy status. (Cf. id. at 3:58-67 with id. at 4:4-10.)

Plaintiff argues that to add “after it is known that the [second telephone/called station] is busy” imports a limitation into claim 1 of the `740 patent and adds unnecessary and redundant language to claims 1 and 8 of the `670 patent. Claim 1 of the `740 patent logically requires that, before the system checks the busy/idle status of the second telephone, there be a busy signal. (`740 patent, 4:4-23.) On the other hand, if there is an initial idle signal, the message generator is triggered and announcements play until the call is completed. (Id. at 11:32-35.) The Court agrees that it is not necessary to explain what must occur before “thereafter checking the busy/idle status of the [second

telephone/called station]." The word "thereafter" serves this purpose and, while it should be included in the definition of the term, it need not be further defined. "Thereafter" plainly refers to the preceding clause, which already exists as a limitation in the claims. (See Markman Tr., 9-28-11 at 119:18-20.)

The Court defines "thereafter checking the busy/idle status of the second [telephone/called station]" to mean "thereafter rechecking whether second [telephone/called station] is in a busy or an idle state".

**F. "predetermined intervals" and "predetermined period of time"**

The term "predetermined intervals" is in claim 1 of the '740 patent and in claims 1 and 8 of the '670 patent. Plaintiff defines the term to mean "a time period between checks of the second telephone's busy/idle status". Defendants construe the term to mean "at least two fixed time periods that are determined before the telephone call is placed". The term "predetermined period of time" is found in the same claims. Plaintiff defines the term to mean "a set or variable time frame"; Defendants define it as "a fixed duration of time determined before the call is placed".

As to the term "predetermined intervals", there is a dispute as to whether there must be at least two intervals. The use of the plural form of "interval" suggests that there must be more than one interval, but Plaintiff argues this would lead to a

partially inoperable invention. While the invention may not be rendered inoperable if the Court concludes that "intervals" means "at least two fixed time periods", construing the term as Defendants suggest would read out a preferred embodiment. See Vitronics Corp., 90 F.3d at 1583 (holding that a claim interpretation excluding a preferred embodiment is "rarely, if ever, correct"). For example, the '740 specification states the following:

In the preferred embodiment, the message generator first instructs the calling party to remain on the telephone and informs the calling party that the call to the second telephone will be attempted to be completed at regular intervals at block . . . . When the predetermined time period has expired, the switch or the ANSS resumes call processing to determine whether the second telephone is still busy [] . . . . If the second telephone is not busy as determined by switch or the ANSS, the switch or the ANSS notifies the message generator to continue to play its announcements until it reaches completion of its current announcement (block 64) and then signal to switch or the ANSS to complete call processing to the second telephone [].

('740 patent, 7:34-8:2.) This preferred embodiment contemplates that only one interval may be necessary. Likewise, Figure 4 illustrates a sequence that requires just one interval, although block 2A provides for another interval if the called station is still busy. ('740 patent, Fig. 4; '670 patent, Fig. 4.) Accordingly, the Court will interpret the term to give it full, precise meaning even though the patent applicants' draftsmanship may have been imprecise. See Ortho-McNeil Pharm. v. Mylan Labs.,

520 F.3d 1358 (Fed.Cir. 2008) (interpreting to "and" mean "or" so as to give the patent claims their proper meaning in light of the intrinsic evidence).

The next issue, material to both terms, is how to define "predetermined". Defendants argue that to give the term its ordinary meaning, the intervals must be fixed in duration and appropriate weight must be given to the "determined" element of the term. Plaintiff disagrees and asserts that the intervals may vary, and cites to an excerpt from the '740 specification to support its argument that intervals cannot be fixed:

A possible time frame for retrying to make the connection to the second telephone is every 15 seconds; however, it is to be understood by those skilled in the art that any other suitable time frame including a variable time frame could be used.

('740 patent, 4:30-35 (emphasis added).) This explanation is not necessarily inconsistent with Defendants' construction. The predetermined intervals can vary depending on the length of the announcement. For example, not all announcements (and therefore intervals) must be 15 seconds long. But this does not mean that an interval is not fixed before the announcement is played. The marketing system may require that the announcement be fixed at 10 seconds for one caller and at 30 seconds for a second caller. The patents do not disclose, however, that an interval changes once it begins. Indeed, this would be logically inconsistent with the interval being predetermined.

There is still the question of when the length of an interval and time period is determined. The interval is predetermined, but the parties disagree as to what events occur before the intervals and time periods are determined. Defendants suggest they are determined before the call is placed. The claims at issue require that the marketing system determine "the announcement to play based upon criteria established exclusively by the marketing system and independently of the identity of the called station". ('740 patent, claim 1; '670 patent, claims 1, 8.) The preferred embodiments described in both patents include a marketing system that can "determine when a particular announcement is to be played based on a number of criteria or factors, such as . . . [the] area code and/or telephone exchange of [the] calling party". ('740 patent, 4:38-43; '670 patent, 6:1-5.) Plaintiff thus asserts that the length of an announcement and interval cannot be determined before a call is made because the announcement is chosen based on the caller's identity, which cannot be known before a call is made.

The flow chart depicted in the specification is helpful in resolving when the length of an interval and announcement are determined. Figure 6 depicts an embodiment illustrating a call completion sequence if there is an initial busy condition. ('740 patent, 8:34-36.) Once the system initially determines there is a busy signal, the system "initiates the power ringing sequence to the called station at the second telephone at block 34". (Id. at

8:36-40.) Next, the system triggers the message generator to begin executing announcements at block 36. Then, "[t]he message generator determines the type of announcements and the duration in which the announcements are to be played at block 38". (Id. at 6:50-53; '670 patent, 8:21-24.) This series of events illustrated in Figure 6 show length is not established until the initial call progress signal is determined and the message generator is activated. Consequently, the length of an interval and time period during which an announcement plays are determined before the announcement is played, but not before the call is placed.

As neither party's definition is completely supported by the intrinsic evidence, the Court will adopt hybrids that combine the aspects of the parties' definitions that are consistent with the intrinsic evidence. "Predetermined intervals" means "a fixed time period between checks of the second telephone's busy/idle status determined before an announcement begins". Similarly, "predetermined period of time" means "a fixed duration of time determined before an announcement begins".

#### **G. "completion of the call"**

This term appears in claims 1 and 8 of the '670 patent and in claim 1 of the '740 patent. Under Plaintiff's definition, "completion of the call" means "the acceptance of a call request by a called party, or the abandonment of the call by the calling party". Defendants define the term to mean "connection of the

call to the second telephone". The parties generally agree that completing the call includes the act of connecting the calling and called stations. Their disagreement is over whether abandoning the call should also be included in the definition.

The patents distinguish between a completed call and an abandoned call. The '740 patent's abstract discloses that "announcements are played until the call is completed or abandoned". ('740 patent, abstract (emphasis added).) Also, the patents repeatedly link completion of a call with the call being answered. Abandonment of the call is not associated with a call being completed. For example, the '740 patent specification explains that "[o]nce the identified called station answers the call by lifting the receiver of the second telephone . . ., the calling process is completed. At the completion of the call, the message generator enters a call completion sequence". ('740 patent, 8:9-14.)

Plaintiff argues abandonment of a call must be included in the definition because an abandoned call may result in a "call completion sequence". Figure 5 beginning at block 3A illustrates a "call completion sequence". The call completion sequence is carried out only if an announcement is played, as this sequence is a series of steps that allows the marketing system to record the time, date, and type of announcements that were played. ('670 patent, 9:49-51 & 9:57-61.) If a calling party listened to an

announcement and is connected with the called station, the call completion sequence begins. (Id. at 8:39-41.) Also, if a calling party hears an announcement, but decides to abandon the call, the call completion sequence is triggered. (Id. at 8:47-50.) Either way, the marketing system must record the time, date, and type of announcement played so that it can bill clients. Accordingly, it is an announcement that necessarily precedes the call completion sequence, independent of whether the called party answered the phone or the calling party abandoned the call.

Despite the wording used to describe the sequence of Figure 5, recording the time, date, and type of announcements are unrelated to whether the second telephone was answered or the call was abandoned. Indeed, if a caller abandons a call before an announcement is played, the marketing system will not activate the "call completion sequence". ('740 patent, 7:24-27.) Figure 3 explains that a call that is abandoned before an announcement plays is "terminated" and no further steps are taken. (Id. at Fig. 3, Block 50.) Despite Plaintiff's argument to the contrary, there is no significance to the fact that an abandoned call may result in a "call completion sequence". The Court therefore adopts Defendants' definition and construes "completion of the call" to mean "connection of the call to the second telephone."



**H. "criteria established exclusively by the marketing system", "determining the announcement to play based upon criteria established exclusively by the marketing system" and "the announcement being determined based upon criteria established exclusively by the marketing system"**

These three terms appear in claim 1 of the '740 patent and claims 1 and 8 of the '670 patent. Plaintiff defines the terms collectively to mean "selecting an announcement based on one or more factors, including, but not limited to the telephone number of the calling party". Defendants define the terms collectively to mean "[determining the announcement to play/the announcement to play is determined by] considering only information supplied by the marketing system".

The parties identify the main issue as defining "criteria established exclusively by the marketing system". Defendants emphasize through their construction that no other entity other than the marketing system can establish criteria; otherwise the definition would give no meaning to the word "exclusively".

On its face, Plaintiff's construction does not contain an exclusivity requirement. Rather, Plaintiff's definition is based on the following excerpt from the specification:

The marketing system can also determine when a particular announcement is to be played based on a number of criteria or factors, such as, but not limited to, time of day, day of week, month of year, or area code and/or telephone exchange of calling party. When a calling party initiates a call to the second telephone, the message generator can use an automatic number identification (ANI) system or equivalent which is well-

known in the art to identify the area code and telephone number of the calling party.

(‘740 patent, 4:38-47.) Plaintiff condenses this explanation to define “criteria” as “one or more factors, including but not limited to the telephone number of the calling party”. But by doing so, Plaintiff gives no meaning to the word “exclusively”. See In re Gabapentin Patent Litig., 503 F.3d 1254, 1263 (Fed.Cir. 2007) (affirming construction adopted by district court giving full meaning to every word of entire claim term). Under Plaintiff’s construction, any entity could establish criteria, and therefore the construction fails to give “full meaning to every word of the entire claim term”. Id.

Defendants’ definition gives meaning to “exclusively”, but it is improper in another respect. The claim requires that the marketing system, alone, must establish criteria to determine the announcement to be played. (‘740 patent, claim 1; ‘670 patent, claims 1, 8.) But it is of no significance whether the system applies the criteria to “information supplied by the marketing system”, as Defendants’ definition would require. For example, the marketing system may establish a criterion that callers with a certain area code hear advertisements for a local orchestra. The criterion, an area code, is established by the marketing system. But the information gathered to satisfy the criterion is not supplied by the marketing system; it is supplied by a caller.

While Plaintiff's use of "factors" finds support in the specification, Plaintiff fails to give meaning to "exclusively". Similarly, Defendants give meaning to "exclusively", but their definition does not adequately define "criteria established". As neither definition is completely supported by the claim language, the Court will combine the definitions, using the aspects that are supported. Thus, the terms "criteria established exclusively by the marketing system", "determining the announcement to play based upon criteria established exclusively by the marketing system" and "the announcement being determined based upon criteria established exclusively by the marketing system" collectively mean "[determining the announcement to play/the announcement to play is determined by] considering only factors supplied by the marketing system".

- I. **"the identity of the called station", "independently of the identity of the called station", "determining the announcement to play . . . independently of the identity of the called station", and "the announcement being determined . . . independently of the identity of the called station"**

These four terms appear in claim 1 of the '740 patent and in claims 1 and 8 of the '670 patent. There is no significant difference between the parties' definition of the first part of the term; specifically, they generally agree that "[determining the announcement to play/the announcement being determined] independently of the identity" means "[determining the announcement to play/the announcement being determined] without

considering". (Markman Tr., 9-28-11 at 86:17-20.) Their dispute focuses on the term "the identity of the called station".

Plaintiff construes the term to mean "the physical identity of the equipment receiving a call". Defendants define the term as "the telephone number entered by the calling party".

While the claims themselves provide no evidence of the meaning of "the identity of the called station", the specifications come close to explicitly defining the term. The '740 specification states:

The telephone number dialed or otherwise entered by the calling party into the telephone is transmitted to the local central office as a series of signals . . . The switch is responsible for determining the destination of the call based upon the transmitted signals. The switch transmits the call initiated by the calling party over the telephone network toward an identified called station at a second telephone. The called station is identified by the telephone number entered by the calling party at the first telephone.

('740 patent, 2:56-68 (emphasis added); see '670 patent, 4:13-22.) Also, a "calling station" is identified by "its identification number, i.e., its telephone number or network address". ('670 patent, 12:20-24.) The specifications support Defendants' construction, which adopts the telephone number as the identity. However, Defendants' construction lacks a '670 patent equivalent to "telephone number." In other words, because the '670 patent covers structures other than telephones, the definition of "identify of the called station" as used in the

'670 patent must reflect that reality. Thus, the Court will also include "network address" as the equivalent of "telephone number" in defining "identity of the called station." (See id.) In response, Plaintiff argues that this description does not support Defendants' definition because "it equates the noun 'identity,' with the verb 'identify'", which do not have the same meaning. (Dkt. entry no. 199, Pl.'s Responsive Br. at 11.) To the contrary, "identify" means "to establish the identity" and the words share a common origin. Webster's New Collegiate Dictionary 563 (1979).

Statements made during reexamination provide further evidence that the patentees considered "the identity of the called station" to be the phone number entered by the caller. Such statements are helpful because "the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention". Phillips, 415 F.3d at 1317. In "draw[ing] the Examiner's attention to the patentable differences of the claims" and prior art known as "the Fields reference" (dkt. entry no. 265, Pl.'s Responsive Supp. Br. at 4), Plaintiff explained, "Fields . . . merely discloses delivering a message on the basis of the number entered by the user of the telephone, which is contrary to claim 1, because claim 1 requires that the announcement is determined 'independently of the identity of the called station.'" (Dkt. entry no. 246-1, Response to 5-1-09 PTO

Communication at 47 (emphasis in original).) In other words, Plaintiff pointed out to the PTO that the playing means disclosed in claim 1 of the '670 patent determines an announcement independently of the telephone number entered by the user of the telephone. Consequently, the Court can infer that the patentees equated "the number entered by the user of the telephone" with "the identity of the called station".

The Court finds no support for Plaintiff's construction. Plaintiff goes to great lengths to describe various features that can identify a cellular phone. "While a telephone number may be used to identify a cellular telephone, cellular telephones have International Mobile Equipment Identity (IMEI) numbers, or serial numbers, associated with individual phones." (Pl.'s Opening Br. at 46.) Unlike a telephone number, the IMEI number is associated with the phone itself. (Id.) Accordingly, Plaintiff argues that the phone number cannot be the identity of the called station. (Id. at 47.) But this argument is flawed, as Plaintiff concedes that a telephone number can also identify a called station.<sup>6</sup> Further, an IMEI is used to identify only mobile communications devices. As such, it would not identify all called stations disclosed in the patents, such as a landline telephone. Also,

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<sup>6</sup> Plaintiff also argues that the term "network address" means "the identifier of the equipment receiving a call". (See dkt. entry no. 284-2, Final Joint Claim Construction Stmt., Ex. B at 5.) But nowhere in its argument of the term "identity of the called station" does Plaintiff refer to the term "network address".

Plaintiff offers no citations to intrinsic or extrinsic evidence demonstrating that IMEI or any other physical identifier was contemplated by the claims reciting "the identity of the called station". The specifications make no mention of physical identifiers or equipment that identifies a called station.

The Court will therefore adopt Defendants' definition of "the identity of the called station", as it is supported by the specification and is consistent with statements to the PTO made by the patentees as to the term. The term "the identity of the called station" means "the telephone number entered by the calling party". Collectively, the disputed terms "the identity of the called station", "independently of the identity of the called station", "determining the announcement to play . . . independently of the identity of the called station", and "the announcement being determined . . . independently of the identity of the called station" mean "[determining the announcement to play/the announcement being determined] without considering the [telephone number/telephone number or network address] entered by the calling party".

**J. "the second telephone is thereafter answered" and "the called station thereafter responds by answering the call"**

These terms are found in claim 1 of the '740 patent and in claims 1 and 8 of the '670 patent, respectively. Plaintiff defines the terms to mean "the call is accepted by the party". Defendants construe the terms to mean "the called party picks up

the [telephone/called station] after that [telephone/station] changes from a busy status to an idle status".

Neither party disputes that the second telephone/called station is answered after the telephone/called station changes from busy status to idle status. Indeed, the terms appear in claims that state "in the case of the second telephone having an initial busy status, said . . . call completing means completing the call when the status of the second telephone changes to an idle status and the second telephone is thereafter answered". ('740 patent, claim 1; see '670 patent, claims 1, 8.) The parties instead disagree whether the condition to the second telephone being answered – changing from a busy status to an idle status – must be included in the definition of the terms.

Defendants argue that the condition should be included to give meaning to the word "thereafter". Without the condition, Defendants contend, one would not know when the call is answered. Plaintiff argues that there is no need to explain when the call is answered because the condition already exists as a limitation in the claims and therefore would be redundant if included in the term's definition. The Court agrees with Plaintiff. The term "thereafter", if included in the definition, adequately advises that the step of answering the call must be preceded by some other step. There is no need to describe the preceding step a



second time, and it would result in essentially using one claim term to define a separate limitation.

The parties also differ in the meaning of "answered/answering the call". Plaintiff defines it as "the call is accepted", but Defendants construe it to mean that the called party "picks up the [telephone/called station]". Neither party discusses this difference in detail in the briefing, but there is some guidance in the specifications. The '740 patent states that "[o]nce the identified called station answers the call by lifting the receiver of the second telephone . . . the calling process is completed". ('740 patent, 8:9-12.) The '670 patent similarly explains that "[o]nce the second telephone [] is answered by the lifting of the receiver of the second telephone . . . the calling process is completed". ('670 patent, 9:55-57.) It would therefore seem that the patentees considered "answered/answering the call" to occur when the called party picks up the telephone, and that Defendants' definition is correct.

The '740 patent consistently refers to a conventional telephone, but the '670 patent is not so limited. Additional "instruments" that are listed in the '670 patent's preferred embodiment cast doubt on Defendants' definition. The '670 patent states:

[I]t should be clearly understood by those skilled in the art that the present invention is not limited to such standard telephone station to telephone station

communications systems . . . [T]he term "station" should be read to include but not be limited to devices such as telephones, televisions, video monitors, video telephones, computers, television set-top converters, modems, video services, front end processors, other communications networks, and combinations or hybrids thereof.

('670 patent, 3:32-35, 45-50 (emphasis added).) The concept of "lifting the receiver" applied to a modem or a wireless device does not make sense. Defendants' definition would not cover these embodiments and therefore cannot be correct. See SanDisk Corp. v. Memorex Prods., 415 F.3d 1278, 1285 (Fed.Cir. 2005) ("The court must always read the claims in view of the full specification. A claim construction that excludes a preferred embodiment, moreover, 'is rarely, if ever, correct.'") (citations omitted). Plaintiff's construction on the other hand, would be broad enough to cover the described embodiments.

The Court adopts Plaintiff's construction, with the addition of "thereafter". The terms "the second telephone is thereafter answered" and "the called station thereafter responds by answering the call" mean "the call is thereafter accepted by the called party".

**K. "attached network signaling system (ANSS)"**

This term is found in claim 13 of the '740 patent and in claim 13 of the '670 patent. Plaintiff defines the term to mean "a device or system capable of supplementing and/or replacing one or more functions of a switch on a telecommunications network".

Defendants' construction is "a signaling system attached to the [telephone/communications] network that performs one or more functions of a switch including determining the busy/idle status of the [second telephone/called station]".

Claim 13 of the '740 patent recites:

The system of claim 1, wherein the means for determining the busy/idle status of the second telephone comprises an attached network signaling system (ANSS) which is configured to instruct an audible signal generator or notify a switch of a central office to instruct the audible signal generator to transmit the audible call progress signal.

('740 patent, claim 13; see '670 patent, claim 13.) During claim construction "the analytical focus must begin and remain centered on the language of the claims themselves". Interactive Gift Express, 256 F.3d at 1331. Defendants' definition reflects that the "attached network signaling system" must carry out the claim limitation, i.e., it must perform the "means for determining the busy/idle status". Consequently, Defendants' construction properly focuses on the claim language.

Plaintiff faults Defendants for reading in limitations from the specification causing the claim to be limited to a preferred embodiment. Plaintiff lists fifteen functions that the specification states that either an "attached network signaling system" or a "switch" can perform. (See dkt. entry no. 248, Pl.'s Supp. Br. at 11-13.) The parties agree that an attached network signaling system may have all of those functions. Nonetheless,

the patentees chose to limit the ANSS in claim 13 to performing only one function, namely, "determining the busy/idle status of the second telephone". ('740 patent, claim 13; '670 patent, claim 13.) As such, "determining the busy/idle status" is not a limitation imported into claim 13 from the specification.

"Determining the busy/idle status" already exists as a limitation in claim 13. Also, several other claims recite an ANSS with one or several specific functions demonstrating, as Defendants' construction recognizes, that an ANSS "performs one or more functions". ('740 patent, claims 20, 22, 34, 35; '670 patent, claims 20, 22, 34, 35.)

The Court finds Defendants' construction properly focuses on claim language in which the term appears, while also recognizing that the term may perform other functions as recited in other claims. "Attached network signaling system (ANSS)" means "a signaling system attached to the [telephone/communications] network that performs one or more functions of a switch including determining the busy/idle status of the [second telephone/called station]".

#### **I. "message generator"**

This term appears in dependent claims 19 and 21 of the '740 patent and in dependent claims 19 and 21 of the '670 patent. Plaintiff defines "message generator" as "a device that is capable of supplementing and/or replacing the signals generated

by the audible signal generator". Defendants construe the term to mean "a device that is capable of at least replacing the signals generated by the audible signal generator".

The primary difference between the parties' constructions is whether a message generator must be capable of replacing signals. Under Defendants' definition, the message generator would be required to be able to replace signals. Plaintiff's construction contemplates a message generator that can replace signals, or supplement signals, or do both. Stated differently, Plaintiff argues for a construction of "message generator" that would not require the device to replace signals.

Claim 19 of both the '740 patent and '670 patent recite that the "means for playing" function comprises a "message generator." Claim 21 of both patents depend on claim 19 and thus also require that the "means for playing" function comprise a "message generator." Claim 19 (and therefore claim 21) are dependent on claim 13 of the '740 patent and '670 patent. The "means for playing" step is required in claim 13 because claim 13 is dependent on claim 1, which recites the "means for playing" function. That "means for playing" function requires "at least one generally continuous announcement to the calling party for a predetermined period of time during a time period when an audible call progress signal would have been provided to the calling party". ('740 patent, Reexamination Certificate, 2:46-50

(emphasis added).) Thus, every claim depending on claim 1 (including claims 19 and 21) has the limitation that the "means for playing" function requires "at least one generally continuous announcement to the calling party for a predetermined period of time during a time period when an audible call progress signal would have been provided to the calling party". See 35 U.S.C. 112 ¶4 ("A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers."). Plaintiff has maintained that the "means for playing" limitation represents a "replacing" step. (See Pl.'s Opening Br. at 15; Pl.'s Responsive Br. at 24; Markman Tr., 9-28-11 at 196:3-22.) Consequently, the dependent claims reciting a "message generator," which is the structure carrying out the "means for playing" function, must also require the "replacing" of signals with an announcement.

Plaintiff nonetheless cites the specification, which states that a "message generator is also connected to the switch and is capable of supplementing and/or replacing the signals generated by the audible signal generator". ('740 patent, 3:35-38; '670 patent 4:62-65.) Indeed, several dependent claims of the '740 patent recite a system "wherein if the second telephone has an initial [idle/busy] status, said announcement is preceded by a single audible [busy/ringback] signal". ('740 patent, claims 2, 3.) In those claims, a message generator would "supplement" the

signals generated by the audible signal generator. However, dependent claims 2 and 3 of the '740 patent only serve to highlight a limitation that is absent from the independent claim. Phillips, 415 F.3d at 1315 ("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"). Accordingly, the Court can infer that claim 1 of the '740 patent and '670 patent do not contain the limitation that an announcement is preceded by a signal. At a minimum, if the "means for playing" is a "message generator", it would need the ability to replace the signal. As a result, Defendants are correct to argue that a "message generator" must "at least" be able to replace signals.

The Court will therefore adopt Defendants' construction. "Message generator" means "a device that is capable of at least replacing the signals generated by the audible signal generator".

**M. "network address"**

This term appears in claims 1 and 8 of the '670 patent. Plaintiff defines the term to mean "the identifier of the equipment receiving a call". Defendants construe "network address" to mean "a location within a network".

Plaintiff's definition derives from technical dictionaries. The first is a definition of "network address" from the Dictionary of Communications Technology: Terms, Definitions, and Abbreviations. It provides:

1. In packet switching, a unique identifier for every device (data terminal, host computer, switch or concentrator) that identifies the device for connection through the network . . . 2. In IBM's SNA, an address consisting of subarea and element fields that identifies a link, a link station, or a network addressable unit.

(Dkt. entry no. 184-8, Dictionary of Communications Technology, at 11.) This definition is not helpful. The communications system of the '670 patent is not limited to a packet switching network.<sup>7</sup> In fact, there is no mention of a packet switching system, although the '670 specification indicates the "invention is not limited to such standard telephone station to telephone station communications systems". ('670 patent, 3:33-35.) Also, neither party suggests the invention is an IBM SNA network.<sup>8</sup> This technical dictionary offers definitions that are far too narrow and out of context of the patents-in-suit.

Plaintiff also cites to the Federal Standard 1037C Telecommunications: Glossary of Telecommunication Terms, which

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<sup>7</sup> According to the 1996 Federal Standard 1037C Telecommunications: Glossary of Telecommunication Terms (available at <http://www.its.bldrdoc.gov/fs-1037/>), "packet switching" is the "process of routing and transferring data by means of addressed packets so that a channel is occupied during the transmission of the packet only, and upon completion of the transmission the channel is made available for the transfer of other traffic". A packet "[i]n data communication, [is] a sequence of binary digits, including data and control signals, that is transmitted and switched as a composite whole".

<sup>8</sup> According to IBM, its "Systems Network Architecture (SNA)" is "a set of protocols and services enabling communication between host computers (IBM mainframes) and peripheral nodes". IBM Corp., What is Systems Network Architecture, <http://publib.boulder.ibm.com/infocenter/zos/basics/topic/com.ibm.zos.znetwork/toc.htm>.



defines "address" to mean "in communications, the coded representation of the source or destination of a message". (Dkt. entry no. 184-7, Glossary of Telecommunication Terms at 7.) But this definition does not suggest that a "network address" identifies equipment. In fact, it supports Defendants' contention that a network address is a destination or location.

This extrinsic evidence is not helpful. Instead, the best source for understanding a technical term is the specification from which it arose. Phillips, 415 F.3d at 1315. The '670 specification supports Defendants' construction that a "network address" is a location. For example, the specification teaches that the "switch is responsible for determining the destination (network address) of the call based upon the transmitted signal, i.e., the number dialed." ('670 patent, 4:12-14 (emphasis added).) The specification also explains that the invention applies to a "telephone or to any other location within a communications network which has a network address assigned to it". (Id. at 1:47-49.) Hence, a network address indicates the location within a communications network.

Another problem with Plaintiff's construction is that it assumes that only a device "receiving a call" will have a network address. The claim in which the term appears proves that untrue. Both a calling party and a called party have a network address. Claim 1 requires a "means for placing a call by a calling party

at a first network address" followed by a "means for connecting the call to an identified called station at a second network address". ('670 patent, 12:59-62.) Defining "network address" as identifying only the party "receiving a call" eliminates one of the claim elements and thus cannot be correct. See Renishaw PLC v. Marposs Societa' per Azioni, 158 F.3d 1243, 1250 (Fed.Cir. 1998) ("construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction"). The Court adopts Defendants' definition. "Network address" means "a location within a network".

#### **CONCLUSION**

The Court will construe the terms of the '740 Patent and the '670 Patent in an appropriate order in accordance with this Memorandum Opinion.

s/Mary L. Cooper  
**MARY L. COOPER**  
United States District Judge

Dated: May 10, 2012