United States District Court,
C.D. California.

VERIZON CALIFORNIA INC., a California Corporation,
Plaintiff.
v.
RONALD A. KATZ TECHNOLOGY LICENSING, L.P., a California Limited Partnership,
Defendant.

No. 01-CV-09871 RGK(RCX)

June 23, 2003.

Background: Telephone company sued owner of patents related to interactive voice response systems, seeking declaratory judgment of noninfringement and invalidity. Owner counterclaimed for infringement.

Holdings: Construing claims, the District Court, Klausner, J., held that:
(1) "interactive operating process format" was call process flow implemented by at least one computer program;
(2) requirement that audio control unit be "coupled" to voice generator meant that they had to be associated in such a way that power or signal information could be transferred from one to the other;
(3) requirement that system "test" caller identification signals did not require that system abort non-qualified callers;
(4) "caller provided data" was not limited to touch-tone responses entered by callers;
(5) "operator terminal" was input-output device for use by human operator;
(6) requirement that credit verification structure be able "to determine individual caller's credit" was not limited to determining whether caller had sufficient account resources; and
(7) "interface units" for receiving calls connoted sufficiently definite structure to avoid means-plus-function treatment.

Claims construed.

See also 266 F.Supp.2d 1144.

5,351,285, 5,684,863, 5,815,551, 5,828,734, 5,898,762, 5,917,893, 5,974,120, 6,148,065, 6,349,134, 6,434,223. Construed.

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Order RE: Claim Construction

KLAUSNER**, District Judge.**

I. BACKGROUND

Verizon California Inc. ("Verizon") initiated the instant litigation seeking a declaratory judgment of patent non-infringement and invalidity as to certain patents owned by Ronald A. Katz Technology Licensing, L.P. ("Katz"). Katz has filed counterclaims for patent infringement against Verizon. The sixteen patents at issue in this litigation are: U.S. Patent Nos. 5,128,984 ("the '984 patent"); 5,351,285 ("the '285 patent"); 5,561,707 ("the '707 patent"); 5,684,863 ("the '863 patent"); 5,787,156 ("the '156 patent"); 5,815,551 ("the '551 patent"); 5,828,734 ("the '734 patent"); 5,898,762 ("the '762 patent"); 5,917,893 ("the '893 patent"); 5,974,120 ("the '120 patent"); 6,044,135 ("the '135 patent"); 6,148,065 ("the '065 patent"); 6,292,547 ("the '547 patent"); 6,335,965 ("the '965 patent"); 6,349,134 ("the '134 patent"); and 6,434,223 ("the '223 patent").

Due to the large number of patents and claims at issue, on September 25, 2002, the Court ordered Katz to identify no more than three representative claims per patent for its infringement case and no more than twenty claims for a claim construction hearing. Katz identified twenty representative claims from eleven of the sixteen patents at issue. Pursuant to the Court's order of February 14, 2003, the number of representative claims for consideration by this Court at the *Markman* hearing, however, has been reduced to sixteen claims from ten of the patents at issue. The remaining representative claims are: claims 81 and 94 of the '734 patent; claim 107 of the '223 patent; claims 58, 66 and 67 of the '120 patent; claims 3 and 68 of the '285 patent; claim 66 of the '893 patent; claims 31 and 44 of the '863 patent; claim 21 of the '551 patent; claim 69 of the '762 patent; claims 1 and 13 of the '065 patent; and claim 5 of the '134 patent.

A claims construction hearing was conducted on May 19, 2003. By this order the Court construes the disputed claim language. Each disputed term or phrase is set forth below followed by the Court's claim construction analysis of the disputed terms or phrases. As there are many issues of interpretation for the Court to decide, this order sets forth the Court's interpretation of just the disputed claim language. Except as provided in this Order, the Court adopts the parties' interpretations of the undisputed claim language detailed in the Joint Claims Construction and Prehearing Statement.

II. PATENT CLAIM CONSTRUCTION STANDARD

[1] [2] Interpretation of patent claims is a question of law allocated to the Court. Markman v. Westview Instruments, Inc., 517 U.S. 370, 116 S.Ct. 1384, 1396, 134 L.Ed.2d 577 (1996). "In the exercise of that duty, the trial judge has an independent obligation to determine the meaning of the claims, notwithstanding the views asserted by the adversary parties." Exxon Chemical Patents, Inc. v. Lubrizol Corp., 64 F.3d 1553, 1555 (Fed.Cir.1995).

In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to "particularly point[ ] out and distinctly claim[ ] the subject matter which the patentee regards as his invention." 35 U.S.C. s. 112, para. 2.

Interactive Gift Exp., Inc. v. Compuserve Inc., 256 F.3d 1323, 1331 (Fed.Cir.2001). "It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, *i.e.,* the patent itself, including the claims, the specification, and, if in evidence, the prosecution history." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). The District Court may also look to "extrinsic" evidence, such as expert testimony, to educate itself about the technology at issue. Generally, expert testimony should only be considered "an aid to the court in coming to a correct conclusion as to the true meaning of the language employed in the patent," Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1454 n.3 (Fed.Cir.1998), and should not be used to add to, detract from, or vary the scope of the claims. Vitronics, 90 F.3d at 1584.

[3] [4] [5] The Federal Circuit recognizes a "heavy presumption" that a claim term carries its ordinary and customary meaning, as determined from the standpoint of one of ordinary skill in the relevant art. CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed.Cir.2002); Teleflex, Inc. v. Ficosa North America Corp., 299 F.3d 1313, 1325 (Fed.Cir.2002); Johnson Worldwide Associates, Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999). If the claim language is clear on its face, the court must nevertheless review the remaining intrinsic evidence to determine whether deviating from the ordinary meaning of a claim term is appropriate. Interactive Gift Express, 256 F.3d at 1331. If, however, the claim language is ambiguous, the Federal Circuit instructs that the remaining intrinsic evidence may be consulted to possibly resolve the ambiguity. *Id*.

Means-Plus-Function Limitations

[6] An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.
35 U.S.C. s. 112, para. 6. In other words, section 112, para. 6 operates to restrict claim limitations drafted in purely functional language to those structures disclosed in the specification, and their structural equivalents, that perform the recited function. *See* Personalized Media Communications, LLC v. Int'l Trade Com'n, 161 F.3d 696, 703 (Fed.Cir.1998).
[7] [8] [9] [10] In determining whether to apply the limiting effects of section 112, para. 6, the presence of the word "means" in the claim triggers a presumption that the inventor used the term to invoke the statutory strictures of section 112, para. 6, York Prods., Inc. v. Central Tractor, 99 F.3d 1568, 1574 (Fed.Cir.1996), while the absence of "means" creates a presumption that section 112, paragraph 6 does not apply, *see* Mas-Hamilton Group v. LaGard, Inc., 156 F.3d 1206, 1213 (Fed.Cir.1998). These presumptions, however, may be rebutted if the evidence intrinsic to the patent and any relevant extrinsic evidence warrant such a conclusion. *Id.; see also* Envirco Corp. v. Clestra Cleanroom, Inc., 209 F.3d 1360, 1365 (Fed.Cir.2000)

("baffle means" connotes sufficient structure to avoid application of s. 112, para. 6). In deciding whether either presumption has been rebutted, the analysis focuses on whether the claim, as properly construed, recites sufficiently definite structure for performing the recited function to avoid application of section 112, para. 6. Personalized Media, 161 F.3d at 704; Mas-Hamilton, 156 F.3d at 1213; *see also Al-* Site Corp. v. VSI Int'l, Inc., 174 F.3d 1308, 1318 (Fed.Cir.1999); Apex Inc. v. Raritan Computer, Inc., 325 F.3d 1364 (Fed.Cir.2003).

In construing means-plus-function claim limitations, a court must first define the particular function claimed. Thereafter, the court must identify "the corresponding structure, material, or acts described in the specification."

Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1376 (Fed.Cir.2001). In construing a means-plus-function element, "a court may not import functional limitations that are not recited in the claim, or structural limitations from the written description that are unnecessary to perform the claimed function." Wenger Mfg., Inc. v. Coating Machinery Systems, Inc., 239 F.3d 1225, 1233 (Fed.Cir.2001) (citing Micro Chem., Inc. v. Great Plains Chem. Co., 194 F.3d 1250, 1258 (Fed.Cir.1999)). In addition, the specification must be read as a whole to determine the structure capable of performing the claimed function. Harley-Davidson, 250 F.3d at 1379. However, "structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." B. Braun Medical, Inc. v. Abbott Laboratories, 124 F.3d 1419, 1424 (Fed.Cir.1997).

Claim Preambles

[11] "[A] claim preamble has the import that the claim as a whole suggests for it." Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620 (Fed.Cir.1995). A claim preamble may limit the scope of the claimed invention, where it recites a structural limitation rather than a statement of purpose or intended use. Rowe v. Dror, 112 F.3d 473, 478-79 (Fed.Cir.1997); Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257 (Fed.Cir.1989). However, "[w]here a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation." Rowe, 112 F.3d at 478 (citing Vitalink, 55 F.3d at 620-21). *Cf.* In re Paulsen, 30 F.3d 1475, 1479 (Fed.Cir.1994) ("[T]erms appearing in a preamble may be deemed limitations of a claim when they 'give meaning to the claim and properly define the invention.' ") (citations omitted).

[12] The determination of whether a claim preamble recites a structural limitation or merely a statement of purpose or intended use requires "review of the entirety of the patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim." Corning Glass Works, 868 F.2d at 1257; *see also* Rowe, 112 F.3d at 478 (inquiry requires examination of "entire patent record to determine what invention the patentee intended to define and protect."); In re Paulsen, 30 F.3d at 1479 (stating that court must determine whether inventors intended the preamble to represent additional structural limitations or "mere introductory language"); Bell Communications, 55 F.3d at 621 (holding that definition of "packet" in preamble constituted claim limitation when packet incorporated by reference in claim body). *See also* E.I. DuPont De Nemours and Co. v. Monsanto Co., 903 F.Supp. 680, 702 (D.Del.1995) (examining prosecution history to determine effect of preamble); *see also* Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 866 (Fed.Cir.1985) (examining claims, specification and prosecution history), *overruled on other grounds by* Nobelpharma AB v. Implant Innovations, Inc., 141 F.3d 1059, 1068 (Fed.Cir.1998).

III. EFFECT OF THE AT & T ORDER

[13] Katz urges the Court to adopt the construction of certain disputed claims terms set forth in Katz v. AT & T Corp., 63 F.Supp.2d 583 (E.D.Pa.1999) ("the AT & T Order"). Both parties recognize that the AT & T Order does not enjoy issue-preclusive effect at least as asserted against Verizon, a non-participant in that litigation. *See* Markman, 116 S.Ct. at 1396 ("But whereas issue preclusion could not be asserted against new and independent infringement defendants even within a given jurisdiction, treating interpretive issues as purely legal will promote (though it will not guarantee) intrajurisdictional certainty through the application of *stare decisis* on those questions not yet subject to interjurisdictional uniformity under the authority of the single appeals court."). Furthermore, the AT & T Order has limited *stare decisis* effect, given that it emanates from a Federal District Court in a separate jurisdiction. *See* Texas Instruments, Inc. v. Linear Technologies Corp., 182 F.Supp.2d 580, 589 (E.D.Tex.2002). However, to the extent that the AT & T Order addresses identical or similar issues of claims construction, it can be viewed as persuasive and highly relevant, rather than binding, authority. *See* id. at 589-90. Granting such an effect to the AT & T Order balances *Markman's* recognition of the importance of "uniformity in the treatment of a given patent," 116 S.Ct. at 1396, with fairness to Verizon. FN1

FN1. Furthermore, despite being a question of law, given the factual foundations inherent in claims construction, this outcome appears to be appropriate. *See Markman* at 1395-96 ("We accordingly think there is sufficient reason to treat construction of terms of art like many other responsibilities that we cede to a judge in the normal course of trial, notwithstanding its evidentiary underpinnings.").

IV. CONSTRUCTION OF REPRESENTATIVE CLAIMS

The remaining representative claims in the present case fall into three categories: 1) the Dual Call Mode and Cue Suppression Patents, including claims 81 and 94 of the '734 patent, claim 107 of the '223 patent, and claims 58, 66 and 67 of the '120 patent; 2) the Conditional Interface Patents, including claims 3 and 68 of the '285 patent, and claim 66 of the '893 patent; and 3) the Format Qualification Patents, including claims 31 and 44 of the '863 patent; claim 21 of the '551 patent; claim 69 of the '762 patent; claims 1 and 13 of the '065 patent; and claim 5 of the '134 patent.FN2 The patents in each category share the same written description and drawings. Accordingly, references and analysis as to one patent in a given category apply equally to the other patents in that category.

FN2. A fourth category is the Data and Audio Storage Patent including the '965 patent. As discussed above, however, the representative claim from that patent has been excluded from the claim construction hearing.

A. Dual Call Mode and Cue Suppression Patent Claims

The Dual Call Mode and Cue Suppression Patents generally involve interactive voice response systems that provide communication between callers using telephones and computer systems including audio response units. The term "Dual Call Mode" refers to the ability of the interactive voice response system disclosed in these patents to handle a variety of call modes, such as toll-free calls, charge calls, and area code calls. As the "Background" section of the patents describe, it is often desirable to treat callers differently depending on the call mode they use. For example, it may be desirable to limit "800" callers to a given number of accesses, while at the same time permitting an unlimited number of accesses to "900" (*i.e.,* charged) callers. The patents refer to this initial screening process as "qualification," the meaning of which the parties

vigorously contest.FN3

FN3. The Court's generalized, background descriptions of the technologies disclosed in the patents at issue are intended solely for purposes of providing some context to the claim construction analysis, and should not be understood as findings or conclusions relevant to construction of the disputed claim terms.

The term "Cue Suppression" refers to the ability of the Katz system to handle repeat callers and avoid asking any questions that were previously provided to them. In general terms, the Katz system stores the numbers associated with the callers and identifiers for questions previously posed to them. If a caller returns, the Katz system selects a question and then accesses the stored data to determine whether the question was previously provided to the caller. If the question was not previously posed to the caller, the Katz system releases the question and stores the question identifier in association with the caller's telephone number. The representative Dual Call Mode and Cue Suppression Patent Claims are claims 81 and 94 of the '734 patent, claim 107 of the '223 patent, and claims 58, 66 and 67 of the '120 patent.

A.1. U.S. Patent No. 5,828,734

A.1.a. Whether Terms in the Preamble are Claim Limitations

[14] Verizon alleges that the term "plurality of interactive operating process formats" constitutes a claim limitation as the body of claim 81 specifically incorporates this limitation by reference.

The term "plurality of interactive operating process formats" appears to be a claim limitation, as the body of claim 81 incorporates it by reference. *See* Bell Communications, 55 F.3d at 621. Specifically, the digital signals associated with a call "identify one of *said* plurality of interactive operating process formats." '734 patent, Col. 18:10-11 (emphasis added). However, the Court notes that the preamble does not qualify the term "interactive operating process format" or "plurality of interactive operating process format" any further than the body of the claim.

A.1.b. "format" and "interactive operating process format"

[15] Katz's and Verizon's asserted interpretations of "interactive operating process format" are almost identical. Verizon contends, however, that "format" requires a *single* computer program operative to interact with callers, while Katz alleges that "format" may include a plurality of linked computer programs.

The term "interactive operating process format" means a call process flow implemented by at least one computer program that sets forth the content and sequence of steps to gather information from and convey information to callers through pre-recorded prompts and messages. The call process flow, according to the Court's interpretation, may be implemented by several linked or independently-executable computer programs. Webster's defines "format," in relevant part, as "a general plan of organization or arrangement (as of a television show)." *See* Webster's Ninth New Collegiate Dictionary 485 (9th ed.1991). "Format" or "interactive operating process format," in the context the '734 patent provides, appears to refer to an interactive process implemented in computer program code, while a "plurality of interactive operating process formats" refers to multiple interactive processes, each implemented in computer program code. Specifically, the Court's review of the '734 patent specification suggests that a format refers to the call process flow itself, regardless of whether the call process flow is embodied in one or several computer programs. *See* '734 patent, Col. 3:20-23 ("calls are selectively accepted and interfaced so as to accomplish a

desired operating format, for example, a contest or a game."); Col. 5:34-36 ("assume that the system CS is programmed to accommodate a relatively simple game format, that is, a sponsored contest for the promotion of a product."). In addition, that the processing of calls is distributed among different components in the system disclosed in the '734 patent also suggests that a "format" can be implemented by more than one computer program. Lastly, the language and structure of claim 81 of the '734 patent does not suggest a contrary interpretation. Verizon's asserted interpretation is unnecessary to resolve the alleged ambiguity resulting from Katz' interpretation of "format."

A.1.c. "digital signals including DNIS"

[16] Verizon alleges that "digital signals including DNIS" should be interpreted to mean "signals or data that indicates the number called." Verizon Brief at 17. Katz disagrees with the term "indicate" in Verizon's interpretation, preferring use of "identify."

The term "digital signals including DNIS" means digital signals or data that identify the number called.FN4 DNIS appears to be a commonly understood acronym in the art for Dialed Number Identification Service, a service that identifies a dialed number. *See* Hopenfeld 1/31/03 Decl. Ex. B. The passages in the specification cited by Verizon do not compel adoption of its asserted interpretation. Moreover, the description in the '734 patent of both DNIS and ANI FN5 technologies as "indicating" a dialed and calling number, respectively, suggests that Katz used the term "indicate" in a manner synonymously with "identify." *See* '734 patent, Col. 57-62 ("For example, the so-called 'ANI' telephone equipment provides digital signals *indicating* a caller's telephone number. Equipment designated 'DNIS' is similarly available to indicate the called number. Thus, digital signals may be provided telephonically to a system associated with individual calling terminals as for identification or other use.") (emphasis added).

FN4. Although the parties appeared to agree at the Claims Construction Hearing that "indicate" and "identify" have essentially the same meaning, the Court adopts Katz's asserted interpretation for purposes of ensuring clarity to potential jurors.

FN5. The parties do not dispute that ANI signals identify calling numbers.

A.1.d. "first/second response unit means"

[17] Despite the use of "means" language, the parties appear to agree that the term "response unit means" connotes sufficiently definite structure to avoid the interpretational mandates of 35 U.S.C. s. 112, para. 6. In addition, both parties agree that "response unit means" is an audio response unit. *See* Verizon Brief at 18:8-10; Katz Brief at 26:26-27. Verizon asserts, however, that the first and second response unit means must be embodied in physically separate structures. *See* Verizon Brief at 18.

While the claim language requires two functionally distinct response units, the claim language does not appear to require that the first and second response unit means reside in physically separate structures. *See* Rexnord Corp. v. Laitram Corp., 274 F.3d 1336, 1342 (Fed.Cir.2001) (refusing to interpret "portion" as requiring separate structures, where disclosed embodiments featured physically separate parts, but plain meaning of "portion" encompassed both separate and integral parts). The specification of the '734 patent appears to be consistent with this interpretation. *See* '734 patent, Col. 4:3-13 ("three separate audio response units are illustrated ... Alternatively, a single composite unit might be utilized."). Verizon points to nothing

in the specification or prosecution history of the '734 patent that requires deviating from the plain and ordinary meaning of the claim terms to require that the first and second response unit means be embodied in physically separate structures.

A.1.e. "voice generator means"

Katz identifies an apparent dispute between the parties as to the proper interpretation of voice generator means in claim 81 of the '734 patent. Verizon, however, does not appear to address Katz's contention. In any event, the Court adopts the construction of voice generator means set forth in the Joint Claims Construction and Prehearing Statement. *See* Moore 1/14/03 Decl. Ex. 13 at 1.

A.1.f. "qualification means" and "qualifying"

[18] The parties agree that "qualification means" in claim 81 of the '734 patent is a means-plus-function element. They disagree, however, as to the meaning of the term "qualifying" and the structure corresponding to the qualification means disclosed in the specification. Part of the recited function of the qualification means is "qualifying ... calls ... received by said first response unit to provide qualified calls." '734 patent, Col. 18:15-19. Claim 81 further requires "means for processing qualified calls ... and calls received by said second response unit." Specifically, Verizon contends that "qualifying," as used in the qualification means element, means "determining whether a caller is allowed to proceed or the call is aborted." Verizon Brief at 20. Katz, on the other hand, alleges that "qualifying" means "assessing or determining whether a caller is entitled to access or use one or more operations of a format." Katz Brief at 29.

The term "qualifying" means "determining or assessing whether a call meets one or more conditions or requirements." Thus, "qualified calls" are "calls that meet the condition(s) or requirement(s) imposed by the qualification means." None of the parties' claims construction briefs proffers a dictionary or plain meaning for "qualifying" or "qualified." *See* Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202 (Fed.Cir.2002) ("Dictionaries are always available to the court to aid in the task of determining meanings that would have been attributed by those of skill in the relevant art to any disputed terms used by the inventor in the claims."). Webster's defines "qualified" as

1 b: having complied with the specific requirements or precedent conditions (as for an office or employment): ELIGIBLE

See Webster's Ninth New Collegiate Dictionary at 963. In addition, Webster's defines "qualify," in relevant part, as "to declare competent or adequate: CERTIFY." *Id.; see also* Texas Digital, 308 F.3d at 1203 (must consult intrinsic record to determine "which of the different possible dictionary meanings of the claim terms in issue is most consistent with the use of the words by the inventor."). Here, claim 81 and the specification of the '734 patent appear to use the term "qualifying" and "qualified" in a manner consistent with the definitions set forth above. *See, e.g.,* '734 patent, Col. 4:61-63 ("the unit 18 in cooperation with the memory 32 operates with the control unit 28 to qualify acceptable calls in the '800' mode."); Col. 7:29-31 ("If the control unit 28 validates the qualification number '34726313', it is recorded in the free-call memory 32 for future checking against repeat use."). In addition, part of the function of the "qualification means" is "to provide qualified calls" but does not state or require that non-qualified calls are aborted. Neither the specification nor any portions of the prosecution history cited by Verizon suggests a contrary meaning for "qualifying" or "qualified."

The interpretations asserted by both parties appear to import limitations from the specification into the

disputed claim language. Verizon's asserted requirement that the qualification means must either accept or abort a call impermissibly injects the features of the preferred embodiment into the claim language. The plain meaning of the functional claim language, however, does not suggest or require any consequence that attaches to qualified or non-qualified calls. Verizon's reliance on Bell Atlantic Network Services, Inc. v. Covad Communications Group, Inc., 262 F.3d 1258 (Fed.Cir.2001), is inapposite, as "qualifying" is not sufficiently broad or amorphous that the scope of the claim language can be reconciled only with recourse to the written description. 262 F.3d at 1269 -1270. Furthermore, the treatment of "qualifying" and "qualified" in the '734 patent specification does not necessarily require that non-qualifying calls be aborted.FN6 *Cf.* id. at 1270 ("mode," by implication, did not encompass line rate, since specification consistently referred to mode and line rate as separate and distinct concepts). Toro Co. v. White Consol. Indus., 199 F.3d 1295 (Fed.Cir.1999), is also distinguishable since the '734 patent specification contains no "clear statements of scope" as to the terms "qualify" and "qualified." *See* Teleflex, 299 F.3d at 1326 -1327 (distinguishing *Toro*). Moreover, the '734 patent does not appear to state that aborting non-qualified callers was important to the invention. Rather, the '734 patent states that it is merely "important to regulate the use of the "800" calling mode" and to "control and limit" the potentially large number of calls in a free area code dialing mode. *See* '734 patent, Col. 2:18-34. Furthermore, nothing in the specification or the prosecution history, cited by the parties, expresses an intent to disclaim a broader meaning for the terms qualified or qualifying. *See* Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1373 (Fed.Cir.2003) (distinguishing Wang Labs., Inc. v. America Online, Inc., 197 F.3d 1377 (Fed.Cir.1999)). Similarly, Katz' asserted interpretation similarly crosses the line as the claim language defining the function of the qualification means does not necessarily involve any decision-making relating to access to any given format or operation associated with a format. Rather, the qualification means merely "qualifies calls" to "provide qualified calls."

FN6. Still further, the '734 patent's use of "qualify" in other contexts suggests that the patentee intended no special meaning for the term. *See* '734 patent, Col. 9:16-19 ("if the tentative question is not a repeat, then the coincidence detector 42 qualifies the gate 46 and the tentative question is supplied to the interface processor 26 for actual use.").

As to structure corresponding to the qualification means, the '734 patent clearly links response unit 18, control unit 28, free call memory 32, and required software as performing the claimed function. As to Katz contentions, while it appears that the alternative structures identified by Katz could perform the function associated with the qualification means, the '734 patent fails to clearly link these structures to the function of qualifying calls in a toll free call mode. For example, coincidence detector 42 functions to qualify questions based on calling number, not the calls themselves. Similarly, coincidence detector and storage unit 34 operates in connection with audio control unit 20 to qualify calls in the area code calling mode. As to Verizon's contentions, the '734 patent does not clearly link the lines between the components identified above as being necessary to the function performed by the qualification means. Indeed, it appears that one skilled in the art would understand these lines as indicating the flow of data between functional components, rather than physical transmission lines.

A.1.g. "means for processing qualified calls"

[19] The parties agree that the "means for processing" element is a means-plus-function element, but disagree as to the meaning of the functional language associated with the element, as well as the structure that corresponds to it.

A.1.g.1. "processing qualified calls"

According to Verizon, the claim language requires that the calls received by the first response unit are qualified before the common processing operations. Katz contends that the plain meaning of the functional language expresses no such requirement.

The functional language "processing qualified calls" requires that the calls be qualified prior to execution of common processing operations. This interpretation is consistent with the claim language, as the qualification means provides "qualified calls," while the "means for processing" processes "qualified" calls. This is also consistent with the specification of the '734 patent which teaches a preliminary qualification phase and a common interface format phase, where qualified calls are coupled to the interface processor. *See, e.g.,* '734 patent, Col. 4:21-25 ("Accordingly, with overall supervision by the control unit 28, the audio response units 18, 20 and 22 answer and preliminarily qualify callers from the terminals T1-TN for connection through the coupler 24 to the interface processor 26."); Col. 4:66-67 ("The audio response unit 22 accepts calls without initial qualification."); Col. 8:27-29 ("With the entry of a call into the common phase, the line carrying the call is connected through the coupler 24 (FIG.1) to the interface processor 26."). Moreover, Katz, during prosecution, appears to have distinguished the claimed invention on this basis. *See* Rooklidge 1/31/03 Decl. Ex. 1 ("Applicant's claims are distinct from Gordon because Gordon does not show *receiving calls by one response unit and coupling those calls after qualification with calls received by another response unit*.") (emphasis in original).

A.1.g.2. "said calls received by said second response unit"

Verizon alleges that "said calls received by second response unit" means all calls received by the second response unit. Verizon Brief at 24. Katz does not appear to dispute this interpretation.

The Court adopts Verizon's asserted interpretation as it appears to be correct.

A.1.g.3. "concurrent processing"

[20] Verizon alleges that "concurrent processing" means "processing at the same time." Verizon Brief at 24. "Concurrent processing," according to Katz, means "processing two or more calls in parallel." Based on the parties' comments, at the Claims Construction Hearing, concerning their asserted interpretations of "concurrent processing," the parties appear to agree on the substance or essential meaning of "concurrent processing," just not the words that should be used to further define it.

The term "concurrent processing" means processing two or more calls at the same time or in parallel (simultaneously). The Court's interpretation is consistent with the plain meaning of the term. *See* Webster's Ninth New Collegiate Dictionary at 273 (defining concurrent as "operating or occurring at the same time ... running parallel"). The specification does not suggest a contrary interpretation. In fact, the written description of the '734 patent uses the term only twice in unrelated contexts, but in a manner consistent with its ordinary meaning. *See* '734 patent, Col. 8:61-64 ("In the disclosed embodiment, concurrently with the operation of further informing the caller, the interface processor 26 actuates the random number generator 40 to provide a random address for the question memory 38."); Col. 9:37-40 ("Note that in the interests of human perception, a printed record may be developed concurrently with the qualification of lottery participants."). The Court's interpretation is not intended to suggest that processing of calls associated with different formats must begin and end at the same time. *See* '734 patent, Col. 8:27-38 ("With the entry of a

call into the common phase, the line carrying the call is connected through the coupler 24 (FIG.1) to the interface processor 26. That is, depending on the call mode, the call is passed through one of the audio response units 18, 20 or 22 and the coupler 24 to the interface processor 26. Note that as indicated above, each of the audio response units 18, 20 and 22 is capable of accommodating a large number of asynchronous calls. Similarly, the coupler 24 is capable of connecting lines from the audio response units 18, 20 and 22 (LB1, LB 2 and LB3 respectively) to the interface processor on an individual basis through lines 37 and 39."); Col. 8:39-41 ("The interface processor 26 may comprise a relatively substantial computing capability for processing many individual calls with programmed variations.").

A.1.g.4. "processing"

[21] Katz sets forth an interpretation for "processing" that Verizon does not appear to contest. Accordingly, the Court adopts the asserted interpretation that "processing" means "manipulation of data which performs some operation or sequence of operations on the data." *See* AT & T Order at 611.

A.1.g.5. "common processing"

[22] Katz also proffers a definition for "common processing" as meaning "processing in which the logic underlying certain of the content and/or sequence of steps of the formats are the same or shared." Katz Brief at 36. Verizon does not offer a competing interpretation.

The Court adopts Katz's asserted interpretation to the extent it is consistent with the construction of the same limitation in the Joint Claim Construction and Prehearing Statement. *See* Moore 1/14/03 Decl. Ex. 13 at 3.

A.1.g.6. Corresponding Structure

As to the structure that corresponds to the "means for processing," the parties' dispute distills down to whether the corresponding structure includes the transmission lines that connect the structures that process calls. More specifically, according to Katz, the structure disclosed in the specification for "processing ... calls" includes "the control unit 28, interface processor 26, or coupler 24 in conjunction with any associated software." Katz Brief at 37. Verizon contends, on the other hand, that the corresponding structure further comprises "the transmission lines connecting these structures." Verizon Brief at 24. Katz responds that the lines set forth in the '734 patent merely show flow of data and are not intended to describe or require any structural limitation.

[23] When the structure corresponding to a means-plus-function element encompasses two separate structural components connected by a communication line, the corresponding structure also includes the communication line. *See* Asyst Technologies, Inc. v. Empak, Inc., 268 F.3d 1364, 1372 (Fed.Cir.2001). *Asyst Technologies* is quite instructive as to this issue. In *Asyst,* the District Court held that the structure corresponding to a "second microcomputer means" limitation included a local control processor and a communication line extending to a second structure. 268 F.3d at 1370. The Federal Circuit reversed that determination, holding that the structure corresponding to the "second microcomputer means" did not extend to the communication line. The Federal Circuit reasoned that, although the communication line enabled the local control processor to function, the specification did not describe the communication line as performing any aspect of the recited function. Id. at 1370-71. In contrast, the Federal Circuit turned to another means-plus-function element-namely, a "fourth means,"-that recited two functions corresponding to two separate components connected by the communication line. Id. at 1372. Notably, the Federal Circuit held that "[b]ecause the 'fourth means' encompasses both the local process controller 20 and the communication

means 50, it also necessarily encompasses structure that connects the two, *i.e.*, communication line 51." *Id.*

Asyst appears to control the instant situation. The parties agree, and the specification discloses, that the structure that performs the "means for processing" functions recited in claim 81 comprises control unit 28, interface processor 26, and coupler 24 in conjunction with associated software. The specification of the '734 patent also implicates transmission lines 39 in the "means for processing" functions. *See* '734 patent, Col. 4:50-53 ("Under control of the control unit 28, the coupler 24 connects individual lines 37 of the sets LB1, LB2 and LB3 to the processor 26 through lines 39."); *see also* '734 patent, Col. 8:28-39. As to other lines depicted in Figure 1 of the '734 patent, the specification does not clearly link these lines to the recited function, as they are never specifically mentioned. Furthermore, it appears that one of ordinary skill in the art would understand such lines to illustrate the flow of data between functional components, rather than communication lines. Accordingly, the structure corresponding to the "means for processing" includes the control unit 28, interface processor 26, or coupler 24 in conjunction with any associated software, and the lines 39 between the coupler 24 and the interface processor 26.

A.1.h. "audio control unit coupled to said voice generator means"

[24] Katz and Verizon agree that the "audio control unit" is a means-plus-function element. The parties disagree, however, as to the meaning of the claimed function and the scope of the corresponding structure disclosed in the specification.

A.1.h.1. "providing a preliminary automated voice prompt to cue callers to interactively enter data under control of said digital signals (DNIS) to callers calling said one other of said plurality of distinct called numbers"

The functional language set forth above, according to Verizon, requires that the audio control unit "provide prompts to callers that dialed the second distinct called number that ask the caller to enter a touch tone response based on the number dialed." Verizon Brief at 25-26. Katz contends, however, that the functional language should not be limited to touch tone responses. Katz Brief at 39.

The language set forth above requires that the audio control unit provide a voice prompt to callers that dialed the second distinct called number to provide a response based on the number dialed. The instant issue distills down to the proper interpretation of "to interactively enter data." The plain and ordinary meaning of the term does not appear to be limited to touch tone responses. Verizon does not appear to allege otherwise, or that the plain meaning of the term renders the claim sufficiently ambiguous or amorphous to justify resort to the specification to define the term.FN7 Furthermore, although the specification of the '734 patent discloses only a single mode for callers to enter data- *i.e.*, digital responses using push buttons-, the '734 patent does not define the term "enter" either expressly or by implication. Moreover, the functional language appears to merely require providing prompts that cue callers to enter data, as opposed to receiving data entered by callers.

FN7. In fact, beyond asserting its interpretation, Verizon provides no reasoning in support of limiting caller responses to touch-tone responses.

A.1.h.2. "coupled"

[25] Verizon asserts that the term "coupled" means "separate from but operatively connected for electrical

communication." Verizon Brief at 25. According to Katz, no special construction of "coupled" is necessary. Katz, however, also provides a definition: "two things are coupled if they are associated in such a way that power or signal information may be transferred from one to another." Katz Brief at 40.

"Coupled" means associated in such a way that power or signal information may be transferred from one to another. It appears that one of ordinary skill in the art understands the term "coupled" to connote a broad range of associations between two things. The plain meaning of coupled, as understood by someone ordinarily skilled in the art, does not require that the "coupled" components be necessarily physically separate from one another. *See* Lucantoni 1/15/03 Decl. para.para. 6-8, & Exs. 2, 3; *see also* Webster's Ninth New Collegiate Dictionary at 298 ("couple" means "to join together for combined effect"). Verizon points to nothing in the specification or prosecution history of the '734 patent that justifies deviating from the broad meaning of "coupled" as understood by one of ordinary skill in the art. At the Claims Construction Hearing, Verizon alleged that two elements must have an interface between them to be "coupled" within the proper meaning of the term. Verizon's contention, however, begs the question as to whether this interface must be physically defined or defined purely by software.

A.1.h.3. "prior to execution of said common processing operations of said one and said another of said interactive process formats"

[26] Verizon alleges that the above-identified limitation requires that "the caller receives [the] preliminary automated voice prompts before any of the common processing operations for both formats." Verizon Brief at 26. Katz contends, on the other hand, that the limitation merely requires that the prompt occurs prior to the "certain common processing operations" identified in connection with the "means for processing" element. Katz Brief at 41.

The above-identified limitation appears to require only that the audio control unit provide the voice prompt prior to execution of the "certain common processing operations" identified in the "means for processing" element of claim 81. Specifically, the functional language corresponding to the "means for processing" element requires, by the language "at least certain common processing operations," only a subset of common processing operations. "Said common processing operations" in the "audio control unit" element appears to refer to the "at least certain common processing operations" and, therefore, does not require that the voice prompt occur prior to any or all common processing operations.

A.1.h.4. Corresponding Structure

The structure corresponding to function performed by the audio control unit, Verizon contends, comprises "audio control [sic] unit 18, the control unit 28, the interface processor 26, the coupler 24, free call memory 32, the transmission lines connecting the identified structures and the software for performing the claimed function." Verizon Brief at 26. Katz contends that the corresponding structure "includes any of the following structures and their equivalents: control unit 28, interface processor 26, coupler 24 and any associated software." Katz Brief at 41. At the claims construction hearing, the parties appeared to agree that the corresponding structure comprises audio response unit 18 and control unit 28.

In light of the Court's interpretation of the functional language set forth above, the structure corresponding to the "audio control unit" must provide a preliminary voice prompt that cues callers, calling in a toll free mode, to enter data prior to execution of certain common processing operations. The specification clearly links the audio response unit 18 and control unit 28 as the structure necessary to perform the recited function. Specifically, audio response unit 18 and control unit 28, in connection with the voice generator,

provides voice prompts. *See* '734 patent, Col. 7:15-17 ("the audio response unit actuates an internal voice generator prompting the caller to key in his assigned number, '34726313'."); Col. 4:56-58 ("Each of the units 18, 20 and 22 incorporate a voice generator along with some basic programmable logic capability."); Col. 4:22-25 ("with overall supervision by the control unit 28, the audio response units 18, 20 and 22 answer and preliminarily qualify callers from the terminals T1-TN for connection through the coupler 24 to the interface processor 26."). The remaining components identified by the parties in their respective briefs do not appear to be implicated in the function of providing preliminary voice prompts. For example, the coupler 24 couples qualified calls to interface processor 26. *See* '734 patent, Col. 4:22-25 ("with overall supervision by the control unit 28, the audio response units 18, 20 and 22 answer and preliminarily qualify callers from the terminals T1-TN for connection through the coupler 24 to the interface processor 26."). Katz identifies a number of alternative structures that, according to it, can perform the recited function associated with the audio control unit. *See* Katz Brief at 42. However, the specification fails to clearly link these structures to the function of providing preliminary voice prompts. *See* Abbott Laboratories, 124 F.3d at 1424. As to Verizon's asserted interpretation in its Brief, it identifies structures that are unnecessary to perform the recited function of providing preliminary voice prompts. Wenger Mfg., 239 F.3d at 1233; Asyst Technologies, 268 F.3d at 1370-72. Lastly, Verizon's contention that the transmission lines between the control unit 28 and the audio response unit 18 fails as the specification of the '734 patent does not clearly identify transmission lines between the audio response unit 18 and the control unit 28 and, therefore, fails to clearly link additional structure, such as transmission lines, as performing or being necessary to the claimed function.

A.1.i. "control means"-Claim 94

The parties agree that the "control means" of claim 94 is a means-plus-function element. Verizon contends, however, that the language defining the control means is indefinite and, therefore, renders claim 94 invalid under 35 U.S.C. s. 112. The '734 patent also fails, according to Verizon, to identify any structure corresponding to the function of the control means. Verizon, however, does not appear to identify claim terms requiring construction by this Court.

The corresponding structure associated with "control means" includes several alternative structures. For example, the corresponding structure can include control unit 28, and, alternatively, the combination of control unit 28 and coincidence detector 34. *See* Col. 4: 49-52 ("Under control of the control unit 28, the coupler 24 connects individual lines 37 of the sets LB1, LB2 and LB3 to the processor 26 through lines 39"); Col. 7:21-22 ("Within the control unit 28, logic is provided for verifying the identification number as proper."); Col. 4:22-25 ("with overall supervision by the control unit 28, the audio response units 18, 20 and 22 answer and preliminarily qualify callers from the terminals T1-TN for connection through the coupler 24 to the interface processor 26."); Col 4:59-65 ("The audio response unit 18 is coupled to a free-call memory 32. Generally, the unit 18 in cooperation with the memory 32 operates with the control unit 28 to qualify acceptable calls in the "800" mode. The audio response unit 20 is connected to a select-number coincidence detector 34. These structures along with the control unit 28 test area-code mode calls."). In addition, another alternative, corresponding structure comprises control unit 28, audio response unit 18 and free call memory 32. *See* Col. 7:31-35 ("each call in the "800" mode also involves a check or test from the audio response unit 18 to the memory 32 to determine whether or not the assigned qualification number has been previously used.").

A.2. U.S. Patent No. 5,974,120

A.2.a. "establishing telephone communications between the callers and the system"

Verizon alleges that the above-identified limitation should be interpreted to mean "creating a telephone communication from the caller to the system for prompting caller cues." Verizon Brief at 29. Katz does not appear to dispute this asserted interpretation.

[27] Verizon appears to imply that "a system for prompting callers with caller cues" in the preamble limits the scope of claim 56. The Court agrees that the claim as a whole suggests that "a system for prompting callers with caller cues" is a limitation of claim 56. Specifically, "the system" referred to in the "establishing" step of claim 56 incorporates by reference the "system for prompting callers with caller cues" in the preamble. Bell Communications, 55 F.3d at 621.

A.2.b. "the system having a receiving unit for receiving digital signals including dialed-number identification signals provided automatically from the telephone-communication facility"

Verizon contends that the above-identified limitation requires that "the system for prompting the callers with caller cues includes a receiving unit for receiving digital signals from the callers." Verizon Brief at 29.

The Court finds that, beyond the term "dialed-number identification signals provided automatically from the telephone-communication facility," the above-identified language requires no special construction as its meaning is clear. Furthermore, Verizon, by its inclusion of the phrase "from the callers," appears to inject a limitation not necessarily required by the plain meaning of the cited language.

A.2.c. "dialed-number identification signals provided automatically from the telephone-communication facility"

The term "dialed-number identification signals provided automatically from the telephone-communication facility" means digital signals or data, automatically provided by the telephone communication facility, that identify the number called. The meaning of the term is apparent from the claim language itself. The specification of the '120 patent does not appear to suggest a contrary interpretation. Verizon does not identify any aspect of the prosecution history associated with the '120 patent that supports its asserted interpretation. *See also* Section IV.A.1.c., *supra*.

A.2.d. "telephone-communication facility"

[28] In its asserted interpretation of "dialed-number identification signals" and "identification signals" in the representative claims of the '120 patent, Verizon appears to define the term "telephone-communication facility" as a public switched telephone network.FN8 Verizon Brief at 29, 32, 33. Katz, relying on the AT & T Order, asserts that "telephone-communication facility" means "that part of a telephone network that enables a caller to connect to the Katz system." Katz Brief at 52; *see also* AT & T Order at 598.

FN8. It appears that Public Switched Telephone Network (PSTN) is commonly understood in the art to have an expansive meaning including a vast array of components and operations. *See* AT & T Order at 594 n. 3 (PSTN is the comprehensive public telephone system including "the operations of the various local exchange carriers (such as Bell Atlantic), and interexchange (long distance) carriers, such as AT & T and MCI.") (internal quotations omitted).

The term "telephone-communication facility" means a telephone network that connects remote terminals and

other devices having telephonic capabilities, such as the audio response units, for communication. It is not clear to the Court, whether the parties consider the term "telephone-communication facility" to have a plain meaning to one of ordinary skill in the art. However, Webster's defines "facility" as "something ... that is built, installed, or established to serve a particular purpose," *see* Webster's Ninth New Collegiate Dictionary at 445, suggesting that the term "telephone-communication facility" means something dedicated to the purpose of telephone communications. *See* Altiris, 318 F.3d at 1372 ("simply because a phrase as a whole lacks a common meaning does not compel a court to abandon its quest for a common meaning and disregard the established meanings of the individual words."). The specification also sheds light on the meaning of "telephone-communication facility" as "accommodating" the remote terminals and connecting the remote terminals to the central station CS. *See* '120 patent, Col. 3: 36-37; *see also* Col. 3:31-35 ("The indicated terminals T1-TN represent the multitude of telephone terminals existing in association with a communication facility CO which may comprise a comprehensive public telephone network."); Col. 4:12-15 ("Essentially, as a result of telephonic dialing at one of the terminals T1-TN, the communication facility CO couples the select terminal to an audio response unit."); Col. 7:1-5 ("the caller [actuates] the buttons 14 as for example to input: "1 900 5558945". As a result, signals are provided to the communication facility CO resulting in a connection from the remote terminal T1 to the audio response unit 22."); Col. 7:31-34 ("the caller dials a number ..., actuating the terminal T1 and the communication facility CO to provide a connection with the audio response unit 18.").

With due deference to the *AT & T* court, Katz' proposed construction does not appear to be warranted, as the '120 patent specification does not define "telephone-communication facility" as only "that part" of a telephone network that enables callers to connect to the Katz system. That being said, however, communication facility, as construed by this Court, does not exclude the possibility that the communication facility is part of a larger telephone network or the public switched telephone network itself. In addition, the Court's construction is not meant to exclude the possibility that the Katz system is an integral part of (operating within) the communication facility. As to Verizon's asserted interpretation, limiting the term "telephone-communication facility" to a public switched telephone network would import limitations of a preferred embodiment into the claim. The '120 patent specification appears to indicate that the communication facility may be other types of networks. *See* Col. 3:33-35 ("communication facility CO ... *may* comprise a comprehensive public telephone network.") (emphasis added).

A.2.e. "utilizing the dialed-number identification signals to identify one from a plurality of numbers dialed by the callers"

Verizon's asserted interpretation appears to rehash its contention, rejected by the Court, that dialed-number identification signals "indicate" the dialed number. *See* Verizon Brief at 30. The language of the claim is clear, requiring no construction by the Court. *See* Section IV.A.2.c., *supra*.

A.2.f. "also receiving at the receiving unit identification signals relating to the callers"

[29] Verizon alleges that the "also receiving" element requires that the receiving unit that receives the "identification signals relating to the callers" be the same receiving unit that receives the dialed-number identification signals. Verizon Brief at 30. Katz does not appear to dispute this interpretation.

The Court adopts Verizon's asserted interpretation, as it appears to be required by the plain meaning of the claim language.

A.2.g. "testing said identification signals relating to the callers to determine whether to qualify the

callers for access to at least a portion of operations of the system"

[30] Similar to its contention regarding qualifying calls in the '734 patent, Verizon alleges that the language of the "testing" element means "using the identification signals relating to the calls to determine whether to allow callers to access part of the system or abort the call." Verizon Brief at 31. According to Katz, the plain meaning of the language in the "testing" element does not require that the system aborts non-qualified callers.

The language of the "testing" step set forth above requires using the identification signals relating to callers to determine whether to allow access to part of the system. The claim language does not require that the claimed method abort non-qualified callers. Neither the plain meaning of "testing" nor the plain meaning of "qualify," supra, requires terminating calls associated with callers who do not qualify for access. Indeed, the remaining language in the testing step suggests that non-qualified callers are merely denied access to some operations of the system. While the embodiments disclosed in the specification of the '120 patent terminate calls of non-qualified callers, this alone is not sufficient to overcome the "heavy presumption" that the ordinary and plain meaning of the claim language controls. CCS Fitness, 288 F.3d at 1366. *See also* Section IV.A.1.f., above.

A.2.h. "utilizing, for qualified callers, the identification signals relating to the callers, to avoid prompting certain callers with a certain previously provided cue or cues"

[31] The "utilizing" element, according to Verizon, should be construed to mean that "if the caller is allowed to proceed, using the identification signals relating to the caller to prevent the caller from receiving any voice prompts that the caller received during a previous call." Verizon Brief at 31-32. Katz objects to this interpretation, reasoning that Verizon's asserted interpretation does not give proper effect to the term "certain" and results in a unworkable system. *See* Katz Reply Brief at 15-16.

The term "qualified callers" means the callers qualified in the "testing" step. The element "utilizing ... the identification signals relating to the callers, to avoid prompting certain callers with a certain previously provided cue or cues" means using the identification signals relating to the callers to prevent the callers from receiving one or more specific prompts that the callers received during previous calls. The specific prompts may be all or a subset of the prompts previously provided to a given caller. Verizon's construction appears to ignore the term "certain" modifying "previously provided cue or cues." *See* Exxon, 64 F.3d at 1557 (all words in a claim must be given meaning).

A.2.i. "providing to the qualified callers at least one other caller cue"-Claim 56 and 67

Verizon alleges that the "providing" element should be interpreted to mean "providing an additional voice prompt to callers allowed to proceed." Verizon Brief at 32.

[32] The element "providing to the qualified callers at least one other caller cue" means providing, to qualified callers, at least one prompt other than the "certain previously provided cue or cues" identified in the "utilizing" step. The Court's interpretation is consistent with the plain meaning of the language and the context in which it appears in the claims. The specification does not suggest a contrary interpretation.

A.2.j. "wherein the process further implements a test with respect to a limit on a period of time"-Claim 58

[33] Verizon alleges that the limitation set forth in dependent claim 58 of the '120 patent requires a second test, in addition to the testing specified in claim 56, based on a period of time. This limitation, according to Katz, merely specifies how the testing in the testing element is performed and need not be a second test. Katz Brief at 52-53.

The limitation in claim 58 requires a second test based on a limit on a period of time. The Court's interpretation is consistent with the plain meaning of the term "further" and the context provided by claim 56. The testing element of claim 56 involves testing identification signals to qualify users, while the test required in claim 58 is temporal. The Court's interpretation, however, is not meant to exclude the possibility that this second test also involve identification signals. In addition, dependent claims 59 and 60, for example, provide an illustrative backdrop. *See* '120 patent, Col. 16:55-61 ("wherein during the testing step, the process further tests ..."). In contrast, claim 58 states that the process "further implements *a* test with respect to a limit on a period of time." Col. 16:53-54 (emphasis added). The term "further implements a test" suggests an additional test.

A.2.k. "testing, to determine whether to qualify the callers for voice-digital communication with the system, the identification signals that indicate the telephone numbers"-Claim 67

Similar to above, the "testing" step in claim 67 of the '120 patent, according to Verizon, requires a determination of whether to allow callers to proceed or to abort the calls.

The language of the "testing" step of claim 67 means using the telephone numbers indicated by the identification signals to determine whether the callers are eligible to access the system. Verizon's asserted interpretation has some appeal, as the language in the "testing" step of claim 67 does not contain the "at least a portion" limitation of claim 56 of the '120 patent. Nevertheless, the plain meaning of the claim language, discussed above, merely requires testing the telephone numbers expressed in the identification signals to determine whether callers are eligible. The claim language is silent as to the treatment of callers who do not qualify for "voice-digital communication with the system." Verizon's asserted interpretation would appear to exclude the possibility of transferring non-qualified callers to a live operator or some alternative means of qualifying for access to the system. Lastly, as discussed above, merely because the preferred embodiments disclose terminating calls associated with non-qualified callers does not appear to justify importing such a limitation into the plain meaning of the claim language. *See* Texas Digital, 308 F.3d at 1204 ("if an invention is disclosed in the written description in only one exemplary form or in only one embodiment, the risk of starting with the intrinsic record is that the single form or embodiment so disclosed will be read to require that the claim terms be limited to that single form or embodiment."), and cases cited therein.

A.2.l. "utilizing, for qualified callers, the identification signals that indicate the telephone numbers to avoid prompting certain callers with a certain previously provided cue or cues"

Similar to the utilizing step of claim 56, the element "utilizing ... the identification signals that indicate the telephone numbers to avoid prompting certain callers with a certain previously provided cue or cues" means using the identification signals identifying the calling telephone numbers to prevent the callers from receiving one or more specific prompts that the callers received during previous calls. The specific prompts may be all or a subset of the prompts previously provided to a given caller. *See* Section IV.A.2.h., *supra*.

A.3. U.S. Patent No. 6,434,223

A.3.a. "processing calls received in the 800 call mode for the two distinct called numbers in accordance with preliminary operations of the first and second interface formats"

[34] According to Verizon, the term "processing calls" should be construed to mean "executing a sequence of steps to gather information from and provide information to the callers of the first and second called numbers." Katz, relying on the AT & T Order, alleges that "processing" means "manipulation of data which performs some operation or sequence of operations on the data." 63 F.Supp.2d at 611.

The language of the "processing calls" step means performing a preliminary operation or sequence of preliminary operations on the calls. The Court's construction is consistent with the plain meaning of the term "processing" as understood by one of ordinary skill in the art. Verizon does not advance a compelling reason to import limitations from the specification into the cited claim language.

A.3.b. "receiving caller provided data entered by the callers"

[35] Verizon also alleges that "caller provided data" means touch-tone responses entered by the callers. Verizon Brief at 39.

"Caller provided data entered by the callers" means data provided by the callers. Verizon's asserted interpretation appears to import limitations from the specification into the claims. Verizon does not appear to allege that the plain meaning of the language requires touch-tone responses. Indeed, Verizon offers no analysis or reason to deviate from the broad, but unambiguous claim language.

A.3.c. "testing the caller entered data to verify on-line the calls received for at least one of the two distinct called numbers to provide verified calls"

Verizon essentially reiterates its arguments and asserted interpretation relating to the meaning of "qualification" in asserting that the testing step must result in callers being allowed to proceed or having their calls aborted. Verizon Brief at 39. The parties appear to agree that the terms qualify, test, and verify should be construed to have essentially the same meaning in the context of the Dual Call Mode and Cue Suppression Patents. *See, e.g.,* Verizon Brief at 39.

As discussed above, the plain meaning of the cited claim language does not require terminating non-verified calls. *See* Sections IV.A.1.f., & 2.g., *supra*.

A.3.d. "coupling the calls received in the 800 call mode for the two distinct called numbers wherein at least certain calls are verified calls for concurrent processing in accordance with at least certain common operations of the first and second interface formats"

Verizon alleges that "coupling" means "intelligently linking calls made to the first and second called numbers." Verizon Brief at 39. Katz disputes the need to interpret the term at all.

The term "coupling" means linking or joining the calls- *i.e.,* linking for concurrent processing. Verizon's asserted interpretation appears to narrow the plain meaning of "coupling" in a manner not warranted by the specification or the prosecution history of the '223 patent. *See* Rexnord, 274 F.3d at 1342 ("unless compelled to do otherwise, a court will give a claim term the full range of its ordinary meaning as understood by an artisan of ordinary skill.").

The parties also dispute the proper interpretation of "concurrent processing." As discussed above, "concurrent processing" means processing two or more calls at the same time or in parallel (simultaneously). *See* Section IV.A.1.g.3., *supra*.

Verizon also contends that the limitation "in accordance with at least certain common operations of the first and second interface formats" requires that "the two formats execute at least some of the same processing instructions in the same computer program." Verizon Brief at 40. Verizon's contention, however, appears to inject limitations into the claim language unwarranted by the plain meaning of the claim language, the specification, or the prosecution history.

A.3.e. "wherein the appropriate cue for a caller is determined by avoiding a cue previously provided to a caller"

Verizon contends that this limitation requires that "the appropriate voice prompt for a caller is based on preventing the caller from receiving any voice prompts that they already received during previous calls." Verizon Brief at 41. Katz contends, however, that Verizon's asserted interpretation contravenes the plain meaning of the language and is inconsistent with the specification.

The Court agrees with Katz that "a cue previously provided to the caller" does not mean all previously provided cues, and therefore leaves open the possibility that other previously provided cues may be repeated to callers. This interpretation is consistent with the plain language of claim 107 and the specification of the '223 patent. Verizon's asserted interpretation appears to be inconsistent with the '223 patent, as it would prevent the system from prompting repeat callers for caller identification data.

B. The Conditional Interface Patent Claims

The Conditional Interface Patents describe an interactive call processing system comprising a call receiver unit; a switch; a multiple port, multiple format processor; and an operator station. The heart of the system is the switch which decides how calls are connected and processed. That is, the switch decides according to which format calls should be processed and handles the switching operations that connect calls to an automated processor or a live operator. In certain embodiments disclosed in the Conditional Interface Patents, the switch applies a set of conditions before coupling a call to a given format. A variety of conditions can be imposed, such as limiting access to formats to specific times of the day and specific calling numbers. The representative claims asserted by Katz are claims 3 and 68 of the '285 patent, and claim 66 of the '893 patent.

B.1. U.S. Patent No. 5,351,285

B.1.a. Effect of Limitations in the Preamble

Verizon alleges that the body of claim 1 specifically incorporates the following terms recited in the preamble: "a communication facility; remote terminals; digital input means; a multiple port, multiple format processor; format; a plurality of formats; and a plurality of operator stations with prompting capability." Verizon Brief at 44.

The body of claim 1 appears to incorporate the following terms in the preamble by reference: 1) a communication facility, 2) remote terminals, 3) plurality of formats, 4) multiple port, multiple format processor, and 5) plurality of operator stations.

B.1.b. "communication facility"

Verizon alleges that the term communication facility means the public switched telephone network.

For the reasons set forth in Section IV.A.2.d., above, "communication facility" means a telephone network that connects remote terminals and other devices having telephonic capabilities for communication.

B.1.c. "live operator stations"

[36] Verizon alleges that "live operator stations with prompting capability" means "hardware and software used by an operator to send and receive data," while "prompting capability" means "the capability of providing information to the operator." Verizon Brief at 46. Katz, on the other hand, contends that "live operator stations with prompting capability" are "operator stations with the capability of displaying prompting data, which may or may not be related to prompts used in automated formats." Katz Brief at 59.

"Live operator stations with prompting capability" means operator stations with the capability of providing prompting data, which may or may not be related to prompts used in automated formats. The term "operator station" appears to have a commonly understood and clear meaning and requires no further construction by the Court. Furthermore, the Court's interpretation is consistent with the plain meaning of the claims and the specification. *See* '285 patent, Col. 6:11-14 ("the block 29 represents the operations of coupling a caller to an operator station and transferring the appropriate format data to the station for prompting the operator."); Col. 8:12-15 ("Also, in certain situations, a connection to a live operator is to be terminated in favor of an interface to the processor. In either event, an existing format is terminated in favor of a fresh format."); Col. 12:20-23 ("calls are either interfaced to an operator who receives a format prompt, or interfaced to the processor according to a specified format."); *see also* AT & T Order at 634-35.

B.1.d. "digital input means"

[37] Verizon alleges that "digital input means" means "a panel of push buttons on the remote terminal for inputting digital signals." Katz alleges that "digital input means" means "a telephone keypad or computer keyboard."

Despite use of the words "means" and the presumption it entails, both parties appear to believe that "digital input means" connotes sufficient structure to avoid application of 35 U.S.C. s. 112, para. 6. The Court agrees as "digital input means" in the context of the surrounding claim language and in light of the '285 patent specification, appears to connote sufficient structure. Accordingly, the term "digital input means" means "a panel of push buttons or keypad on the remote terminal for inputting digital signals." As used in the claims, "digital input means" is described as being part of a "conventional telephone instrument," which appears to exclude a computer keyboard as asserted by Katz. *See also* '285 patent, Col. 2:14-17 ("e.g. conventional telephone instruments including voice communication means, and digital input means in the form of alphanumeric buttons for providing data"); Col. 4:4-9 ("the exemplary telephone terminal T1 includes a handpiece 10 (microphone and earphone) and a panel 12 provided with a rectangular array of push buttons 14 in a conventional configuration. Of course, the handpiece 10 accommodates analog signals while the panel 12 is a digital apparatus.").

B.1.e. "format" and "plurality of formats"

For the reasons discussed in section IV.A.1.b., above, "format" means a call process flow implemented by at least one computer program that sets forth the content and sequence of steps to gather information from and convey information to callers through pre-recorded prompts and messages. Although the '285 patent specification is different from the '734 patent, the two patents use "format" in a consistent manner and, therefore, require the same interpretation of the term.

B.1.f. "multiple port, multiple format processor"

[38] Verizon alleges that "multiple port, multiple format processor" means "a single processor with more than one port and that operates more than one format." Verizon Brief at 46. Katz largely agrees with Verizon's construction, except as to the inclusion of "single."

"Multiple port, multiple format processor" means a processor with more than one port and that operates more than one format. The inclusion of "single" in Verizon's asserted interpretation is unwarranted as it may confuse a jury, and suggest that a system including a plurality of "multiple port, multiple format processors" is excluded from the scope of the claims. The passage in the specification cited by Verizon does not appear to tout the particular advantages of having a single multiple format processor. Rather, the cited passage merely states that a need exists for "an improved interface system" for interfacing callers with a multiple format processor. *See* '285 Patent, Col. 1:65-Col. 2:2. From the comments of the parties at the Claims Construction Hearing, the parties' principal dispute appears to distill down to whether an array of processing units, each dedicated to a given format, is a "multiple port, multiple format processor." However, in light of the small amount of briefing as to this aspect of the dispute, this issue is best decided, assuming the parties raise the matter, on motions for summary judgment, where the Court can more fully explore the ramifications of the parties asserted interpretations against the accused systems and services or any allegedly invalidating prior art.

B.1.g. "imposed condition"

[39] The term "imposed condition," Verizon contends, means "a requirement that must be met before any access is given." Verizon Brief at 47. Katz argues that an imposed condition is simply a "specified restriction or criterion." Katz Brief at 58.

An "imposed condition" is a specified requirement, restriction or criterion. Verizon'sasserted interpretation appears to import limitations from the specification into the claim language and, further, renders other claim language redundant or superfluous. *See* '285 Patent, Col. 16:2-3 ("imposed conditions *that must exist for a connection of a call* ...") (emphasis added).

B.1.h. "selection means"

[40] The parties agree that the imposed conditions associated with a given format must be specified before a call is connected. In their Briefs, the parties disagreed as to whether the format must be selected before the imposed conditions are specified. At the claims construction hearing, however, the parties appeared to agree that, at least as to claim 1 of the '285 patent, the selection of a format must precede specification of imposed conditions.

The plain meaning of the functional language recited in the "selection means" element requires the selection of a format before or concurrently with specification of the "imposed conditions that must exist for a connection of a call." The language "to thereby further specify imposed conditions" suggests that the

selection of a format determines the imposed conditions that are ultimately specified for that format. Accordingly, logic suggests that the selection of a format must precede fully specifying the imposed conditions that must exist for establishing an interface according to a given format. The inclusion of "concurrently" is meant to ensure that the Court's construction covers the hypothetical raised by Katz at the Claims Construction Hearing- *i.e.,* where the imposed conditions are associated in the same table or other data structure with a given format, thereby allowing for selection of a format and specification of imposed conditions in a practically concurrent or near concurrent manner.

The Court's construction appears to be consistent with the specification of the '285 patent. The specification appears to describe a system where called number (DNIS) signals correspond to different formats where, depending on the format "class," a format can include 1) imposed conditions to determine whether a call is connected to a live operator, and/or 2) conditions imposed to determine whether to establish an interface between a call and the multiple-format processor. *See, e.g.,* '285 patent, Col. 2:27-32 ("An index apparatus is controlled, as by the signal-represented call data, to select initially a live-operator or machine format of the processor so as to specify any conditions for the interface, at least one of the formats including at least one condition."); Col. 5:14-16 ("call formats may specify any of the following operations: 1. couple to live operator station if possible or in accordance with a predetermined criteria;"); *see also* Col. 5:7-9 ("Depending on the format, a testing section 18 of the switch SW may screen calls for interface connections."); Col. 5:35-37 ("The interface may be contingent on initial test conditions, e.g. call data, caller record, time, etc."); Col. 6:58-66 ("the fetched control word of the block 36 prompts an inquiry as to the conditions attendant the selected operating format as indicated by a query block 38. That is, in the process, the query of block 38 determines whether further conditions are imposed for attaining interface with the processor P. If no further conditions are imposed, the format is initiated by pursuing the connected interface as indicated by a block 40."). The system also appears to apply certain conditions or preliminary operations that are not specific to the formats. *See, e.g.,* Col. 6:25-30 (validity bit test); Col. 6:4-16 (testing operator availability). However, in all cases, it appears that selection of a given format drives specification of imposed conditions that control whether the switch establishes an interface in accordance with the format.

In their Claims Construction Briefs, the parties agreed that the structure corresponding to the selection means is "selection section 16 and condition testing section 18, including control unit 66 and software to perform the claimed function." *See* Moore 1/14/03 Decl. Ex. 13 at 10. The corresponding structure agreed upon by the parties, however, appears to include structure unnecessary to the claimed function. At the Claims Construction Hearing, however, the parties appeared to agree that condition testing section 18 is not corresponding structure.

The corresponding structure must 1) select a format under control of call data signals, and 2) specify "imposed conditions." The structure for selecting a format appears to be control unit 66 (including software to perform the claimed function), control register 70, and look-up table 84. *See* '285 patent, Col. 8:54-60 ("Generally, the control unit 66 implements specific formats which may involve coupling a caller either to a live operator station OSl-OSn or to the processor P. In that regard, the control unit 66 provides a series of timing signals t1-t6 to sequence the operations of individual component blocks as illustrated."); Col. 8:68-Col. 9:2 ("The control register 70 receives format control words specified, as by the called number and having a form as illustrated in FIG. 4."); Col. 6:58-61 ("the fetched control word of the block 36 prompts an inquiry as to the conditions attendant the selected operating format as indicated by a query block 38."); Col. 10:31-34 ("the first sixteen bits comprise the format control word and are provided from a look-up table 84 (FIG.3, right, central) upon being addressed by call data from the register 64."). The testing section 18 of switch SW appears to be structure that tests or applies the conditions, as opposed to structure that "specifies"

FN9 imposed conditions.

FN9. Webster's defines "specify," in relevant part, as "to name or state explicitly or in detail." Webster's Ninth New Collegiate Dictionary at 1132. The specification does not suggest a contrary definition. Moreover, the language of claim 2 including means to "specify" and "test compliance" suggests that "specify" means to identify imposed conditions. *See* '285 patent, Col. 16:13-16.

B.1.i. "coupled"

The term "coupled," according to Verizon, requires that the selection means be separate from, but operatively connected to the call data means. Verizon Brief at 47.

For the reasons discussed in Section IV.A.1.h.2., *supra,* the term "coupled" does not require that the selection means be separate from, but operatively coupled to the call data means. Rather, "coupled" means associated in such a way that power or signal information may be transferred from one to another.

B.1.j. "interconnect switch means"

[41] Verizon contends that "interconnect switch means" should be interpreted as a means-plus-function element under 35 U.S.C. s. 112, para. 6. The term switch under other circumstances, Verizon alleges, would normally overcome the presumption entailed by use of "means" in the claim language; however, the term switch does not connote sufficient structure for performing the additional function of "providing format data." Verizon Brief at 52; Waite 1/14/03 Decl. para. 17. Katz, on the other hand, contends that "interconnect switch means" connotes sufficient structureto avoid application of 35 U.S.C. s. 112, para. 6.

"Interconnect switch means" means a device including hardware and associated software that can switch or route telephone calls or signals from one location or connection to another.FN10 A presumption exists that interconnect switch means is a means-plus-function element, as the element includes "means" and is linked to the functions of "providing format data" and "controlling connections." *See* Rodime PLC v. Seagate Tech., Inc., 174 F.3d 1294, 1302-03 (Fed.Cir.1999). However, the term "switch" connotes sufficient structure for performing the recited functions of "providing format data" and "controlling connections." *See* Rodime, 174 F.3d at 1304 ("This court's case law, however, does not require such an exhaustive recitation to avoid s. 112, para. 6. Instead, the claim need only recite "sufficient" structure to perform entirely the claimed function."); *see also id*. ("Rather, in the words of *Laitram,* the structure specified in [the] claims ... tells what the means "is structurally.") (citations omitted); Altiris, 318 F.3d at 1376 ("In the cases where we have found sufficient structure in the claims, the claim language specifies a specific physical structure that performs the function.").

FN10. The language "providing format data" and "controlling connections" in this context is best understood as a functional limitation of the interconnect switch.

B.1.k. "test means to specify test conditions for certain of said formats"-Claim 2

[42] The parties agree that "test means" in claim 2 of the '285 patent is a means-plus-element, but differ as to the scope of the corresponding structure. Verizon argues that the corresponding structure is control register 70 and look-up table 84. Verizon Brief at 53. Katz agrees with Verizon, but also asserts that other

structures correspond to the "test means." Katz Reply Brief at 24. Specifically, the structure corresponding to "test means," contends Katz, is the testing section 18 of the switch SW, control unit 66, test control logic 72, time test logic network 94, history test logic network 100, or demographics test logic network 102. Katz Brief at 61.

The structure corresponding to the test means in claim 2 of the '285 patent is control register 70 and look-up table 84. The functional language "to specify test conditions for certain of said formats" means to identify the test conditions applicable to particular formats. The specification clearly links the control register 70 and the look-up table 84 as the structure performing this function. *See, e.g.,* '285 patent, Col. 9:27-32 ("The initial three registered bits in the control register (FIG.4) serve as test command bits respectively for a time test, a history test and a demographics test. The presence of a "1" bit in any of the first three bit locations specifies the requirement for testing compliance to specified conditions. A "0" bit indicates no test."); Col. 9:33-35 ("The bits "4 through 7" in the control register constitute a field 74 and specify time conditions in relation to the instant time of the call. The field 74 may specify eight distinct time conditions."); *see also* Col. 8:68-Col. 9:2 ("The control register 70 receives format control words specified, as by the called number and having a form as illustrated in FIG. 4."); Col. 6:58-61 ("the fetched control word of the block 36 prompts an inquiry as to the conditions attendant the selected operating format as indicated by a query block 38."); Col. 10:31-34 ("the first sixteen bits comprise the format control word and are provided from a look-up table 84 (FIG.3, right, central) upon being addressed by call data from the register 64."). The additional or alternative structures identified by Katz appear to apply the test conditions, as opposed to merely "specifying" or identifying them. In addition, selection section 16 and testing section 18 set forth in Figure 1 appear to be functional identifiers or groupings for the switch components, as opposed to structural recitations. *See* '285 patent, Col. 8:23-25 ("An exemplary detailed structure of the switch SW (FIG.1) for executing the process of FIG. 2 is represented in FIG. 3."); Col. 8:32-34 ("the system of FIG. 3 illustrates elements of the switch SW of FIG. 1 for processing an individual call.").

B.1.1. "means to test compliance with said conditions to further control said interconnect switch means"

[43] Again, the parties agree that the "means to test compliance" element in claim 2 of the '285 patent is a means-plus-function element. The parties also appear to agree on the meaning of the functional language. Where the parties disagree, however, is the corresponding structure disclosed in the '285 patent for performing the recited function. Verizon alleges that the corresponding structure is the testing section 18 of the switch SW-namely, control unit 66, test control logic 72, and time test logic network 94, history test logic network 100, or demographics test logic network 102. Verizon Brief at 54. According to Katz, the corresponding structure includes "any of the following and their equivalents: Fig. 1 item 18 (testing section), Processor P; Figure 3, items 66, 72, 94, 100, 102." Katz Brief at 62. Katz adds that time clock 92 is also corresponding structure to the extent that a test is time-based.

For the reasons stated in its Claim Construction Brief, the Court adopts, with slight modification, Verizon's asserted recitation of structure that corresponds to the "means to test" element in claim 2 of the '285 patent. Specifically, the "means to test" structure is control unit 66, test control logic 72, and time test logic network 94 (and time clock 92), history test logic network 100, or demographics test logic network 102. From Figure 3, it appears that time clock 92 provides time signals to the time test logic network 94 to enable time-based comparisons. As to Katz' contentions, the specification does not clearly link the processor (P) to the recited function. In addition, Katz' assertion that "any" of the structures it identifies alone can perform the recited function does not appear to be appropriate, as for example more than just a logic network is necessary to

"further control" the interconnect switch. *See* Micro Chem., 194 F.3d at 1258 ("[35 U.S.C. s. 112, para. 6 does not] permit incorporation of structure from the written description beyond that necessary to perform the claimed function.").

B.1.m. "one of said test means comprises means for executing a test based on the time of a call"

As to the above-identified limitation, the parties dispute only the structure corresponding to this means-plus-function element. According to Katz, the corresponding structure is testing section 18, time clock 92 combined with one or more of control unit 66, test control logic 72 or time test logic network 94. Verizon alleges that the corresponding structure is test control logic 72 and time test logic network 94.

The structure disclosed in the specification for "executing a test based on the time of a call" includes test control logic 72, and time test logic network 94, and time clock 92. The reasoning set forth above for the "means to test" element of claim 2 applies equally to the identification of structure as to this limitation.

B.2. U.S. Patent No. 5,917,893

B.2.a. "selection means"

[44] The parties dispute the meaning of certain language in the functional limitation of "selection means." Verizon alleges that the function of the selection means is "selecting a select data format from the plurality of formats under control of said signal-represented call data indicative of called DNIS." Verizon Brief at 61. Katz does not appear to disagree with this interpretation. Indeed, the main issues between the parties distill down to the effect of certain limitations relating to the "select data format." In addition, as discussed below, the Court disagrees with the structure corresponding to the selection means identified by the parties in the Joint Claim Construction and Prehearing Statement.

B.2.a.1. Functional Language

Verizon alleges that the "imposed condition to execute certain operations of said select data format" must be met before a call is connected to the multiple format processor. Verizon Brief at 61.

Verizon's asserted interpretation appears to contravene the plain meaning of the claim language and, contrary to the teachings of the Federal Circuit, to import limitations from the specification into the claims. The plain meaning of the claim language merely requires that the imposed condition associated with the "select data format" be met before execution of "certain operations" of the format. Moreover, the claim language is silent as to when the connection of the call to the processor is established relative to satisfaction of the imposed condition. While Verizon is correct that, in certain embodiments disclosed in the specification, the imposed conditions are satisfied before calls are connected to the multiple format processor, this alone does not appear to justify altering the plain meaning of the language in claim 59. Additionally, Verizon's reliance on the prosecution history associated with the '893 patent is insufficient to overcome the heavy presumption that the plain and ordinary meaning of the claim language should be applied.

Verizon further alleges that "verifying an instant call ... against a file to limit or prevent access ... to said one format from callers listed on said file" means "to limit or prevent access to the format from any callers listed in the file." Verizon Brief at 62. Verizon's asserted interpretation, argues Katz, incorrectly limits the claim to so-called "negative" files that identify disqualified callers, and does not read on so-called "positive" files

that identify callers specifically allowed to proceed with all or part of a given format. Katz Brief at 68-69. Verizon's interpretation, according to Katz, also ignores the term "limit."

The term "to limit or prevent access ... to said one format" means to deny access to part or all of the format. As Katz indicates, Verizon's asserted interpretation appears to give no effect to "limit" in the claim language. Webster's defines "limit" as "to restrict to set bounds or limits." Webster's Ninth New Collegiate Dictionary at 693. The American Heritage Dictionary defines "limit," in relevant part, as "to confine or restrict within a boundary or bounds." *The American Heritage Dictionary of the English Language* 1015-16 (4th ed.2000).

The limitation "verifying an instant call ... against a file to limit or prevent access ... to said one format from callers listed on said file" means determining whether to limit or prevent access to the format based on the callers listed in the file. As interpreted by the Court, the limitation includes both "negative" and "positive" files. The instant issue appears to distill down to the meaning of "from callers listed on said file." Verizon appears to interpret this language to require that the verifying be performed to deny partial or complete access *to* callers listed on the file. As is most relevant from the context in which the claim employs the word, the American Heritage Dictionary defines "from" in part as "used to indicate a source." The American Heritage Dictionary at 706; *see also* Webster's Ninth New Collegiate Dictionary at 494. Accordingly, the Court's interpretation appears to be more consistent with the plain meaning of the claim language and the specification, which teaches both "positive" and "negative" files. *See* '893 patent, Col. 7:17-25 ("another test involves a record as for example directed to the station identified by the calling number.... the record might take the form of either a negative or a positive file (for an individual format).... Generally, in the case of a negative file, certain numbers are recorded that are to be denied access to a particular operating format. In the case of a positive file, access to the operating format is available only to calling numbers listed-in the file.").

B.2.a.2. Corresponding Structure

The parties agree that the structure that corresponds to the selection means element is "selection section 16 and condition testing section 18, including control unit 66, and software to perform the claimed function." Verizon Brief at 62.

As discussed above, the function of the selection means is to select a format based on "signal-represented call data." The other limitations, defining imposed conditions, qualify the formats and do not appear to add any functional limitations to the selection means. As such, the corresponding structure is only that structure necessary to perform the function of "selecting a select data format." Accordingly, the corresponding structure is control unit 66 (including software to perform the claimed function), control register 70, and look-up table 84. *See* Section IV.B.1.h., *supra*.

B.2.b. "test means"

Except as the meaning and ramifications of "coupled to" (*see* Section IV.A.1.h.2., supra), the Court adopts the construction, advanced by Verizon, of the functional language associated with "test means." As to corresponding structure, the Court's analysis in Section IV.B.1.1, *supra,* of this Order provides the structure that corresponds to the "test means" element in claim 59 of the '893 patent.

B.2.c. "processing means"

The parties agree that "processing means" is a means-plus-function element, but disagree as to the corresponding structure. Verizon alleges that the corresponding structure is the multiple port, multiple format processor and associated software, while Katz contends that the corresponding structure may alternatively be control unit 66 and associated software.

The structure corresponding to "processing means" is the multiple port, multiple format processor and software for performing the recited function. Katz' contention is unavailing, as the specification does not clearly link control unit 66 to the "processing means" function, regardless of whether the control unit can perform the function. Moreover, the specification does not describe the control unit 66 as "executing certain operations of said select format under control of [the] approval signals."

B.2.d. "wherein said processing means performs certain preliminary processing operations before testing of said imposed condition"-Claim 66

Verizon asserts that the limitation provided by dependent claim 66 requires that the structure corresponding to the "processing means" further include control unit 66. Katz does not appear to dispute Verizon's contention.

The additional functional language renders control unit 66 as additional structure corresponding to the processing means element. The preliminary operations appear to be operations such as distinguishing between operator-assisted and automated calls, determining the availability of live operators, validity bit tests, and the like. *See, e.g.,* '893 patent, Col. 5:39-Col. 6:12. The specification appears to teach that control unit 66 carries out such preliminary processing operations. *See, e.g.,* '893 patent, Col. 11:57-61.

C. The Format Qualification Patent Claims

Similar to the other categories, the Format Qualification Patents disclose an interactive call processing system that includes an automatic call distributor that queues calls received from the telephone network and distributes the calls to one of multiple processing systems for processing. The patents describe a two-phase process for handling calls: a qualification phase and a data gathering phase. The qualification phase determines a caller's entitlement to continue on to the data gathering phase. A variety of conditions can be imposed during the qualification phase, such as simply calling at a certain time, providing a valid credit card, calling from a requisite area code, presenting a valid ID code, etc. The data gathering phase involves an interactive session with the caller during which the system asks the caller for input. An exemplary data gathering operation may be to gather health related information from callers, or to process an order for goods at a mail order facility. The Format Qualification Patents also disclose subsequent processing of the gathered data to isolate a subset of callers for specific analysis. The representative claims asserted by Katz are claims 31 and 44 of the '863 patent; claim 21 of the '551 patent; claim 69 of the '762 patent; claims 1 and 13 of the '065 patent; and claim 5 of the '134 patent.

C.1. U.S. Patent No. 5,815,551

C.1.a. "plurality of call distributors, wherein said plurality of call distributors are located at different geographic locations"

[45] Verizon alleges that each of the call distributors in the "plurality" must be located in a different place. Verizon Brief at 80. Katz does not appear to respond to Verizon's contention.

The above-identified limitation requires that at least one call distributor in the "plurality of call distributors" be located at a different geographic location from at least one other call distributor. The Court refuses to adopt Verizon's interpretation, as it appears to be narrower than the common meaning of the claim language. *See* Rexnord, 274 F.3d at 1342 (claim terms should generally be given full range of ordinary meaning).

C.1.b. "operator terminal"

[46] Verizon alleges that "operator terminal" means "hardware and software used by an operator to send and receive voice and data." Verizon Reply Brief at 21. According to Katz, "operator terminal" should be construed as "an input-output device (attended by a human communicating with a caller) designed to receive data in an environment associated with the job to be performed and capable of transmitting entries to and obtaining input from the system of which it is a part." Katz Brief at 77. Both Verizon and Katz assert that their asserted interpretations are consistent with the plain meaning of "operator terminal" as understood by one of ordinary skill in the relevant art. *See, e.g.,* Waite 1/14/03 Decl. para.para. 28-30; Hopenfeld 1/15/03 Decl. Ex. 3.

The term "operator terminal" means "an input-output device, for use by a human operator, capable of transmitting data to and obtaining input from the system to which it is connected." The Court's interpretation is consistent with the ordinary meaning of the claim language. Other language in claim 21 further limits "operator terminal." For example, the language of claim 21 requires that "operator terminal" have telephonic communication capabilities, *see* Col. 23:41-42 ("for use by a person to communicate through the telephone facility;"), and that it have the ability to provide data to the central memory. *See* Col. 23:59-61 ("the operator terminal providing other data entries to the central memory to update data relating to the caller."). The specification of the '551 patent does not suggest a contrary definition. Indeed, the description of the structure and functions of the operator (interface) terminal in the '551 patent is somewhat sparse. However, the specification of the '551 patent informs us that an operator terminal, according to the disclosed embodiment, 1) is connected to the processing systems P1-Pn; 2) allows operators to directly communicate with callers; and 3) appears to allow operators to manually enter data during interactions with callers. *See* '551 Patent, Col. 4:37-40 ("the processing systems P1-Pn are interconnected with a command computer terminal CT, at least one interface terminal IT, at least one printer PR and an audio unit AD."); Col. 5:18-24 ("In the disclosed embodiment, the processors PR1-PRn are connected collectively to the command computer terminal CT (incorporating a CRT display), the interface terminal IT, and the printer PR."); Col. 5:53-57 ("Either during the data accumulation phase, or after the processing phase to isolate a subset, a distinct operation may involve actuating the interface terminal T1 [sic] for direct local communication between the caller and an operator at the terminal T1 [sic]."); Col. 7:13-17 ("In an alternative mode, the processor PR1 may abort the interface and couple the interface terminal IT for direct personal communication with the caller. The interchange would then proceed, person-to-person."); Col. 10:43-50 ("Either before or after qualification, the caller might be advised that if he prefers to communicate directly with a person, or needs such contact at any point in the communication, he may accomplish it simply by pushing the asterisk button (*) at the terminal T1. Such action forms an abort signal that is detected by the processing unit 92 to transfer the communication to the interface terminal IT (FIG.1)."); Col. 11:6-10 ("Note that the caller may not be identified in the files of the mail-order house and in that event, the operation may be shifted to a manual operation to be continued through the interface terminal IT (FIG.1) as explained above."); *see also* Col. 19:46-48 ("Thus, the format defines a subset then further selects a sub-subset of winners. In any of the various formats, the status of the analysis can be televised by selecting a camera focused on the interface terminal IT.").

C.1.c. "interface switching structures"

[47] Verizon alleges that "interface switching structures" in claim 21 of the '551 patent is subject to means-plus-function analysis under 35 U.S.C. s. 112, para. 6. Katz disagrees, reasoning that "interface switching structure" connotes sufficiently definite structure to one of ordinary skill in the art. *See* Lucantoni 1/15/03 Decl. para. 25. Rather, "interface switching structure," Katz contends, means "a device including hardware and associated software that can connect the Katz system to the telephone facility such that information from the telephone facility and remote terminals may be provided to and received by the Katz system, and that can switch or route telephone calls or signals from one location or connection to another." Katz Brief at 81.

The absence of the word "means" shapes the remainder of the analysis, invoking a presumption that "interface switching structure" should not be construed as a means-plus-function element. Mas-Hamilton, 156 F.3d at 1213. The Federal Circuit nevertheless requires an inquiry as to whether the claim language recites sufficiently definite structure or a mere "function to be performed." *Id.;* CCS Fitness, 288 F.3d at 1369. In addition, recent Federal Circuit case law clarifies that Verizon has the initial burden to come forward with evidence to rebut the presumption. *See* Apex, supra, 325 F.3d at 1372. Accordingly, Verizon must show that "the limitation, as understood by one of ordinary skill in the art, demonstrates that the claim term fails to recite sufficiently definite structure or else recites a function without reciting sufficient structure for performing that function." Apex, 325 F.3d at 1373.

Verizon alleges that, while the terms "interface structure" or "switching structure" may connote sufficiently definite structure, the term "interface switching structure" has no generally understood meaning in the art and, thus, fails to connote sufficiently definite structure. Verizon Suppl. Brief at 2; Waite 1/14/03 Decl. para. 43. Verizon further alleges that the term "interface switching structure" fails to recite sufficient structure for performing the recited function of "receiving called terminal digital data (DNIS) signals automatically provided by the telephone facility to identify the select operating format." *See* Verizon Brief at 81; Verizon Suppl. Brief at 3; Waite 1/14/03 Decl. para.para. 35, 43. Verizon also alleges that interpreting the "interface switching means" as a means-plus-function element is consistent with the '551 patent specification, which does not specifically disclose an "interface switch" or the function of interface switching. *See* Verizon Brief at 82. Furthermore, the structures that most closely correspond to "interface switching," according to Verizon, are two separate structures-namely, interface 20 and switch 21. *See also* Verizon Suppl. Brief at 3.

The parties have cited a number of technical references defining the terms "interface," "switching" and "switch" to aid the Court's analysis of "interface switching structure." *See, e.g.,* Rooklidge 5/12/03 Decl. Ex. 1; Lucantoni 5/12/03 Decl. Exs. A & B. The '551 patent appears to use the term "switch" and "switching" in a manner consistent with its ordinary meaning in the art. *See, e.g.,* Rooklidge 5/12/03 Decl. Ex. 1 (SWITCH: A mechanical, electrical or electronic device which opens or closes circuits, completes or breaks an electrical path, or selects paths or circuits."). In addition, based on these definitions the term "switching structure," standing alone, appears to have a well understood meaning in the art as a name for structure and therefore connotes "sufficiently definite structure" to avoid application of 35 U.S.C. s. 112, para. 6. In addition, it appears that the '551 patent uses the term "interface" in a manner consistent with its ordinary meaning.FN11 *See* Lucantoni 5/12/03 Decl. Ex. B ("interface" means "2. A shared boundary between two functional units defined by specific attributes, such as functional characteristics, common physical interconnection characteristics, and signal characteristics. 3. A point of communication between two or more processes, persons, or other physical entities."); *see also* Rooklidge 5/12/03 Decl. Ex. 1 ("INTERFACE: 1. A mechanical or electrical link connecting two or more pieces of equipment together.").

FN11. Although the disclosed embodiment in the '551 patent describes an interface 20 having extended capabilities beyond merely providing the point of connection for calling terminals, *see, e.g.,* '551 patent, Col. 4:48-65, this is not sufficient to rebut the heavy presumption that the ordinary meaning of "interface" should be applied at least in the context of the term "interface switching structure."

In light of the foregoing, the term "interface switching structure" connotes sufficiently definite structure to avoid the interpretational mandates of 35 U.S.C. s. 112, para. 6. As both parties appear to agree, the term "switching structure" enjoys a well understood meaning as a name for structure to one of ordinary skill in the art. *See* Lucantoni 5/12/03 Decl. para. 3, Ex. A. In addition, "interface," as a qualifying term, does not affect the sufficiency of the recited structure, but "further narrows the scope of those structures covered by the claim and makes them more definite," requiring that the interface switching structure provide a point of communication between the Katz system and the remote terminals connected to the communication facility. Apex, 325 F.3d at 1374. In addition, it appears that the term "interface switching structure" connotes sufficient structure to perform the function of receiving DNIS signals to select an operating format. *See* Lucantoni 5/12/03 Decl. para. 8. In the absence of more compelling evidence, the presumption that "interface switching structure" is not a means-plus-function element stands. Apex, 325 F.3d at 1373; *see also* CCS Fitness, 288 F.3d at 1370 ("a term need not connote a precise physical structure in order to avoid the ambit of that provision."); *See also* Rodime, supra, 174 F.3d at 1304; Altiris, 318 F.3d at 1376. Accordingly, "interface switching structure" means a device including hardware and associated software that can connect the Katz system to the telephone facility such that information from the telephone facility and remote terminals may be provided to and received by the Katz system, and that can switch or route telephone calls or signals from one location or connection to another.

C.1.d. "connected to"

[48] Verizon alleges that the term "connected to" as used in claim 21 of the '551 patent requires that the interface switching structures be separate from, but joined to, the call distributors and the operator terminal for electrical communication. *See* Verizon Brief at 81. The term "connected to" merely requires, Katz contends, that the structures be "joined together or link" and does not require that the elements be physically separate from one another.

"Connected to" means joined together or linked. *See* Lucantoni Decl. para.para. 9-11, Exs. 4, 5; *see also* Webster's Ninth New Collegiate Dictionary at 278 ("connected" means "joined or linked together ... having the parts or elements logically linked together."). "Connected to" does not require that the call distributors must be physically separate from the "interface switching structures" or the "operator terminal." *See* Rexnord, 274 F.3d at 1342 ("unless compelled to do otherwise, a court will give a claim term the full range of its ordinary meaning as understood by an artisan of ordinary skill.") (citations omitted). However, it appears from the context and plain meaning of the language in claim 21 that at least one of the interface switching structures must be physically separate from the operator terminal, since the claim refers only to a single operator terminal and requires that the interface switching structures be disposed in different geographic locations.

C.1.e. "processing means"

[49] The parties agree that "processing means" in claim 21 of the '551 patent is a means-plus-function limitation, but disagree as to the interpretation of the associated functional limitations and the scope of the

corresponding structure.

C.1.e.1. Functional Limitations

The functional limitations associated with processing means are: 1) receiving customer number data entered by a caller, 2) storing the customer number data in a central memory, 3) coupling an incoming call to the operator terminal based on the occurrence of a condition, and 4) "visually displaying" the customer number data. It appears from the parties' briefs, that Verizon and Katz dispute the meaning of "visually displaying." In an apparent attempt to avoid additional structure, such as a display, from falling into corresponding structure, Katz asserts that "visually displaying" means presenting data to a terminal. Katz Brief at 80-81.

Here, "visually displaying" means "making something viewable on a display device." The Court's construction is consistent with the plain and ordinary meaning of the language. Katz's asserted interpretation, merely requiring the transmission of data signals to a terminal, appears to contravene the plain meaning of the terms.FN12 Webster's defines "display," in relevant part, as "to put or spread before the view." Webster's Ninth New Collegiate Dictionary at 365; *see also* American Heritage Dictionary at 521 ("display," in relevant part, means "to provide (information or graphics) on a screen."). The term "visually" underscores this requirement. *See* Webster's Ninth New Collegiate Dictionary at 1318 ("visual" means "visible"); *see also* The American Heritage Dictionary at 1924 (visual means "seen or able to be seen by the eye; visible."). In addition, the specification does not suggest a contrary interpretation. *See* '551 patent, Col. 5:22-24 ("the CRT display serves to visually display data regarding select subsets as explained in detail below.").

FN12. Katz's contention does have some appeal in that, in the context of claim 21 of the '551 patent, the limitation " visually displaying the customer number data" appears upon a cursory review of the claim language to refer to visually displaying the customer number data on the operator terminal, rendering its asserted interpretation more plausible. However, the plain meaning of the claim language merely requires "visually displaying the customer number data" and is not specific to any display device. Furthermore, regardless of the presence of the operator terminal in claim 21, as discussed above, Katz's asserted interpretation, and the supporting extrinsic evidence it sights (e.g., "screen pops"), appear to be inconsistent with the plain meaning of the claim language.

Katz interpretation of visually displaying appears to contravene the ordered analysis contemplated by the Federal Circuit. Specifically, the Federal Circuit instructs that construction of the functional language in a means-plus-function element drives the determination of corresponding structure. Harley-Davidson, 250 F.3d at 1376. Here, it appears that Katz has conducted the analysis in reverse order. *See* Katz Brief at 81 ("It follows from Katz's identification of structure that the processing means "displays" data by presenting it to a terminal.").

C.1.e.2. Corresponding Structure

Given the functional limitations identified above, the structure in the specification of the '551 patent linked to the processing means is at least one processor PR1-PRn, command CRT computer display terminal CT, the lines connecting the processor(s) to the display terminal, and the lines connecting the processor(s) to the interface terminal IT. The '551 patent links the processing units PR1-PRn as performing the functions of receiving customer number data entered by a caller, storing the customer number data in a central memory, and coupling an incoming call to the operator terminal based on the occurrence of a condition. *See, e.g.,*

'551 patent, Col. 6:55-63 ("the caller would push the buttons 14 in sequence to indicate his telephone number, e.g. "(213) 627-2222".... The resulting data signals are communicated from the interface unit 20 (FIG.1) to the processor PR1 for testing the telephone number as valid or entitled."); Col. 7:52-54 ("a proper response is registered in the storage cell C1."); Col. 7:1-17 ("If the caller is again unsuccessful, the system purges the record as indicated by the block 50 and the call is terminated as indicated by the block 52. In an alternative mode, the processor PR1 may abort the interface and couple the interface terminal IT for direct personal communication with the caller."). The specification clearly links the "visually displaying" function to the command CRT display terminal. *See* Col. 5:22-24 ("the CRT display serves to visually display data regarding select subsets as explained in detail below."). In addition, according to the reasoning of *Asyst,* the corresponding structure further comprises the transmission line between the processor(s) and the command CRT display terminal. 268 F.3d at 1372. Lastly, the corresponding structure further includes the transmission line connecting the processor(s) to the interface terminal. The functional language "coupling ... based on a condition" requires conditional coupling of calls to the interface terminal. Unlike the functions in *Asyst* (*i.e.,* receiving and processing data), the transmission lines in combination with the processor performs the recited function of conditionally coupling calls to the interface terminal.

C.1.e.3. Verizon's Separate Structures Argument

Verizon asserts that "connected to" requires that the processing means be separate but joined to the plurality of interface switching structures for electrical communication. As discussed in Section IV.C.1.d., above, Verizon's argument is unavailing.

Verizon also alleges that the processing means function of coupling calls to the operator terminal require it to be separate from the operator terminal. Verizon reasons that the processing means cannot literally couple calls to itself. Verizon Brief at 84. Katz asserts that the plain meaning of coupling entails no requirement that the operator terminal be separate from the processing means. The Court infers from Verizon's contentions that it is maneuvering to exclude from the claims a system where the processing means is physically integrated with the operator terminal.

[50] The limitation "coupling an incoming call to the operator terminal" means connecting a call to the operator terminal, and does not require that the processing means and the operator terminal be embodied in physically separate structures. The plain meaning of the claim language calls for a combination of elements arranged as defined in the limitations of the claim. The defined arrangement, however, does not appear to require the separation of the claim elements in distinct physical structures or exclude the physical integration of the claim elements, except as mentioned above. The processing means will remain just that regardless of whether it is physically integrated with the operator terminal. In addition, the physical integration of the two elements in a single structure does not appear to prevent the processing means from "coupling" incoming calls to the operator terminal. Moreover, accepting Verizon's asserted interpretation would mean that any accused infringer could escape literal infringement where a claim calls for two "coupled" or "connected" elements by simply combining the two elements in a single physical structure.

C.2. U.S. Patent No. 6,148,065

C.2.a. "means for receiving called terminal digital data (DNIS) signals automatically provided by said telephone facility to identify said select operating format from a plurality of distinct operating formats and for receiving caller telephone number data from said telephone facility"

[51] The parties agree that the "means for receiving" element invokes application of 35 U.S.C. s. 112, para.

6. The parties disagree, however, on the scope of the structure that corresponds to the "means for receiving." Specifically, Verizon asserts that the corresponding structure should include switch 21 due mainly to the alleged lack of clarity in the '065 patent as to which components use dialed-number signals to select a format. *See* Verizon Brief at 86-87.

The structure corresponding to the "means for receiving" element in claim 1 of the '065 patent is the interface 20 and the call data analyzer 20a. Although the '065 patent is unclear as to which component selects formats based on called-number identification signals, the interface 20 and the call data analyzer 20a receive both the called-number data signals and caller number data, since they are described as including DNIS and ANI capabilities. *See* '065 patent, Col. 4:50-56 ("Considering the processing system Pl, fifty lines from the automatic call distributor ACl are connected to the interface 20, an exemplary form of which may be a commercially available Centrum 9000 unit. The interface 20 incorporates modems, tone decoders, switching mechanisms, DNIS and ANI capability (call data analyzer 20a) along with voice interface capability."). However, due to this lack of clarity, the specification does not clearly link the switch 21 as identifying a select operating format based on called-number identification signals. Rather, the '065 patent teaches that the switch 21 connects calls to selected processors. *See, e.g.,* Col. 6:40-46 ("Receiving the call signal, the automatic call distributor ACl associates the called number ((213) 627-3333, rendered available using standard telephone DNIS techniques) through the interface 20 and the switch 21 to attain connection with the specific processor."); Col. 10:40-48 ("As a result, the communication facility C couples the terminal T1 through the automatic call distributor ACl, the interface 20 and the switch 21 to a select processor PRl identified and programmed for a mail-order operating format. Note that the communication facility C provides the dialed number ("(213) 627-4444") to the processing system Pl through well known telephonic equipment DNIS. Accordingly, a program is selected to execute the mail order interface.").

C.2.b. "operator terminal"

The term "operator terminal" means "an input-output device, for use by a human operator, capable of transmitting data to and obtaining input from the system to which it is connected." *See* Section IV.C.1.b., *supra* (discussing operator terminal in the '551 patent).

C.2.c. "interface switching means" (Claims 1 and 13)

Similar to the dispute concerning "interface switching structure" in claim 21 of the '551 patent, the parties disagree as to whether "interface switching means" falls within the ambit of 35 U.S.C. s. 112, para. 6.

As discussed above, a presumption exists that interface switching means is a means-plus-function element, as the element uses the "means" language and is linked to the function of "receiving incoming calls." *See* Rodime, supra, 174 F.3d at 1302-03. However, the terms "interface" and "switching," in combination with "means," connote sufficient structure for performing the recited function of "receiving incoming calls" to rebut the presumption. *See* Section IV.C.1.c., *supra*. Accordingly, "interface switching means" means a device including hardware and associated software that can connect the Katz system to the telephone facility such that information from the telephone facility and remote terminals may be provided to and received by the Katz system, and that can switch or route telephone calls or signals from one location or connection to another.

C.2.d. "computer means"

[52] The parties disagree as to whether "computer means" should be interpreted as a means-plus-function

element. Although computer connotes structure, it is insufficient, Verizon alleges, to perform the recited function of connecting calls to an operator terminal. *See* Verizon Brief at 75.

C.2.d.1. Applicability of Mean-Plus-Function Analysis

As discussed above, use of "means" in claim 1 of the '065 patent invokes a presumption that "computer means" is a means-plus-function element and, thus, places the burden on Katz of going forward with evidence to rebut the presumption. Apex, 325 F.3d at 1372. As *Apex* instructs the analysis must focus on "whether the claim term recites no function corresponding to the means or recites sufficient structure or material for performing that function." *Id*. Here, the claim language clearly recites at least one function to be performed (e.g., "connecting an incoming call by a caller to said operator terminal based on a condition"), requiring an identification of the claimed function(s) and analysis as to whether the claim element recites sufficient structure for performing the function(s). Rodime, 174 F.3d at 1302-03; Apex, 325 F.3d at 1373.

The structure recited in the claim element, a computer, does not appear to be sufficient, standing alone, to perform the recited functions. The functions associated with the computer means appear to include: 1) connecting an incoming call by a caller to said operator terminal based on a condition, and 2) visually displaying customer data on a selected customer. Verizon alleges that the recitation of structure in claim 1 of the '065 patent is insufficient as transmission lines are further required to connect incoming calls to the operator terminal. Katz appears to contend that the analysis should end upon the determination that "computer" connotes sufficiently definite structure.FN13 *See* Katz Reply Brief at 26. Although a computer is sufficient to detect a condition and visually display customer data, a computer standing alone does not appear to connote sufficient structure necessary to connect incoming calls to an operator terminal. Rather, it appears that a transmission line between the computer and the interface terminal is required to connect- *i.e.,* join or link-incoming calls to the operator terminal. *See* Waite 1/14/03 Decl. para. 33; Lucantoni 1/14/03 Decl. Exs. 4, 5 (definitions for "connect"). Accordingly, "computer means" in the context of the claim appears to refer to some computerized means of performing the recited functions and therefore invokes application of 35 U.S.C. s. 112, para. 6. FN14

FN13. Here, the term "computer" connotes sufficiently definite structure to one of ordinary skill in the art. However, as *Apex* and the cases it cites instruct, where an element uses the term "means" and recites a function to be performed, a determination must nevertheless be made whether the structure is sufficient to perform the recited functions. *See* 325 F.3d at 1373 (" The threshold issue for all the limitations involving the term "circuit" is whether the term itself connotes sufficient structure to one of ordinary skill in the art *to perform the functions identified by each limitation*.") (emphasis added). At the Claims Construction Hearing, Katz alleged that *Apex* supported its position since the Federal Circuit did not address the function corresponding to interface circuit once "sufficient structure" was found; however, in *Apex,* it appears that there was little or no question that an "interface circuit" connotes sufficient structure for receiving signals from peripheral devices.

FN14. The Court does note that the practical result of requiring transmission lines is rather curious, as the mere absence of the word "means" would most likely have changed the analysis and outcome entirely. However, the Court cannot ignore the term "means," the presumption it entails, and the requirements the Federal Circuit has set out for rebutting this presumption.

C.2.d.2. Corresponding Structure

Verizon alleges that the structure corresponding to "computer means" is "processors PR1-PRn, the transmission line connecting processors PR1-PRn to interface terminal IT, and command computer terminal CT." Verizon Brief at 88. Katz, on the other hand, contends that the corresponding structure can be either "processors PR1-PRn and the line connecting them to the command CRT computer display terminal," or "central processing unit 251, the display at the interface terminal, and the line connecting them." Katz Brief at 79.

The structure corresponding to computer means includes processors PR1-PRn, the command CRT computer display terminal, and the lines connecting the processors to interface terminal IT and the command CRT computer display terminal. The '065 patent also appears to identify alternative corresponding structure. Specifically, the '065 patent specification appears to identify the interface terminal IT as capable of visually displaying customer data on a selected customer. *See* '065 patent, Col. 19:63-65 ("the status of the analysis can be televised by selecting a camera focused on the interface terminal IT."). Accordingly, the corresponding structure alternatively includes processors PR1-PRn, interface terminal IT, and the lines connecting the processors to interface terminal IT. Katz also alleges that central processing unit 251 may be an alternative structure to processors PR1-PRn. However, it appears that the central processing unit 251 and the remainder of the embodiment depicted in Figure 9 of the '065 patent merely represent a redistribution of the same individual structural components identified in Figure 1 across different geographical locations. In any event, the specification fails to clearly link central processing unit 251 as performing the function of conditionally connecting a call to the operator terminal.

C.2.d.3. Separate Structures Argument

Verizon also alleges that "coupled to" requires the computer means to be physicallyseparate from the interface switching means. As discussed above, however, the plain meaning of "coupled to" does not require physically separate structures. *See* Sections IV. A.1.h.2., & C.1.e.3., *supra*.

C.2.d.4. Additional Limitations

Verizon proposes constructions for a number of additional limitations in the computer means element set forth above. *See* Verizon Brief at 88-89. Katz does not appear to challenge these constructions. The Court notes that Verizon's constructions appear to be consistent with the definitions adopted by the parties in connection with the '551 patent in the Joint Claims Construction Statement. To the extent that they are, the Court adopts them.

C.2.e. "means for receiving" (Claim 13)

For the reasons discussed above in connection with claim 1 of the '065 patent, the structure corresponding to the means for receiving limitation in claim 13 is interface 20 and call data analyzer 20a. *See* Section IV.C.2.a., *supra*.

C.2.f. "processing means" (Claim 13)

Katz and Verizon agree that the processing means limitation in claim 13 of the '065 patent is a means-plus-function element. *See* Joint Claim Construction and Prehearing Statement at 27.

The structure in the specification of the '065 patent corresponding to the processing means is at least one processor PR1-PRn, command CRT computer display terminal CT, the lines connecting the processor(s) to the display terminal, and the lines connecting the processor(s) to the interface terminal IT. The Court's analysis as to corresponding structure for the processing means in claim 21 of the '551 patent applies to the processing means limitation in claim 13 of the '065 patent. *See* Section IV.C.1.e.2., *supra*.

C.3. U.S. Patent No. 5,898,762

C.3.a. "credit verification structure to verify on-line said individual caller's customer number to determine said individual caller's credit"

Katz and Verizon disagree as to the meaning of certain limitations in the credit verification element and whether the credit verification structure falls within the ambit of 35 U.S.C. s. 112, para. 6.

C.3.a.1. "to determine said individual caller's credit"

[53] Verizon alleges that "to determine the individual caller's credit" means "to determine whether the caller has enough available account resources to access the format." Verizon Brief at 92. Katz asserts that "credit" enjoys a much broader meaning than determining the amount of credit associated with a given caller. Katz Brief at 93.

The limitation "to determine the individual caller's credit" means "to determine the caller's credit standing," and is not limited to determining whether a caller has sufficient account resources. The plain meaning of credit appears to enjoy a broad range of meanings, many of which are consistent with the use of "credit" in claim 41 of the '762 patent. *See* Moore 1/14/03 Decl. Ex. 26 ("1 a: the balance in a person's favor in an account; also: an amount or limit to the extent of which a person may receive goods or money for payment in the future ... STANDING ... financial or commercial trustworthiness") (emphasis in original); *see also* Texas Digital, 308 F.3d at 1203 ("If more than one dictionary definition is consistent with the use of the words in the intrinsic record, the claim terms may be construed to encompass all such consistent meanings."). The Court's interpretation is consistent with the '762 patent specification which discloses determining a caller's credit without determiningan amount of available credit. *See* '762 patent, Col. 11:26-35 (checking credit card account against negative file).

C.3.a.2. Applicability of Means-Plus-Function Analysis

[54] Katz and Verizon disagree as to whether credit verification structure is a means-plus-function element.

As the element does not include "means," the burden is on Verizon to produce evidence and provide an analysis demonstrating that credit verification structure fails to connote sufficient definite structure or recites a function without reciting sufficient structure to perform that function. Apex, 325 F.3d at 1373. Verizon alleges that "credit verification structure" has no generally understood meaning to one of ordinary skill in the art. Waite 1/14/03 Decl. para. 38.

The term credit verification structure is a means-plus-function element as the term fails to connote sufficiently definite structure. Like "member" and "element," *see* Mas-Hamilton, 156 F.3d at 1213-15, the term "structure" is a generic term that connotes no particular structural meaning to one of ordinary skill in the art. *Cf.* Apex, 325 F.3d at 1373 (discussing "circuit"). The qualifying terms "credit" and "verification" do not appear to add structural significance in combination with the term "structure." Rather, "credit" has been

defined above and, in this context, relates to the function to be performed. "Verification" is essentially functional as well, defined by The American Heritage Dictionary, in relevant part, as "the act of verifying." American Heritage Dictionary at 1911; accord Webster's Ninth New Collegiate Dictionary at 1310 ("verification" means "the act or process of verifying"). Furthermore, the specification of the '762 patent does not expressly or implicitly define "credit verification structure" in a manner that suggests or connotes sufficiently definite structure to one of ordinary skill in the art. Indeed, the written description of the '762 patent does not contain the term at all. Katz's reference to the disclosure of credit verification technologies in U.S. Patent No. 4,792,968 merely demonstrates that, according to inventor Katz, structures for performing credit verification were well known in the art, but does not demonstrate that "credit verification structure," as a name for a structure or type of structure, has a reasonably well understood meaning in the art. *See* Apex, 325 F.3d at 1372 (citing Greenberg v. Ethicon Endo-Surgery, Inc., 91 F.3d 1580, 1583 (Fed.Cir.1996)). In addition, the conclusory statements in Dr. Lucantoni's declaration are insufficient to establish that "credit verification structure" enjoys a reasonably understood meaning in the relevant art.

C.3.a.3. Corresponding Structure

The structure corresponding to the credit verification structure element is one or more processors PRl-PRn including processing unit 92, qualification unit 93, buffer 97 and memory 98 implementing the storage cell format 104. *See,* e.g., '762 patent, Col. 10:59-61 ("The caller's response, indicating a specific credit card, will be stored in a data cell; however, the data is developed initially in the buffer 97."); Col. 11:17-25 ("To continue with the explanation of the automated format, assume that the customer has a file customer number and that it is stored in the block format register 104 along with his credit card number and expiration date. From that location, the data is checked by the qualification unit 93 (FIG.4) for propriety as part of the test or qualification phase of operation. The check or test is in two stages and both are performed during an interval designated t1, the qualification unit 93 operating under control of the processing unit 92."). As to Verizon's contentions relating to corresponding structure, the specification does not support the alternative structures identified by Verizon. In addition, although the '762 patent refers to a negative list as an aspect of determining credit, the written description of the '762 patent does not clearly link the look-up table 99 to the function of verifying customer numbers to determine caller credit.

C.3.b. "record structure including memory and control means connected to said interface structure to receive and store data provided by said individual callers"

Verizon alleges that the term "connected to" requires that the record structure be separate from the interface structure. Verizon Brief at 94-95. However, for the reasons discussed in Sections IV.A.1.h.2, & C.1.d., *supra,* the term "connected to" does not appear to require that the connected elements by embodied in physically separate structures.

C.3.c. "central processing station coupled to said record structure to receive accumulated data on said individual callers"

Verizon proposes a construction, which Katz does not appear to oppose. Verizon Brief at 95.

Except as to Verizon's asserted interpretation of "coupled to," the Court adopts Verizon's asserted interpretation.

C.4. U.S. Patent No. 5,684,863

C.4.a. "means to receive called number identification signals (DNIS) automatically provided by said communication facility to identify a select one of a plurality of different called numbers associated with a select format of a plurality of different formats"

The structure corresponding to the means to receive element is interface 20 and call data analyzer 20a. *See* Section IV.C.2.a., *supra*.

C.4.b. switching structure coupled to said interface structure for switching certain select ones of said individual callers at said remote terminals to any one of a plurality of live operators"

Verizon alleges that "coupled to" requires that the switching structure be separate from, but electrically connected to the interface structure. The Court rejects this argument. *See* Section IV.A.1., *supra*.

C.4.c. "including"

In the context of claim 27 of the '863 patent, "including" means "having as a part or component," and does not exclude additional, unrecited elements. *See* Rooklidge 1/31/03 Decl. Ex. 4 ("include" means "to place ... as a part or component of a whole or of a larger group, class, or aggregate.").

C.4.d. "interface terminal"

The term "interface terminal" means "an input-output device, for use by a human operator, capable of transmitting data to and obtaining input from the system to which it is connected." *See* Section IV.C.1.b., *supra*.

C.4.e. "wherein said caller customer number data is tested to determine if caller status is unacceptable or cancelled"

Verizon alleges that the above-identified limitation means "checking whether the caller is qualified based on whether the caller is approved for access or whether the caller's account is inactive." Verizon Brief at 99.

The Court finds that no construction of the language in the foregoing limitation is necessary, as the language appears to be used according to its plain and ordinary meaning. Verizon points to nothing in the specification or the prosecution history of the '863 patent that warrants an interpretation that deviates from the plain meaning of the language.

C.4.f. "call distributor"

[55] According to Katz, "call distributor" means "hardware and/or software to receive and have the capability to direct calls." Katz Brief at 74. Verizon appears to allege that "call distributor" means "a switch for routing calls." *See* Verizon Brief at 100.

"Call distributor" means "hardware and/or software to receive and have the capability to direct calls." *See* Lucantoni Decl. para. 29. This interpretation is consistent with the claim language and the specification. *See* '863 patent, Col. 4:15-31 ("the communication facility C is connected to the processing systems Pl-Pn through an associated series of automatic call distributors ACl through ACn. Each of the automatic call distributors ACl-ACn accommodates one hundred lines from the communication facility C and accordingly, may accommodate and queue up to 100 calls. Each of the automatic call distributors ACl-ACn may take

various forms as well known in the prior art, functioning to queue incoming calls for connection to a lesser number of lines. In the disclosed embodiment, from each of the call distributors ACl-ACn, fifty lines are connected respectively to the individual data processing systems Pl-Pn through an interface 20 and a switch 21. Thus, in the disclosed embodiment, each of the automatic call distributors ACl-ACn can accommodate one hundred lines, fifty of which may be active in association with one of the processing systems P.").

C.5. U.S. Patent No. 6,349,134

C.5.a. "interface units"

[56] Verizon alleges that the term "interface units" does not connote sufficient structure to perform the function of receiving called number identification signals. Verizon Brief at 102.

As the element does not include "means," the burden is on Verizon to produce evidence and provide an analysis demonstrating that the "interface unit" limitation recites a function without reciting sufficient structure to perform that function. Apex, 325 F.3d at 1373. Verizon proffers the opinion of Mr. Waite who concludes that the term "interface unit" does not connote sufficient structure to receive called number data signals. Waite 1/14/03 Decl. para. 41. However, as Verizon itself concedes, "interface unit" connotes some structure. Therefore, "[i]n the absence of any more compelling evidence of the understanding of one of ordinary skill in the art, the presumption that s. 112, para. 6 does not apply is determinative." Apex, 325 F.3d at 1373; *see also* Rodime, 174 F.3d at 1304 ("This court's case law, however, does not require such an exhaustive recitation to avoid s. 112, para. 6. Instead, the claim need only recite "sufficient" structure to perform entirely the claimed function.") (citations omitted).

C.5.b. "placed at spaced apart remote geographic locations"

[57] The limitation "placed at spaced apart remote geographic locations" when used to modify interface units, means that the interface units are not in the same place or location, and requires more than mere physical separation at the same location. The Court adopts Verizon's analysis. *See* Verizon Brief at 103.

C.5.c. Central Processor Limitations

C.5.c.1. "a central processor coupled to said plurality of interface units ... by communication lines of said telephone communication facility"

[58] Verizon alleges that the foregoing limitation should be construed to mean that the central processor must be separate from, but operatively connected to the interface units by the communication lines of the telephone communication facility. The Court agrees. The Court also notes, however, that the term "by communication lines of said telephone communication facility" suggests that the term "coupled to" has a broader meaning than that asserted by Verizon in connection with the Katz patents at issue.

C.5.c.2. "receiving at least certain identification data relating to said individual callers and testing the at least certain identification data to control access to at least certain operations of said selected format and utilizing the certain identification data to avoid prompting certain callers with a certain previously provided cue or cues and providing at least one other cue"

Verizon alleges that the above-identified limitation should be construed to mean "that the central processor receives data relating to the identity of the caller, uses the identification data provided by the caller to

determine whether to allow the caller to proceed with voice and digital communications, uses the identification data relating to the caller to prevent the caller from receiving any voice prompts that the caller received during a previous call, and provides the caller with an additional voice prompt." Verizon Brief at 107.

The Court disagrees with Verizon's contentions and asserted interpretation. As discussed above in Section IV.A.2.h., *supra,* Verizon's asserted construction appears to contravene the plain meaning of the claim language in that the claim merely requires controlling access to "certain operations of a selected format" and to avoid prompting callers with "a certain previously provided cue or cues." The above-identified limitation requires no further construction by the Court.

C.5.c.3. "also receiving other data provided by said individual callers in response to said one or more cues, at least certain other data provided by said individual caller via the digital input structure"

Verizon alleges that this limitation should be interpreted to mean that the data provided by the callers are touch tone responses "in response to one or more of the cues provided after the step of using the certain identification data to avoid prompting callers with a certain previously provided cue or cues." Verizon Brief at 109.

The plain language appears to require that at least some of the "other data" be touch-tone response data. In addition, the responses are responses to cues which as to some callers may be provided after the step of using certain identification data to avoid prompting callers with previously provided cues.

C.5.d. Storage Structure Limitation

According to Verizon, "storage structure" is not a means-plus-function element. Rather, "storage structure," according to Verizon, means "a device for retaining data for subsequent use." Furthermore, as used in claim 1 of the '134 patent, the term "addressing," contends Verizon, means "locating."The Court agrees with these aspects of Verizon's asserted interpretation. The remaining language in the storage structure limitation does not appear to require construction by this Court.

V. Conclusion

Having considered the papers filed in support of each party's claim construction, the evidence presented by the parties, the other pleadings and papers on file, and the oral argument at the Markman hearing, the Court gives each of the disputed terms the meanings stated in Section IV.