

United States District Court,
M.D. Florida, Orlando Division.

GOLDEN VOICE TECHNOLOGY & TRAINING,
L.L.C. Plaintiff.

v.

ROCKWELL FIRSTPOINT CONTACT CORPORATION (f/k/a Rockwell Electronic Commerce Corporation), and Conexant Systems, Inc,
Defendants.

No. 601CV1036ORL19JGG

May 20, 2003.

Owner of patents for telephone answering system software sued competitors for infringement. Adopting the claim construction recommendations reported by Glazebrook, United States Magistrate Judge, the District Court, Fawsett, J., held that: (1) claim limitation, that "on-line participation by on-line operator" was "required for effectively enabling an incoming caller to reach a called destination," meant that operators had to be on-line to service or assist callers in completing purpose of call, and (2) requirement that pre-recorded response messages had to "effectively correspond to voice of operator" meant only that operator's pre-recorded messages had to be in his or her own voice.

Claims construed.

Court-Filed Expert Resumes

4,623,761, 4,697,282. Construed.

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ORDER

GLAZEBROOK, United States Magistrate Judge.

This case comes before the Court upon the following:

1. Report and Recommendation of the Magistrate Judge (Doc. No. 140).

2. Objections of Defendants to Report and Recommendation on Claim Construction and Request for Oral Argument (Doc. No. 142); and Plaintiff's Response to Defendants' Objections to the Magistrate Judge's Report and Recommendation on Claim Construction (Doc. No. 146).

BACKGROUND

This is a patent infringement suit. Plaintiff Golden Voice Technology and Training, L.L.C. ("Golden Voice") alleges that Defendants Rockwell FirstPoint Contact Corporation ("Rockwell") and Conexant Systems, Inc. ("Conexant") have infringed U.S. Patent No. 4,623,761 (the "761 patent") and U.S. Patent No. 4,697,282 (the "282 patent"). Alleged as infringed are claims 1, 13, 25, and 33 of the '761 patent and claims 1, 10, and 21 of the '282 patent. The parties filed motions asking this Court to construe certain claims in these patents. Doc. Nos. 121, 122. The Court referred these motions to the Magistrate Judge who held a *Markman* hearing on February 11, 2003. FN1 The Magistrate Judge characterized the issues before the Court as follows. FN2

FN1. *See* *Markman v. Westview Instruments*, 52 F.3d 967, 34 U.S.P.Q.2d 1321 (Fed.Cir.1995) (*en banc*), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). At the *Markman* hearing, the Court considered the parties' extensive briefs, allowed several hours for oral argument, and received in evidence numerous exhibits, including the patents in the suit, their prosecution histories before the U.S. Patent and Trademark Office, and prior art considered by the Patent Office in connection with these prosecution histories.

FN2. Since none of the parties objected to this "background" portion of the Magistrate's Report and Recommendation, the Court incorporates it in this Order as it provides a concise description of the issues that must also be reviewed by this Court.

Both the '761 and '282 patents are entitled "Telephone Operator Voice Storage And Retrieval System," and identify the same inventors. The '761 patent issued November 18, 1986, based upon a patent application filed April 18, 1984. Defendants' Exhibit ("DX") 1, Doc. No. 139. The '282 patent issued on September 29, 1997, based upon a patent application filed June 20, 1986, as a "continuation" of the '761 patent application. DX 2, Doc. No. 139. The '282 patent application specification (written description and drawings) is a duplicate of the '761 patent application specification.

The Golden Voice patents disclose a telephone call answering system that assists call operators, or agents, in servicing incoming calls. Using the patented technology, an operator records and stores one or more frequently repeated phrases (e.g., greetings, regulatory statements, disclaimers, transfer phrases), also known as personal announcements, in his or her own voice. When the operator receives an incoming call, he or she can play one of the prerecorded messages. The operator remains on-line to talk with the caller, or to select and play back additional personal announcements as required. Prerecorded personal announcements relieve the operator of having to orally repeat certain phrases throughout the day. The prerecorded personal announcement is recorded in the operator's best voice, so it sounds pleasant to every caller throughout the day. Moreover, because the prerecorded message is in the voice of the operator, the caller believes he or she is actually hearing the live operator, and at the same time, the operator is on-line to fully service the caller.

The claims at issue are the independent claims 1, 13, and 25 of the '761 patent, and the independent claims 1, 10, and 21 of the '282 patent. FN3 The '761 and '282 patents are closely related; the description of the invention that precedes the claims is virtually identical. Indeed, the language of claims 1, 13, 25 of the '761 patent is identical to the language of claims 1, 10, 21 of the '282 patent except in one respect that is not material to this case. Because this difference in the claim language is not pertinent to the claim construction issues before the Court, the parties agree that construction of the claim language of claims 1, 13, and 25 of the '761 patent apply equally to the corresponding claims of the '282 patent.

FN3. At the February 11, 2002 hearing, the parties advised the Court that they had resolved all issues regarding claim 33, and that they no longer required this Court's construction of that claim. Accordingly, this Court does not construe claim 33.

Claim 1 of the '761 patent contains *all* of the disputed claim limitations at issue. The disputed claim language of claim 1 is underlined below:

For use with an operator-assisted telephone service facility *in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination*, an arrangement for providing a response message to said incoming caller accessing said facility comprising:

first operational means for storing a plurality of prescribed response messages, *each of which, when played back, effectively corresponds to the voice of the operator who is on-line with and services incoming calls*; and

second operational means, coupled to said first operational means and operable in conjunction with the on-line operator's servicing of an incoming call, for selectively accessing a response message from among said plurality of stored response messages in dependence upon information contained within said incoming call being serviced by said on-line operator and which is representative of the type of call to which said incoming call corresponds, and causing said selectively said accessed response message to be played back to said incoming caller.

The disagreement between the parties concerns the two underlined limitations appearing in the above claim. First, the parties dispute the meaning of the following phrase in the preamble of claims 1, 13, 25 of the '761 patent and claims 1, 10, and 21 of the '282 patent: "in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination." Rockwell asks this Court to construe this phrase to mean:

in which it is necessary for an on-line operator to participate on-line to effectively enable an incoming caller to reach the physical location to which the caller is to be connected. The claims exclude systems which enable connection of a caller to a called destination, without operator intervention, even if such systems also allow operators to make connections manually.

Doc. No. 121 at 7. Golden Voice proposes the following construction:

in which operators, also known as agents, are on-line to service or assist them in completing the purpose of the call.

The second disputed phrase is "effectively corresponds to the voice of the on-line operator" in the first element of claims 1, 13, 25 of the '761 patent and claims 1, 10, and 21 of the '282 patent. Rockwell defines "effectively corresponds" as requiring "adjustment by automatic level control circuitry to ensure that there is effectively no difference in the audio level of the recorded voice played back to the caller and the 'live' voice spoken by the operator." Doc. No. 121 at 15. Golden Voice contends that this limitation simply means that the prerecorded message of the operator must be in "his or her own voice." Doc. No. 128 at 8. The Magistrate Judge recommended that Golden Voice's interpretations be accepted as the correct construction of the claims in issue.

STANDARD OF REVIEW

After a Magistrate Judge issues a Report and Recommendation, the District Judge must make a *de novo* determination of the findings and/or recommendations to which any party objects. 28 U.S.C. s. 636(b)(1)(B). After reviewing the Report and Recommendation, objections, and response thereto, the District Judge "may accept, reject, or modify, in whole or in part," the findings and recommendations made by the Magistrate. *Id.*

THE LAW OF PATENT CLAIM CONSTRUCTION FN4

FN4. The Court has reviewed the law of patent construction presented in the Magistrate's Report and Recommendation as well as the cases cited therein. The Magistrate Judge provided an accurate and thorough discussion of the law in his Report. None of the parties has objected to the Magistrate's statement of the law, although Defendants have objected to his application of that law to the facts in the instant case. Therefore, in order to conserve judicial resources, the Court has incorporated the Magistrate's statement of the law of patent claim construction in the instant Order.

[1] A patent infringement analysis involves two steps. The first step is determining the meaning and scope of the patent claims that are asserted to be infringed. In accordance with *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), this first step—referred to as claim construction—is a matter of law for the Court to decide and on which the Court instructs the jury. The jury then performs the second step, which is the determination of infringement, by comparing the properly construed claims to the accused product.

[2] Claim interpretation begins with the Court's analysis of the actual language of the claim. It is well settled that, "as a general rule, all terms in a patent claim are to be given their plain, ordinary and accustomed meaning to one of ordinary skill in the relevant art." *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342 (Fed.Cir.2001). Reasonably enough, dictionary definitions may establish a claim term's ordinary meaning. *CCS Fitness, Inc. v. Brunswick Corporation*, 288 F.3d 1359, 1366 (Fed.Cir.2002)(citing *Rexnord Corp. v. Laitram Corp.*, 274 F.3d at 1344 (using Random House Unabridged Dictionary to define the ordinary meaning of "portion")); *See also Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed.Cir.1998)("noting that the meaning of a claim may come from a 'relevant dictionary' so long as the definition does not fly 'in the face of the patent disclosure' ").

[3] There is a heavy presumption in favor of the ordinary meaning of claim language. *Bell Atlantic Network Services, Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1268 (Fed.Cir.2001). However, the

literal language of a claim cannot be the starting and ending point for determining its scope. The Court must also look to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification, and the patent application prosecution history. While it is the claims that define the invention, claim terms are interpreted in light of the specifications FN5 and the prosecution history.FN6 *Teleflex, Inc. v. Ficosa North America Corp.*, 299 F.3d 1313, 1325 (Fed.Cir.2002).

FN5. Under U.S.C. s. 112 para. 1, every patent must contain a specification that contains a written description of the invention, the manner and process for making it, and the best mode contemplated by the inventor of carrying out his invention.

FN6. The prosecution history, also referred to as the file history or file "wrapper," is the record of the correspondence between the applicant and the U.S. Patent Office during the patent application process. The prosecution history becomes public upon issuance of the patent.

Intrinsic Evidence

Intrinsic evidence provides context and clarification about the meaning of claim terms. *Id.* Intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language, and it constitutes the public record of the patentee's claim. *Vitronics*, 90 F.3d at 1582. A claim term may be clearly defined within the patent record without an explicit statement of definition. The specification description of the preferred embodiments "can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format." *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1344 (Fed.Cir.2001). The meaning may be "found in or ascertained by a reading of the patent documents." *Vitronics*, 90 F.3d at 1582, 1584 n. 6. A court must analyze arguments and amendments made during the prosecution of a patent application to determine the meaning of claim terms. *Southwall Technologies, Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed.Cir.1995).

The prosecution history of a patent contains the complete record of all the proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims. *Vitronics*, 90 F.3d at 1582. As such, the record before the Patent and Trademark Office is often of critical significance in determining the meaning of the claims. *Vitronics*, 90 F.3d at 1582; *ZMI Corp. v. Cardiac Resuscitator Corp.*, 844 F.2d 1576, 1580 (Fed.Cir.1988).

[4] As explained by the Federal Circuit in *Vitronics*,

The claims, specification, and file history, rather than extrinsic evidence, constitute the public record of the patentee's claim, a record on which the public is entitled to rely. In other words, competitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention. Allowing the public records to be altered or changed by extrinsic evidence ..., such as expert testimony, would make this right meaningless. The same holds true whether it is the patentee or the alleged infringer who seeks to alter the scope of the claims.

90 F.3d at 1582; *Bell & Howell Document Management v. Altek*, 132 F.3d 701, 706 (Fed.Cir.1997). In

those cases where the public record unambiguously describes the scope of the patented invention, reliance on extrinsic evidence is improper. *Vitronics*, 90 F.3d at 1583.

[5] A patent applicant may act as his own lexicographer by clearly and precisely defining a special use or meaning during prosecution, or by disclaiming a portion of a word's ordinary meaning. A patentee may "use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history." *Id.* at 1582-83. Accordingly, the Court should review the patent specification and its prosecution history to determine whether the inventor has employed any terms or words in a way that is inconsistent with their plain and ordinary meaning or disavowed subject matter from the scope of his patent claims. *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1340-42 (Fed.Cir.2001); *Biovail Corp. Int'l v. Andrx Pharm., Inc.*, 239 F.3d 1297, 1301 (Fed.Cir.2001) ("[W]e review both the specification and the applicable prosecution history to determine whether the patentee defined claim terminology in a manner inconsistent with its ordinary meaning."); *Hockerson-Halberstadt*, 222 F.3d at 955 ("The court, therefore, must examine a patent's specification and prosecution history to determine whether the patentee has given the term an unconventional meaning."); *Southwall*, 54 F.3d at 1576 ("Arguments and amendments made during the prosecution of a patent application and other aspects of the prosecution history, as well as the specification and other claims, must be examined to determine the meaning of terms in the claims."); *accord*, *John D. Watts v. XL Sys.*, 232 F.3d 877, 883 (Fed.Cir.2000) (even if the claim terms were clear on their face, the court "must consult the specification to determine if the patentee redefined any of those terms"); *Interactive Gift Express v. CompuServe*, 231 F.3d 859, 870 (Fed.Cir.2000); *Vitronics*, 90 F.3d at 1582.

[6] In reviewing the prosecution history, the Court also examines the prior art considered by the Patent Office to assess what the claims do not cover. *Vitronics*, 90 F.3d at 1583; *Watts v. XL Sys., Inc.*, 232 F.3d 877, 883 (Fed.Cir.2000); *ZMI Corp.*, 844 F.2d at 1580-581; *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 452 (Fed.Cir.1985) ("[T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance."); *Wang Labs., Inc. v. America Online, Inc.*, 197 F.3d 1377, 1384 (Fed.Cir.1999).

Ultimately, a review of the prosecution history ensures that an applicant has not defined claim terms one way in order to obtain the patent, and then defined them another way to support infringement allegations. *See Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576, 1578 (Fed.Cir.1995) ("A patentee may not proffer an interpretation for the purposes of litigation that would alter the indisputable public record consisting of the claims, the specification and the prosecution history, and treat the claims as a 'nose of wax'"); *Day Intl., Inc. v. Reeves Brothers, Inc.*, 260 F.3d 1343, 1348 (Fed.Cir.2001) (arguments made by the patentee during prosecution of the patent limit the scope of the invention).

[7] [8] The prosecution history and patent specification are to be applied to narrow the scope of a claim where the patentee argued a narrow claim construction to obtain allowance of the claim by the Patent Office. The United States Court of Appeals for the Federal Circuit recently stated:

Even where the ordinary meaning of the claim is clear, it is well-established that "[t]he prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution." Thus, this court has endorsed narrowing the interpretation of the claim to be consistent with a narrow claim scope urged by the applicant during the prosecution of the patent. This narrowing claim interpretation will be adopted if the accused infringer can demonstrate that the patentee "defined" the claim

as "excluding" a broader interpretation "with reasonable clarity and deliberateness."

Pall Corp. v. PTI Technologies, Inc., 259 F.3d 1383, 1392-93 (Fed.Cir.2001) (emphasis supplied). The public notice function of patents prohibits a patentee from expressly stating during prosecution that the claims do not cover a particular device, and then later suing for infringement by that same device. Allowing such a suit would be unfair to the manufacturer of the accused device who was entitled to rely on the surrender of claimed subject matter made in the prosecution history and contained in the file wrapper.

[9] [10] In addition to the specification and prosecution history, determining the meaning of a claim term requires reference to the other claims. Southwall, 54 F.3d 1570, 1579. Claim terms must be interpreted consistently in all claims. *Id.* Further, under the doctrine of claim differentiation, limitations made in a narrow claim should not be read into a broader claim, because to do so would make the narrower claim superfluous. *See Xerox Corp. v. 3Com Corp.*, 267 F.3d 1361, 1366 (Fed.Cir.2001); *Tandon Corp. v. U.S. Int'l Trade Comm'n*, 831 F.2d 1017, 1023 (Fed.Cir.1987). As explained by the Federal Circuit:

There is presumed to be a difference in meaning and scope when different words are used in separate claims. To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant.

Xerox Corp., 267 F.3d at 1366 (quoting *Tandon Corp.*, 831 F.2d at 1023).

Under 35 U.S.C. s. 112 para. 3 and para. 4, a claim written in dependent form means that it refers to a previous claim and adds a further limitation to that claim. Thus, by definition, dependent claims are narrower than the claims to which they refer. Therefore, under the doctrine of claim differentiation, the limitations in dependent claims should not be read into the independent claims to which they refer.

[11] [12] Lastly, the Federal Circuit has recognized two additional claim construction guideposts to assist the district court. Ordinarily, the meaning assigned to a word in a patent should align with the purpose of the patented invention. *Apple Computer v. Articulate Sys.*, 234 F.3d 14, 25 (Fed.Cir.2000); *accord*, *Hockerson-Halberstadt v. Avia Group Int'l*, 222 F.3d 951, 956 (Fed.Cir.2000). If possible, the Court should construe claims so as to preserve their validity. *Wang Lab. v. America Online*, 197 F.3d 1377, 1383 (Fed.Cir.1999).

Construction of a means-plus-function claim

[13] [14] [15] The above discussion pertains to ordinary language claim expressions. Under 35 U.S.C. s. 112 para. 6, however, a special rule of claim construction exists for claim limitations which are written in a "means-plus-function" format. Construction of such a limitation requires the court first to identify the function of the means-plus-function limitation, and next to identify the corresponding structure in the written description necessary to perform that function. *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed.Cir.1999). Interpretation of such a claim limitation is limited to the specific structure identified in the specification for performing the stated function, and equivalents of that structure. *Generation II Orthotics, Inc. v. Medical Technology, Inc.*, 263 F.3d 1356, 1363 (Fed.Cir.2001). However, when construing means-plus-function limitations, courts must be careful not to read more into the function than its ordinary meaning. *Id.* at 1364-65. Further, only the part of the means-plus-function clause that recites the function itself is limited to the structure described in the specification under s. 112 para. 6. *See*

BBA Nonwovens Simpsonville, Inc. v. Superior Nonwovens, LLC, 303 F.3d 1332, 1344 (Fed.Cir.2002) (The term "corona means" was deemed a means-plus-function limitation and interpreted under s. 112 para. 6; however, the phrase immediately following, "and positioned for electrically charging the filaments," was deemed "a separate limitation not subject to s. 112 para. 6").

DISCUSSION

The Specification

Because the '282 patent was a continuation of the '761 patent, the patents have the same specification. The specification for the patents describes a call answering system used to assist operators or agents at telephone answering facilities, such as directory assistance, PBX and Toll Service, that requires that the operator handle a large number of similar calls over the operator's work period. It is extremely difficult for an operator to answer similar calls with the same courtesy, enthusiasm and efficiency over an extended period of time. DX 1, '761 patent, 1:17-; 34-40. A way to relieve the operator's fatigue is to allow prerecorded messages to be played to incoming callers. DX 1, '761 patent, 1:24-27. However, as noted in the "Background of the Invention" section of the patent,

Incoming calls are placed by customers whose service requests to them are unique and, as such, the customers expect the service provided by the operator to be helpful, courteous and efficient. If, however, the customer's call is answered by an operator whose voice response is less than desired or, even worse, by a mechanical sounding pre-recorded response message prepared by one person's voice and then followed by the voice of the operator, which not only is different from that of the intercepting response message but conveys a tone that is less than customer-courteous to the caller, it can readily be appreciated how the caller may be confused and often disappointed in the service.

DX 1, '761 patent 1, 39-49.

The patent specification describes the invention at two levels. At the first level, the specification describes a "digital storage and retrieval" system that enables an operator to record and store routine messages in the operator's own voice, and then, when the operator is on-line with a customer, retrieve and play back the appropriate prerecorded message. *See* DX 1, '761 patent, 4:57-7:60 and Fig. 2.

Second, the specification describes the use of an automatic level control amplifier that assimilates the operator's voice signals and the prerecorded messages so that there is effectively no difference between the two. *See* DX 1, '761 patent, 7:61-8:59 and Fig. 3. The specification further explains that the system allows either the operator to choose the message that will be played or the computer to choose the message automatically.

Call-type detector 40 may be of conventional configuration employing a bank of indicators monitored by an operator 10, who, via a switch panel interface, selects an appropriate code for identifying the type of response message to be returned to the caller 70. This would normally involve the operator monitoring an optical read-out panel of call-type detector 40 and then, via a switch panel interface, causing the playback of a stored message, such as from a magnetic tape cassette. Rather than have the operator perform this task, however, it is possible to employ a bank of associated detectors, such as opto-electrical detectors, coupled with the indicator unit of the call-type detector 40 of the telephone service facility of interest, which supplies a set of codes over link 42 to a message storage and retrieval system 20, to be described below with reference to FIG. 2. In other words, the type of call being detected may be monitored manually by the

operator and the information identifying the type of call coupled to the message storage and retrieval system 20 by an operator switch panel interface, or it may be handled automatically without operator intervention.

DX patent 1, '761 patent 3 :42-46.

Accordingly, the patent specification allows a response message to be chosen either by an on-line operator or automatically by the computer.

Prosecution History

The Report and Recommendation contained a lengthy and thorough discussion of the prosecution of Plaintiff's patents. The Court does not wish its own examination of the prosecution history to be redundant; however, the Court's *de novo* review relies heavily on the exchanges between the patent examiner and the applicants in the instant case.

As originally filed, the patent application presented independent claims 1, 14, 27, 30, 36, and 41. Doc. No. 122, Ex. C at 28, 30-31, 33-38. Dependant claims were 4, 9, 13, 17, 22, 26, 29, 31, 37, and 42, all of which further provided: "adjusting, in effectively the same manner, at least one prescribed characteristic of each said voice messages from said operator and said played back message." Doc. No. 122, Ex. C at 28-33, and 35-38.

In the first Office Action, which occurred on July 12, 1985, the examiner rejected all of the independent claims on the basis that prerecorded messages that could be played to incoming callers and monitored by operators had been anticipated by prior art, *e g.*, Patent No. 4,328,396 ("Theis") and Patent No. 4,359,607 ("Hannig"). Doc. No. 122, Ex. C at 56-58. However, the examiner stated that the dependent claims "would be allowable if rewritten in independent form," recognizing that these claims "require adjustment of characteristics of messages from both the operator and the message playback source." Doc. No. 122, Ex.C at 58-58. The examiner explained that while prior art provided for adjustment from a message delivery unit, none of the prior references taught providing such adjustment for both sources at a common path output. DX 4 at 7; Doc. No. 122, Ex.C at 59.

On September 17, 1985, the applicants' attorney participated in an interview with the examiner. The examiner provided the following summary of that interview:

Atty. summarized his perception of merits of the case and discussed some claim terms such as "operator assistance," stating that provision of stored messages plus following real-time conversation of an *operator, in the same voice*, is the combination for which coverage is sought, and which he thinks is not taught by the art of record. Exr. stated that at least some of the refs. of record do provide stored message plus live operator assistance, and that the stored messages obviously could be in the voice of the operator. Atty. also discussed 112, 2nd para. rejection *e.g.* of claim 1, regarding "first means" and "second means": exr. suggested some possible alternative language to avoid ambiguity, which appeared to be acceptable to atty.

DX 6 at 1; Doc. No. 122, Ex. C at 132.

In a reply dated September 26, 1985, to the first Office Action, the applicants rewrote in independent form the originally filed dependent claims 31, 37, and 42 which the examiner had indicated would be allowed because they provided for "adjusting in effectively the same manner, at least one prescribed characteristic of

each of said voice message from said operator and said played back message," making newly presented claims 48-58 allowable. Doc. No. 122, Ex.C at 144. This provision was not included in the other independent claims which remained pending. Instead, the remaining independent claims contained the language that is in dispute in the instant case: "which, [the message], when played back, effectively corresponds to the voice of the operator."

The applicants' argued for the patentability of these pending claims and sought reconsideration of their former rejection. Applicants contended that the examiner had misconstrued the prior art as an operator-assisted telephone service facility when the prior inventions described were merely, in the applicants' view, variations of typical telephone answering machines. Doc. No. 122, Ex. C at 146. Applicants attempted to distinguish their invention by describing it as follows:

In accordance with the present invention, the operator is provided with a facility for reducing the monotonous routine of answering similar types of calls while not creating a confusing factor in the ears of the calling listener, through a scheme providing response messages selected in accordance with the type of incoming call, which response messages have been previously recorded in the voice of the operator who is attending to the servicing of the incoming call. As a result, the calling party hears the same voice, whether it be the live operator's voice at the servicing console or a played-back voice from the prerecorded message source. As a result, the potential for frustration, confusion and inefficiency in the communications exchange from a called facility to the calling subscriber is effectively avoided.

Doc. No. 122, Ex.C at 145-146. Significantly, the applicants did not argue patentability of these claims on the basis that the phrase, "effectively corresponds to the voice of the operator" required adjustment of characteristics of messages from both the operator and the message playback source at a common path output.

In the second Office Action, which was issued on November 27, 1985, the examiner allowed claims 48-58 which concerned adjusting, in effectively the same manner, at least one characteristic of both the operator's voice and the playback message. These claims became the issued claims 28-38 of the '761 patent. The examiner again rejected for prior art the other independent claims without this "adjusting" provision.

According to the examiner, "when [a conventional telephone answering machine] is used by a person who may answer the telephone and provide further voice interaction beyond the recorded messages therein, that person may be called an 'operator,' and the arrangement certainly may be termed an 'operator-assisted telephone service facility.'" Doc. No. 122, Ex. C at 164 (bracket added). The examiner rejected the claims as being obvious, and thus not patentable, contending that the person operating the conventional telephone answering machine may be the person who recorded the machine messages:

Inasmuch as anyone of ordinary or even lesser skill in the art clearly would recognize that the "operator" who may provide answering assistance at a telephone facility equipped with a voice storage/retrieval device could be the one who also input messages stored therein, it clearly would not be reasonable to withdraw from the public domain an operator-assisted telephone facility with message storage merely because the references do not specifically state that the messages stored therein were input by the same person who will provide subsequent telephone "assistance." Put another way one should not be required to pay a license in order to permit their own operator to load messages into their telephone recorded-message facility, especially when such capability is clearly apparent from the cited prior art.

DX 8 at 6-7.

The examiner further explained:

[T]hat the messages could 'correspond' to the voice of the operator attending to the servicing of incoming calls (as also in each of applicants' independent claims) is considered clearly obvious ... obviously, the person who will be answering the incoming calls may very well be the one who recorded the messages.

DX 8 at 3; Docket No. 122, Ex. C at 162.

Unable to convince the examiner to allow these pending independent claims, on December 26, 1985, applicants filed another amendment in which they rewrote the preambles of the pending independent claims. Those preambles, which now appear in the issued independent claims 1, 13, and 25 of the '761 patent read as follows.

For use with an operator-assisted telephone service facility *in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination*, an arrangement for providing a response message to said incoming caller accessing said facility comprising:

DX 6 at 2-3 (newly added language is underlined.)

Applicants continued to press their argument that the examiner had misconstrued the prior art even as they described the purpose of the additional language.

Applicants have amended each of the independent claims 27, 44, 46 to more particularly characterize the operator-assisted telephone service facility, in terms of who the operator is and how the operator interfaces with the incoming call, on the one hand, and the *selective accessing* of a response message from a plurality of stored response messages independence [sic] upon information contained within the incoming call being serviced, which information is representative of the type of call to which the incoming call corresponds, on the other hand.

DX 9 at 6 (emphasis added); Docket No. 122, Ex. C at 203.

The applicants explained that:

In each of these claims, the service facility in which the present invention is employed is an operator-assisted telephone service facility in which participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination. *Applicants have more particularly defined what is meant by an operator-assisted telephone service facility in the claims in order to eliminate the misapplication of prior art in the two previous Office Actions in which a conventional telephone answering machine was considered to be an operator assisted service facility....* In the operation of such a conventional telephone answering machine ... the user of the machine is not an on-line operator whose on-line participation is required for effectively enabling an incoming caller to reach a called destination. Instead, just the opposite is the case; *the reason for the installation of the answering machine is to relieve the called subscriber from the need to participant in answering the call!*

DX 9 at 7 (emphasis added); Docket No. 122, Ex. C at 204.

Thus, the phrase "on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination" was added to the preamble to distinguish the invention from a system which included an answering machine that could record a message from a caller, and an operator who would later return the call based on information recorded by the caller. The distinction was made by stating that the claimed invention only concerned a service in which an operator participates on-line with the caller.

The applicants also emphasized that the prior art did not teach selectively accessing a response message based on information received during an incoming call:

Applicants call for the selective accessing of a response message in dependence upon information contained within the incoming call being serviced by the on-line operator which is representative of the type of call to which the incoming call corresponds.

* * * * *

Applicants have claimed a combination of features in which the response message, which is selectively accessed from a plurality of stored messages, is played back in the voice of the operator who is on line and servicing the calls.

DX 9 at 12-13.

Thereafter, these claims in the '761 patent application were allowed (and became the further issued claims 1-27 in the patent). As noted above, the '282 patent was a continuation of the '761 patent. All of the '282 patent's independent claims contain the above-discussed preamble language that is at issue-"effectively corresponds to the voice of the operator who is on-line with and services incoming calls"-in the first limitation dealing with the storing of messages. It is undisputed that the application prosecution history of the '761 patent applies with equal force to interpretation of the subject '282 patent claims. *See Elkay Mfg. Co. v. Ebco Mfg. Co.*, 192 F.3d 973, 980 (Fed.Cir.1999).

Objections to the Report and Recommendation

Defendants object to the Magistrate's interpretation of the phrase "in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination." As previously noted, in their original *Markman* brief Defendants argued that the phrase should be interpreted to read:

in which it is necessary for an on-line operator to participate on-line to effectively enable an incoming caller the reach the physical location to which the caller is to be connected. The claims exclude systems which enable connection of a caller to a called destination without operator intervention, even if such systems also allow operators to make connections manually.

In their objections to the Magistrate's Report, Defendants have slightly changed their interpretation of the phrase. Now they would interpret it as:

in which it is necessary for an on-line operator to participate on-line to effectively enable an incoming caller

to reach the physical location to which the caller is to be connected.

Doc. No. 142 at 12-13.

The Magistrate recommends a broader interpretation of the phrase. Adopting the construction suggested by Plaintiff, the Magistrate recommends that the phrase be construed as, "in which operators, also known as agents, are required on-line to service or assist an incoming caller in completing the purpose of the call."

In deciding how the contested phrase should be interpreted, the Magistrate Judge first looked to the ordinary dictionary definition of the term "destination." He cited two dictionary definitions in the Report and Recommendation. The Merriam-Webster's Collegiate Dictionary (10th ed.2001) defines destination as:

1: an act of appointing, setting aside for a purpose, or predetermining 2: the purpose for which something is destined 3: a place to which one is journeying or to which something is sent.

Doc. No. 140 at 20 (citing DX 13).

The American Heritage Dictionary of the English Language (1980) defines destination as:

1. The place or point to which someone or something is going or directed. 2. The ultimate goal or purpose for which anything is created or intended.

Id. (citing DX 12).

The Magistrate Judge found that the broader meaning of the term destination as "the ultimate goal or purpose for which something is destined" was consistent with both ordinary usage of the term as well as the specification and prosecution history. The Magistrate noted that the specification describes the invention as "a system that provides a way to *assist* on-line operators in servicing calls by allowing them to *selectively access* (based on the information received) and *play* prerecorded messages during the call, *i.e.* when they are assisting the caller to reach the purpose of the call." Doc. No. 140, at 21. Nothing in the specification describes the invention as one that requires on-line operators to transfer callers to another physical location.

The Magistrate further noted that nothing in the prosecution history supports Defendants' definition. The language at issue was added to applicants' December 26, 1985, filing in response to the Office Action of November 27, 1985, in which the examiner stated that the claims would be obvious over a conventional answering machine that did not require the operator to be on-line with the caller when the message was played. Doc. No. 140, at 122. The purpose of the on-line operator is to service the caller, not just to connect them to a message or some other physical location. *Id.*

Defendants disagree with the Magistrate's characterization of the specification. They note that the specification lists as examples of the types of service which might use the invention-directory assistance, PBX, and toll services. Doc. No. 142, at 4. Defendants point out that in 1985 at least two of the three applications, PBX and toll calls, required an operator to connect an incoming caller to a physical location, usually the extension of the person being called. Additionally, Defendants argue that the specification also clearly describes operators enabling callers to reach other physical locations-the locations in the memory where the prerecorded messages are stored. *Id.* at 12. They contend that the location in the device's digital memory where a response message to be played back to a caller has been stored is an example of a

"destination." That is, the response message is stored at definite location, such as at a particular address in a memory device (*e.g.*, response message memory 51 as shown in Fig. 3 of the '761 patent). *Id.*

Defendants also question the Magistrate's interpretation of the prosecution history They note that the phrase in question was added in response to the examiner's finding that the original claim was obvious in light of Hannig, which allowed an operator be on-line in order to speak with or assist the caller. Defendants contend that the added preamble language cannot mean what Plaintiff now asserts because after adding the language at issue here, applicants told the examiner that:

the user of the [Hannig] machine is not an on-line operator whose on-line participation is required for effectively enabling an incoming caller to reach a called destination.

Id. at 6.

Accordingly, Defendants assert that the prosecution history demonstrates that the applicants told the examiner that this preamble language made the claims far narrower than what the Report and Recommendation finds them to be. Defendants argue that by finding that the preamble language merely requires a system in which an operator is on-line to "service or assist [the caller] in completing the purpose of the call," whatever that purpose might be, the Report and Recommendation has impermissibly allowed Plaintiff to disavow what the applicants told the examiner in order to get the claims allowed. *Id.* at 7.

[16] For the reasons that follow, the Court finds that the Magistrate's interpretation of the phrase in question is correct. First, it is clear that the dictionary definition of "destination" is not limited to a physical location. Second, the specification does not support the "physical location" definition Defendants propose. It is true, as Defendants point out, that in the "Background of the Invention" portion of the specification the applicants presented examples of operator-assisted telephone service facilities, such as PBX and Toll Service, which required the operator to connect a caller to a physical location. However, it is clear that these examples were not meant to be an exhaustive list of the type of services which could benefit from Plaintiff's invention. Even among the examples presented by applicants, one service, directory assistance, did not, at that time, enable operators to transfer callers to a physical location. At that time directory assistance involved operators who gave out requested telephone numbers to callers who would then have to dial the numbers themselves.^{FN7} Therefore, the specification does not limit the service that may be provided by an operator to merely transferring the caller to a physical location.

FN7. As for Defendants' argument that the specification allows callers to reach the physical location in the memory system where the prerecorded messages are stored, Plaintiff asserts that this is inconsistent with the way in which the system works. When playing a message, the system retrieves the message from memory and then plays it to the caller. It does not send the caller to the physical location in memory where the response message is stored. *See* Fig. 2. The patent specifically states that the system allows operators to choose messages or the system to choose them automatically. DX 1, '761 patent, 3:42-64.

Third, the prosecution history does not support Defendants' construction. It is certainly true that the applicants were attempting to design around the examiner's interpretation of Hannig. However, the major point of contention between applicants and the examiner in regard to Hannig was the characterization of an operator-assisted telephone service facility, particularly, as previously cited "who the operator was and how the operator interfaced with the incoming caller." Doc. No. 122, Ex.C at 203

The Hannig device was a variation on a standard answering machine which placed the telephone and the answering device in one housing unit for "compactness and ease of operation." *Id.* at 120. Similar to a home answering machine, with the Hannig device a message was recorded, when the phone rang the message played, the caller could leave a message, then another message played. At any time the operator could pick up the handset and speak to the caller. The Hannig device did not require an on-line operator. In fact, as applicants noted in their December 26, 1985 submission, the purpose of the Hannig machine was to relieve the user from having to participate in answering the call. Doc. No. 122, Ex. C at 204.

As previously noted, in his November 27, 1985 rejection of applicant's claims, the examiner stated that the Hannig device was not a "conventional answering machine." *Id.* at 164. The disputed language was added to overcome what applicants believed was a misperception of the Hannig device as one that could be characterized as an "operator-assisted telephone service." Applicants were attempting to distinguish their device by showing that it *required* an on-line operator, and that it *allowed* that operator to service the call, either through direct conversation with the caller or by accessing a response message which could be played in response to information the operator received from the caller. (emphasis added) *Id.* at 203-204. As the Magistrate noted, there is nothing in the prosecution history which states that in order to service a call the operator must send the caller to a physical location. Accordingly, the Court adopts the Magistrate's construction of this claim language.

[17] Defendants' second objection is that the Magistrate's interpretation of the words "effectively corresponds" is inconsistent with the specification and reads the word "effectively" out of the claims. The limitation that the prerecorded message "effectively corresponds to the voice of the operator" appears in claims 1, 13, and 25 of the '761 patent and claims 1, 10, and 21 of '282 patent. The Report and Recommendation holds that this limitation simply means that the prerecorded message of the operator must be in the voice of the operator who is on-line with the caller. Doc. No. 140 at 28.

Defendants contend that effective correspondence means that the device itself controls the quality of the playback in such a manner that the caller does not know the recording is a recording. Defendants state that the specification makes it clear that the invention requires two things in order to accomplish this: the use of the operator's own voice and the use of automatic level control circuitry. Accordingly, Defendants argue that the proper construction of the phrase should be: "a response message that is adjusted by automatic level control circuitry to ensure that there is effectively no difference in the audio level of the recorded voice of the operator played back to the caller and the 'live' voice spoken by the same operator." Doc. No. 142, at 14.

In support of their position, Defendants cite the following descriptions provided by applicants in the "Summary of Invention" for the '761 patent:

The audio interface contains automatic level control circuitry which ensures that there is effectively no difference in the audio level of the recorded voice played back to the caller and the 'live' voice spoken by the operator. As a result, because the recorded message is in the operator's own voice and both live voice and played-back voice are coupled over the same signal flow path, the storage and retrieval system is effectively listener transparent.

DX 1 ('761 patent) at col. 2, lines 25-33.

More specifically, the voice that is heard by the caller 70, whether it be the operator's own voice supplied

from the operator's microphone over input link 71, or from the audio output from the synthesizer over input line 21, appears to the same voice in terms of quality and amplitude. The quality is the same because the voice message is a message in the voice of the operator who is actually providing the service at the telephone facility handling the caller's incoming call. In addition, because both the operator's voice signal supplied from his/her microphone and synthesized voice signal supplied from the digital storage equipment are coupled to the same amplification and level adjustment circuitry, there is no sharp inflection or level change between the two voice signals. Thus, the storage and retrieval and audioprocessing circuitry is effectively listener transparent.

Id. at col. 9, lines 50-60.

Finally, the "Summary of Invention also states:

At the same time the present invention permits the operator to follow-up the played-back message with a conversation with the caller, without the caller detecting a difference in the characteristics of the played-back voice and the "live" operator's voice so that the operator voice response message storage and retrieval system is effectively transparent to the caller."

Id. at col. 1, line 63 to col. 2, line 2.

Elsewhere the specification states:

The audio interface contains automatic level control circuitry which ensures that there is effectively no difference in the recorded voice played back to the caller and the "live" voice spoken by the operator.

Id. at Abstract. *see also* Rockwell Initial *Markman* Brief at 11-15.

The Court finds this argument unpersuasive. First, as the Magistrate noted, the specification does not specifically describe "effectively correspond" as requiring "adjustment by automatic level control circuitry." Doc. No. 140 at 25. The patent specification states that "because the operator is able to record his/her own voice in a time frame approximate to that during which the operator will be on-line with incoming calls, characteristics of the voice as stored in memory will be substantially identical to that of the operator when the operator is on-line." DX 1, '761 patent, 7:33-38. Although the preferred embodiment described in the specification routes the play-back of prerecorded messages and the live voice of the operator through a common level adjustment control amplifier 103, nothing in the subject claim language *requires* that arrangement. Doc. No. 140 at 25.

The prosecution history also supports the Magistrate's construction. As noted above, the original patent application presented independent claims 1, 14, 27, 30, 36, and 41. Dependent claims were 4, 9, 13, 17, 22, 26, 29, 31, 37, and 42, all of which further provided: "adjusting, in the same manner, at least one prescribed characteristic of each said voice messages from said operator and said played back message." Doc. No. 122, Ex.C at 28-33 and 35-38. In the first Office Action, the examiner rejected all of the independent claims but stated that the dependent claims "would be allowable if written in independent form," recognizing that these claims "require adjustment of characteristics of messages from *both* the operator and the playback source." Id. at 58-59 (emphasis added).

In their second application, filed on September 26, 1985, applicants rewrote in independent form the

dependent claims the examiner had approved because they contained the above cited language. This provision was not included in the other independent claims. Those claims continued to contain the language in dispute, "which message, when played back, effectively corresponds to the voice of the operator."

Although the examiner clearly approved the original dependant claims because they required adjustment of message characteristics from both the operator and the message playback source at a common path output, Defendants argue that the limitation in claim 1 requires adjusting only the response message through the use of automatic level control circuitry so that it matches the live voice of the operator. They suggest that this could be accomplished, for example, by measuring the volume of the operator's live voice and adjusting only the volume of the response message to match the volume of the live voice. However, the communications between the examiner and the applicants show that this was never applicant's intent.

As previously described, there were several discussions between the examiner and the applicants over whether simply recording a message in the voice of the operator was precluded by prior art. Once the examiner approved the independent claims which required adjustment of both the operator and the response message at a common path output, applicants continued to press for acceptance of the pending independent claims which did not contain that language. Applicants argued that these claims were distinguishable over prior art, not because the claims required adjusting both the operator's live voice and the prerecorded messages along a common output path, or because effective correspondence could be achieved by adjusting only the response message by use of automatic level control circuitry, but because the operator who had recorded the messages was actually on-line with the caller and that, based on the information received, could selectively access and play a message recorded in his or her own voice. The patent was ultimately granted allowing applicants' language to stand.

As the Magistrate noted, the prosecution history shows that applicants made a clear distinction between claims which require adjusting the operator's voice signal and the played back message on a common output, and those claims which merely recite that the stored message, when played back, "effectively corresponds to the voice of the operator who is on-line with and services incoming calls." FN8 Accordingly, the Court adopts the Magistrate's construction of the phrase.

FN8. It should also be noted that the provisions from the Summary of Invention and the specification cited by Defendants undercut their argument. Two of the four references clearly state that the effective correspondence is achieved by having both the operator's live voice and the played-back voice coupled over the same signal flow path. None of the citations state that such correspondence can be achieved by adjusting only the response message.

Defendants' third and final objection to the Magistrate's Report and Recommendation is that the Magistrate limited the function of the means-plus-function element of the claim to "storing a plurality of prescribed response messages," and erroneously concluded that the words immediately following: "each of which, when played backed, effectively corresponds to the voice of the operator," only "describe the message that is recorded, not the function of recording the message." Doc. No. 142 at 18 (citing Doc. No. 140 at 23-24).

In support of their argument, Defendants point to *Creo Prods., Inc. v. Presstek, Inc.*, 305 F.3d 1337 (Fed.Cir.2002). In *Creo*, the means clause in the original patent read as follows:

means for offsetting, with respect to said x and y coordinates, the action of the discharge-source actuation

means to correct imaging errors.

Id. at 1344.

The patent was reexamined and the means clause was changed as follows, with the matter enclosed in brackets having been deleted and the italicized matter having been added.

iii. means for offsetting, with respect to said x and y coordinates, the action of the discharge-source actuation means *in accordance with the angular offset parameters* to correct [imaging errors] *the angular inconsistencies; and iv. means for altering the length of the scan in accordance with the size difference parameters to correct the image-size inconsistencies. Id.*

Defendants maintain that *Creo* is similar to the instant case in that one party sought to disregard the last portion of the claim limitation in determining the function of the means-plus-function limitation. Doc. No. 142 at 19. Defendants contend that the *Creo* plaintiff was attempting to limit the function of the original claim to "offsetting, with respect to said x and y coordinates," and to disregard the language that followed, "the action of the discharge-source actuation means to correct imaging errors." *Id.*

The Court does not agree with Defendants' analysis of *Creo*. *Creo* dealt with the scope of a claim that had been amended during reexamination. The issue before the court was whether the patentee had enlarged the scope of the original patent claim during the reexamination. The written description of the original patent disclosed four types of imaging errors that were correctable by use of the claimed invention: x-direction errors, y-direction errors, image size errors, and skew errors. *Creo Products, Inc. v. Presstek, Inc.*, 305 F.3d at 1344. Plaintiff *Creo* contended that the structure corresponding to the "means for offsetting" limitation in the original claim was a computer programmed to correct all four types of errors. *Id.* According to *Creo*, the amendments made during reexamination broadened the claim so that it only required the system to be capable of correcting two types of errors: y-direction and image length errors. *Id.* Under that theory, the reexamined claim would be invalid because a hypothetical device that permitted a user to enter offsets to correct for y-direction errors and image-length errors, but not for x-direction or skew errors, could infringe the reexamined claim but not the original. *Id.*

The Court disagreed. It noted:

The flaw in *Creo*'s argument is that it attempts to redefine the function of the 'means for offsetting' limitation by adopting a function different from that explicitly recited in original claim 1. The function of a mean-plus-function limitation, however, must come from the claim language itself. *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed.Cir.1999). In original claim 1, the function of this means-plus-function limitation is 'offsetting, with respect to said x and y coordinates, the action of the discharge-source actuation means to correct imaging errors.' On its face, the broad term 'imaging errors,' does not appear to require any particular combination of error corrections.

* * * * *

We read the written description in the '368 patent as disclosing four individual types of error corrections, one or more of which can be performed by different alternative embodiments of the claimed invention. Nothing in the patent requires a single structural embodiment corresponding to the 'means for offsetting' in original claim 1 to be capable of performing all four of the algorithms disclosed.

Id. at 1344-45.

The *Creo* Plaintiff was not attempting to disregard the last portion of the claim limitation as Defendants argue, but to redefine the function of the original claim. Therefore, it is factually and legally distinct from the instant case. The Court agrees with the Magistrate that function of the "first operational means" is simply "storing a message," and the subject phrase merely describes the message that is being stored.

CONCLUSION

Based on the foregoing, the Court rules as follows:

1. The Report and Recommendation of the Magistrate Judge (Doc. No. 140) is **ADOPTED AND AFFIRMED IN ALL RESPECTS.**

2. Defendants' Request for Oral Argument as to Their Objections to the Report and Recommendation (Doc. No. 142) is **DENIED.**

REPORT AND RECOMMENDATION

This is a patent infringement suit. Plaintiff Golden Voice Technology and Training, L.L.C. ("Golden Voice") alleges that the defendants Rockwell FirstPoint Contact Corporation ("Rockwell") and Conexant Systems, Inc. ("Conexant") have infringed U.S. Patent No. 4,623,761 (the "'761 patent") and U.S. Patent No. 4,697,282 (the "'282 patent"). Asserted as infringed are claims 1, 13, 25, and 33 of the '761 patent and claims 1, 10, and 21 of the '282 patent. The parties filed motions asking this Court to construe certain claims in these patents. *See* Docket Nos. 121, 122. The Court heard the motions at a *Markman* FN1 hearing on February 11, 2003.

FN1. *See* *Markman v. Westview Instruments*, 52 F.3d 967, 34 USPQ2d 1321 (Fed.Cir.1995) (*en banc*), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). At the *Markman* hearing, the Court considered the parties' extensive briefs, allowed several hours of oral argument, and received in evidence numerous exhibits, including the patents in suit, their prosecution histories before the U.S. Patent and Trademark Office, and prior art considered by the Patent Office in connection with these prosecution histories. The prosecution history has been particularly important in resolving the parties contentions as to claim interpretation in this case.

I. BACKGROUND

Both the '761 and '282 patents are entitled "Telephone Operator Voice Storage And Retrieval System," and identify the same inventors. The '761 patent issued November 18, 1986, based upon a patent application filed April 18, 1984. Defendant's Exhibit ("DX") 1, Docket No. 139. The '282 patent issued on September 29, 1997, based upon a patent application filed June 20, 1986, as a "continuation" of the '761 patent application. DX 2, Docket No. 139. The '282 patent application specification (written description and drawings) is a duplicate of the '761 patent application specification.

The Golden Voice patents disclose a telephone call answering system that assists call operators, or agents, in servicing incoming calls. Using the patented technology, an operator records and stores one or more

frequently repeated phrases (e.g., greetings, regulatory statements, disclaimers, transfer phrases), also known as personal announcements, in his or her own voice. When the operator receives an incoming call, he or she can play one of the prerecorded messages. The operator remains on-line to talk with the caller, or to select and play back additional personal announcements as required. Prerecorded personal announcements relieve the operator of having to orally repeat certain phrases throughout the day. The recorded personal announcement is recorded in the operator's best voice, so it sounds pleasant to every caller throughout the day. Moreover, because the prerecorded message is in the voice of the operator, the caller believes he or she is actually hearing the live operator, and at the same time, the operator is on-line to fully service the caller.

The claims at issue are the independent claims 1, 13, and 25 of the '761 patent, and the independent claims 1, 10, and 21 of the '282 patent. FN2 The '761 and '282 patents are closely related; the description of the invention that precedes the claims is virtually identical. Indeed, the language of claims 1, 13, 25 of the '761 patent is identical to the language of claims 1, 10, 21 of the '282 patent except in one respect that is not material to this case. Because this difference in the claim language is not pertinent to the claim construction issues before the Court, the parties agree that construction of the claim language of claims 1, 13, and 25 of the '761 patent apply equally to the corresponding claims of the '282 patent.

FN2. At the February 11, 2002 hearing, the parties advise the Court that they had resolved all issues regarding claim 33, and that they no longer required this Court's construction of that claim. Accordingly, this Court does not construe claim 33.

Claim 1 of the '761 patent contains *all* of the disputed claim limitations at issue. The disputed claim language of claim 1 is underlined below:

For use with an operator-assisted telephone service facility *in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination*, an arrangement for providing a response message to said incoming caller accessing said facility comprising:

first operational means for storing a plurality of prescribed response messages, *each of which, when played back, effectively corresponds to the voice of the operator who is on-line with and services incoming calls*;
and

second operational means, coupled to said first operational means and operable in conjunction with the on-line operator's servicing of an incoming call, for selectively accessing a response message from among said plurality of stored response messages in dependence upon information contained within said incoming call being serviced by said on-line operator and which is representative of the type of call to which said incoming call corresponds, and causing said selectively said accessed response message to be played back to said incoming caller.

The disagreement between the parties concerns the two underlined limitations appearing in the above claim. First, the parties dispute the meaning of the following phrase in the preamble of claims 1, 13, 25 of the '761 patent and claims 1, 10, and 21 of the '282 patent: "in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination." Rockwell asks this Court to construe this phrase to mean:

in which it is necessary for an on-line operator to participate on-line to effectively enable an incoming caller

to reach the physical location to which the caller is to be connected. The claims exclude systems which enable connection of a caller to a called destination, without operator intervention, even if such systems also allow operators to make connections manually.

Docket No. 121 at 7. Golden Voice proposes the following construction:

in which operators, also known as agents, are on-line to service or assist them in completing the purpose of the call.

Docket No. 128 at 2.

The second disputed phrase is "effectively corresponds to the voice of the on-line operator" in the first element of claims 1, 13, 25 of the '761 patent and claims 1, 10, and 21 of the '282 patent. Rockwell defines "effectively corresponds" as requiring "adjustment by automatic level control circuitry to ensure that there is effectively no difference in the audio level of the recorded voice played back to the caller and the 'live' voice spoken by the operator." Docket No. 121 at 15. Golden Voice contends that this limitation simply means that the prerecorded message of the operator must be in "his or her own voice." Docket No. 128 at 8. For the reasons that follow, this Court finds that Golden Voice's interpretations are correct.

II. THE LAW OF PATENT CLAIM CONSTRUCTION

A patent infringement analysis involves two steps. The first step is determining the meaning and the scope of the patent claims that are asserted to be infringed. In accordance with *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), this first step—referred to as claim construction—is a matter of law for the court to decide and on which the court instructs the jury. The jury performs the second step, which is the determination of infringement, by comparing the properly construed claims to the accused product.

Claim construction is the interpretation of the words in a patent's claims. Proper claim construction is necessary to determine whether a claim is valid, enforceable, and infringed. The construction of patent claims is simply a way of elaborating the normally terse claim language in order to understand and explain, but not to change, the scope of the claims. *Embrex, Inc. v. Serv. Eng.'g. Corp.*, 216 F.3d 1343, 1347 (Fed.Cir.2000). The claims of a patent define the boundaries of the patented invention, and the public is entitled to rely upon the claims to determine what does or does not constitute infringing activity. *See, e.g.*, *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed.Cir.1991). The Court interprets patent claims as a matter of law to "determine how a person of experience in the field of [the] invention would, upon reading the patent documents, understand the words used to define the invention." *Toro Co. v. White Consolidated Indus., Inc.*, 199 F.3d 1295, 1299 (Fed.Cir.1999); *Vitronics*, 90 F.3d at 1582; *Markman*, 52 F.3d at 978-79.

As a starting point, claim terms are given ordinary and customary meaning. *Hockerson-Halberstadt, Inc. v. Avia Group Int'l., Inc.*, 222 F.3d 951, 955 (Fed.Cir.2000). The United States Court of Appeals for the Federal Circuit has repeatedly approved using dictionaries to determine the plain meaning of claim terms. *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202 (Fed.Cir.2002) (*citing* *Vitronics Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1584 n. 6 (Fed.Cir.1996)). However, the court must then look to the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification, and the patent application prosecution history. While it is the claims that define the invention, claim terms are interpreted

in light of the specification FN3 and the prosecution history.FN4 *Teleflex, Inc. v. Ficosa North America Corp.*, 299 F.3d 1313, 1325 (Fed.Cir.2002).

FN3. Under 35 U.S.C. s. 112 para. 1, every patent must contain a specification that contains a written description of the invention, the manner and processes for making it, and the best mode contemplated by the inventor of carrying out his invention.

FN4. The prosecution history, also referred to as the file history or file "wrapper," is the record of the correspondence between the applicant and the U.S. Patent Office during the patent application process. The prosecution history becomes public record upon issuance of the patent.

A. Intrinsic Evidence

Intrinsic evidence provides context and clarification about the meaning of claim terms. *Id.* Intrinsic evidence is the most significant source of the legally operative meaning of disputed claim language and it constitutes the public record of the patentee's claim. *Vitronics*, 90 F.3d at 1582.

A claim term may be clearly defined within the patent record without an explicit statement of definition. The specification description of the preferred embodiments "can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format." *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1344 (Fed.Cir.2001). The meaning may be "found in or ascertained by a reading of the patent documents." *Vitronics*, 90 F.3d at 1582, 1584 n. 6. A court must analyze arguments and amendments made during the prosecution of a patent application to determine the meaning of claim terms. *Southwall Technologies, Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed.Cir.1995).

The prosecution history of a patent contains the complete record of all the proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims. *Vitronics*, 90 F.3d at 1582. As such, the record before the Patent and Trademark Office is often of critical significance in determining the meaning of the claims. *Vitronics*, 90 F.3d at 1582; *ZMI Corp. v. Cardiac Resuscitator Corp.*, 844 F.2d 1576, 1580 (Fed.Cir.1988).

As explained by the Federal Circuit in *Vitronics*,

The claims, specification, and file history, rather than extrinsic evidence, constitute the public record of the patentee's claim, a record on which the public is entitled to rely. In other words, competitors are entitled to review the public record, apply the established rules of claim construction, ascertain the scope of the patentee's claimed invention and, thus, design around the claimed invention. Allowing the public records to be altered or changed by extrinsic evidence ..., such as expert testimony, would make this right meaningless. The same holds true whether it is the patentee or the alleged infringer who seeks to alter the scope of the claims.

90 F.3d at 1582; *Bell & Howell Document Management v. Altek*, 132 F.3d 701, 706 (Fed.Cir.1997). In those cases where the public record unambiguously describes the scope of the patented invention, reliance on extrinsic evidence is improper. 90 F.3d at 1583.

A patent applicant may act as his own lexicographer by clearly and precisely defining a special use or meaning during prosecution, or by disclaiming a portion of a word's ordinary meaning. A patentee may "use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification or file history." 90 F.3d at 1582-83. Accordingly, the Court should review the patent specification and its prosecution history to determine whether the inventor has employed any terms or words in a way that is inconsistent with their plain and ordinary meaning or disavowed subject matter from the scope of his patent claims. *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1340-42 (Fed.Cir.2001); *Biovail Corp. Int'l v. Andrx Pharm., Inc.*, 239 F.3d 1297, 1301 (Fed.Cir.2001) ("[W]e review both the specification and the applicable prosecution history to determine whether the patentee defined claim terminology in a manner inconsistent with its ordinary meaning."); *Hockerson-Halberstadt*, 222 F.3d at 955 ("The court, therefore, must examine a patent's specification and prosecution history to determine whether the patentee has given the term an unconventional meaning."); *Southwall*, 54 F.3d at 1576 ("Arguments and amendments made during the prosecution of a patent application and other aspects of the prosecution history, as well as the specification and other claims, must be examined to determine the meaning of terms in the claims."); *accord*, *John D. Watts v. XL Sys.*, 232 F.3d 877, 883 (Fed.Cir.2000) (even if the claim terms were clear on their face, the court "must consult the specification to determine if the patentee redefined any of those terms"); *Interactive Gift Express v. Compuserve*, 231 F.3d 859, 870 (Fed.Cir.2000); *Vitronics*, 90 F.3d at 1582.

In reviewing the prosecution history, the Court also examines the prior art considered by the Patent Office to assess what the claims do not cover. *Vitronics*, 90 F.3d at 1583; *Watts v. XL Sys., Inc.*, 232 F.3d 877, 883 (Fed.Cir.2000); *ZMI Corp.*, 844 F.2d at 1580-581; *Standard Oil Co. v. American Cyanamid Co.*, 774 F.2d 448, 452 (Fed.Cir.1985) ("[T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance."); *Wang Labs., Inc. v. America Online, Inc.*, 197 F.3d 1377, 1384 (Fed.Cir.1999).

Ultimately, a review of the prosecution history ensures that an applicant has not defined claim terms one way in order to obtain the patent, and then defined them another way to support infringement allegations. *See Southwall Tech., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576, 1578 (Fed.Cir.1995) ("A patentee may not proffer an interpretation for the purposes of litigation that would alter the indisputable public record consisting of the claims, the specification and the prosecution history, and treat the claims as a 'nose of wax'"); *Day Intl., Inc. v. Reeves Brothers, Inc.*, 260 F.3d 1343, 1348 (Fed.Cir.2001) (arguments made by the patentee during prosecution of the patent limit the scope of the invention).

The prosecution history and patent specification are to be applied to narrow the scope of a claim where the patentee argued a narrow claim construction to obtain allowance of the claim by the Patent Office. The United States Court of Appeals for the Federal Circuit recently stated:

Even where the ordinary meaning of the claim is clear, it is well-established that "[t]he prosecution history limits the interpretation of claim terms so as to exclude any interpretation that was disclaimed during prosecution." Thus, this court has endorsed narrowing the interpretation of the claim to be consistent with a narrow claim scope urged by the applicant during the prosecution of the patent. This narrowing claim interpretation will be adopted if the accused infringer can demonstrate that the patentee "defined" the claim as "excluding" a broader interpretation "with reasonable clarity and deliberateness."

Pall Corp. v. PTI Technologies, Inc., 259 F.3d 1383, 1392-93 (Fed.Cir.2001) (emphasis supplied). The

public notice function of patents prohibits a patentee from expressly stating during prosecution that the claims do not cover a particular device, and then later suing for infringement by that same device. Allowing such a suit would be unfair to the manufacturer of the accused device who was entitled to rely on the surrender of claimed subject matter made in the prosecution history and contained in the file wrapper.

In addition to the specification and prosecution history, determining the meaning of a claim term requires reference to the other claims. *Southwall*, 54 F.3d 1570, 1579. Claim terms must be interpreted consistently in all claims. *Id.* Further, under the doctrine of claim differentiation, limitations made in a narrow claim should not be read into a broader claim, because to do so would make the narrower claim superfluous. *See Xerox Corp. v. 3Com Corp.*, 267 F.3d 1361, 1366 (Fed.Cir.2001); *Tandon Corp. v. U.S. Int'l Trade Comm'n*, 831 F.2d 1017, 1023 (Fed.Cir.1987). As explained by the Federal Circuit:

There is presumed to be a difference in meaning and scope when different words are used in separate claims. To the extent that the absence of such difference in meaning and scope would make a claim superfluous, the doctrine of claim differentiation states the presumption that the difference between claims is significant.

Xerox Corp., 267 F.3d at 1366 (quoting *Tandon Corp.*, 831 F.2d at 1023).

Under 35 U.S.C. s. 112 para. 3 and para. 4, a claim written in dependent form means that it refers to a previous claim and adds a further limitation to that claim. Thus, by definition, dependent claims are narrower than the claims to which they refer. Therefore, under the doctrine of claim differentiation, the limitations in dependent claims should not be read into the independent claims to which they refer.

Lastly, the Federal Circuit has recognized two additional claim construction guideposts that may assist the district court. Ordinarily, the meaning assigned to a word in a patent should align with the purpose of the patented invention. *Apple Computer v. Articulate Sys.*, 234 F.3d 14, 25 (Fed.Cir.2000); *accord*, *Hockerson-Halberstadt v. Avia Group Int'l*, 222 F.3d 951, 956 (Fed.Cir.2000). If possible, the Court should construe claims so as to preserve their validity. *Wang Lab. v. America Online*, 197 F.3d 1377, 1383 (Fed.Cir.1999).

B. Construction of a means-plus-function claim

The above discussion pertains to ordinary language claim expressions. Under 35 U.S.C. s. 112 para. 6, however, a special rule of claim construction exists for claim limitations which are written in a "means-plus-function" format. Construction of such a limitation requires the court first to identify the function of the means-plus-function limitation, and next to identify the corresponding structure in the written description necessary to perform that function. *Micro Chem., Inc. v. Great Plains Chem. Co.*, 194 F.3d 1250, 1258 (Fed.Cir.1999). Interpretation of such a claim limitation is limited to the specific structure identified in the specification for performing the stated function, and equivalents of that structure. *Generation II Orthotics, Inc. v. Medical Technology, Inc.*, 263 F.3d 1356, 1363 (Fed.Cir.2001). However, when construing means-plus-function limitations, courts must be careful not to read more into the function than its ordinary meaning. *Id.* at 1364-65. Further, only the part of the means-plus-function clause that recites the function itself is limited to the structure described in the specification, under s. 112 para. 6. *See BBA Nonwovens Simpsonville, Inc. v. Superior Nonwovens, LLC*, 303 F.3d 1332, 1344 (Fed.Cir.2002) (The term "corona means" was deemed a means-plus-function limitation and interpreted under s. 112 para. 6; however, the phrase immediately following, "and positioned for electrically charging the filaments," was deemed "a separate limitation not subject to s. 112 para. 6").

III. APPLICATION

A. The Specification

Because the '282 patent was a continuation of the '761 patent, the patents have the same specification. The specification for the patents describes a call answering system used to assist operators or agents at telephone answering facilities. The operators or agents in these facilities handle hundreds of similar calls a day, and therefore become fatigued and lose their enthusiasm, courtesy, and efficiency throughout the day. DX 1, '761 patent, 1:17-24; 34-40. A way to relieve the operators' fatigue is to allow for prerecorded messages to be played to the incoming callers. DX 1, '761 patent, 1:24-27. However, as explained in the "Background of the Invention" section of the patent, if the customer's call is answered by "a mechanical-sounding prerecorded response message prepared by one person's voice and then followed by the voice of the operator, which not only is different from that of the intercepting response message but conveys a tone that is less than customer-courteous" the caller will be disappointed in the service. DX 1, '761 patent 1, 39-49.

The patent specification describes the invention at two levels. First, the specification describes a "digital storage and retrieval" system by which an operator can record and store routine messages in the operator's own voice and then, when the operator is on-line with a caller, retrieve for play back the appropriate prerecorded message. *See* DX 1, '761 patent, 4:57-7:60 and Fig. 2. Specifically, the specification provides:

In accordance with the present invention, the need to provide the operator with a mechanism for reducing the monotonous routine of answering similar types of calls while avoiding drawbacks of conventional automatic response systems ... is satisfied by a telephone operator voice storage and retrieval system that is capable of presenting to the customer (caller) a response message ... in the actual voice of the operator that is on duty at the time.

DX 1, '761 patent, 1:53-63. On a further level, the specification also describes use of an automatic level control amplifier for assimilating the audio signals heard by the caller during the operator's servicing of a call so that, beyond the fact that the prerecorded message played back during the call is in the operator's own voice, "there is effectively no difference in the audio level of the recorded voice played back to the caller and the 'live' voice spoken by the operator." DX 1, '761 patent, 2:25-29. *See* DX 1, '761 patent, 7:61-8:59 and Fig. 3 (common output amplifier 103). In this regard, the specification provides:

At the same time the present invention permits the operator to follow-up the played back message with a conversation with the caller, without the caller detecting a difference in the characteristics of the played-back voice and the "live" operator's voice, so that operator response message storage and retrieval system of the invention is effectively transparent to the caller.

DX 1, '761 patent, 1:63-2:2. The specification further explains that "there is an effective summation of the operator's voice and the audio output over link 102 to the input of automatic level control amplifier 103." DX 1, '761 patent 8 :22-24.

The specification explains that the operator can choose the message that will be played, or the computer can choose the message automatically:

Call-type detector 40 may be of conventional configuration employing a bank of indicators monitored by an operator 10 who, via a switch panel interface, selects an appropriate code for identifying the type of

response message to be returned to the caller 70. This would normally involve the operator monitoring an optical read-out panel of call-type detector 40 and then, via a switch panel interface, causing the playback of a stored response message, such as from a magnetic tape cassette. Rather than have the operator perform this task, however, it is possible to employ a bank of associated detectors, such as opto-electrical detectors, coupled with the indicator unit of the call-type detector 40 of the telephone service facility of interest, which supplies a set of codes over link 42 to a message storage and retrieval system 20, to be described below with reference to FIG. 2. In other words, the type of call being detected may be monitored manually by the operator and the information identifying the type of call coupled to the message storage and retrieval system 20 by an operator switch panel interface, *or it may be handled automatically without operator intervention.*

DX 1, '761 patent 3 :42-64 (emphasis added).

As further explained in the "Playback Mode" section of the patent:

During the playback mode of operation, when a call type is detected, either through an operator-controlled interface set of switches on the operator's control panel, *or automatically*, as mentioned above, an access code ... is coupled over link 42 to buffer 41. Then processor 61 reads the access code stored in buffer 41 and generates the appropriate address signals for accessing the corresponding response message that had been previously stored in 51 during the RECORD mode.

DX 1, '761 patent, 7:39-60 (emphasis added). The specification covers a system which allows for a message to be chosen either by an on-line operator, or automatically by the computer.

B. The Prosecution History

As originally filed, the patent application presented independent claims 1, 14, 27, 30, 36, and 41. Docket No. 122, Ex. C at 28, 30-31, 33-38. Dependent from the independent claims were claims 4, 9, 13, 17, 22, 26, 29, 31, 37, and 42 all of which further provided: "adjusting, in effectively the same manner, at least one prescribed characteristic of each of said voice messages from said operator and said played back message." FN5 Docket No. 122, Ex. C at 28-33 and 35-38.

FN5. At the February 11, 2002 hearing, the parties agree, and the prosecution history makes it clear, that the language "adjusting, in effectively the same manner, at least one prescribed characteristic of each of said voice message from said operator and said played back message" incorporates using the automatic control circuitry to adjust the recorded voice and the operator's voice.

1. July 12, 1985, First Office Action

In the first Office Action, the examiner rejected all of the independent claims on the basis of prior art that concerned prerecorded messages which could be played to incoming callers. However, the examiner stated that the above-described dependent claims "would be allowable if rewritten in independent form," recognizing that these claims "require adjustment of characteristics of messages from both the operator and the message playback source." Docket No. 122, Ex. C at 58-59. According to the examiner, although the prior art teaches "adjustment" from a message delivery unit, "none of the references found by the examiner teach providing such adjustment for both sources at a common path output" DX 4 at 7; Docket No. 122, Ex. C at 59.

2. September 17, 1985, Examiner Interview Summary Record

In the summary of the September 17, 1985 interview with the examiner, the applicants' attorney is reported to have described the invention as follows:

Atty. summarized his perception of merits of the case and discussed some claim terms, such as "operator assistance", stating that provision of stored messages plus following real-time conversation of and [sic] operator, in the same voice, is the combination for which coverage is sought, and which he thinks is not taught by the art of record.

DX 6 at 1; Docket No. 122, Ex. C at 132.

3. September 30, 1985 Amendment

In responding to the July 12, 1985 first Office Action, the applicants rewrote in independent form the originally-filed dependent claims 31, 37, and 42. The examiner had indicated these claims as allowable in the first Office Action because they provided for "adjusting in effectively the same manner, at least one prescribed characteristic of each of said voice message from said operator and said played back message," making newly-presented claims 48-58 allowable. DX 7 at 12; Docket No. 122, Ex. at 144. This indicated allowable provision was not included in the other independent claims which remained pending as the result of this amendment. Instead, the other independent claims that remained contained the limitation in dispute here: "which, [the message], when played back, effectively corresponds to the voice of the operator."

The applicants separately argued for patentability of these pending claims, describing the invention in these claims as follows:

In accordance with the present invention, the operator is provided with a facility for reducing the monotonous routine of answering similar types of calls while not creating a confusion factor in the ears of the calling listener, through a scheme providing response messages selected in accordance with the type of incoming call, *which response messages have been previously recorded in the voice of the operator who is attending to the servicing of the incoming call. As a result, the calling party hears the same voice, whether it be the live operator's voice at the servicing console or a played-back voice from the prerecorded message source.* As a result the potential for frustration, confusion and inefficiency in the communication exchange from the called facility to the calling subscriber is effectively avoided.

DX 7 at 13-14; Docket No. 122, Ex. C at 145-146 (emphasis added). Significantly, the applicants did not argue patentability of these claims on the basis that the phrase "effectively corresponds to the voice of the operator" required adjustment of characteristics of messages from both the operator and the message playback source at a common path output.

4. November 27, 1985, Second Office Action

The examiner allowed the claims 48-58 which concerned adjusting, in effectively the same manner, at least one characteristic of both the operator's voice and the play back message. These claims became the issued claims 28-38 of the '761 patent. The examiner again rejected for prior art the other independent claims without this "adjusting" provision.

According to the examiner, "when [a conventional telephone answering machine] is used by a person who may answer the telephone and provide further voice interaction beyond the recorded messages therein, that person may be called an 'operator,' and the arrangement certainly may be termed an 'operator-assisted telephone service facility.'" Docket No. 122, Ex. C at 164 (bracket added). The examiner rejected the claims as being obvious, and thus not patentable, contending that the person operating the conventional telephone answering machine may be the person who recorded the machine messages:

Inasmuch as anyone of ordinary or even lesser skill in the art clearly would recognize that the "operator" who may provide answering assistance at a telephone facility equipped with a voice storage/retrieval device could be the one who also input messages stored therein, it clearly would not be reasonable to withdraw from the public domain an operator-assisted telephone facility with message storage merely because the references do not specifically state that the messages stored therein were input by the same person who will provide subsequent telephone "assistance." Put another way one should not be required to pay a license in order to permit their own operator to load messages into their telephone recorded-message facility, especially when such capability is clearly apparent from the cited prior art.

DX 8 at 6-7.

The examiner further explained:

[T]hat the messages could 'correspond' to the voice of the operator attending to the servicing of incoming calls (as also in each of applicants' independent claims) is considered clearly obvious ... obviously, the person who will be answering the incoming calls may very well be the one who recorded the messages.

DX 8 at 3; Docket No. 122, Ex. C at 162.

5. December 30, 1985 Amendment

In responding to the second Office Action, the preambles of the independent claims were rewritten to read as now appears in the issued independent claims 1, 13, and 25 of the '761 patent:

For use with an operator-assisted telephone service facility *in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination*, an arrangement for providing a response message a response message to said incoming caller accessing said facility comprising:

DX 6 at 2-3 (newly-added language is indicated by the underlines). The applicants described the purpose of the additional language as follows:

Applicants have amended each of the independent claims 27, 44, 46 to more particularly characterize the operator-assisted telephone service facility, in terms of who the operator is and how the operator interfaces with the incoming call, on the one hand, and the *selective accessing* of a response message from a plurality of stored response messages independence [sic] upon information contained within the incoming call being serviced, which information is representative of the type of call to which the incoming call corresponds, on the other hand.

DX 9 at 6 (emphasis added); Docket No. 122, Ex. C at 203.

The applicants explained that:

In each of these claims, the service facility in which the present invention is employed is an operator-assisted telephone service facility in which participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination. *Applicants have more particularly defined what is meant by an operator-assisted telephone service facility in the claims in order to eliminate the misapplication of prior art in the two previous Office Actions in which a conventional telephone answering machine was considered to be an operator assisted service facility.... In the operation of such a conventional telephone answering machine ... the user of the machine is not an on-line operator whose on-line participation is required for effectively enabling an incoming caller to reach a called destination. Instead, just the opposite is the case; the reason for the installation of the answering machine is to relieve the called subscriber from the need to participant in answering the call!*

DX 9 at 7 (emphasis added); Docket No. 122, Ex. C at 204.

Thus, the phrase "on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination" was added to the preamble to distinguish the invention from a system which included an answering machine that could record a message from a caller, and an operator who would later return the call based on information recorded by the caller. The distinction was made by stating that the claimed invention only concerned a service in which an operator participates on-line with the caller.

The applicants also emphasized that the prior art did not teach selectively accessing a response message based on information received during an incoming call:

Applicants call for the selective accessing of a response message in dependence upon information contained within the incoming call being serviced by the on-line operator which is representative of the type of call to which the incoming call corresponds.

* * * * *

Applicants have claimed a combination of features in which the response message, which is selectively accessed from a plurality of stored messages, is played back in the voice of the operator who is on line and servicing the calls.

DX 9 at 12-13.

Thereafter, these claims in the '761 patent application were allowed (and became the further issued claims 1-27 in the patent). As noted above, the '282 patent was a continuation of the '761 patent. All of the '282 patent's independent claims contain the above-discussed preamble language that is at issue effectively corresponds to the voice of the operator who is on-line with and services incoming calls-in the first limitation dealing with the storing of messages. It is undisputed that the application prosecution history of the '761 patent applies with equal force to interpretation of the subject '282 patent claims. *See Elkay Mfg. Co. v. Ebc Co., 192 F.3d 973, 980 (Fed.Cir.1999).*

C. The Claim Language in Dispute

1. The Preamble of Claims 1, 13, and 25 of the '761 Patent, and Claims 1, 10, and 21 of the '282 Patent

The preamble containing the disputed phrase provides:

For use with an operator-assisted telephone service facility *in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination*, an arrangement for providing a response message to said incoming caller accessing said facility comprising.

See '781 patent, Preamble of Claim 1 (underlines added). While the parties dispute the meaning of the phrase underlined, the parties do not dispute that the preamble is a limitation. Rockwell argues that the underlined phrase should be interpreted to read:

in which it is necessary for an on-line operator to participate on-line to effectively enable an incoming caller to reach the *physical location* to which the caller is to be connected. The claims exclude systems which enable connection of a caller to a called destination, without operator intervention, even if such systems also allow operators to make connections manually.

Docket No. 121 at 7 (emphasis added). According to Rockwell, "[t]he location in the computer's memory where a response message to be played back to the caller has been stored is an example of where a response message to be played back to the caller has been stored is an example of 'destination.'" *Id.* at 6. Rockwell also defines "transferring a caller to another extension on the phone system" as an example of enabling a caller to reach a called destination. Docket No. 121 at 6. Rockwell asserts that the claims cannot cover telephone service facilities in which operator connections can ever be made automatically, even if the services also allow operators to make connections manually.

Rockwell's construction of the term "destination" needlessly restricts its meaning, and contradicts the way the invention is described in the patent specification. "Destination" has a broader meaning. The Merriam-Webster's Collegiate Dictionary (10th ed.2001) defines destination as

1: an act of appointing, setting aside for a purpose, or predetermining 2: the purpose for which something is destined 3: a place to which one is journeying or to which something is sent.

DX 13. The American Heritage Dictionary of the English Language (1980) defines destination as:

1. The place or point to which someone or something is going or directed. 2. The ultimate goal or purpose for which anything is created or intended.

DX12.

The definition of "destination" is not limited to a "physical location" as Rockwell proposes. Rather, "destination" is also defined as the "ultimate goal or purpose for which something is destined." The broader meaning of "destination" is consistent with ordinary usage of the term.FN6 The plain meaning of "effectively enabling an incoming caller to reach a called destination," includes assisting a caller in reaching the ultimate goal or purpose of the call by the on-line operator servicing the call.

FN6. For example, the New York Times published an article two weeks ago employing the broad usage of "destination:"

Safety against something that can happen anytime, anywhere and in any form is largely a psychological destination. People have been finding that destination in different ways.

N.R. Kleinfield, *The New York Times*, February 13, 2003, at A18.

Nothing in the specification supports the "physical location" definition Rockwell proposes. Although the expression at issue is not in the patent specification, the specification is instructive. The specification explains that the invention is to provide on-line operators with the *ability* to play messages in their own voices while they are on-line servicing callers. The specification describes the invention as a system that provides a way to *assist* on-line operators in servicing calls by allowing them to *selectively access* (based on the call information received) and *play* prerecorded messages during the call, *i.e.*, when they are assisting the caller to reach the purpose of the call. DX 1, '761 patent, 1:51-62. Nowhere in the specification or in the prosecution history is the invention described as an invention that is used by on-line operators that transfer callers to another location.

The prosecution history provides further insight into the actual meaning of this phrase in the patent. The applicants' statements to the Patent Office in their December 30, 1985 Amendment regarding the addition of the subject language to the preamble of the claims specifically describe the phrase at issue, and explain why the language was added. The applicants added the phrase at issue in response to an Office Action dated November 27, 1985, in which the examiner stated that the claims would be obvious over a conventional answering machine that did not require that the operator be on-line with the caller when the message was played. The phrase "on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination" was added to the preamble to make it clear that what was required by the patent claims was an on-line operator who participates with the caller and, based on the information obtained during the call, the operator has the *ability* to selectively access and play a prerecorded message. Docket No. 122, Ex. C at 210. The purpose of the operator who is on-line is to service the caller, *i.e.*, enable the caller to reach the goal of the call-not to connect them to a message or some other physical location, as Rockwell asserts. Consequently, the following underlined limitation in the preamble

For use with an operator-assisted telephone service facility *in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination*, an arrangement for providing a response message to said incoming caller accessing said facility comprising

should be construed as follows:

For use with an operator-assisted telephone service facility *in which operators, also known as agents, are required on-line to service or assist an incoming caller in completing the purpose of the call*, an arrangement for providing a response message to said incoming caller accessing said facility comprising.

This construction is consistent with Golden Voice's proposed construction as modified during the February 11, 2002 oral argument.

2. The First Element Limitation in Claims 1, 13, and 25 of the '761 Patent and Claims 1, 10, and 21 of the '282 Patent.

The dispute regarding the first element of claims 1, 13, 25 of the '761 patent and claims 1, 10, and 21 of the '282 patent centers around the meaning of the following underlined limitation:

first operational means for storing a plurality of prescribed response messages, *each of which, when played back, effectively corresponds to the voice of the operator who is on-line with and services incoming calls*; and

second operational means, coupled to said first operational means and operable in conjunction with the on-line operator's servicing of an incoming call, for selectively accessing a response message from among said plurality of stored response messages in dependence upon information contained within said incoming call being serviced by said on-line operator and which is representative of the type of call to which said incoming call corresponds, and causing said selectively said accessed response message to be played back to said incoming caller.

The parties agree that claim 1 in the '761 and '282 patents is written in the "means-plus-function" form pursuant to 35 U.S.C. s. 112 para. 6. The parties, however, disagree how the claims should be interpreted.

Construction of a means-plus-function limitation involves two steps. First, this Court must identify the claimed function. After identifying the claimed function, the Court must then determine what structure, if any, disclosed in the specification corresponds to the claimed function. *See* *Cardiac Pacemakers, Inc. v. St. Jude Medical, Inc.*, 296 F.3d 1106, 1113 (Fed.Cir.2002).

Rockwell contends that the function described in the "first operational means" is: "storing a plurality of prescribed response messages, each of which, when played back, *effectively corresponds* to the voice of the operator who is on-line with and services incoming calls." Docket No. 121 at 9 (emphasis added). Rockwell further contends that the structure disclosed in the specification associated with the "effectively corresponds" claimed function requires "adjustment by automatic level control circuitry to ensure that there is effectively no difference in the audio level of the recorded voice played back to the caller and the 'live' voice spoken by the operator." Docket No. 121 at 11.

Golden Voice, however, contends that the function described in the "first operational means" is: "storing a message." Golden Voice argues that the subject phrase-"each of which, when played back, effectively corresponds to the voice of the operator"-describes the message that is recorded, not the function of recording the message. Golden Voice, therefore, claims that the phrase "effectively corresponds to the voice of the operator" is not limited to the structure described in the specification under 35 U.S.C. s. 112 para. 6. Its only requirement is that the operator record the message in his or her own voice. Docket No. 122 at 8. This Court agrees.

The function of the "first operational means" is simply "storing a message," and the subject phrase merely describes the message that is being stored. The automatic control circuitry does not relate in any way to the "storing" of a message. At the storing level, all that is required is that the operator record the message in his or her own voice. Moreover, the subject phrase-"each of which, when played back, effectively corresponds to the voice of the operator who is on-line with and services the incoming calls"-is not part of the second element that describes how the messages are actually played back to the caller. If the first claim element was meant to incorporate a limitation that the messages are manipulated by the same automatic level-control circuitry as the operator's voice signals when played back, that limitation would have to be included in the play-back second element of the claims, not the first. That second element (the second operational means), however, does not include any such phrase. Rather, the second element relates to the means for *selectively accessing and playing* a prerecorded message based on information from the incoming call.

Further, under the doctrine of claim differentiation, no limitation requiring that the voice signals and the recorded message signals be adjusted in the same manner can be read into the independent claims at issue. Each of the independent claims at issue that contain this phrase have dependent claims which further limit the way in which messages are played back through the automatic control circuitry by "adjusting in effectively the same manner, at least one prescribed characteristic of each of said voice message from the operator and the played back message." FN7 See DX 1, '761 patent claims 4, 8, 11, 17, 21, 24, and 27; and DX 2, '282 patent claims 4, 9, 13, 17, 20, and 23. Independent claim 33 also contains this same limitation as its added element ("c"). Because claim 33 and like dependent claims employ different language to recite a single audio interface with a voice level adjustment that is automatically applied to the recorded voice as well as the live operator voice, such a limitation should not be read into the independent claims at issue.

FN7. As noted earlier, the parties agree that the language "adjusting, in effectively the same manner, at least one prescribed characteristic of each of said voice message from said operator and said played back message" incorporates using automatic control circuitry to adjust the recorded voice and the operator's voice.

The specification also supports this construction of the claims. The specification does not specifically describe "effectively correspond" as requiring "adjustment by automatic level control circuitry." FN8 The specification throughout, however, does describe a way for the recorded messages to compare closely to the live operator's voice—they are recorded by that operator. DX 1, '761 patent, Abstract, 1:57-64, 7:33-38. In describing the recording of the operator's voice, the patent specification states that "because the operator is able to record his/her voice in a time frame approximate that during which the operator will be on-line with incoming calls, characteristics of the voice as stored in memory will be substantially identical to that of the operator when the operator is on-line." DX 1, '761 patent, 7:33-38. Although the preferred embodiment described in the specification routes the play-back of prerecorded messages and the live voice of the operator through a common level adjustment control amplifier 103, nothing in the subject claim language requires that setup. Nor is the subject claim language written as the function of the "first operational means" in claim 1.

FN8. It is common sense that no dictionary would define "effectively correspond" as requiring "adjustment by automatic level control circuitry." "Corresponds" simply means "to compare closely." Docket No. 122, Ex. F.

This Court's claim interpretation is in full conformance with the prosecution history. The claims which were modified to become the independent claims at issue contained the phrase "effectively corresponds to the voice of the operator who is on-line with and services incoming calls" in the original submission to the Patent Office. In that same submission, there were claims that depended from these claims that included the language "adjusting, in effectively the same manner, at least one prescribed characteristic of each of said voice message from said operator and said played back message." As explained above, in the first July 12, 1985, Office Action the examiner distinguished those dependent claims from the prior art and explained that the claims would be allowed if they were written in independent form.

The prosecution history shows there is a distinction between claims (such as '761 patent claim 33) which require adjusting the operator's voice signal and the played back message on a common output, *i.e.*, having a

voice-level adjustment that is automatically applied to the operator's voice and the messages, and those claims which merely recite that the stored message, when played back, "effectively corresponds to the voice of the operator who is on-line with and services incoming calls." By drafting independent claims with the limitation of "adjusting, in effectively the same manner" without any argument over the examiner's statements regarding the meaning of this phrase, the applicant accepted that meaning for those claims. Applicants further showed that the independent claims which contain the phrase "effectively corresponding ..." do not require adjusting the voice message and the automatic message with a common automatic voice level adjustment. Applicants never argued that the claims containing this phrase were equivalent to the other claims, and therefore should be allowable under the distinction the examiner made.

The interplay between the examiner and the applicants in the prosecution history makes it clear that the phrase "effectively corresponds to the voice of the operator" simply means that the recorded message must be in the voice of the operator. In the summary of the September 17, 1985 interview with the examiner, the applicants' attorney described the invention as "stored messages plus following real-time conversation of an operator, in the same voice."

In the September 30, 1985 Amendment following the telephone interview, the applicants specifically explained that the correspondence between the operator's voice and the recorded message was as achieved "through a scheme providing response messages ... which ... have been previously recorded in the voice of the operator who is attending to the servicing of the call ... the calling party hears the same voice, whether it be the live operator's voice at the servicing console or a played-back voice from the prerecorded message source."

In the November 27, 1985 second Office Action, the examiner rejected the claims containing the phrase "effectively corresponds to the voice of the operator" stating that having the voice messages recorded in the operator's own voice was simply an obvious variant over prior art answering machines. In responding to the examiner in the December 30, 1985 Amendment, the applicants did not assert that the distinction over the prior art was that the claims required adjusting both the operator's live voice and the prerecorded messages along a common output path, which the examiner had already accepted as a distinction. Instead, the applicants argued that the claims were distinguishable from the prior art because the operator who had recorded the messages was actually on-line with the caller and that, based on the information received, the operator could selectively access and play a recorded message.

Thus, the plain language of the claims, the specification, and the prosecution history establish that "effectively corresponds to the voice of the operator who is on-line with and services incoming calls" in Claims 1, 13, and 25 of the '761 patent and Claims 1, 10 and 21 of the 282 patent simply requires that the messages be recorded in the voice of the operator who is on-line with the caller.

IV. CONCLUSION

For the foregoing reasons, it is

RECOMMENDED that Rockwell's "Initial *Markman* Brief," construed as a Motion for Claim Construction [Docket No. 121], should be **GRANTED** in part as to the Court construing the patent claims, but otherwise **DENIED** as to the specific construction sought by Rockwell. It is

FURTHER RECOMMENDED that Golden Voice's Motion for Claim Construction [Docket No. 121]

should be **GRANTED**. It is

FURTHER RECOMMENDED that the following underlined limitation found in the Preamble of Claims 1, 13, and 25 of the '761 Patent, and Claims 1, 10, and 21 of the '282 Patent

For use with an operator-assisted telephone service facility *in which on-line participation by an on-line operator is required for effectively enabling an incoming caller to reach a called destination*, an arrangement for providing a response message to said incoming caller accessing said facility comprising

should be construed as follows:

For use with an operator-assisted telephone service facility *in which operators, also known as agents, are required on-line to service or assist an incoming caller in completing the purpose of the call*, an arrangement for providing a response message to said incoming caller accessing said facility comprising. It is

FURTHER RECOMMENDED that the limitation "effectively corresponds to the voice of the operator" found in the first element of Claims 1, 13, 25 of the '761 Patent and Claims 1, 10, and 21 of the '282 Patent requires only that the messages be recorded in the voice of the operator who is on-line with the caller.

Failure to file and serve written objections to the proposed findings and recommendations in this report, pursuant to 28 U.S.C. s. 636(b)(1)(B) and (e) and Local Rule 6.02, within ten days of the date of its filing shall bar an aggrieved party from a de novo determination by the district court of issues covered in the report, and shall bar an aggrieved party from attacking the factual findings on appeal.

February 28, 2002.

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