IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF TEXAS
DALLAS DIVISION

SPHERIX INCORPORATED, Plaintiff, v. VTECH TELECOMMUNICATIONS LTD and VTECH COMMUNICATIONS, INC., Defendants.	Civil Action No. 3:13-cv-3494-M JURY TRIAL DEMANDED
SPHERIX INCORPORATED, Plaintiff, v. UNIDEN CORPORATION and UNIDEN AMERICA CORPORATION, Defendants.	Civil Action No. 3:13-cv-3496-M JURY TRIAL DEMANDED

CLAIM CONSTRUCTION ORDER

On November 21, 2014 and November 26, 2014[1], the Court held a hearing to determine the proper construction of the disputed claim terms in United States Patent Nos. 5,581,599 ("the '599 Patent"); 5,892,814 ("the '814 Patent"); 6,614,899 ("the '899 Patent"); and 6,965,614 ("the '614 Patent") (collectively, the "Asserted Patents"). Having reviewed the claims, specification, prosecution history, and submitted extrinsic evidence, and having considered the parties' arguments and the applicable law, the Court issues this Claim Construction Order.

[1] On November 26, 2014, the Court held a telephonic hearing to hear the parties' closing remarks.

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I. BACKGROUND

A. The '599 Patent

The '599 Patent is titled Cordless Telephone Terminal. It was filed on December 30, 1993, and issued on December 3, 1996. The '599 Patent generally relates to a cordless telephone with a handset and base station that can receive and display caller identification data, and allow editing of the directory and caller identification data from the handset. *See* '599 Patent at Abstract.[2] The specification states that "FIG. 1 is a perspective view of a cordless portable telephone terminal 10 which … is software configurable to provide enhanced telephone services in a voice and data communications network." *Id.* at 2:50–53; Figure 1.

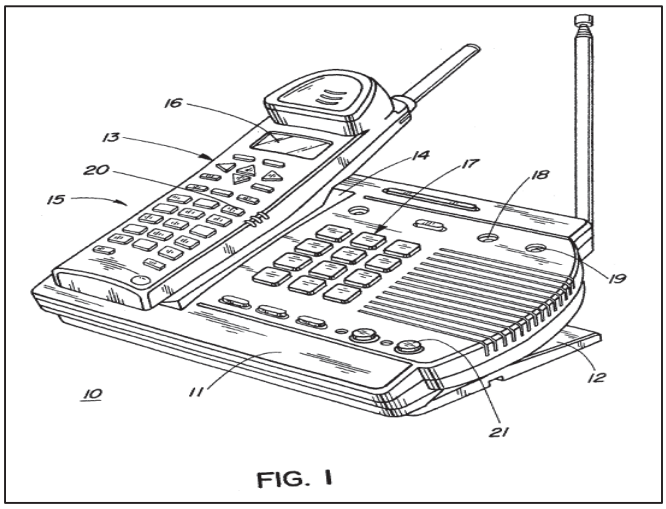


FIG. 1

[2] The Abstract of the '599 Patent follows:

> An interactive cordless telephone handset having an alphanumeric data display system is in radio communication with an associated base station to which voice and data signals are conducted over a telephone line. Received caller identification data is tested for validity and is stored in a limited storage Callers List memory of the base station if found valid. Subsequently, the data is transmitted to the handset over a radio link of limited range, with the received data being formatted and conducted to a display screen for identifying the caller by name and telephone number prior to answering the call. Although caller identification is erased from the display after the call, it is retained in the Callers List memory of the base station where it may be accessed by the handset via softkeys and dedicated dialpad keys for subsequent display and editing and optional transfer to a general directory for long term storage in a nonvolatile memory of the base station.

The specification states that "terminal 10 includes a base station, hereinafter referred to as a base 11," and "a cordless handset 13 in a corresponding cradle 14 of the base." *Id.* at 2:54–57. The specification adds that "handset 13 is advantageously positioned to provide convenient access to its dialpad 15, other function buttons …, and to a display screen 16." *Id.* at 2:58–62. The specification further states that "a principal objective of the present invention is to provide a digital data display [16] in the cordless handset." *Id.* at 1:52–53. The specification states that the reason for this is because "[i]t is readily apparent therefore, that the full potential of a cordless telephone is severely impeded either by the absence of a handset display or with a display having limited functional capabilities." 1:39–43.

Plaintiff brings suit alleging infringement of claims 4, 6, 7, 13, and 19 against Defendant VTech, and claims 4, 6, and 7 against Defendant Uniden. Claim 1 is representative of the claims and recites the following elements (disputed terms in italics):

> 1. A method for displaying data and processing appearances thereof from an alphanumeric display screen of a cordless handset in user-interactive radio communication with an associated base station of a cordless telephone terminal in onhook communication with a telephone exchange, wherein said base station comprises a memory device, and wherein said memory device comprises first and second submemories, said method comprising the steps of:
>
> generating predetermined command and alphanumeric data from selected ones of key operations at the handset;
>
> enabling *first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station*;
>
> enabling *second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands*;
>
> capturing service data from an incoming telephone call received at the base station;

> testing the service data at the base station to confirm its validity;
> retreivably storing the valid data in a second submemory of the base station and concurrently transmitting the valid data to the handset for display on the screen;
> generating a set of user-interactive prompts having predetermined appearances on the display screen; and
> accessing individual ones of the first and second submemories via key operations at the handset corresponding to the user-interactive prompts for selectively processing and *editorially revising the alphanumeric data stored in the submemories* while under display screen observation.

B. The '899 Patent

The '899 Patent is titled Method and Apparatus for Providing Advanced IP Telephony Services in an Intelligent Endpoint. It was filed on January 31, 2000, and issued on September 2, 2003. The '899 Patent generally relates to Internet Protocol (IP) telephony services and methods to update a local directory from a directory server. *See* '899 Patent at Abstract.[3] The specification discloses a communications system 100 that includes an IP network 104, computing devices 106, 108, IP telephony apparatus 112, and directory server 114. *Id.* at 3:3–10; Figure 1.

[3] The Abstract of the '899 Patent follows:

> A method and apparatus in a communications system for providing advanced Internet Protocol (IP) telephony services in an intelligent endpoint. The apparatus and method of the present invention provides a user with the capability to update a local directory from a directory server, perform click to call functions, and perform intelligent processing of incoming calls.

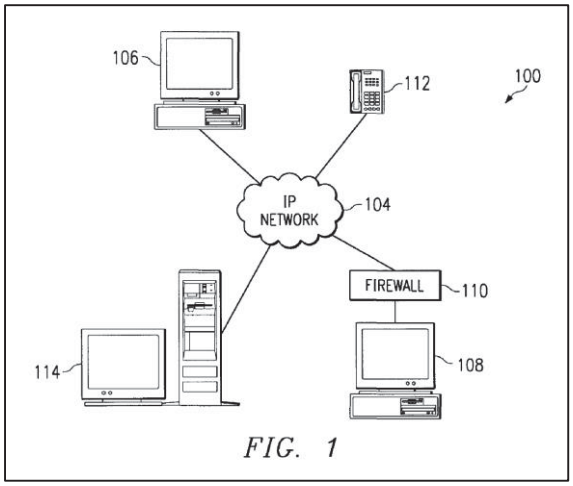


FIG. 1

The specification states that "[c]omputing devices 106 and 108 may be any type of computing device or data processing system that is capable of telephony communication." *Id.* at 3:26–28. The specification adds that "directory server 114 stores directory information for computing devices 106, 108, IP telephony apparatus 112, and other IP telephony capable devices (not shown) which are connected to the IP network 104." *Id.* at 3:62–65. The specification further states that this stored directory information may include "electronic mail addresses, IP addresses, session initiation protocol (SIP) addresses, as well as other contact information such as users' names, IP network identifications, home addresses, home telephone number, office telephone number, mobile telephone number, pager number, facsimile number, and the like." *Id.* at 3:65–4:3. The specification adds that computing device 106 "is capable of updating local directory information from the directory server 114, initiating IP telephony communications using 'click to call' and information from either the directory server or a local directory, and/or performing advanced call processing without relying on a network server to perform these functions." *Id.* at 4:7–15.

Plaintiff brings suit alleging infringement of claims 2, 4, 10, 13, 15, 19, 22, and 23 against Defendants VTech and Uniden. Claims 1 and 9 are representative of the claims and recite the

following elements (disputed terms in italics):

> 1. A method in a communications system for updating, from a *network* directory server, a local telephony directory on a telephony device, comprising:
> establishing a communication connection between the telephony device and the *network* directory server;
> sending an update request to the *network* directory server through the communication connection;
> receiving updated telephony directory information from the *network* directory server through the communication connection; and
> *updating the local telephony directory based on the updated telephony directory information*.
>
> 9. The method of claim 1, wherein the establishing, sending, and receiving steps are performed using a *network browser application* and an *applet* for downloading updated telephony directory information.

C. The '614 Patent

The '614 Patent is titled Method and System for Communications Between Different Types of Devices. It was filed on April 24, 2000, and issued on November 15, 2005. The '614 Patent generally relates to a communications system that includes a packet-based data network coupled to various network elements, including a gateway that provides ports to various peripheral devices. *See* '614 Patent at Abstract.[4] The specification states that "a need continues to exist for providing inter-operability among other combinations of devices. For example, a computer system may be

[4] The Abstract of the '614 Patent follows:

> A communications system includes a packet-based data network coupled to various network elements, including a gateway that provides ports to various peripheral devices. One type of peripheral device includes a Universal Serial Bus (USB) device. A network element coupled to the data network may establish Session Initiation Protocol (SIP) sessions with the gateway. Once a SIP session is established, communications may occur between the network element and the peripheral device. SIP messaging is exchanged between the network element and the gateway. USB commands and data are exchanged between the gateway and the USB device. The gateway converts between the SIP messaging and the USB commands and data.

coupled to many different types of peripheral devices. One type of computer peripheral device is the Universal Serial Bus (USB) device . . . ." *Id.* at 2:1–6.

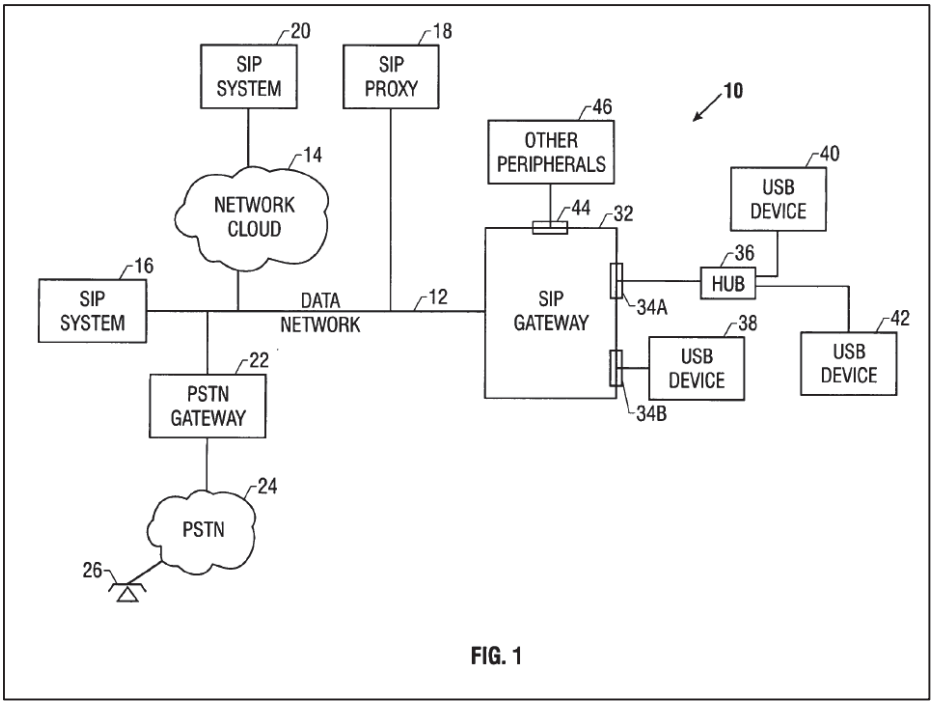


FIG. 1

The specification states that "communications system 10 … includes a packet-based data network 12 over which various communications sessions may be established." *Id.* at 3:17–20; Figure 1. The specification adds that "[t]he data network 12 is coupled to various network elements 16, 18, 22, and 32, which may be capable of establishing communications sessions on the data network 12 according to a Session Initiation Protocol (SIP)." *Id.* at 3:47–50. The specification states that "a gateway 32 is also coupled to the data network 11. The gateway 32 is provided as an interface between SIP communications sessions (or other types of communications sessions such as H.323 sessions) and peripheral device data and commands." *Id.* at 5:12–17.

The specification further states that "[t]he gateway 32 may have a number of USB ports 34A, 34B, and so forth, to which USB devices may be connected." *Id.* at 5:27–29. The specification adds that "[a] wide variety of USB peripheral devices may be coupled to the gateway

32, including printers, scanners, digital cameras, telephones, keyboards, mice, monitors, joysticks, speakers, and other types of devices." *Id.* at 5:37-40. The specification also states that "[i]n addition to USB ports 34A and 34B, the gateway 32 may also include one or more ports 44 for coupling to other types of peripheral devices 46. Such other ports 44 may include parallel ports, serial ports, SCSI (Small Computer Systems Interface) ports, PCMCIA (Personal Computer Memory Card International Association) ports, and so forth." *Id.* at 5:41–47. Finally, the specification states that "communications sessions may be established between a network element coupled to the data network 11 and one of the USB devices coupled through ports 34A and 34B or one of the other peripheral devices 46 coupled through ports 44." *Id.* at 5:48–51.

Plaintiff brings suit alleging infringement of claims 9, 11, 17, 18, 20, and 25 against Defendants VTech and Uniden. Claim 11 is representative of the claims and recites the following elements (disputed terms in italics):

> 11. A method of communications between a first device and a peripheral device over a network, comprising:
> receiving, by a system, a message from the first device to establish a *communications session* with the peripheral device, the message being according to a first protocol defining real-time interactive sessions;
> establishing a *communications session* between the first device and the system over the network;
> converting, in the system, between data according to the first protocol and data according to a second protocol that defines a *peripheral link* from the system to the peripheral device;
> receiving another message to establish a second *communications session* while the first communication session is active; and
> performing one of sending a busy indication and *over-riding the first communications session*.

D. The '814 Patent

The '814 Patent is titled Flexible, Tapeless, Personalized Auto-attendant Telephone. It was filed on December 23, 1996, and issued on April 6, 1999. The '814 Patent generally relates to an

auto-attendant telephone that can provide different greetings. *See* '814 Patent at Abstract.[5] Plaintiff brings suit alleging infringement of claim 2 against Defendant VTech. Claims 1 and 2 are representative of the claims and recite the following:

> 1. A method of operating a subscriber terminal telephone to provide a flexible tapeless personalized auto-attendant service, comprising:
> (a) measuring ring cadence of an incoming telephone call;
> (b) causing said telephone when in auto-attendant mode to always provide a generic outgoing message (OGM) in response to the incoming telephone call;
> (c) answering the incoming telephone call after ringing said telephone for a predetermined number of rings;
> (d) selecting one predetermined greeting OGM in response to a predetermined dual-tone multi-frequency (DTMF) signal and playing it;
> (e) regenerating ringing in said telephone for a predetermined period in response to another predetermined DTMF signal after said playing step; and
> (f) providing an OGM, for message recording, only after said predetermined period in step (e) has ended without an answer to ringing in step (e).
>
> 2. The method as defined in claim 1, further comprising the step of storing an incoming message in a memory location associated with a given OGM.

II. APPLICABLE LAW

A. Claim Construction

Claim construction is a question of law exclusively for the court. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 971–72 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996).

[5] The Abstract of the '814 Patent follows:

> A method of operating a subscriber terminal to provide a flexible tapeless personalized auto-attendant telephone by means of measuring ring cadence of an incoming telephone call; and selecting one outgoing message in response to the ring cadence and playing it after a predetermined number of rings. The method also provides for the selection of group greetings and mailboxes automatically, for example, based on CLID and name match in a directory.

"Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc) (internal citations omitted). Accordingly, the correct construction will be the one that "stays true to the claim language and most naturally aligns with the patent's description of the invention." *Id.* (internal citations omitted).

In construing disputed terms, a court looks first to the claim language, for "[i]t is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Id.* at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Generally, the words of a claim should be given their "ordinary and customary meaning," which is "the meaning that the term[s] would have to a person of ordinary skill in the art in question at the time of the invention." *Id.* at 1312–13.

In many cases, the meaning of a term to a person skilled in the art will not be immediately apparent, and a court must look to other sources to determine the term's meaning. *See Phillips*, 415 F.3d at 1314. "Those sources include 'the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.'" *Id.* at 1314 (internal citations omitted).

A court should also consider the context in which the term is used in an asserted claim or in related claims in the patent, bearing in mind that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* at 1313. Indeed,

the specification "is always highly relevant to the claim construction analysis" and "[u]sually . . . dispositive; it is the single best guide to the meaning of a disputed term." *Id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Where the specification reveals that the patentee has given a special definition to a claim term that differs from the meaning it would ordinarily possess, "the inventor's lexicography governs." *Id.* at 1316. Likewise, where the specification reveals an intentional disclaimer or disavowal of claim scope by the inventor, the inventor's intention, as revealed through the specification, is dispositive. *Id.*

A court may also consider the patent's prosecution history, which includes the cited prior art references. *Id.* at 1317. When in evidence, the prosecution history "can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it otherwise would be." *Id.* at 1317 (citing *Vitronics*, 90 F.3d at 1582–83).

Finally, a court is authorized to consider extrinsic evidence in construing claims, such as "expert and inventor testimony, dictionaries, and learned treatises." *Id.* (citing *Markman*, 52 F.3d at 980). Expert testimony may be particularly useful in providing background on the technology at issue, explaining how an invention works, and ensuring that the court's understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or establishing that a particular term in the patent or the prior art has a particular meaning in the pertinent field. *Phillips*, 415 F.3d at 1318. Although a court may consider evidence extrinsic to the patent and prosecution history, such evidence is considered "less significant than the intrinsic record" and "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.* at 1317–18 (internal quotation marks and citations omitted).

Thus, while extrinsic evidence may be useful in claim construction, ultimately "it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence." *Id.* at 1319. Any expert testimony "that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history" will be significantly discounted. *Id.* at 1318 (internal quotation marks and citation omitted). Finally, while the specification may describe a preferred embodiment, the claims are not necessarily limited to that embodiment. *Phillips*, 415 F.3d at 1323.

B. Construction Indefiniteness

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112(b). Whether a claim meets this definiteness requirement is a matter of law. *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1344 (Fed. Cir. 2007). A party challenging the definiteness of a claim must show it is invalid by clear and convincing evidence. *Takeda Pharm. Co. v. Zydus Pharms. USA, Inc.*, 743 F.3d 1359, 1368 (Fed. Cir.2014). The ultimate issue is whether someone working in the relevant technical field could understand the bounds of a claim. *Haemonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776, 783 (Fed. Cir. 2010). Specifically, "[a] patent is invalid for indefiniteness if its claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." *Nautilus Inc. v. Biosig Instruments, Inc.*, 572 U.S. ___ , ___ (2014) (slip. op., at 1).

C. Means-plus-function Limitations

Where a claim limitation is expressed in "means plus function" language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112, ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, 35 U.S.C.

§ 112, ¶ 6 mandates that "such a claim limitation 'be construed to cover the corresponding structure . . . described in the specification and equivalents thereof.'" *Id.* (citing 35 U.S.C. § 112, ¶ 6). Accordingly, when faced with means-plus-function limitations, courts "must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations]." *Id*.

Construing a means-plus-function limitation involves multiple steps. "The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation." *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). Once a court has determined the limitation's function, "the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Id.* A "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." *Id.* Moreover, the focus of the "corresponding structure" inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is "clearly linked or associated with the [recited] function." *Id.*

III. LEVEL OF ORDINARY SKILL IN THE ART

It is well established that patents are interpreted from the perspective of one of ordinary skill in the art. *See Phillips*, 415 F.3d at 1313 ("[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application."). The Federal Circuit has advised that the "[f]actors that may be considered in determining the level of skill in the art include: (1) the educational level of the inventors; (2) the type of problems encountered in the art; (3) prior art solutions to those problems; (4) the rapidity with which innovations are made;

(5) sophistication of the technology; and (6) education level of active workers in the field." *Env'tl Designs, Ltd. v. Union Oil Co. of California*, 713 F.2d 693, 696 (Fed. Cir. 1983). "These factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art." *Daiichi Sankyo Co. Ltd. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007).

The parties essentially agree that a person of ordinary skill in the art would have a bachelor's degree in electrical engineering, computer science, or an equivalent, and at least two years of experience working with and/or designing communications systems. Plaintiff submitted a declaration of Dr. Franzon, in which he opines that a person of ordinary skill in the art would have a bachelor's degree in electrical engineering with two to three years of experience designing and coding processor-based circuits and systems for communications systems and devices, or the equivalent. (Dkt. No. 39 at 8[6] (Dr. Paul Franzon Decl. at ¶ 12)).

Defendants submitted declarations of two experts, each of which opine on the level of ordinary skill in the art. (Dkt. No. 40 (Dr. Robert Akl Decl.)); (Dkt. No. 41 (Dr. David Lyon Decl.)). Dr. Akl opines that a person of ordinary skill in the relevant art of the '899 Patent and '614 Patent would have a Bachelor of Science in electrical engineering, computer science, or an equivalent and at least approximately two to four years of experience working with and designing networking and communication systems. (Dkt. No. 40 at 6.) Dr. Lyon opines that a person of ordinary skill in the relevant art of the '599 Patent and '814 Patent would have a Bachelor of Science in electrical engineering, computer science, or another related field such as applied physics, and two to four years of experience working with and/or designing telecommunication systems. (Dkt. No. 41 at 9.)

[6] Unless otherwise indicated, all citations to documents filed with the Court are to the ECF page number assigned by the Court's filing system.

During the Technical Tutorial held on October 27, 2014, the parties indicated that they did not believe that the differences between the parties' descriptions of the person of ordinary skill in the art was significant for the purpose of claim construction. Having considered the parties' proposals, and the factors that may be considered in determining the level of skill in the art, the Court finds that a person of ordinary skill in the art would have a bachelor's degree in electrical engineering, computer science, or an equivalent, and at least two years of experience working with and/or designing communications systems.

IV. CONSTRUCTION OF AGREED TERMS

The parties have agreed to the construction of the following terms:

Claim Term/Phrase	Agreed Construction
"network directory server"[7] ('899 Patent)	network server that acts as a centralized repository of directory information
"ring cadence"[8] ('814 Patent)	the on/off pattern of the ring
"another predetermined DTMF signal after said playing step"[9] ('814 Patent)	a second predetermined DTMF signal (which may be a different DTMF signal from the first DTMF signal or may be a second occurrence of the first DTMF signal) after said playing step

In view of the parties' agreements on the proper construction of each of the identified terms, the Court hereby **ADOPTS AND APPROVES** the parties' agreed constructions. Defendants also withdrew the following terms/phrases from the list of terms/phrases requiring constructions: "initiates a telephony call from the telephony apparatus to the receiving telephony device"; "sending a busy indication"; and "measuring ring cadence." (Dkt. No. 49 at 15 n.9.)

V. CONSTRUCTION OF DISPUTED TERMS

[7] Dkt. No. 38 at 1.
[8] Dkt. No. 49 at 15 n.9.
[9] Dkt. No. 71 at 2.

A. The '599 Patent

The parties' dispute focuses on the meaning and scope of six terms/phrases in the '599 Patent.

1. "displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station"	Ordinary and customary meaning. Does not need to be rewritten.	"at the same time each alphanumeric data element is keyed and displayed it is transmitted to the base station"

a) The Parties' Positions

The parties dispute whether the alphanumeric data must be displayed and transmitted to the base station as it is keyed at the handset, as Defendants propose, or if the alphanumeric data may be keyed and displayed at the handset, and then transmitted along with the commands to the base station, as Plaintiff proposes. Plaintiff contends that the plain language of the phrase requires displaying the keyed alphanumeric data, and then concurrently transmitting the alphanumeric data and commands to the base station. (Dkt. No. 45 at 15.) Plaintiff argues that the relative time that the data is keyed is not recited, and is not a limitation in the claims. (Dkt. No. 45 at 15.) Plaintiff further argues that it is not disputed that there is no disclosed embodiment in the specification in which the displaying and transmitting steps necessarily occur at the same time the alphanumeric data is keyed. (Dkt. No. 45 at 15.)

Regarding Defendants' construction, Plaintiff argues that it incorrectly changes the word "concurrently" to "at the same time." (Dkt. No. 45 at 15.) Plaintiff contends that there is an important distinction between "concurrent" and "simultaneous," and that the two terms are not synonymous. (Dkt. No. 45 at 15.) According to Plaintiff, the IEEE dictionary defines "concurrent"

as "[p]ertaining to the occurrence of two or more activities within the same interval of time . . . . Contrast with: simultaneous." (Dkt. No. 45 at 15-16) (citing Dkt. No. 39 at 14-15 (Franzon Decl. at ¶23)). Plaintiff contrasts this with the IEEE dictionary definition of "simultaneous" as "[p]ertaining to the occurrence of two or more events at the same instant of time. . . . Contrast with: concurrent." (Dkt. No. 45 at 16) (citing Dkt. No. 39 at 14-15 (Franzon Decl. at ¶23)).

Plaintiff argues that Defendants' construction appears to change "concurrent" to the electrical engineering equivalent of "simultaneous." (Dkt. No. 45 at 16.) Plaintiff contends that Defendants' technical expert (Dr. Lyon) conceded that this claim term should not be read to mean "at the same time" in the strict engineering sense, but instead should be interpreted to mean "at the same time as judged by the user of the cordless phone . . . ." (Dkt. No. 45 at 16) (citing Dkt. No. 48 at 185 (Lyon Depo., 98:18–101:6)). Plaintiff further argues that to a layperson "concurrent" and "simultaneous" may be synonyms, but in electrical engineering they are not. (Dkt. No. 45 at 16.)

Plaintiff next argues that Defendants' construction substantially deviates from the plain meaning of the disputed phrase, which does not state a "keying" step at all, or require that anything happen at the same time the data is keyed. (Dkt. No. 45 at 17.) Plaintiff contends that Dr. Lyon admitted that Defendants' construction would exclude every disclosed embodiment from the scope of the claims. (Dkt. No. 45 at 17) (citing Dkt. No. 48 at 189-190 (Lyon Depo., 117:8–119:13)). Plaintiff further argues that Dr. Lyon offers nothing in support of Defendants' construction for this claim term. (Dkt. No. 45 at 17.)

Plaintiff further contends that the word "keyed" serves as an adjective modifying "alphanumeric data," and it is the past tense of the verb "key." (Dkt. No. 45 at 18.) Plaintiff argues that "transmitting" and "displaying" are both present tense verbs, and that this shift in verb tense

indicates that the data is presumed to be "keyed" prior to the time the "displaying" and "transmitting" steps occur. (Dkt. No. 45 at 18.) Plaintiff contends that the specification states that the alphanumeric data is keyed before the user selects a function that generates a command (such as dialing or storing), which in turn causes the handset to transmit the alphanumeric data and the relevant command. (Dkt. No. 45 at 18) (citing '599 Patent at 8:35–9:67; Figures 6 and 7). Plaintiff further argues that this feature allows the user to review the number to ensure it is accurate before dialing. (Dkt. No. 45 at 18) (citing '599 Patent at 8:42–49).

Finally, Plaintiff contends that Defendants' construction is inconsistent with the claim language itself, which requires that both the alphanumeric data and the command be transmitted concurrently to the base station. (Dkt. No. 45 at 18.) According to Plaintiff, Defendants' construction would require that the commands be sent to the base station at the same time the alphanumeric data is keyed, which would occur before the commands are generated. (Dkt. No. 45 at 18) ('599 Patent at 8:35–9:67; Figures 6 and 7)). Plaintiff also argues that transmission of "commands" disappears altogether from Defendants' construction. (Dkt. No. 45 at 18-19.)

Defendants argue that their construction is consistent with the amendments the patentees made during prosecution. (Dkt. No. 49 at 18.) Defendants contend that the patentees cancelled the original claims and added new claim 15, which required a processor means for displaying and concurrently transmitting "alphanumeric data." (Dkt. No. 49 at 18) (citing Dkt. No. 50-8 at 89). Defendants argue that the patentees further amended the claim language to recite that the processor means displays and concurrently transmits "keyed alphanumeric data." (Dkt. No. 49 at 18) (citing Dkt. No. 50-9 at 25). According to Defendants, the prosecution history compels the construction of the phrase to be: "at the same time each alphanumeric data element is keyed and displayed it is transmitted to the base station." (Dkt. No. 49 at 18.)

Regarding Plaintiff's argument that Defendants' construction would exclude the preferred embodiment, Defendants contend that the Court should expect that the claims might not cover the preferred embodiment. (Dkt. No. 49 at 19.) Defendants argue that when claims are amended during prosecution, an interpretation that does not cover the preferred embodiments is required. (Dkt. No. 49 at 19.) Specifically, Defendants argue that the '599 Patent discloses "predialing" and that the patentees amended the claims numerous times during prosecution, including adding the "concurrently" transmitting and displaying language in one amendment, and further adding the "keyed" language in a separate amendment. (Dkt. No. 49 at 19.) According to Defendants, "it is not surprising that with the scope of the sole independent claim having been narrowed, some of the embodiments may no longer fall within its purview." (Dkt. No. 49 at 19) (quoting *Ultra-Temp Corp. v. Advanced Vacuum Sys., Inc.*, 11 F. Supp. 2d 141, 146–47 (D. Mass. 1998)). Defendants further argue that the specification does not use the word concurrently or describe concurrently displaying and transmitting keyed alphanumeric data. (Dkt. No. 49 at 19.)

Plaintiff responds by arguing that Defendants made no effort to defend their rewriting of the claim term "concurrently" to mean "at the same time." (Dkt. No. 56 at 13.) Plaintiff further argues that Defendants abandoned the testimony of their expert (Dr. Lyon) for this claim term, because his testimony was completely discredited on cross-examination. (Dkt. No. 56 at 13.) Plaintiff also argues that Defendants mischaracterize the prosecution history of the '599 Patent to incorrectly imply that the words "keyed alphanumeric data" were added to overcome prior art. (Dkt. No. 56 at 12.)

Plaintiff argues that none of the claims filed in the original patent application contained a limitation remotely similar to the disputed language from claim 1. (Dkt. No. 56 at 14) (citing Dkt. No. 50-8 at 56-61). Plaintiff notes that on January 30, 1995, in a response to the initial office

action rejecting claims 1-14, the patentee added new independent claim 15 and dependent claims 16 through 32. (Dkt. No. 56 at 14) (citing Dkt. No. 50-8 at 88-93). Plaintiff contends that claim 15 contained a limitation that is somewhat similar (but still very different) from the disputed language from claim 1. (Dkt. No. 56 at 14.) Specifically, claim 15 recited "enabling first processor means at the handset for receiving and operably responding to the handset data, displaying alphanumeric data on the screen and concurrently transmitting both command and alphanumeric data over a first RF carrier to the base station." (Dkt. No. 56 at 14-15) (citing Dkt. No. 50-8 at 89). Plaintiff contends that none of the discussion relating to this amendment, from either the patentees or the examiner, discusses or mentions the concept of the keyed alphanumeric data being transmitted to the base station at the same time it is keyed. (Dkt. No. 56 at 15.) According to Plaintiff, transmitting the data as it is keyed is not described as a feature present in the prior art, and is not discussed as a patentable distinction over the prior art. (Dkt. No. 56 at 15.)

Plaintiff further contends that patentees then introduced prosecution claim 33 on November 27, 1995, to clarify to the patent examiner that the claimed invention is not obvious. (Dkt. No. 56 at 15) (citing Dkt. No. 50-9 at 25). Plaintiff argues that neither the language of claim 33, nor the patentees' explanation have anything to do with simultaneous keying and transmitting the alphanumeric data. (Dkt. No. 56 at 15) (citing Dkt. No. 50-9 at 29-45). Finally, Plaintiff contends that the examiner's amendment included in the February 23, 1996 Notice of Allowability primarily dealt with the "submemories" limitation, and had nothing to do with simultaneous keying and transmitting the alphanumeric data. (Dkt. No. 56 at 16) (citing Dkt. No. 50-9 at 49-50). Plaintiff notes that the examiner allowed prosecuted claim 33, which later issued as claim 1 of the '599 Patent. (Dkt. No. 56 at 16) (citing Dkt. No. 50-9 at 47).

According to Plaintiff, there is nothing in the prosecution that remotely weighs in favor of

Defendants' claim construction for the disputed phrase. (Dkt. No. 56 at 16.) Plaintiff further argues that Defendants are simply incorrect when they state that "[a]pplicants were then forced to further add limitations to distinguish prior art, including amending the language to claim that the processor means display and concurrently transmit 'keyed alphanumeric data.'" (Dkt. No. 56 at 16) (quoting Dkt. No 49 at 16).

Plaintiff further argues that Defendants never point to anything specific in the prosecution history that supports their claim construction. (Dkt. No. 56 at 17.) Plaintiff also contends that the cases cited by Defendants are easily distinguishable, because they rely on the unambiguous ordinary meaning of the claim language itself to exclude exemplary embodiments. (Dkt. No. 56 at 17.) Plaintiff further argues that the courts in those cases found that the respective prosecution history was consistent with the unambiguous claim language that had the effect of excluding exemplary embodiments found in the specification. (Dkt. No. 56 at 17.) Plaintiff also argues that neither the claim language, nor the prosecution history, support Defendants' construction, which would have the effect of excluding all disclosed embodiments. (Dkt. No. 56 at 18.) Finally, Plaintiff contends that there is no special definition of the claim term "concurrently" in the intrinsic record, and that the patentees did not clearly disclaim the full scope of the plain language. (Dkt. No. 56 at 18.)

Defendants respond that their construction is fully consistent with the IEEE dictionary definition of "concurrently" cited by Plaintiff. (Dkt. No. 57 at 10-11.) Defendants further argue that during prosecution of the '599 Patent, the patentees made numerous amendments and arguments relating to this term to distinguish the claims from the prior art. (Dkt. No. 57 at 11.) Specifically, Defendants argue that during prosecution, the patentees added new claim 15, which added the limitation requiring displaying and concurrently transmitting alphanumeric data. (Dkt.

No. 57 at 11.) Defendants contend that the patentees admitted that the Wagai prior art reference disclosed displaying alphanumeric numbers on a handset display, and then transmitting the number from the handset to the base station. (Dkt. No. 57 at 11) (citing Dkt. No. 50-9 at 37).

According to Defendants, the patentees therefore further amended this limitation to require displaying and concurrently transmitting "keyed alphanumeric data" in order to distinguish prior art. (Dkt. No. 57 at 11.) Defendants argue that without this construction, the amendments and arguments that the patentees made during prosecution would be impermissibly rendered meaningless. (Dkt. No. 57 at 12) (citing *Elekta Instruments S.A. v. O.U.R. Scientific Int'l Inc.*, 214 F.3d 1302, 1308 (Fed. Cir. 2000)). Finally, Defendants argue that the Federal Circuit has made clear that when claims are amended during prosecution, an interpretation that does not cover the preferred embodiment is proper. (Dkt. No. 57 at 12) (citing *Elekta*, 214 F.3d at 1308).

For the following reasons, the Court finds that the phrase "**displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station"** should be given its **plain and ordinary meaning.**

b) Analysis

The phrase "displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station" appears in claims 1 and 18 of the '599 Patent. The Court finds that the phrase is used consistently in the claims and is intended to have the same meaning in each claim. The Court further finds that the claim language indicates that "concurrently" does not refer to both the act of "displaying" and "transmitting," but rather refers to the act of "concurrently transmitting the alphanumeric data and commands to the base station." In other words, the claims do not recite "concurrently displaying and transmitting," as Defendants' construction would require. Instead, the plain language of the claims recite that the

"keyed alphanumeric data" is displayed, and then after it is displayed, both the alphanumeric data (*e.g.*, the telephone number) and the commands (*e.g.*, command to dial the number) are concurrently transmitted to the base station. Indeed, this is consistent with the preferred embodiment disclosed in the specification.

For example, the specification states that the handset has the "capability of predialing a number on the keypad 15 of the handset and reviewing same on the screen 16 to ensure accuracy of the telephone number before actual dialing." '599 Patent at 8:42–46. The specification further states that "input block 275 represents the step of predialing the number via the keypad 15. In accordance with block 276, the dialpad is scanned by the microprocessor 96 whereby individual key depressions are stored in an input buffer thereof and are subsequently formatted in accordance with instructions stored in the EEPROM 97." '599 Patent at 8:50–55; Figure 6b.

Contrary to Defendants' contention, the specification does not state that each time an alphanumeric data is keyed, it is concurrently transmitted. Instead, the specification discusses that the "timeout interval of block 285 represents an interval during which a user may dial the number on display in block 277." '599 Patent at 9:11–13. The specification adds that "[i]n the event that the predialed number is displayed for a time greater than 45 seconds … the predialed number is lost and requires reentry from the dialpad." *Id.* at 9:2–6. In other words, the specification states that the displayed number is not transmitted to the base station until the users strikes the command key to dial the number. *Id.* at 9:10–18. It is only after the command to the dial the number is initiated "that the microprocessor 96 generates a transmission data output to the modem 95 for modulation and therefrom to the transceiver 77 for transmission to the base 11." *Id.* at 9:10–28. Accordingly, the specification confirms that the plain reading of the disputed phrase is after the "keyed alphanumeric data" is displayed, both the alphanumeric data and the commands are

concurrently transmitted to the base station.

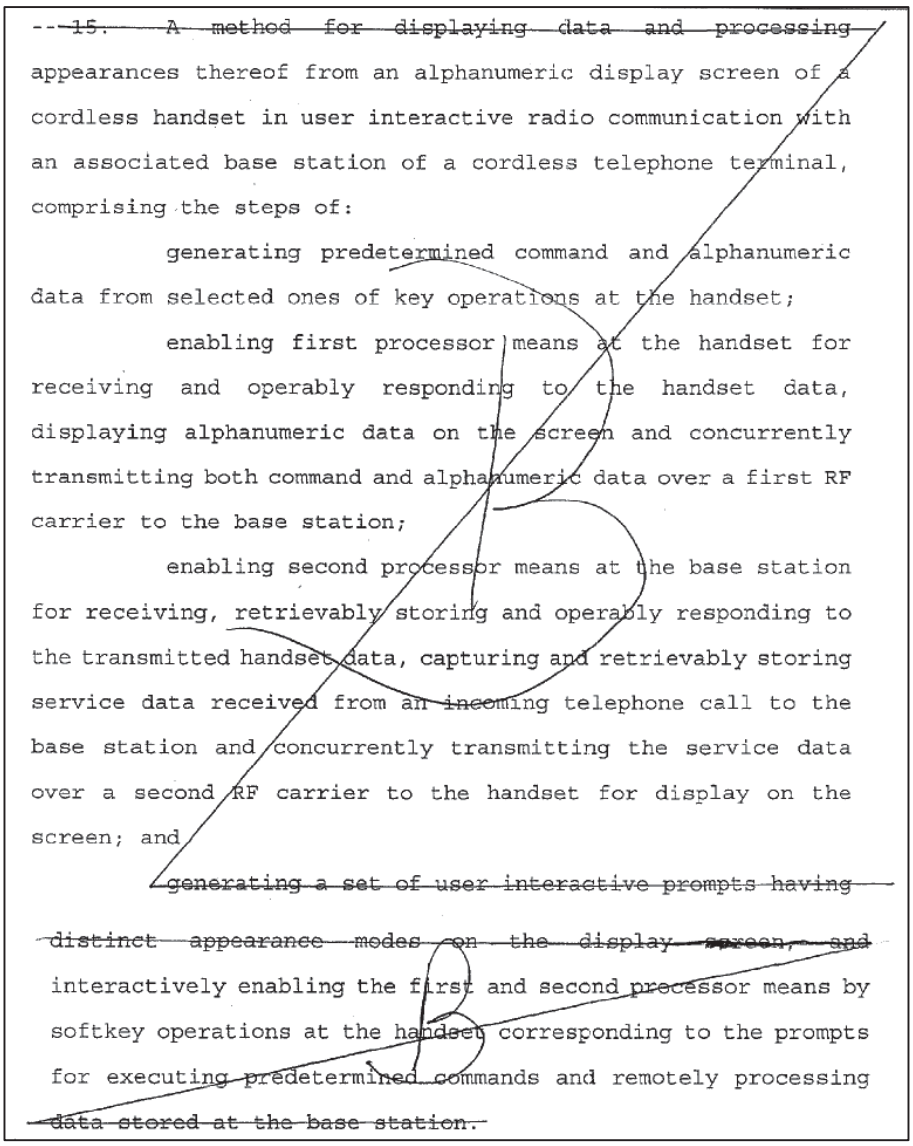
Defendants' only support for their construction are the amendments made during the prosecution of the '599 Patent. The Court has thoroughly reviewed the prosecution history, including the February 1, 1995 Office Action Response (Dkt. No. 50-8 at 88-111), the November 28, 1995 Office Action Response (Dkt. No. 50-9 at 22-45), and the February 23, 1996 Examiner's Amendment and Notice of Allowability (Dkt. No. 50-9 at 46-54). The Court does not agree with Defendants' characterization of the prosecution history, and finds Defendants' citation to the prosecution history incomplete and their arguments conclusory. Accordingly, the Court provides the following brief summary of the prosecution history as it relates to the amended claims.

The original patent application was filed on December 30, 1993, and contained original claims 1-14. Original claim 1, reproduced below, recites "displaying data on an alphanumeric display of a cordless handset" only in the preamble.

> 1. A method for displaying data on an alphanumeric display of a cordless handset in radio communication with an associated base station, comprising the steps of:
>
> receiving a digitally encoded data signal at a telephone line terminal of the base station;
>
> testing the received data signal to confirm the validity thereof;
>
> transmitting the confirmed data signal over a radio link from the base station to the handset; and
>
> receiving and decoding the confirmed data signal at the handset for driving the alphanumeric display.

(Dkt. No. 50-8 at 56.) On February 1, 1995, in response to the initial office action rejecting claims 1-14, the patentee added new independent claim 15 and dependent claims 16 through 32. (Dkt. No. 50-8 at 88-111.) Claim 15, reproduced below, recites "enabling first processor means at the handset for receiving and operably responding to the handset data, displaying alphanumeric data

on the screen and concurrently transmitting both command and alphanumeric data over a first RF carrier to the base station . . . ."



--15. A method for displaying data and processing appearances thereof from an alphanumeric display screen of a cordless handset in user interactive radio communication with an associated base station of a cordless telephone terminal, comprising the steps of:

generating predetermined command and alphanumeric data from selected ones of key operations at the handset;

enabling first processor means at the handset for receiving and operably responding to the handset data, displaying alphanumeric data on the screen and concurrently transmitting both command and alphanumeric data over a first RF carrier to the base station;

enabling second processor means at the base station for receiving, retrievably storing and operably responding to the transmitted handset data, capturing and retrievably storing service data received from an incoming telephone call to the base station and concurrently transmitting the service data over a second RF carrier to the handset for display on the screen; and

generating a set of user interactive prompts having distinct appearance modes on the display screen, and interactively enabling the first and second processor means by softkey operations at the handset corresponding to the prompts for executing predetermined commands and remotely processing data stored at the base station.

(Dkt. No. 50-8 at 89-90.) In the same February 1, 1995 Office Action Response, the patentees made arguments characterizing the prior art and distinguishing the new claims. (Dkt. No. 50-8 at 94-107.) The Court does not find, nor do Defendants contend, that that discussion of the prior art includes or mentions the concept of keyed alphanumeric data being transmitted to the base station at the same time it is keyed.

On November 28, 1995, in a response to an Office Action rejecting claims 15-32, the patentees added new independent claim 33. Claim 33, reproduced below, recites "enabling first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station."

--33. A method for displaying data and processing appearances thereof from an alphanumeric display screen of a cordless handset in user-interactive radio communication with an associated base station of a cordless telephone terminal in onhook communication with a telephone exchange, comprising the steps of:

generating predetermined command and alphanumeric data from selected ones of key operations at the handset;

enabling first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station;

enabling second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first memory of the base station and operably responding to the commands;

capturing service data from an incoming telephone call received at the base station;

testing the service data at the base station to confirm its validity;

retrievably storing the valid data in a second memory of the base station and concurrently transmitting the valid data to the handset for display on the screen;

generating a set of user-interactive prompts having distinct appearances on the display screen; and

accessing individual ones of the first and second memories via key operations at the handset corresponding to the user-interactive prompts for selectively processing and editorially revising the alphanumeric data stored in the memories while under display screen observation.

(Dkt. No. 50-9 at 25.) In the same November 28, 1995 Office Action Response, the patentees

made arguments characterizing the prior art and distinguishing new claim 33. (Dkt. No. 50-9 at 29-45.) However, as will be discussed in more detail, neither the language of claim 33, nor the patentees' explanation, mention or address simultaneous keying and transmitting the alphanumeric data.

On February 23, 1996, the examiner issued a Notice of Allowability, which included examiner's amendments to claim 33. The examiner's amendments did not add or require simultaneous keying and transmitting the alphanumeric data. Instead, the examiner's amendments primarily dealt with the "submemories" limitation. (Dkt. No. 50-9 at 49-50.) Amended claim 33 reads:

33. (Once Amended) A method for displaying data and processing appearances thereof from an alphanumeric display screen of a cordless handset in user-interactive radio communication with an associated base station of a cordless telephone terminal in onhook communication with a telephone exchange, wherein said base station comprises a memory device, and wherein said memory device comprises first and second submemories, said method comprising the steps of:

generating predetermined command and alphanumeric data from selected ones of key operations at the handset;

enabling first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station;

enabling second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands;

capturing service data from an incoming telephone call received at the base station;

testing the service data at the base station to confirm its validity;

retreivably storing the valid data in a second submemory of the base station and concurrently transmitting the valid data to the handset for display on the screen;

generating a set of user-interactive prompts having [distinct] predetermined appearances on the display screen; and

accessing individual ones of the first and second submemories via key operations at the handset corresponding to the user-interactive prompts for selectively processing and editorially revising the alphanumeric data stored in the submemories while under display screen observation.

Finally, the prosecution history indicates that claim 33 later issued as claim 1 of the '599 Patent. (Dkt. No. 50-9 at 47.)

It is not disputed that the patentees amended and canceled claims to arrive at claim 1 of the '599 Patent. But for prosecution disclaimer to arise, "the alleged disavowing actions or statements made during prosecution [must] be both clear and unmistakable." *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1326 (Fed. Cir. 2003). Here, Defendants have not shown a clear and unmistakable disclaimer that would justify their narrow construction. Instead, Defendants cite to

a few select portions of the prosecution history where the patentees describe the prior art. *See, e.g.*, (Dkt. No. 50-9 at 30) ("Following receipt of the dial tone, a called telephone number is dialed using keys 59. The number is translated into data by the CPU 71 which is displayed on an LCD 65 at the handset and transmitted to the base station where it is used to toggle a line switch on and off, thereby transmitting dial pulses to the exchange."); (Dkt. 50-9 at 34) ("Applicant concedes that Wagai et al discloses generating alphanumeric data and commands from a handset having a CPU 71 for controlling the handset in transceiving operations and displaying information on a LCD 65."); (Dkt. 50-9 at 37) ("Wagai et al also functions like Tsoi in that a calling number is generated by a processor at the handset and is shown on a display unit thereof. Following receipt of dial tone at the base station of Wagai et al, and its subsequent transmission of the tone to the handset, the dialed number is transmitted from the handset to its base station.")

Defendants provide no citations to the portions of the prosecution history where the patentees actually distinguished the prior art from the claims. Turning to the relevant portions of the November 28, 1995 Office Action Response, the Court finds that the patentees stated that the Wagai and Tsoi reference disclose a calling number that is "*dialed exclusively* under control of the code generated by the processor in the handset." (Dkt. No. 50-9 at 37) (emphasis added). To distinguish the amended claims from these references, the patentees argued that "[i]t is apparent therefore that neither Wagai et al nor Tsoi lead to or suggest the invention as disclosed, wherein a call is placed by transmitting a calling number read from the first memory in the base station." (Dkt. No. at 50-9 at 37.)

The patentee further distinguished the claims by arguing "there is no capability shown in either Wagai et al or Tsoi to retrievably store data in first and second memories at the base station and subsequently to access these memories for processing and editorially revising alphanumeric

data stored therein while under display observation, as presently claimed." (Dkt. No. at 50-9 at 37); *see also* (Dkt. No. at 50-9 at 36) ("The combined teachings of Wagai et al and Tsoi are incapable of initiating a call as now claimed by applicant since neither reference discloses nor suggest a memory in the base station in which alphanumeric data is retrievably stored, selectively processed and editorially revised while under display screen observation.").

Contrary to Defendants' characterization of the prosecution history, the patentees did not distinguish the prior art based on displaying and concurrently transmitting "keyed alphanumeric data." Instead, the patentees distinguished the claims based on the recited limitation of "enabling second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands." However, this is not the language in dispute, and Defendants have failed to show the clear and unmistakable disavowal of claim scope that would be required by their construction. Moreover, as both sides agree, Defendants' construction would exclude the preferred embodiments. The Court finds that this is not the "rare case in which such an interpretation is compelled." *Elekta Instrument S.A. v. O.U.R. Sci. Int'l*, 214 F.3d 1302, 1308 (Fed. Cir.2000); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583–84 (Fed. Cir. 1996) ("A claim construction that excludes the preferred embodiment is rarely, if ever, correct and would require highly persuasive evidentiary support."). Indeed, as discussed above, the Court is not persuaded by Defendants' characterization of the prosecution history, and finds that a person of ordinary skill in the art would not interpret the amended claims as excluding the preferred embodiments.

Accordingly, the Court rejects Defendants' construction that requires that each time alphanumeric data is keyed and displayed, it must be transmitted to the base station. Moreover, the Court finds that the disputed phrase does not require construction, because it is unambiguous,

and is easily understandable by a jury, and should be given its plain and ordinary meaning. To the extent that Defendants argue that "concurrently" requires transmitting the recited "alphanumeric data and commands" at exactly the same time, the Court rejects this argument.

As indicated by the IEEE definitions cited by Plaintiff, a person of ordinary skill in the art would understand that "concurrently" is not synonymous with "simultaneous." *Compare* Dkt. No. 39-1 at 10 (IEEE definition of "concurrent") *with* (Dkt. No. 39-2 at 13) (IEEE definition of "simultaneous"). Specifically, "concurrently" only requires the transmission of the recited "alphanumeric data and commands" to occur within the same interval of time, and not at the same instant of time. Finally, the Court rejects Defendants' construction because it would require that the "keyed alphanumeric data" be sent to the base station before the recited "commands" are generated. Indeed, Defendants' construction drops the recited "commands" completely from the claim language. This is improper and inconsistent with the plain language of the claims.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the phrase **"displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station"** will be given its **plain and ordinary meaning** as understood by one of ordinary skill in the art.

2. "first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station"	Ordinary and customary meaning. Does not need to be rewritten.	Governed by 35 U.S.C. §112 ¶ 6. Indefinite for failure to disclose corresponding structure

a) The Parties' Positions

The parties dispute two issues: (1) whether the phrase is governed by 35 U.S.C. § 112, ¶ 6; and (2) whether the phrase is indefinite. Plaintiff first argues that the phrase is not governed by 35 U.S.C. § 112, ¶ 6 for two reasons. Plaintiff contends that the presumption does not apply when the term "means" is used in a method claim. (Dkt. No. 45 at 19-20.) Plaintiff further contends that even if the presumption is applied, the claim itself provides the structure necessary to perform the recited functions. (Dkt. No. 45 at 20-22.) Specifically, Plaintiff argues that the preambles of claim 1 and 18 indicate to a person of ordinary skill in the art that the cordless telephone consists of a handset and a base station, each in turn consisting of a processor, a modem, a keypad, and a memory. (Dkt. No. 45 at 21) (citing Dkt. No. 39 at 18 (Franzon Decl. at ¶30)).

Regarding Defendants' indefinite argument, Plaintiff contends that this argument fails for two reasons. Plaintiff first argues that the phrase is not governed by 35 U.S.C. § 112, ¶ 6, and the Court is not required to identify the corresponding structure from the specification. (Dkt. No. 45 at 22.) Plaintiff also argues that it is not surprising that Defendants are unable to identify corresponding structure for this term, because Defendants' construction for the previous phrase excludes all disclosed embodiments. (Dkt. No. 45 at 22.) Plaintiff contends that this result is a consequence of their erroneous construction for the previous term. (Dkt. No. 45 at 22.) Finally, Plaintiff argues that in the event that the Court decides to treat this phrase as a mean-plus-function term, there is sufficient structure disclosed in the specification to support the recited function of displaying the keyed alphanumeric data and concurrently transmitting the alphanumeric data and commands to the base station. (Dkt. No. 45 at 22) (citing Dkt. No. 39 at 19-21 (Franzon Decl. at ¶¶33-37)).

Defendants argue that the claim term is presumed to be a means-plus-function term because it uses the word "means" followed by a function. (Dkt. No. 49 at 20.) Defendants further argue

that Plaintiff has failed to overcome the presumption, because the claim language fails to recite the necessary structure to perform the claimed function. (Dkt. No. 49 at 20.) Specifically, Defendants argue that the claim does not provide the structure for a "means" that displays and concurrently transmits keyed alphanumeric data. (Dkt. No. 49 at 21.) Defendants further argue that Plaintiff's own expert resorts to the specification to allegedly show the necessary structure. (Dkt. No. 49 at 21) (citing Dkt. No. 39 at 19 (Franzon Decl. at ¶ 33)). According to Defendants, the claim does not recite sufficient structure to overcome the presumption, and should be construed as means plus function. (Dkt. No. 49 at 21.)

Defendants further argue that once construed as a means-plus-function term, the Court should find that the '599 Patent does not disclose a corresponding structure. (Dkt. No. 49 at 21.) Defendants contend that the previous phrase requires that the alphanumeric data be displayed and transmitted as it is keyed. (Dkt. No. 49 at 21.) Defendants argue that the '599 Patent does not disclose such a process. (Dkt. No. 49 at 21.) Instead, Defendants contend that Figure 6b merely discloses dialing a number on the key pad (step 275), displaying the number (step 277), and later transmitting the number (step 287). (Dkt. No. 49 at 22.) According to Defendants, the phrase is indefinite for failure to disclose corresponding structure. (Dkt. No. 49 at 22.)

Plaintiff responds that the presumption of invoking § 112, ¶ 6, by the use of the word "means" only applies to apparatus claims, and the presumption only arises in method claims if the word "step for" are used. (Dkt. No. 56 at 19.) Plaintiff further argues that its opening brief established that the claim itself recites the structure necessary for carrying out the recited function. (Dkt. No. 56 at 19.) Plaintiff also argues that Dr. Franzon testified that the claim language itself provides sufficient structure that would permit a person of ordinary skill to practice the claims, and it was only after discussing the claim language, that he further discussed the structure disclosed

in the specification. (Dkt. No. 56 at 19-20.) Finally, Plaintiff argues that Defendants' indefiniteness argument is merely a consequence of their erroneous construction for the previous term. (Dkt. No. 56 at 20.)

Defendants respond that the argument that the use of "means" in method claims does not invoke the presumption is legally incorrect. (Dkt. No. 57 at 13.) Defendants argue that none of the cases cited by Plaintiff state that the use of the word "means" in a method claim does not invoke the presumption of § 112, ¶ 6, nor do they preclude such a holding. (Dkt. No. 57 at 14.) Defendants contend that these cases merely stand for the limited proposition that the use of "step for" in a method claim signals the patentee's intent to invoke § 112, ¶ 6. (Dkt. No. 57 at 14.)

Defendants further argue that Plaintiff cannot overcome the presumption that this term is a means-plus-function term, because the claim does not provide the structure necessary to perform the recited functions. (Dkt. No. 57 at 14.) Defendants also argue that Plaintiff's attempt to replace actual structure recited in the claim with what a person of ordinary skill would allegedly understand is unsupported and legally erroneous. (Dkt. No. 57 at 15) (citing *TriMed, Inc. v. Stryker Corp.*, 514 F.3d 1256, 1259-1260 (Fed. Cir.2008)). Finally, Defendants argue that the term is indefinite, because under their construction of the previous phrase, the '599 Patent does not disclose any corresponding structure. (Dkt. No. 57 at 16.)

For the following reasons, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6, and is not indefinite.

b) Analysis

The phrase "first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station" appears in claims 1 and 18 of the '599 Patent. Having reviewed the claims, the Court

finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6. The disputed phrase uses the words "means" and specifies a function, thus the Court presumes that the patentees intended to invoke the statutory mandates for means-plus-function clauses. *York Prods. v. Central Tractor Farm & Family Ctr.*, 99 F.3d 1568, 1574 (Fed. Cir. 1996) ("In determining whether to apply the statutory procedures of section 112, ¶ 6, the use of the word 'means' triggers a presumption that the inventor used this term advisedly to invoke the statutory mandates for means-plus-function clauses.").

The Court disagrees with Plaintiff that the presumption only arises in method claims if the word "step for" is used. It is not improper for method claims to recite the physical structure of a system in which the claimed method is practiced. *Microprocessor Enhancement Corp. v. Tex. Instruments, Inc.,* 520 F.3d 1367, 1374 (Fed. Cir. 2008) ("Method claim preambles often recite the physical structures of a system in which the claimed method is practiced."). Plaintiff makes this very argument for the disputed phrase "radio communication comprises a bidirectional radio link between the handset and the base station for full duplex data transmission." Specifically, Plaintiff argues that this disputed phrase "does not define a step of the claimed method, but instead relates to defining the hardware environment within which the method occurs." (Dkt. No. 56 at 25) (citing *Microprocessor,* 520 F.3d at 1374)).

Accordingly, a method claim may include an apparatus element that invokes 35 U.S.C. § 112, ¶ 6. Indeed, the Federal Circuit has found that this presumption applies regardless of whether the claim discloses an apparatus or method. *See, e.g., On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1336, 1340–41 (Fed. Cir. 2006) (affirming the trial court's limitation of a clause in the method patent reciting, "providing means for a customer to visually review said sales information," to structures in the specification that serve an equivalent function); *see also, J & M Corp. v. Harley-Davidson, Inc.*, 269 F.3d 1360, 1364 & n. 1, 1367 (Fed. Cir. 2001) (construing

"gripping means" included in method claims as means-plus-function limitations).

Contrary to Plaintiff's suggestion, the *O.I. Corp.* case did not hold that the use of the word "means" in a method claim cannot invoke the presumption of § 112, ¶ 6. Instead, the Federal Circuit held that process claims containing steps described by an "ing" verb are not step-plus-function limitations subject to the requirements of section 112, ¶ 6, unless they use the words "step for." *O.I. Corp. v. Tekmar Co.*, 115 F.3d 1576, 1583 (Fed. Cir.1997) ("If we were to construe every process claim containing steps described by an 'ing' verb, such as passing, heating, reacting, transferring, etc. into a step-plus-function limitation, we would be limiting process claims in a manner never intended by Congress.") Here, the Court is not construing "enabling" as a step-plus-function limitation subject to the requirements of section 112, ¶ 6. Instead, the Court finds that the apparatus element recited in this step is a mean-plus-function limitation.

As an alternate position, Plaintiff contends that even if the presumption is applied, this claim element falls within the exception to the "means plus function" presumption, because the claim itself provides the structure necessary to perform the recited functions. (Dkt. No. 45 at 21.) The Court disagrees. "In deciding whether [the] presumption has been rebutted, the focus remains on whether the claim as properly construed recites sufficiently definite structure to avoid the ambit of § 112, P 6." *Personalized Media Communs., L.L.C. v. ITC,* 161 F.3d 696, 704 (Fed. Cir. 1998). Plaintiff contends that the preamble of each claim indicates to a person of ordinary skill that the cordless telephone consists of a handset and a base station, each in turn consisting of a processor, a modem, a keypad, and a memory. (Dkt. No. 45 at 21.) Plaintiff's argument fails because the claims do not recite the structure it argues performs the recited function. That is, the claims do not recite "a processor, a modem, a keypad, and a memory." Accordingly, the Court finds that the claims do not recites sufficient structure for performing the recited function. *TriMed, Inc. v.*

Stryker Corp., 514 F.3d 1256, 1259-1260 (Fed. Cir.2008) ("Sufficient structure exists when the claim language specifies the exact structure that performs the functions in question without need to resort to other portions of the specification or extrinsic evidence for an adequate understanding of the structure.").

Having determined that the term is a means-plus-function term, and that Plaintiff has failed to rebut the presumption, the Court's focus turns to determining the proper construction. "The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation." *Medtronic*, 248 F.3d at 1311. Having reviewed the intrinsic evidence, the Court finds that the recited function is "displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station."[10]

Having determined the limitation's function, "the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Medtronic*, 248 F.3d at 1311. Turning to Figure 3, the Court finds that the corresponding structure includes the following. First, the specification states that the corresponding structure that performs the recited function of "displaying keyed alphanumeric data on the screen" includes microprocessor 96, liquid crystal display (LCD) module 98, LCD driver 99, LCD screen 16, and dialpad 15. Specifically, the specification states the following:

> [I]n the formatting and output of the received digital data which is connected via the microprocessor 96 to the screen 16, shown in FIG. 3 as a liquid crystal display (LCD) module 98 which includes an LCD driver 99 and the LCD screen 16. A related LCD output from the microprocessor 96 provides contrast control for the screen 16 by means of codes keyed in from the dialpad 15.

'599 Patent at 6:23–29; *see also* '599 Patent at 8:50–67. The specification further states that the corresponding structure that performs the recited function of "concurrently transmitting the

[10] As discussed above for the previous term, the Court rejects Defendants' argument that the recited function requires the alphanumeric data to be displayed and transmitted as it is keyed.

alphanumeric data and commands to the base station" includes ROM 94, EEPROM 97, modem 95, and transceiver 77. Specifically, the specification states "[a]s shown in block 250, a dedicated TALK key 20 is pressed by the user to enable the microprocessor 96 which responds under stored instructions in the EEPROM 97. On the one hand, a control instruction from the microprocessor modulates the RF carrier in the transceiver 77 which is transmitted to the base 11 as indicated in block 251." '599 Patent at 8:21–27; *see also* '599 Patent at 9:24–28. The specification adds:

> An MSK modem 95, which corresponds exactly with the modem 51 in the base 11, restores the decrypted data input thereto and produces a pulse train of received data that is input to a microprocessor 96 which corresponds to the microprocessor 39 in the base 11. Both microprocessors function in the same manner under like software control. In the microprocessor 96, such software is resident in ROM 94 which corresponds to ROM 45.

'599 Patent at 6:6–13. Accordingly, the Court finds that the corresponding structure that performs the function of "displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station" is microprocessor 96, liquid crystal display (LCD) module 98, LCD driver 99, LCD screen 16, dialpad 15, ROM 94, EEPROM 97, modem 95, and transceiver 77.

Finally, Defendants argue in a footnote that "[w]here the claim involves a computer-implemented means-plus-function limitation, the specification must disclose more than a general purpose computer; the specification must disclose an algorithm for performing the claimed function." (Dkt. No. 49 at 20 n.13.) Defendants' statement is not entirely correct. In *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286 (Fed. Cir. 2014), the Federal Circuit stated that when "a patentee has invoked computer-implemented means-plus-function claiming, the corresponding structure in the specification for the computer implemented function must be an algorithm *unless a general purpose computer is sufficient for performing the function.*" *Id.* at 1298 (emphasis added). For example, *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303 (Fed. Cir. 2011), the

Federal Circuit found that "it was not necessary to disclose more structure than the general purpose processor that performs those functions …, because the functions of 'processing,' 'receiving,' and 'storing' are coextensive with the structure disclosed, i.e., a general purpose processor." *Id.* at 1316. Similar to what the Federal Circuit found in *In re Katz*, this Court finds that the recited functions of "displaying" and "transmitting" are coextensive with the disclosed structure, and do not run afoul of the rule against purely functional claiming.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court finds that the phrase "first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station" is governed by 35 U.S.C. § 112, ¶ 6, and construes the phrase as follows:

Function: Displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station.

Corresponding Structure: microprocessor 96, liquid crystal display (LCD) module 98, LCD driver 99, LCD screen 16, dialpad 15, ROM 94, EEPROM 97, modem 95, and transceiver 77.

3. "second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands"	Ordinary and customary meaning. Does not need to be rewritten.	Governed by 35 U.S.C. §112 ¶ 6. Indefinite for failure to disclose corresponding structure

a) The Parties' Positions

The parties dispute two issues: (1) whether the phrase is phrase is governed by 35 U.S.C. § 112, ¶ 6; and (2) whether the phrase is indefinite. For the same reasons discussed above, Plaintiff contends that the phrase is not governed by 35 U.S.C. § 112, ¶ 6. (Dkt. No. 45 at 23.) Plaintiff contends that the presumption does not apply when the term "means" is used in a method claim. (Dkt. No. 45 at 23.) Plaintiff further contends that even if the presumption is applied, the claim itself provides the structure necessary to perform the recited functions. (Dkt. No. 45 at 23) (citing Dkt. No. 39 at 24-25 (Franzon Decl. at ¶¶44-47)). Specifically, Plaintiff argues that the preambles of claims 1 and 18 indicate to a person of ordinary skill in the art that a cordless telephone, consisting of a handset and an associated base station, is sufficient to enable a person of ordinary skill to practice the recited functions of "receiving alphanumeric data," "retrievably storing the data in a first submemory" and "operably responding to the commands." (Dkt. No. 45 at 23.)

Regarding Defendants' indefinite argument, Plaintiff contends that the phrase is not indefinite because it informs, with reasonable certainty, the scope of the claim to a person of ordinary skill in the art. (Dkt. No. 45 at 23) (citing *Nautilus*, 134 S.Ct. at 2124). Plaintiff argues that the phrase is written in clear language that is easily understandable by an electrical engineer at the time of the invention. (Dkt. No. 45 at 23.) Plaintiff further argues that a person of ordinary skill would understand the term "submemory." (Dkt. No. 45 at 24.) Plaintiff contends that although "submemory" does not appear in contemporaneous technical dictionaries, the term "memory" does. (Dkt. No. 45 at 24.) Plaintiff argues that "memory" is a well-known electrical engineering term of art that is equally well understood by laypersons. (Dkt. No.45 at 24) (citing Dkt. No. 39 at 26-27 (Franzon Decl. at ¶¶49, 53)). Plaintiff contends that "submemory" is simply an engineering shorthand way of saying "a portion of the memory." (Dkt. No. 45 at 24.) Plaintiff further argues that Defendants' technical expert (Dr. Lyon) admitted that it is common for

electrical engineers to add a prefix such as "sub-" to a well understood term to create a new, and easily understandable term. (Dkt. No. 45 at 24) (citing Dkt. No. 48 at 195 (Lyon Depo. at 139:25 – 140:7)).

Plaintiff further argues that Defendants' indefiniteness argument is incorrect, because this is not a means-plus-function term. (Dkt. No. 45 at 24.) Plaintiff contends that even if section 112, ¶ 6, is applicable to this claim element, Defendants urge the Court to apply an incorrect methodology for construing a means-plus-function term. (Dkt. No. 45 at 24.) Specifically, Plaintiff contends that the structure is already recited in the claim, because "submemory" functions as a noun that connotes structure. (Dkt. No. 45 at 24-25) (citing Dkt. No. 48 at 194 (Lyon Depo. at 135:12 – 136:7)). Finally, Plaintiff argues that if the Court determines that this claim element should be construed as a means-plus-function term, then the specification recites sufficient structure for performing the recited functions. (Dkt. No. 45 at 25) (citing Dkt. No. 39 at 25-27 (Franzon Decl. at ¶¶48-52)).

Defendants argue that this phrase is presumed to be means-plus-function because it uses the "means for" language. (Dkt. No. 49 at 22.) Defendants also contend that there is not sufficient structure in the claim itself to overcome the presumption. (Dkt. No. 49 at 22.) Defendants argue that Plaintiff's position is further undercut by its expert who cites to detailed structure in the specification. (Dkt. No. 49 at 23) (citing Dkt. No. 39 at 25 (Franzon Decl. at ¶48)). Defendants argue that the claim language clearly does not include this detail, which is the "exact structure" that performs the function. (Dkt. No. 49 at 23.)

Defendants further contend that once construed as a means-plus-function term, it is clear that the phrase is indefinite, because there is no disclosure of "submemory" in the '599 Patent. (Dkt. No. 49 at 23) (citing Dkt. No. 41 at 11-14 (Lyon Decl. at ¶¶ 36–47)). Defendants argue that

the term "sub" was only added at the eleventh hour during prosecution to modify first and second memories without any support or alleged disclosure in the specification. (Dkt. No. 49 at 23.) Defendants argue that the NVRAM disclosed in the specification is not a disclosure of first and second submemories. (Dkt. No. 49 at 24.) According to Defendants, the term "submemory" is indefinite for failure to disclose corresponding structure for the claimed "processor means at the base station for . . . retrievably storing the data in a first submemory." (Dkt. No. 49 at 24.)

Defendants next argue that the claim term "submemory" itself is indefinite, because the "claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention." (Dkt. No. 49 at 24) (quoting *Nautilus*, 134 S. Ct. at 2124). Defendants argue that submemory is not a term that was commonly understood and defined by one of skill in the art at the time of the invention. (Dkt. No. 49 at 24) (citing Dkt. No. 41 at 12 (Lyon Decl. at ¶ 39)). Defendants argue that neither Defendants', nor Plaintiff's experts could find a single technical reference, dictionary definition, or technical publication that used "submemory." (Dkt. No. 49 at 24) (citing Dkt. No. 41 at 12 (Lyon Decl. at ¶¶ 39-40)).

Defendants further argue that to the extent that the term submemory was used at or around 1993 it had several different meanings. (Dkt. No. 49 at 24) (citing Dkt. No. 41 at 12-13 (Lyon Decl. at ¶ 42)). Finally, Defendants argue that Plaintiff asserts that this term has a "plain and ordinary meaning" but refuses to provide any information for what that plain and ordinary meaning is. (Dkt. No. 49 at 25.) Defendants contend that this is because there is no plain and ordinary meaning for this term at the time of the invention. (Dkt. No. 49 at 25.)

Plaintiff responds that Defendants erroneously assume that this is a "means-plus-function" claim term because it uses the word "means." (Dkt. No. 56 at 21.) Plaintiff further argues that Dr.

Franzon's testimony does not undercut its position, but merely provides further detail. (Dkt. No. 56 at 21.) Plaintiff contends that Dr. Franzon testified that the claim language itself provides sufficient structure to enable a person of ordinary skill to practice the claim element, and then goes on to identify the corresponding structure in the specification. (Dkt. No. 56 at 21) (citing Dkt. No. 39 at 24-27 (Franzon Decl. at ¶¶45-51)).

Regarding Defendants' indefinite arguments, Plaintiff contends that Defendants' lack of corresponding structure argument is incorrect, because it is premised upon a finding that this claim term is a "means-plus-function" term governed by § 112, ¶ 6. (Dkt. No. 56 at 22.) Plaintiff also argues that Defendants are wrong in their contention that the specification does not disclose adequate structure related to "submemory." (Dkt. No. 56 at 22) (citing Dkt. No. 39 at 25-27 (Franzon Decl. at ¶¶48-52)). Plaintiff further argues that Defendants' contention that the term "submemory" is inherently indefinite is contradictory. (Dkt. No. 56 at 22.) Plaintiff contends that Defendants argue that the term "submemory" had no ordinary meaning, while at the same time arguing that "submemory" had several different meanings. (Dkt. No. 56 at 22.) Finally, Plaintiff argues that Defendants' position also ignores the testimony of Defendants' expert. (Dkt. No. 56 at 22) (citing Dkt. No. 48 at 195 (Lyon Depo. at 139:25 – 140:7)).

Defendants respond that this term is presumed to be means-plus-function because it uses the "means for" language. (Dkt. No. 57 at 16.) Defendants also argue that there is not sufficient structure in the claim itself to overcome the presumption. (Dkt. No. 57 at 16.) Defendants then contend that once construed as a means-plus-function limitation, the specification does not disclose any structure corresponding to the claimed function of storing data in a first submemory. (Dkt. No. 57 at 17) (citing Dkt. No. 41 at 12 (Lyon Decl., at ¶ 37)). Defendants argue that contrary to Plaintiff's assertion, the term "submemory" in the claims cannot fill the lack of any disclosure

for this term in the specification. (Dkt. No. 57 at 17.)

Defendants also argue that the term "submemory" was not a part of the specification or originally filed claims, and therefore the later added claims cannot provide support for the term "submemory." (Dkt. No. 57 at 18.) Finally, Defendants contend that the '599 Patent is devoid of any disclosure of any submemory structure necessary to support this means-plus-function limitation. (Dkt. No. 57 at 18.) Defendants argue that the alleged disclosure in the '599 Patent merely discloses NVRAM, which is a generic disclosure of non-volatile random access memory. (Dkt. No. 57 at 18.)

Finally, Defendants argue that the claim term fails to inform those skilled in the art with reasonable certainty as to the scope of the invention. (Dkt. No. 57 at 18.) Defendants contend that Plaintiff admits that the term "submemory" cannot be found anywhere in the specification or in any contemporaneous technical dictionaries. (Dkt. No. 57 at 19.) Defendants argue that the only evidence of record shows that this term did not have a generally understood meaning, and was instead subject to multiple possible interpretations. (Dkt. No. 57 at 19) (citing Dkt. No. 41 at 12-13 (Lyon Decl. at ¶¶ 39-42)).

For the following reasons, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6, and is not indefinite.

b) Analysis

The phrase "second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands" appears in claims 1 and 18 of the '599 Patent. Having reviewed the claims, the Court finds that the phrase is governed by 35 U.S.C. § 112, ¶ 6. The disputed phrase uses the words "means" and specifies a function, thus the Court presumes that the patentees

intended to invoke the statutory mandates for means-plus-function clauses.

For the reason discussed above, the Court disagrees with Plaintiff that the presumption only arises in method claims if the word "step for" is used. The Court also disagrees with Plaintiff's alternate position that the preambles of claim 1 and 18 indicate to a person of ordinary skill in the art that a cordless telephone is sufficient to enable a person of ordinary skill to practice the recited functions of "receiving alphanumeric data," "retrievably storing the data in a first submemory" and "operably responding to the commands." (Dkt. No. 45 at 23.) As with the previous term, Plaintiff's argument fails because the claims do not recite the structure it indicates is required to perform the recited function. The claims do not recite "a processor, a modem, and a nonvolatile memory device." Furthermore, the Court disagrees that the recited "submemory" provides sufficient structure for the disputed phrase.

Having determined that the term is a means-plus-function term, and that Plaintiff has failed to rebut the presumption, the Court's focus turns to determining the proper construction. Having reviewed the intrinsic evidence, the Court finds that the recited function is "receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands." Turning to Figure 2, the Court finds that the corresponding structure includes microprocessor 33, NVRAM 34, bidirectional data bus 37, data bus 48, microprocessor 39, ROM 45, modem 51, and transceiver 53. Specifically, the specification states that the "data is retrievably stored in a nonvolatile NVRAM 34." '599 Patent at 4:22–23. The specification adds that "ROM 45 in the microprocessor 39 comprises firmware that controls the operation of both microprocessors 33 and 39," and that microprocessor 39 is "connected to a minimum shift keying (MSK) modem 51." '599 Patent at 4:33–41. Regarding the connection between microprocessors 33 and 39, the specification states the following:

> [I]n the event caller identification data is present, such data is stored in a non-volatile NVRAM 34 which communicates in a known manner with its associated microprocessor 33 over an address and data bus 48 as shown in block 205. A second bus 37 communicates the microprocessor 33 with the data input register 38 of the main microprocessor 39 of the base 11 which is indicated by the block 206."

'599 Patent at 7:29–37. The specification further states that the output of modem 51 "is coupled to the input of the transceiver 53, as previously described, for subsequent modulation of the RF carrier and transmission to the handset 13." '599 Patent at 7:38–42. Thus, the Court finds that the corresponding structure that performs the function of "receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands" is microprocessor 33, NVRAM 34, bidirectional data bus 37, data bus 48, microprocessor 39, ROM 45, modem 51, and transceiver 53. Finally, as with the previous disputed phrase, the Court finds that the recited functions of "receiving," "storing," and "responding," are coextensive with the disclosed structure, and do not run afoul of the rule against purely functional claiming.

Regarding Defendants' indefinite argument, the Court finds that the term "submemory" does not make the means-plus-function term indefinite. First, the Court disagrees that the specification fails to disclose a corresponding structure for retrievably storing the data in a first submemory of the base station. In fact, the specification states multiple times that various data can be retrievably stored in the NVRAM 34. *See, e.g.*, '599 Patent 4:20–23 ("[A]n input 44 of a microprocessor 33 from which the data is retrievably stored in a nonvolatile NVRAM 34."); 7:29–31 ("[I]n the event caller identification data is present, such data is stored in a non-volatile NVRAM 34."); 9:64–67 ("In the case of storing the corresponding name, storage occurs in the nonvolatile memory NVRAM 34 in which the directory resides."); 10:18–23 ("In order to save the displayed directory number, and name if available, the aforenoted dedicated Save key is depressed which initiates the procedure for saving the caller identification data to the nonvolatile

NVRAM 34.").

Thus, a person of ordinary skill would understand that the recited "submemory" is the NVRAM 34. Indeed, the remaining claim language indicates this as well when it recites that "retreivably storing the valid data in a second submemory of the base station and concurrently transmitting the valid data to the handset for display on the screen." The specification discloses that this step occurs in the NVRAM 34. '599 Patent at 4:17–22 ("A custom local area signalling services (CLASS) message servicing modem, shown in FIG. 2 as a modem 32, receives the FSK signals which are demodulated and output as class 20 message servicing (CMS) data to an input 44 of a microprocessor 33 from which the data is retrievably stored in a nonvolatile NVRAM 34."). In sum, the Court is not persuaded that the term is indefinite for failing to disclose adequate structure.

Defendants also argue that the term is indefinite, because it fails to inform those skilled in the art with reasonable certainty as to the scope of the invention. (Dkt. No. 57 at 12-13.) The Court disagrees. As discussed above, the Court finds that the corresponding structure for retrievably storing the data in a first submemory of the base station includes NVRAM 34. Likewise, the step of "retreivably storing the valid data in a second submemory of the base station and concurrently transmitting the valid data to the handset for display on the screen" refers to NVRAM 34. '599 Patent at 4:17–22 ("A custom local area signalling services (CLASS) message servicing modem, shown in FIG. 2 as a modem 32, receives the FSK signals which are demodulated and output as class 20 message servicing (CMS) data to an input 44 of a microprocessor 33 from which the data is retrievably stored in a nonvolatile NVRAM 34.")

Moreover, the prosecution history (quoted in last paragraph) confirms that this is how a person of ordinary skill in the art would understand the claim language. On February 23, 1996,

the examiner issued a Notice of Allowability, which included examiner's amendments to claim 33.[11] Claim 33, as amended by the examiner, follows:

33. (Once Amended) A method for displaying data and processing appearances thereof from an alphanumeric display screen of a cordless handset in user-interactive radio communication with an associated base station of a cordless telephone terminal in onhook communication with a telephone exchange, wherein said base station comprises a memory device, and wherein said memory device comprises first and second submemories, said method comprising the steps of:

generating predetermined command and alphanumeric data from selected ones of key operations at the handset;

enabling first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station;

enabling second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands;

capturing service data from an incoming telephone call received at the base station;

testing the service data at the base station to confirm its validity;

retreivably storing the valid data in a second submemory of the base station and concurrently transmitting the valid data to the handset for display on the screen;

generating a set of user-interactive prompts having [distinct] predetermined appearances on the display screen; and

accessing individual ones of the first and second submemories via key operations at the handset corresponding to the user-interactive prompts for selectively processing and editorially revising the alphanumeric data stored in the submemories while under display screen observation.

(Dkt. No. 50-9 at 49-50.) As indicated by the underlined text, the examiner amended claim 33 by changing "first memory" to "first submemory," and "second memory" to "second submemory."

[11] Claim 33 later issued as claim 1 of the '599 Patent. (Dkt. 50-9 at 47.)

(Dkt. 50-9 at 49-50.) Importantly, the Examiner amended the preamble of claim 33 to recite "wherein said base station comprises a memory device, and wherein said memory device comprises first and second submemories." (Dkt. 50-9 at 49.) Thus, a person of ordinary skill in the art would understand that the recited memory device (*i.e.*, NVRAM 34) comprises a first and second submemories. This provides context on how the term "submemory" is used and informs those skilled in the art with reasonable certainty as to the scope of the invention.

Additionally, Defendants' expert, Dr. Lyon, stated that "[i]n our field, in telecommunications, it's quite common to take a term that is used generally and add to it a prefix in a particular context to maybe distinguish it from one – one example of it, whatever the first term was and the second term. The word sub, the word extra, the word supra, these could all be used." (Dkt. No. 48 at 195) (Lyon Depo. at 139:25 – 140:7). This is consistent with the examiner's amendments, which further indicated that the recited memory device (*i.e.*, NVRAM 34) included a first and second submemory. Accordingly, the Court finds that the claims, read in light of the specification delineating the patent, and the prosecution history, inform, with reasonable certainty, those skilled in the art about the scope of the invention.

Finally, as with the previous disputed phrase, the Court finds that the recited functions of "receiving," "storing," and "responding," are coextensive with the disclosed structure, and do not run afoul of the rule against purely functional claiming. *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d at 1316.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court finds that the phrase "second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands"

is governed by 35 U.S.C. § 112, ¶ 6, and construes the phrase as follows:

Function: Receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands.

Corresponding Structure: microprocessor 33, NVRAM 34, bidirectional data bus 37, data bus 48, microprocessor 39, ROM 45, modem 51, and transceiver 53.

4. "editorially revising the alphanumeric data stored in the submemories"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"editorially revising the alphanumeric data stored in the submemories"	Ordinary and customary meaning. Does not need to be rewritten.	"altering based on the key operations the alphanumeric data stored in both the first submemory and the second submemory"

a) The Parties' Positions

The parties dispute whether the phrase "editorially revising the alphanumeric data stored in the submemories" should be construed to change "editorially revising" to "altering based on the key operations," as Defendants propose. The parties also dispute whether the antecedent language of "accessing individual ones of the first and second submemories," requires construing this phrase to specify that the data is revised "in both the first submemory and the second submemory," as Defendants propose.

Plaintiff contends that the phrase has a plain meaning and does not require construction. (Dkt. No. 45 at 25.) Regarding Defendants' construction, Plaintiff argues that it appears to be aimed at reading in limitations that are not expressed in the claim language itself. (Dkt. No. 45 at 25.) Plaintiff argues that there is nothing in the claim language itself that requires "altering based on the key operations." (Dkt. No. 45 at 25.) Plaintiff further argues that Defendants' construction would add a limitation requiring that alphanumeric data stored in "both the first submemory and

the second submemory" be revised or altered, even though the claim language itself specifies "accessing individual ones of the first and second submemories . . . ." (Dkt. No. 45 at 25.) According to Plaintiff, Defendants' construction contradicts both the plain language of the claim and the specification. (Dkt. No. 45 at 25.)

Defendants contend that Plaintiff attempts to improperly broaden the scope of this term by asserting that the plain and ordinary meaning would include altering information in one or the other submemories, but does not require altering both. (Dkt. No. 49 at 25) (citing Dkt. No. 39 at 29-30 (Franzon Decl. at ¶ 57)). Defendants argue that Plaintiff's construction is contrary to the claim language itself, which requires the method steps of "accessing individual ones of the first and second submemories . . . and editorially revising the alphanumeric data stored in the submemories." (Dkt. No. 49 at 25.) Defendants argue that the Court should ensure that a jury understands that this term requires that the information in both submemories are accessed and revised. (Dkt. No. 49 at 25.)

Plaintiff responds that Defendants make no argument, and provide no justification for the portion of their proposed claim construction that would change the words "editorially revising" to "altering based on the key operations." (Dkt. No. 56 at 22.) Plaintiff also argues that Defendants' construction does not give effect to the words "accessing individual ones" in the claim element. (Dkt. No. 56 at 23.) Plaintiff argues that this claim element does not require editorially revising alphanumeric data in more than one submemory. (Dkt. No. 56 at 23.) Plaintiff contends that the antecedent basis for "the submemories" is the phrase "individual ones of the first and second submemories," which is recited earlier in this claim element. (Dkt. No. 56 at 23.) Plaintiff further argues that the latter claim term "the submemories" was written in the plural in order to agree with the term establishing its antecedent basis. (Dkt. No. 56 at 23.)

Defendants respond that the claim language itself shows that both submemories are editorially revised. (Dkt. No. 57 at 19.) Defendants argue that the language Plaintiff focuses on does not contradict the language of the claim term to be construed, which relates to revising the "submemories." Defendants further argue that the phrase "individual ones of" precedes a list of items, and the patentees used the term "and" to separate the items on the list, which connotes a conjunctive list. (Dkt. No. 57 at 20) (citing *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 885–88 (Fed. Cir. 2004)). Defendants argue that the phrase "individual ones of" modifies each member of the list, and thus, the phrases "individual ones of . . . and" require one of each item (first submemories and second submemories) on the list. (Dkt. No. 57 at 20.)

For the following reasons, the Court finds that the phrase **"editorially revising the alphanumeric data stored in the submemories"** should be construed to mean **"altering the alphanumeric data stored in the submemories."**

b) Analysis

The phrase "editorially revising the alphanumeric data stored in the submemories" appears in claims 1 and 18 of the '599 Patent. The Court finds that the phrase is used consistently in the claims and is intended to have the same meaning in each claim. The Court further finds that the phrase "editorially revising" could be confusing to a jury, and should be construed as "altering," as Defendants propose. The Court notes that during the claim construction hearing, Plaintiff agreed with construing "editorially revising" as "altering."

Regarding Defendants' proposal to add the language of "based on the key operations," the Court finds this language unnecessary. Defendants have not provided any argument on why this language should be added. Furthermore, the claim language itself recites "accessing individual ones of the first and second submemories via key operations." Accordingly, the Court rejects this

portion of Defendants' construction because it is repetitive and unnecessary.

Regarding the remaining language in the disputed phrase, the Court finds that the language does not require construction. The Court disagrees that the phrase "individual ones of" modifies each member of the list, and necessarily requires revising data stored in both submemories. Specifically, this entire claim element recites "accessing *individual ones of the first and second submemories* via key operations at the handset corresponding to the user-interactive prompts for selectively processing and editorially revising the alphanumeric data stored in *the submemories* while under display screen observation." '599 Patent at 13:18–23 (emphasis added). As indicated by this language, the antecedent basis for "the submemories" is the phrase "individual ones of the first and second submemories." The claims language further recites that "individual ones of the first and second submemories" is accessed via key operations at the handset. If the patentees had intended the claim language to require accessing both submemories, then they would have dropped "individual ones of" from the claims to recite "accessing the first and second submemories via key operations." The patentees did not, and the Court will not redraft the claim to reach this result.

Furthermore, the Court finds that Defendants' construction ignores the phrase "individual ones" and its import on construing the latter term, "the submemories." The plain meaning of "individual ones of" is accessing one of the submemories and does not require accessing both submemories. Moreover, the Court is not persuaded by Defendants' citation to *SuperGuide*. In *SuperGuide*, the disputed language was "at least one of … and," not "individual ones ... and." *SuperGuide Corp. v. DirecTV Enters., Inc.*, 358 F.3d 870, 885 (Fed. Cir. 2004). In summary, the Court finds that the disputed language is unambiguous, and is easily understandable by a jury, and should be given its plain and ordinary meaning. The Court rejects Defendants' construction, and finds that this claim element does not require altering alphanumeric data in both submemories.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court construes the phrase **"editorially revising the alphanumeric data stored in the submemories"** to mean **"altering the alphanumeric data stored in the submemories."**

5. "radio communication comprises a bidirectional radio link between the handset and the base station for full duplex data transmission"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"radio communication comprises a bidirectional radio link between the handset and the base station for full duplex data transmission"	Ordinary and customary meaning. Does not need to be rewritten.	"radio communications between the handset and the base station in both directions simultaneously"

a) The Parties' Positions

The parties dispute whether the phrase requires actual radio communication simultaneously in both directions, as Defendants propose, or if it only requires the "capability" of simultaneous radio communication, as Plaintiff proposes. Plaintiff contends that "full duplex" is a well understood term-of-art to a person of ordinary skill. (Dkt. No. 45 at 26) (citing Dkt. No. 39 at 31 (Franzon Decl. at ¶60)). Plaintiff argues that the ordinary and customary meaning of a full duplex system is one that is capable of communication in both directions simultaneously, but actual bidirectional communication is not required in order for a system to be considered "full duplex." (Dkt. No. 45 at 26) (citing Dkt. No. 39 at 31 (Franzon Decl. at ¶60)). According to Plaintiff, infringement requires that a link capable of bidirectional transmission be present, but infringement does not require that the bidirectional communication actually occur. (Dkt. No. 45 at 26.) Plaintiff contends that Defendants' construction is at odds with the ordinary and customary meaning, because it would require bidirectional communication to fulfill "full duplex." (Dkt. No. 45 at 26.)

Defendants argue that construction is necessary to help the jury understand the meaning of this claim term, including "full duplex data transmission." (Dkt. No. 49 at 26) (citing Dkt. No. 41

at 13-14 (Lyon Decl. at ¶¶ 43-48)). Defendants contend that Plaintiff's expert largely agrees with Defendants' proposed construction. (Dkt. No. 49 at 26) (citing Dkt. No. 39 at 31 (Franzon Decl. at ¶ 60)). According to Defendants, the main dispute between the parties is whether the claim term requires actual radio communication simultaneously in both directions, or just the "capability" of simultaneous radio communication. (Dkt. No. 49 at 26.) Defendants argue that method claims can only be infringed by the step being performed, not by the mere capability of performing the step. (Dkt. No. 49 at 26.) Defendants contend that because claim 10 is a method claim, the claim language itself makes it clear that the method includes a full duplex data transmission radio communication. (Dkt. No. 49 at 27.)

Plaintiff responds that Defendants incorrectly state that its expert agree with Defendants' construction. (Dkt. No. 56 at 23-24) (citing Dkt. No. 39 at 31 (Franzon Decl. at ¶ 60)). Plaintiff further argues that Defendants misunderstand the nature and function of this claim term within the context of the entire claim. (Dkt. No. 56 at 24.) Plaintiff notes that the disputed phrase appears only in dependent claim 10 of the '599 Patent. (Dkt. No. 56 at 24.) Plaintiff further notes that claim 10 depends from claim 1 (indirectly, through other dependent claims). (Dkt. No. 56 at 25.) Plaintiff argues that claim 10 provides a further limitation to the claim term "radio communication," appearing in claim 1. (Dkt. No. 56 at 25.) Plaintiff argues that "radio communication" appears only in the preamble to claim 1, and does not appear in any method step of claim 1, or any of the other dependent claims related to claim 10. (Dkt. No. 56 at 25.) According to Plaintiff, this makes it clear that the claim term "radio communication," appearing only in the preamble of claim 1, is defining the hardware environment within which the method steps take place, and does not itself define a method step. (Dkt. No. 56 at 25.)

Plaintiff further argues that the entirety of Defendants' argument is the assertion that

"[m]ethod claims can only be infringed by the step being performed, not by the mere capability of performing the step. . . . Plaintiff's construction is therefore contrary to the law." (Dkt. No. 56 at 25) (quoting Dkt. No. 49 at 26). Plaintiff contends that this argument ignores that the disputed phrase does not define a step of the claimed method, but instead relates to defining the hardware environment within which the method occurs. (Dkt. No. 56 at 25.) Plaintiff contends that the hardware environment is defined by claim 1 to include "radio communication" between the handset and base station, and claim 10 further specifies that the radio communication "comprises a bidirectional radio link between the handset and the base station for full duplex data transmission." (Dkt. No. 56 at 26.) Plaintiff argues that the claim never states that a full duplex data transmission must take place, but instead states that a bidirectional radio link must be present for full duplex data transmission. (Dkt. No. 56 at 26.) According to Plaintiff, the link must be capable of full duplex transmission, but need not actually perform that function for infringement to occur. (Dkt. No. 56 at 26.)

Plaintiff further argues that Defendants' construction is incorrect because it attempts to take a limitation related to the hardware environment, and turn it into a method step that is not present in the claim. (Dkt. No. 56 at 26.) Plaintiff also argues that Defendants' construction is incorrect because it ignores the word "for" in the claim language. (Dkt. No. 56 at 26.) Plaintiff contends that the word "for" signals that the radio link must be capable of supporting full duplex data transmission, not that full duplex transmission must take place. (Dkt. No. 56 at 26.) Finally, Plaintiff argues that Defendants' construction is consistent with the IEEE dictionary, which defines "full duplex" as communication "where each end can simultaneously transmit and receive . . . ." (Dkt. No. 56 at 26.)

Defendants respond that claim 10 is a method claim that requires the step of a "radio communication comprising full duplex data transmission." (Dkt. No. 57 at 21.) Defendants argue that Plaintiff's assertion is based on a system, not a method, and does not take into account that method claims can only be infringed by the step being performed, and not by the mere capability of performing the step. (Dkt. No. 57 at 21.)

For the following reasons, the Court finds that the phrase **"radio communication comprises a bidirectional radio link between the handset and the base station for full duplex data transmission"** should be construed to mean **"radio communication comprises a bidirectional radio link between the handset and the base station that is capable of data transmission in both directions simultaneously."**

b) Analysis

The phrase "radio communication comprises a bidirectional radio link between the handset and the base station for full duplex data transmission" appears in claim 10 of the '599 Patent. The Court notes that claim 10 depends from claim 1, and that the term "radio communication" is only recited in the preamble of claim 1. The Court also notes that the term does not appear in any of the method steps of claim 1, or the other claims from which claim 10 depends. Accordingly, the Court finds that the recited "radio communication" is defining the environment within which the method steps take place, and does not itself define a method step. In other words, the disputed phrase only requires the "capability" of simultaneous radio communication, and not actual radio communication simultaneously in both directions, as Defendants propose. Indeed, the disputed phrase recites "radio communication comprises a bidirectional radio link between the handset and the base station *for* full duplex data transmission." The Court agrees with Plaintiff that the word "for" signals that the radio link must be capable of supporting full duplex data transmission, not

that full duplex transmission must take place.

The Court further finds that the jury may find the term "full duplex" confusing. The IEEE dictionary defines "full duplex" as "a method of operation where each end can simultaneously transmit and receive." (Dkt. No. 46 at 136) (IEEE Dictionary definition of "full duplex"). The parties generally agree with this definition for "full duplex." (Dkt. No. 57 at 20.) Accordingly, the Court will construe "full duplex data transmission" as "data transmission in both directions simultaneously."

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court construes the phrase **"radio communication comprises a bidirectional radio link between the handset and the base station for full duplex data transmission"** to mean **"radio communication comprises a bidirectional radio link between the handset and the base station that is capable of data transmission in both directions simultaneously."**

6. "half duplex radio communication between the base station and handset"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"half duplex radio communication between the base station and handset"	Ordinary and customary meaning. Does not need to be rewritten.	"radio communications between the handset and the base station in both directions, but only one direction at a time (not simultaneously)."

a) The Parties' Positions

The parties dispute whether the disputed phrase requires actual radio communication between the handset and the base station in both directions (not simultaneously), as Defendants propose, or just the "capability" of radio communication in both directions (not simultaneously), as Plaintiff proposes. Plaintiff contends that "half duplex" is a well understood term of art to a person of ordinary skill. (Dkt. No. 45 at 26) (citing Dkt. No. 39 at 32 (Franzon Decl. at ¶ 62)).

Plaintiff argues that the ordinary and customary meaning of a half duplex system is one capable of communication in both directions, but actual bidirectional communication is not required in order for a system to be considered "half duplex." (Dkt. No. 45 at 27) (citing Dkt. No. 39 at 32 (Franzon Decl. at ¶ 62)). Plaintiff argues that Defendants' construction is at odds with the ordinary and customary meaning, because it would require bidirectional communication to fulfill "half duplex." (Dkt. No. 45 at 27.)

Defendants argue that for the same reason as the previous phrase, the claim language itself makes it clear that the method includes the step of half duplex radio communication, not just the capability of half duplex radio communication. (Dkt. No. 49 at 27.) Plaintiff responds that Defendants' argument for this disputed phrase are flawed for the same reason as the previous phrase. (Dkt. No. 56 at 26.) Defendants respond that claim 11 is a method claim where half duplex radio communication is performed, and is not a system that is merely capable of half duplex communication. (Dkt. No. 57 at 21.) Defendants contend that the claim language itself shows that the method includes the step of half duplex radio communication, not just the capability of half duplex radio communication. (Dkt. No. 57 at 21.)

For the following reasons, the Court finds that the phrase **"half duplex radio communication between the base station and handset"** should be construed to mean **"radio communications between the handset and the base station in both directions, but only one direction at a time (not simultaneously)."**

b) Analysis

The phrase "half duplex radio communication between the base station and handset" appears in claim 11 of the '599 Patent. The Court finds that claim 11 indicates that the half-duplex radio communication must actually be performed. Specifically, claim 11 recites the following

(disputed phrase in italics):

> A method as claimed in claim 10, wherein *half duplex radio communication between the base station and handset* is performed via a first RF carrier signal transmitting continuously from the base station.

The plain language of the claim states that the half duplex radio communication "is performed." Accordingly, the Court agrees with Defendants that the method includes the step of half duplex radio communication, not just the capability of half duplex radio communication. However, the recited "is performed" language is not part of the disputed phrase, and it would be redundant to include it in the Court's construction.

The Court further finds that the jury may find the term "half duplex" confusing. The IEEE dictionary defines "half duplex" as "a circuit capable of transmitting in either direction, but only one direction at a time." (Dkt. No. 46 at 137) (IEEE Dictionary definition of "half duplex"). The parties generally agree with this definition for "half duplex." (Dkt. No. 57 at 21). Accordingly, the Court will incorporate this definition into its construction.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court construes the phrase **"half duplex radio communication between the base station and handset"** to mean **"radio communications between the handset and the base station in both directions, but only one direction at a time (not simultaneously)."**

B. The '899 Patent

The parties' dispute focuses on the meaning and scope of six terms/phrases in the '899 Patent.

1. "network"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"network"	Ordinary and customary meaning. Does not need to be rewritten.	"IP network"

a) The Parties' Positions

The parties dispute whether the claims should be limited to an "IP network," as Defendants contend, or should be construed more broadly, as Plaintiff contends. Plaintiff contends that the IEEE dictionary defines "network" as "a series of points interconnected by communication channels." (Dkt. No. 45 at 27) (citing Dkt. No. 39 at 35-36 (Franzon Decl. at ¶ 70)). Plaintiff argues that "network" is a commonly used term in electrical engineering patents, and should not be limited to a particular type of network. (Dkt. No. 45 at 28.) Plaintiff contends that it would have been easy for the patentees or examiner to specify a particular type of network by providing an adjective, *e.g.*, IP network, digital network, cellular network, wifi network, 4G network, etc. (Dkt. No. 45 at 28.) According to Plaintiff, the absence of an adjective signifies that "network" is intended to encompass various network types, in accordance with the broad, ordinary and customary meaning of the term. (Dkt. No. 45 at 28.)

Plaintiff further argues that the specification clearly states that that the invention is not limited to an IP network. (Dkt. No. 45 at 28) (quoting '899 Patent at 3:44–49). Plaintiff also contends that the specification expressly uses the term "network" to contrast it with an "IP network." (Dkt. No. 45 at 28) (citing '899 Patent at 3:3–24 and Figure 1). Finally, Plaintiff argues that the testimony of Defendants' expert, Dr. Akl, is unreliable and not credible. (Dkt. No. 45 at 28-30.)

Defendants argue that the word "network" considered in a vacuum without context is extremely broad, and has numerous meanings based on the context and field in which it is used. (Dkt. No. 49 at 27-28) (citing Dkt. No. 50-10 at 13, 17 (Akl Dep. at 45:11–21; 58:5–17)). Defendants contend that when read in the context of the specification, it is clear that the plain

meaning of the term network is an IP network. (Dkt. No. 49 at 28) (citing Dkt. No. 40 at 8-9 (Akl Decl. at ¶¶ 20–25)). Defendants argue that the only support for Plaintiff's definition is a citation to a single dictionary. (Dkt. No. 49 at 28.) Defendants argue that the referenced dictionary includes multiple and different definitions for the word "network," and multiple definitions for numerous phrases including the word network. (Dkt. No. 49 at 28) (citing Dkt. No. 39-1 at 6-7). Defendants argue that Plaintiff's dictionary definition is divorced from the context of the specification. (Dkt. No. 49 at 28.)

Defendants further argue that the specification's repeated description of IP telephony and IP networks, leads to the inevitable conclusion that the claimed "network" is an IP network. (Dkt. No. 49 at 28.) Defendants contend that this is not a situation where the patent merely discloses an exemplary embodiment that includes an IP network. (Dkt. No. 49 at 28.) According to Defendants, the '899 Patent contains exclusive, repeated, and pervasive descriptions showing that the patent is directed to IP telephony utilizing IP networks. (Dkt. No. 49 at 28-29.)

Specifically, Defendants note that the title of the patent is "Method and Apparatus for Providing Advanced IP Telephony Services in an Intelligent Endpoint." (Dkt. No. 49 at 29.) Defendants also point to the abstract, which states that the patent relates to a system for providing "advanced Internet Protocol (IP) telephony." (Dkt. No. 49 at 29.) Defendants also argue that the field of the invention makes clear that the patent is directed to a system using an IP network. (Dkt. No. 49 at 29) (citing '899 Patent at 1:9–15 ("Specifically, the present invention is directed to an IP telephony intelligent endpoint that is capable of updating local IP telephony directories from an IP network server . . . .")). Defendants contend that the background of the invention explains that the inventors were seeking to improve IP telephony systems. (Dkt. No. 49 at 29) (citing '899 Patent at 1:18–43). Defendants further argue that the summary of the invention states that the invention

is directed to IP telephony and describes a system that includes an IP network. (Dkt. No. 49 at 29) (citing '899 Patent at 1:45–53 ("The apparatus is capable of performing updates to a local directory by retrieving directory information from a directory server using an Internet connection.")).

Defendants further argue that every single embodiment described and depicted in the '899 Patent includes an IP network. (Dkt. No. 49 at 29) Defendants contend that the detailed description indicates that the patent is directed to IP telephony and that the network of the invention is an IP network. (Dkt. No. 49 at 29.) Defendants also argue that the term "IP" appears in the patent over 150 times, and that the term "IP network" appears in the specification at least 34 times. (Dkt. No. 49 at 29-30.) Defendants further argue that there is no network disclosed in the '899 Patent other than an IP network, and that there is no architecture disclosed that does not include an IP network. (Dkt. No. 49 at 30.) Defendants also contend that the patent describes computing devices that include IP telephony communication devices or that are connected to separate IP telephony devices. (Dkt. No. 49 at 30.) Defendants also contend that the patent describes an IP network server and an IP network interface. (Dkt. No. 49 at 30.)

Regarding Plaintiff's position, Defendants argue that the only part of the patent specification mentioned by Plaintiff's expert is a singular boilerplate reservation. (Dkt. No. 49 at 30) (citing Dkt No. 39 at 35-36 (Franzon Decl. at ¶ 70)). Defendants argue that this boilerplate reservation cannot overcome the overwhelming evidence from the patent specification establishing the '899 Patent as directed solely to an IP network. (Dkt. No. 49 at 30.) Defendants argue that the invention set forth in the '899 Patent does not go beyond an IP network. (Dkt. No. 49 at 31.) Defendants contend that there is no single example or description of any other network in the patent. (Dkt. No. 49 at 31.) Defendants further argue that the '899 Patent specifically states that the "present invention" is directed to a system including an IP network. (Dkt. No. 49 at31)

(citing '899 Patent at 1:9–15; 3:5–9). Defendants argue that by describing something as a feature of the "present invention," a patentee is defining the invention, and it is proper in such instances to construe the claims consistent with the described feature. (Dkt. No. 49 at 31.)

Plaintiff responds that it does not dispute that the patentees used the term "IP network" throughout the specification for the description of exemplary embodiments. (Dkt. No. 56 at 26.) Plaintiff further contends that it cannot be disputed that: (1) the applicant expressly disclosed that "the invention is not limited to the IP protocol" (citing '899 Patent at 3:44-49); (2) the applicant also referred in the specification to the broader term "network" (citing '899 Patent at 3:5–6; 5:54); and (3) the patentees and examiner chose the broader term "network" to define the scope of the invention in the claims. (Dkt. No. 49 at 27.) Plaintiff argues that if the patentees and examiner had intended to limit the claims to an IP network, they certainly knew how to say so, but chose instead to use the broader term "network." (Dkt. No. 56 at 27.)

Plaintiff further argues that Defendants contend that "network" must be construed to mean "IP network" because "every single embodiment described in the '899 Patent includes an IP network." (Dkt. No. 56 at 29) (quoting Dkt. No. 49 at 22). Plaintiff contends that this is not enough for a clear disclaimer of claim scope. (Dkt. No. 56 at 29) (citing *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1366-67 (Fed. Cir. 2012)).

Plaintiff further argues that Defendants ignore the most crucial portion of the specification, which states that "the invention is not limited to the IP protocol." (Dkt. No. 56 at 30) (quoting '899 Patent at 3:44-49). Plaintiff contends that this indicates that the exemplary embodiments in the specification do not amount to a clear disavowal of claim scope, requiring "network" to be limited to "IP network." (Dkt. No. 56 at 30.) Plaintiff argues that Defendants incorrectly contend that this is a "boilerplate reservation." (Dkt. No. 56 at 30.) Plaintiff contends that this language is not

addressed to exemplary embodiments, but instead addresses the issue before the Court – whether the invention and claims should be limited to IP networks. (Dkt. No. 56 at 31.) Plaintiff argues that it is clear that this passage is the patentees' way of communicating that even though the patent's exemplary embodiments are implemented within an IP network, the invention itself is not limited to IP networks. (Dkt. No. 56 at 31.) Plaintiff argues that Defendants' construction for "network" would simply read this paragraph out of the '899 Patent altogether. (Dkt. No. 56 at 31.)

Finally, Plaintiff argues that the patentee's view of the scope of the invention is confirmed by the choice of words in the claim. (Dkt. No. 56 at 31.) Plaintiff argues that the patentees did not claim (and the examiner did not require) an invention limited to an "IP network." (Dkt. No. 56 at 31.) Plaintiff argues that if the patentees or the examiner intended the claims to be limited to a particular type of network, it would be easy to do so by adding an adjective such as "IP" to the claim term. (Dkt. No. 56 at 31.) Plaintiff contends that when the term "network" is used without a modifier, it is intended to carry the full scope of its ordinary and customary meaning, which encompasses various types of networks. (Dkt. No. 56 at 31.)

Defendants respond that Plaintiff's claim construction approach is flawed. (Dkt. No. 57 at 22.) Defendants argue that the '899 Patent contains repeated and pervasive descriptions showing that the patent is directed to IP telephony utilizing IP networks. (Dkt. No. 57 at 22) (citing Dkt. No. 49 at 28-31). Defendants argue that Plaintiff's single dictionary definition cannot trump the overwhelming evidence that the invention of the '899 Patent is directed to IP networks. (Dkt. No. 57 at 22.) Defendants contend that while it is certainly possible for the word "network" to be broader than solely an IP network, the issue in this case is what the term "network" means in the context of the '899 Patent. (Dkt. No. 57 at 22.)

Defendants argue that in the context of the '899 Patent, the claims cannot be construed

more broadly than the true invention set forth in the patent specification. (Dkt. No. 57 at 22.) Defendants argue that the Court should reject Plaintiff's attempt to construe the terms of the '899 Patent based on constructions of the term "network" in other patents. (Dkt. No. 57 at 22-23.) Finally, Defendants argue that the attacks on the testimony of Defendants' expert, Dr. Akl, are based on mischaracterizations of his testimony. (Dkt. No. 57 at 24-26.) Defendants argue that Dr. Akl's testimony is entirely consistent with the law that claims cannot be construed more broadly than the true invention set forth in the patent, and that a boilerplate reservation cannot expand claims beyond the invention set forth in the specification. (Dkt. No. 57 at 24-26.)

For the following reasons, the Court finds that the term **"network"** should be given its **plain and ordinary meaning.**

b) Analysis

The term "network" appears in claims 1-4, 9-11, 13-16, 18, 20, 22 of the '899 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same meaning in each claim. As an initial matter, the Court notes that Defendants are not asking the Court to literally construe the term "network," but instead ask the Court to limit the term "network" to an "IP network." However, the Court finds that reading "IP" into the claims, as Defendants propose, would be inconsistent with the intrinsic evidence.

Defendants first argue that every single embodiment described and depicted in the '899 Patent includes an IP network. (Dkt. No. 49 at 29.) Defendants are correct that the patentees used the term "IP network" throughout the specification in the description of exemplary embodiments. However, the Federal Circuit has stated that it is "not enough that the only embodiments, or all of the embodiments, contain a particular limitation. We do not read limitations from the specification into claims; we do not redefine words. Only the patentee can do that." *Thorner*, 669 F.3d at 1366

(Fed. Cir. 2012). Importantly, the claims recite "network" and not "IP network." If the patentees and examiner intended to limit the claims to "IP network," then they could have included the language in the claims. *Phillips*, 415 F.3d at 1323 ("[W]e have expressly rejected the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment."). Obviously, the patentees understood how to recite "IP network," as evidenced by its repeated use in the specification, but the claim are not so limited. *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1347 (Fed. Cir. 2009) ("It is the claims that define the metes and bounds of the patentee's invention.").

Moreover, the specification explicitly states that "[w]hile the description of the present invention references the use of IP telephony, the invention is not limited to the IP protocol." '899 Patent at 3:44-46. Defendants contend that this is a singular boilerplate reservation that cannot overcome the evidence establishing the '899 Patent as directed solely to an IP network. The Court disagrees. The Court appreciates that patents often contain boilerplate reservations stating that the invention is not limited to the exemplary embodiments. In fact, the '899 Patent arguably contains a boilerplate reservation at the end of the specification. The specification states that "[t]he description of the present invention has been presented for purposes of illustration and description, but is not intended to be exhaustive or limited to the invention in the form disclosed. Many modifications and variations will be apparent to those of ordinary skill in the art." '899 Patent at 12:35–38.

In contrast, the statement in question is not addressed to exemplary embodiments, but instead specifically addresses the particular claim construction issue before the Court. The statement addresses whether the invention and claims should be limited to IP networks, and appears as an introduction to a section of the specification that provides a detailed description of

an exemplary embodiment that is implemented within an IP network. Given this context, the Court finds that a person of ordinary skill in the art would understand that this statement indicates that, even though the exemplary embodiments are implemented within an IP network, the invention itself is not limited to IP networks. Defendants ask the Court to ignore this paragraph and forego determining how a person of ordinary skill would interpret this intrinsic evidence. This would be improper and contrary to well established law. *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1366-1367 (Fed. Cir. 2012) ("It is likewise not enough that the only embodiments, or all of the embodiments, contain a particular limitation. We do not read limitations from the specification into claims; we do not redefine words. Only the patentee can do that. To constitute disclaimer, there must be a clear and unmistakable disclaimer.").

Defendants also argue that the term "network" is an extremely broad term and has numerous meanings based on the context and field in which it is used. Again, "[t]he patentee is free to choose a broad term and expect to obtain the full scope of its plain and ordinary meaning unless the patentee explicitly redefines the term or disavows its full scope." *Thorner*, 669 F.3d at 1367 (Fed. Cir. 2012). Defendants do not contend that the patentees made a disclaimer or a disavowal that would limit the claims to an IP network. Indeed, the specification states that computing devices 106 and 108 "may be any type of computing device or data processing system that is capable of telephony communication." '899 Patent at 3:25–28. Accordingly, the Court is not persuaded that the term "network" should be limited to "IP network," simply because "network" may be a broad term.

Defendants also argue that the '899 Patent specifically states that the "present invention" is directed to a system including an IP network. (Dkt. No. 49 at 31) (citing '899 Patent at 1:9–15; 3:5–9). Defendants contend that by describing something as a feature of the "present invention,"

a patentee is defining the invention, and it is proper in such instances to construe the claims consistent with the described feature. (Dkt. No. 49 at 31.) The Court disagrees that the use of "present invention" in the specification automatically limit the claims. The Federal Circuit has stated that "we have found that use of the phrase 'present invention' or 'this invention' is not always so limiting, such as where the references to a certain limitation as being the 'invention' are not uniform, or where other portions of the intrinsic evidence do not support applying the limitation to the entire patent." *Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1136 (Fed. Cir. 2011). Here, the specification explicitly states that "[w]hile the description of the present invention references the use of IP telephony, the invention is not limited to the IP protocol." '899 Patent at 3:44-46. Likewise, the specification describes a "network" of computers, which includes an "IP network 104." '899 Patent 3:3–6, Figure 1. Accordingly, the Court finds that there are portions of the specification that do not support applying the "IP network" limitation to the claims.

Finally, neither side ask the Court to literally construe the term "network." Plaintiff contends that the term "network" has an ordinary and customary meaning to a person of ordinary skill, and that the IEEE dictionary defines "network" as "a series of points interconnected by communication channels." (Dkt. No. 45 at 27) (citing Dkt. No. 39 at 35-36 (Franzon Decl. at ¶70)). Defendants ask the Court to add "IP" in front of "network," and do not contend that the term "network" needs to be literally construed. Having resolved the parties' dispute regarding the scope of the claims, the Court finds that "network" does not require construction. The term is unambiguous, and is easily understandable by a jury, and should be given its plain and ordinary meaning.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the term **"network"** will be given its **plain and ordinary meaning** as understood by one of ordinary skill in the art.

2. "applet"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"applet"	Ordinary and customary meaning. Does not need to be rewritten.	"an application program that runs within a web browser"

a) The Parties' Positions

The parties dispute whether the term "applet" should be construed as running "within a web browser." Plaintiff contends that "applet" has an ordinary and customary meaning to a person of skill in the art, and that the term "applet" itself is the best expression of that meaning. (Dkt. No. 45 at 31) (citing Dkt. No. 39 at 47 (Franzon Decl. at ¶88)). Plaintiff also argues that the patent provides an express definition of "applet" that is consistent with the ordinary and customary meaning of the term. (Dkt. No. 45 at 32) (citing '899 Patent at 5:41–45 and Dkt. No. 39 at 43-44 (Franzon Decl. at ¶83)). Plaintiff further contends that Defendants' construction is an attempt to import a limitation from an exemplary embodiment into the claim, and should be rejected. (Dkt. No. 45 at 32.)

Defendants argue that the '899 Patent describes an applet as a software program that is executed on a web browser. (Dkt. No. 49 at 32) (citing '899 Patent at 5:43–45). Defendants contend that this description is consistent with the customary meaning of applet at the time of the filing of the '899 Patent. (Dkt. No. 49 at 32) (citing Dkt. No. 40 at 11 (Akl Decl. at ¶ 33)). Defendants also contend that the specification's description of applet is consistent with extrinsic evidence from the time of the filing of the '899 Patent. (Dkt. No. 49 at 32) Defendants further argue that the '899 Patent consistently associates an applet with a web browser, and indicates that an applet runs within a web browser. (Dkt. No. 49 at 32) (citing '899 Patent at 2:7–9; 5:43–45;

11:27–28; Figure 7B; Figure 12). Defendants also argue that the patent indicates that the applet uses hypertext transfer protocol (HTTP), which is the protocol utilized by web browsers. (Dkt. No. 49 at 33) (citing '899 Patent at 5:47–50). Defendants further contend that the '899 Patent neither discloses nor describes any "applet" that is executed outside of a web browser. (Dkt. No. 49 at 33) (citing Dkt. No. 40 at 11-12 (Akl Decl. at ¶ 35)).

Defendants argue that Plaintiff's contention that the '899 Patent expressly defines applet ignores the preceding sentence in the patent that indicates that the applet is executed on a web browser. (Dkt. No. 39 at 33) (citing '899 Patent, at 5:41–45). Defendants contend that when read in the context of the surrounding language, it is clear that the single sentence cited by Plaintiff is not an express definition for the claim term "applet." (Dkt. No. 49 at 33.) Finally, Defendants argue that Plaintiff's construction is neither consistent with the intrinsic evidence, nor the extrinsic evidence cited by Defendants. (Dkt. No. 49 at 33.)

Plaintiff responds that the '899 Patent provides an express definition of "applet." (Dkt. No. 56 at 32) (citing '899 Patent at 5:41–45). Plaintiff argues that the second-to-last sentence that Defendants point to is a description of an exemplary embodiment. (Dkt. No. 56 at 33.) Plaintiff argues that this sentence uses the term "applet" for the first time in the Detailed Description of the Preferred Embodiment, and in the very next sentence, the patentee provides a definition of the term. (Dkt. No. 56 at 33.)

Defendants respond that the intrinsic and extrinsic establishes that an applet is a program running in a web browser. (Dkt. No. 57 at 26.) Defendants argue that Plaintiff's assertion that the '899 Patent provides an express definition for applet ignores the fact that the immediately preceding sentence indicates that the applet is executed on a web browser. (Dkt. No. 57 at 27.) Defendants further argue that Plaintiff's position that the patent provides an express definition is

inconsistent with its position that the term should be given its plain and ordinary meaning. (Dkt. No. 57 at 27.) Defendants argue that the '899 Patent does not clearly redefine "applet" to be something other than its plain and ordinary meaning. (Dkt. No. 57 at 27.) Defendants contend that Plaintiff concedes that the term should be given its plain and ordinary meaning. (Dkt. No. 57 at 27.) According to Defendants, the dispute is not about whether the patent contains an express definition for applet, but instead is about the true plain and ordinary meaning of applet. (Dkt. No. 57 at 25.)

Defendants further argue that the intrinsic and extrinsic evidence shows that one of ordinary skill in the art would understand an applet to be a program executing in a web browser. (Dkt. No. 57 at 27.) Defendants contend that while the singular sentence relied on by Plaintiff may provide further description of an applet, it is not inconsistent with the plain and ordinary meaning of the term. (Dkt. No. 57 at 27.) Defendants argue that when read in light of the patent specification and extrinsic evidence, it is evident that the '899 Patent does not provide an express definition for the term applet. (Dkt. No. 57 at 27-28.)

For the following reasons, the Court finds that the term "**applet"** should be construed to mean **"a small application program having limited utility."**

b) Analysis

The term "applet" appears in claims 2, 3, 9, 15, and 16 of the '899 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same meaning in each claim. The Court further finds that the specification explicitly defines the term "applet." Specifically, the specification states the following:

> FIG. 3 is an exemplary block diagram illustrating the manner by which the intelligent IP telephony device 200 may be used to update a local directory stored in directory storage device 270. As shown in FIG. 3, rather than establishing a communication connection directly between the directory server 114 and the

> intelligent IP telephony device 200, communication is funneled through a web browser application 310 that is running locally on the computing device 108 with which the intelligent IP telephony device 200 is associated. The user of the intelligent IP telephony device 200 logs onto the directory server using the web browser application 310. When the directory server 114 needs to communicate with the intelligent IP telephony device 200, an applet is executed on the web browser application 310. *An applet is a small application program having limited utility.*

'899 Patent at 5:30–45 (emphasis added). Defendants argue that the next to the last sentence in this paragraph indicates that the applet is executed on a web browser. Although true, the Court finds that this sentence is referring to a preferred embodiment. Specifically, the first sentence in this paragraph starts with "FIG. 3 is *an exemplary block diagram* illustrating the manner by which the intelligent IP telephony device 200 may be used to update a local directory stored in directory storage device 270." '899 Patent at 5:31–34 (emphasis added). The Court also finds that the second-to-last sentence uses the term "applet," to indicate that for this exemplary embodiment "an applet is executed on the web browser application 310." '899 Patent at 5:41–44. Given this introduction of the term "applet" in this exemplary embodiment, the Court finds that the final sentence of this paragraph is an explicit definition of "applet" as "a small application program having limited utility."

Defendants argue that the '899 Patent consistently associates an applet with a web browser, and indicates that an applet runs within a web browser. (Dkt. No. 49 at 32) (citing '899 Patent at 2:7–9; 5:43–45; 11:27–28; Figure 7B; Figure 12). As with the term "network," the Court finds that Defendants' construction would limit the claims to a preferred embodiment. *Laitram Corp. v. Cambridge Wire Cloth Co.*, 863 F.2d 855, 865 (Fed. Cir. 1988) ("References to a preferred embodiment, such as those often present in a specification, are not claim limitations."). Indeed, the portions of the specification cited by Defendants are in the context of exemplary embodiments or preceded by permissive language. (Dkt. No. 49 at 32.) The claim language does not recite "web browser" or require the recited "applet" to run within a web browser. Accordingly, the Court does

not adopt Defendants' construction. The Court has considered the extrinsic evidence submitted by the parties, and given it its proper weight in light of the intrinsic evidence.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court construes the term **"applet"** to mean **"a small application program having limited utility."**

3. "network browser application"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"network browser application"	Ordinary and customary meaning, which is equivalently expressed as: an application that enables user access to and viewing of files and other data available on a network	web browser

a) The Parties' Positions

The parties dispute whether the term should be construed as a "web browser," as Defendants propose, or more broadly as "an application that enables user access to and viewing of files and other data available on a network," as Plaintiff proposes. Plaintiff argues that Defendants ask the Court to rewrite this claim term to mean "web browser." (Dkt. No. 45 at 32.) Plaintiff contends that Defendants' construction would exclude applications that allow a user to access and view files stored on a local network. (Dkt. No. 45 at 32) (citing Dkt. No. 48 at 138-139 (Akl Depo. at 128:19 – 131:4)). Plaintiff argues that there is no evidence that a special definition of "network browser application" applies, or that the patentee disclaimed claim scope. (Dkt. No. 45 at 32.) Plaintiff contends that Defendants' construction is an attempt to import a limitation from the disclosed embodiments into the claims and should be rejected. (Dkt. No. 45 at 33.) Finally, Plaintiff contends that Dr. Akl's testimony was discredited on cross examination. (Dkt. No. 45 at 33.)

Defendants argue that one of ordinary skill in the art would understand that the "network

browser application" in the '899 Patent is a web browser. (Dkt. No. 49 at 34.) Defendants argue that the patent states that "[t]he IP network interface 230 may further make use of an IP network browser application, such as Netscape™ or Microsoft Internet Explorer™, to log onto an IP network 104 server in order to gain access to the IP network 104." (Dkt. No. 49 at 34) (quoting '899 Patent at 4:50–51). Defendants note that Netscape™ and Microsoft Internet Explorer™ are web browsers. (Dkt. No. 49 at 34) (citing Dkt. No. 40 at 12 (Akl Decl. at ¶ 38)).

Defendants further argue that the '899 Patent consistently, repeatedly, and explicitly describes the use of a "web browser" in connection with the system described in the patent. (Dkt. No. 49 at 34-35) (citing '899 Patent at 1:54; 2:50; 5:37; 5:40–41; 5:43; 5:65; 5:67; 6:9; 7:63; 9:41; 9:43; 9:64; 10:2; 11:27). Defendants further argue that the only "network browser application" depicted in the patent figures is a web browser. (Dkt. No. 49 at 35.) According to Defendants the network browser application described in the '899 Patent is a web browser. (Dkt. No. 49 at 35.) Defendants further contend that their construction is entirely consistent with extrinsic evidence showing that a "browser" can mean "web browser." (Dkt. No. 49 at 35.)

Regarding Plaintiff's construction, Defendants argue that there is nothing in the patent specification that remotely defines network browser application in such a manner. (Dkt. No. 49 at 35.) Defendants argue that the '899 Patent is directed only to IP networks, not other networks. (Dkt. No. 49 at 36.) According to Defendants, Plaintiff's expert incorrectly concludes that because the '899 Patent is not limited to IP networks, "network browser application" must mean something broader than web browser. (Dkt. No. 49 at 35.) Defendants further argue that a web browser is not disclosed as some subset of a larger group of software programs defined as "network browser applications." (Dkt. No. 49 at 36.) Defendants' argue that their expert, Dr. Akl, testified that the '899 Patent uses "network browser application" interchangeably with "web browser." (Dkt. No.

49 at 36) (citing Dkt No. 40 at 13 (Akl Decl. at ¶ 39)).

Plaintiff responds that Defendants' contention that the specification's use of the term "web browser" ignores the fact that the patentees and examiner chose the broader term "network browser application" to describe the scope of the claims. (Dkt. No. 56 at 34.) Plaintiff argues that the patentees' use of the term "web browser" in exemplary embodiments does not amount to a special definition of the term "network browser application." (Dkt. No. 56 at 34.) Plaintiff further argues that some portions of the specification make reference to a broader "browser application" that is not limited to a "web browser." (Dkt. No. 56 at 34) (citing '899 Patent at 2:7–10). Plaintiff further argues that Defendants' construction limits the claims to a single embodiment. (Dkt. No. 56 at 34.) Plaintiff contends that it demonstrated that Internet Explorer can in fact be used to access locally stored content. (Dkt. No. 56 at 35.) Finally, Plaintiff argues that Defendants cannot show a special definition, or a disclaimer of claim scope that would justify limiting this claim term to "web browser." (Dkt. No. 56 at 35.)

Defendants respond that there is no evidence of record that the phrase "network browser application" has a clear and particular meaning in the art that would preclude the necessity to consult the specification. (Dkt. No. 57 at 28.) Defendants argue that they have established that the "network browser application" in the '899 Patent is a web browser, and that such a construction is consistent with extrinsic evidence showing that a "browser" can mean "web browser." (Dkt. No. 57 at 28.) Defendants argue that Plaintiff cites no supporting evidence that its construction is the plain and ordinary meaning, other than a conclusory expert statement. (Dkt. No. 57 at 28.)

Defendants further contend that Plaintiff is wrong when it argues that Defendants' construction would exclude Internet Explorer, which has the ability to browse local content. (Dkt. No. 57 at 29.) Defendants argue that Internet Explorer is a web browser, regardless of any ability

to browse local content. (Dkt. No. 57 at 29) (citing Dkt. No. 40 at 12 (Akl Decl. at ¶ 38)). Defendants contend that their construction excludes applications that are not web browsers, regardless of whether they can browse local content. (Dkt. No. 57 at 29.) Defendants further argue that Plaintiff incorrectly asserts that Dr. Akl admitted that a "web browser" would exclude "an application that accesses or displays local content." (Dkt. No. 57 at 30) (quoting Dkt. No. 45 at 33). Defendants contend that Dr. Akl explicitly stated that "web browser" would not necessarily exclude an application that could access local content. (Dkt. No. 57 at 30) (citing Dkt. No. 50-10 at 34 (Akl Dep. at 128:19–129:12)).

For the following reasons, the Court finds that the term **"network browser application"** should be construed to mean **"an application used to browse a network."**

b) Analysis

The phrase "network browser application" appears in claims 9-11 of the '899 Patent. The Court finds that the phrase is used consistently in the claims and is intended to have the same meaning in each claim. The Court further finds that the term "network browser application" appears only one time in the specification. Specifically, the specification states that "[t]he IP network interface 230 may further make use of an IP network browser application, such as Netscape™ or Microsoft Internet Explorer™, to log onto an IP network 104 server in order to gain access to the IP network 104." '899 Patent at 4:48–52. Defendants contend that because Netscape™ and Microsoft Internet Explorer™ are web browsers, "network browser application" should be limited to "web browser." (Dkt. No. 49 at 34.) The Court disagrees.

The Court first notes that this sentence states that Netscape™ and Microsoft Internet Explorer™ are examples of "IP network browser application." The disputed term is not "IP network browser application," but instead is "network browser applications." Moreover, this

sentence states that these "IP network browser applications" may be used to log onto an "IP network." As discussed above, the Court finds that the claims are not limited to IP networks. Thus, a person of ordinary skill in the art would understand that a "network browser application" can be used to browse a network. Specifically, in this exemplary embodiment, an "IP network browser application" is used to browse an IP network.

Defendants argue that the '899 Patent consistently, repeatedly, and explicitly describes the use of a "web browser" in connection with the system described in the patent. (Dkt. No. 49 at 34-35) (citing '899 Patent at 1:54; 2:50; 5:37; 5:40–41; 5:43; 5:65; 5:67; 6:9; 7:63; 9:41; 9:43; 9:64; 10:2; 11:27). Defendants further argue that the only "network browser application" depicted in the patent figures is a web browser. (Dkt. No. 49 at 35.) As with the term "network," Defendants' arguments ignore that the patentees and examiner chose to use the broader term "network browser application" to describe the scope of the claims, and not "web browser." The Court agrees with Plaintiff that the patentee's use of the term "web browser" in exemplary embodiments does not amount to a special definition of the term "network browser application." (Dkt. No. 56 at 34.) Indeed, the specification makes reference to a broader "browser application" that is not limited to a "web browser." Specifically, the specification states that "[i]f the directory listing is on the directory server, the directory listing selection may be made using a browser application …." '899 Patent at 2:7–10. Accordingly, the Court finds that the claims should not be limited to the exemplary embodiments of a "web browser."

Having resolved the parties' dispute regarding the scope of the claims, the Court finds that a person of ordinary skill in the art would understand that the recited "network browser application" is an application used to browse a network. Indeed, the specification states that the exemplary web browsers are used to browse an IP network. '899 Patent at 4:48–52 ("The IP

network interface 230 may further make use of an IP network browser application, such as Netscape™ or Microsoft Internet Explorer™, to log onto an IP network 104 server in order to gain access to the IP network 104.").

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court construes the term **"network browser application"** to mean **"an application used to browse a network."**

4. "updating [updates] the [a] local telephony directory based on the updated telephony directory information" and "the updated telephony directory information being used by the telephony device to update the local telephony directory"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"updating [updates] the [a] local telephony directory based on the updated telephony directory information" and "the updated telephony directory information being used by the telephony device to update the local telephony directory"	Ordinary and customary meaning. Does not need to be rewritten.	comparing the local telephony directory with the updated telephony directory information and altering the local telephony directory based on the updated telephony directory information

a) The Parties' Positions

The parties dispute whether the "update" limitation requires a comparison of directory information. Plaintiff contends that the word "updating" has an ordinary and customary meaning, and is easily understandable to both a person of ordinary skill and also a layperson. (Dkt. No. 45 at 30) (citing Dkt. No. 39 at 42 (Franzon Decl. at ¶ 80)). Plaintiff argues that "updating" simply means to change something to reflect the most recent, up-to-date, information. (Dkt. No. 45 at 30.) Plaintiff contends that there is no technical reason that "updating" requires a comparison step. (Dkt. No. 45 at 31.) Plaintiff further contends that a system could practice "updating" by overwriting the local telephony directory every time it receives updated telephony directory information, without performing a comparison step. (Dkt. No. 45 at 31.) Plaintiff argues that this

would constitute "updating" to a person of ordinary skill. (Dkt. No. 45 at 31) (citing Dkt. No. 39 at 42 (Franzon Decl. at ¶ 80)).

Plaintiff further argues that dependent claim 5 of the '899 Patent expressly calls for a comparison step that independent claim 1 does not. (Dkt. No. 45 at 31.) Plaintiff argues that this is strong evidence that a comparison step is not required in claim 1, otherwise claim 5 would be rendered redundant or a nullity. (Dkt. No. 45 at 31.) Finally, Plaintiff contends that Defendants' construction is merely an attempt to read a limitation from an exemplary embodiment into the claim, and should be rejected. (Dkt. No. 45 at 31.)

Defendants argue that the '899 Patent generally describes a system for utilizing computer-based IP telephones to access a server on the internet to obtain directory information. (Dkt. No. 49 at 36.) Defendants contend that the process claimed is not merely obtaining information, but requires the specific steps of: (1) "establishing a communication" with a server, (2) "sending an update request" to the server, (3) "receiving" directory information from the server, and (4) "updating" the local directory. (Dkt. No. 49 at 37.) Defendants argue that the claimed "updating" function is performed by a specific component of the IP telephone identified in the patent as the "directory update device." (Dkt. No. 49 at 37) (citing '899 Patent at 4:53–56).

Defendants also argue that the patent discloses a specific process for updating the local directory that involves "synchronizing" directory information found on a server with local information on the IP telephone. (Dkt. No. 49 at 37) (citing '899 Patent at 6:4–46). Defendants note that the patent states that the claimed "update" function is synonymous with a "synchronization" function. (Dkt. No. 49 at 37) (citing '899 Patent at 6:13–15). Defendants argue that the patent makes clear that the "synchronization" or "update" process includes a comparison of the directory information from the server with the local directory information. (Dkt. No. 49 at

37-38) (citing '899 Patent at 6:33–44; 4:53–65; 11:34–37).

Defendants further argue that every description of the "update" process described in the patent involves a comparison of the directory server information with the local directory. (Dkt. No. 49 at 38.) Defendants contend that this is consistent with the specifications description of the updating process as "synchronization," which requires a comparison of the two directories. (Dkt. No. 49 at 38.) Defendants further argue that Figure 5 in the patent shows a user interface "for comparing a local directory listing and a directory server listing according to the present invention." (Dkt. No. 49 at 38) (citing '899 Patent at 2:42–44). Defendants also argue that in the summary of the invention, where the patent defines the "present invention," the specification states that the "update" process involves a comparison. (Dkt. No. 49 at 38) ('899 Patent at 1:59–61).

Defendants also contend that contrary to Plaintiff's argument, the patent does not indicate that the "update" process is dependent on, or defined by, whether the directory information is recent or up-to-date. (Dkt. No. 49 at 39.) Defendants argue that the patent discloses, defines, and claims a process for updating, which requires a comparison so that the user can synchronize the local directory of the IP telephone with the directory on the internet. (Dkt. No. 49 at 39.)

Plaintiff responds that Defendants are attempting to read a "comparison" step into the claims without determining whether the patentee redefined this claim term, or disclaimed the full scope of the ordinary meaning. (Dkt. No. 56 at 32.) Plaintiff contends that Defendants' expert acknowledged that "update" has an ordinary and customary meaning that is easily understandable by a layperson. (Dkt. No. 56 at 32.) Plaintiff further argues that Defendants' expert acknowledged that the patent does not contain a special definition or a disclaimer of claim scope. (Dkt. No. 56 at 32.) Plaintiff also contends that the doctrine of claim differentiation requires rejection of Defendants' construction. (Dkt. No. 56 at 32.)

Defendants respond that Plaintiff's only support for its position is a conclusory expert statement. (Dkt. No. 57 at 31.) Defendants argue that Plaintiff does not cite to the intrinsic evidence, and does not address the specifications statement that the update process is synonymous with synchronization. (Dkt. No. 57 at 31.) Defendants contend that synchronizing two directories requires a comparison of the two, and that the '899 Patent's use of "synchronization" is consistent with the patent's description of a process that requires a comparison. (Dkt. No. 57 at 31.) Defendants further contend that Dr. Akl never testified that he agreed that Plaintiff's proposed construction represented the plain and ordinary meaning of the update limitations. (Dkt. No. 57 at 31.) Defendants argue that Dr. Akl testified that the plain and ordinary meaning of the update limitations in the '899 Patent required a comparison step. (Dkt. No. 57 at 31) (citing Dkt. No. 50-10 at 38 (Akl Dep. at 144:10–145:5)).

Defendants also argue that the specification describes synchronizing, and Plaintiff's description of "overwriting" would not qualify as synchronizing or updating, because it does not include a comparison step. (Dkt. No. 57 at 32) (Dkt. No. 50-10 at 40 (Akl Dep. at 151–53)). Defendants argue that if the patentees wanted broader claims, they could have written a claim that said "obtaining" information, or "downloading" information from the directory server. (Dkt. No. 57 at 32.) Defendants contend that the patentees chose the updating limitation, stated that it was synonymous with synchronizing, and described a specific process that requires a comparison step. (Dkt. No. 57 at 32.)

Finally, regarding Plaintiff's claim differentiation argument, Defendants contend that claim differentiation does not apply here, because claim 1 and claim 5 would have different scope under Defendants' construction. (Dkt. No. 57 at 32.) Defendants contend that under their construction, claim 1 would require the step of comparing the local directory information to the

updated directory information. (Dkt. No. 57 at 32.) Defendants argue that claim 5 further requires the identification of a directory listing from the updated telephony directory that corresponds to a second directory listing in the local directory. (Dkt. No. 57 at 32.) According to Defendants, claim 1 has no requirement that corresponding directory listings be identified. (Dkt. No. 57 at 33.)

For the following reasons, the Court finds that the phrase **"updating the local telephony directory based on the updated telephony directory information"** should be construed to mean **"comparing an entry in the local telephony directory with an entry in the updated telephony directory information and executing instructions to overwrite an entry in the local telephony directory, add an entry to the local telephony directory, or delete the updated telephony directory information."** The Court also finds that the phrase **"updates a local telephony directory based on the updated telephony directory information"** should be construed to mean **"compares an entry in a local telephony directory with an entry in the updated telephony directory information and executes instructions to overwrite an entry in the local telephony directory, add an entry to the local telephony directory, or delete the updated telephony directory information."** The Court further finds that the phrase **"the updated telephony directory information being used by the telephony device to update the local telephony directory"** should be construed to mean **"using the updated telephony directory information to compare an entry in a local telephony directory with an entry in the updated telephony directory information and executing instructions to overwrite an entry in the local telephony directory, add an entry to the local telephony directory, or delete the updated telephony directory information."**

b) Analysis

The phrase "updating the local telephony directory based on the updated telephony

directory information" appears in claims 1 and 13 of the '899 Patent. The Court finds that the phrase is used consistently in the claims and is intended to have the same meaning in each claim. The phrase "updates a local telephony directory based on the updated telephony directory information" appears in claim 14 of the '899 Patent. The phrase "the updated telephony directory information being used by the telephony device to update the local telephony directory" appears in claim 18 of the '899 Patent. Having reviewed the intrinsic and extrinsic evidence, the Court finds that "updating" requires "comparing," and not just "overwriting," as Plaintiff contends.

For example, claim 1 requires the steps of: (1) "establishing a communication" with a server, (2) "sending an update request" to the server, (3) "receiving" updated directory information from the server, and (4) "updating" the local directory. Turning to the specification, the Court finds that the claimed "updating" function is performed by the "directory update device." '899 Patent at 4:53–56 ("The directory update device 260 performs functions necessary for updating a local directory"). The specification states that "[w]hen the updated information is received, *the directory update device compares* the updated information with information stored in the local directory and interacts with a user via the user interface 210 to determine which information to retain in the local directory stored in directory storage device 270, as will be discussed more fully hereafter." '899 Patent 4:59–65 (emphasis added).

The specification further discloses a specific process for updating the local directory that involves "synchronizing" directory information found on a server with local information on the IP telephone. '899 Patent at 6:4–46. In fact, the specification states that the claimed "update" function is synonymous with a "synchronization" function. '899 Patent at 6:13–15 ("The process of updating the local directory using the directory server 114 is also referred to as 'synchronizing' the local directory with the directory server 114."). The updating or synchronization process is

illustrated in Figure 12.

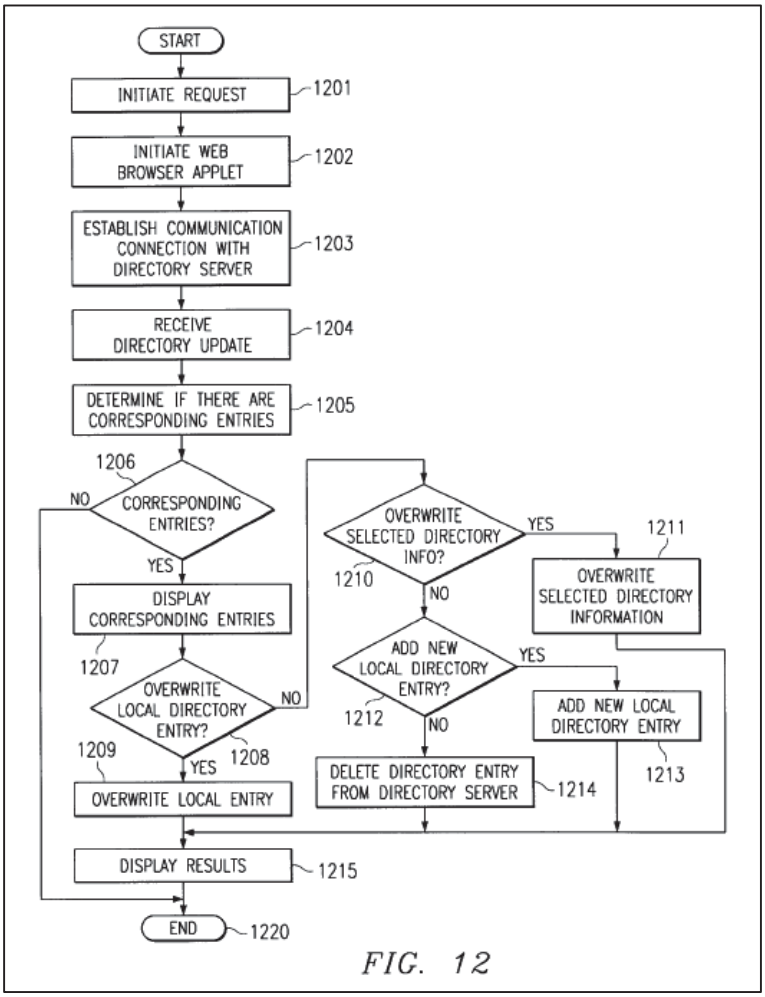


FIG. 12

Referring to Figure 12, the specification describes the updating process as follows:

> If there are corresponding entries (step 1206:YES), the directory update device 260 determines if the user wishes to overwrite the local directory entry (step 1208), overwrite 45 selection directory information in the local directory entry (step 1210), or add a new local entry using the downloaded directory information (step 1212). If any of these options are selected by the user, the corresponding functions (steps 1209, 1211 and 1213) are performed. If none of these options are selected, the downloaded directory entry is deleted (step 1214). Once all of the directory entries are updated, the directory update device 260 displays update results to the user via the user interface 210 (step 1215).

'899 Patent at 11:43–54. As illustrated in Figure 12 and described in this paragraph, a person of ordinary skill in the art would understand that "updating" requires comparing entries and executing instructions to either overwrite an entry, add an entry, or delete the updated directory information.

Figure 5 illustrates a user interface that may be used "for comparing a local directory listing and a directory server listing according to the present invention." '899 Patent at 2:42–44.

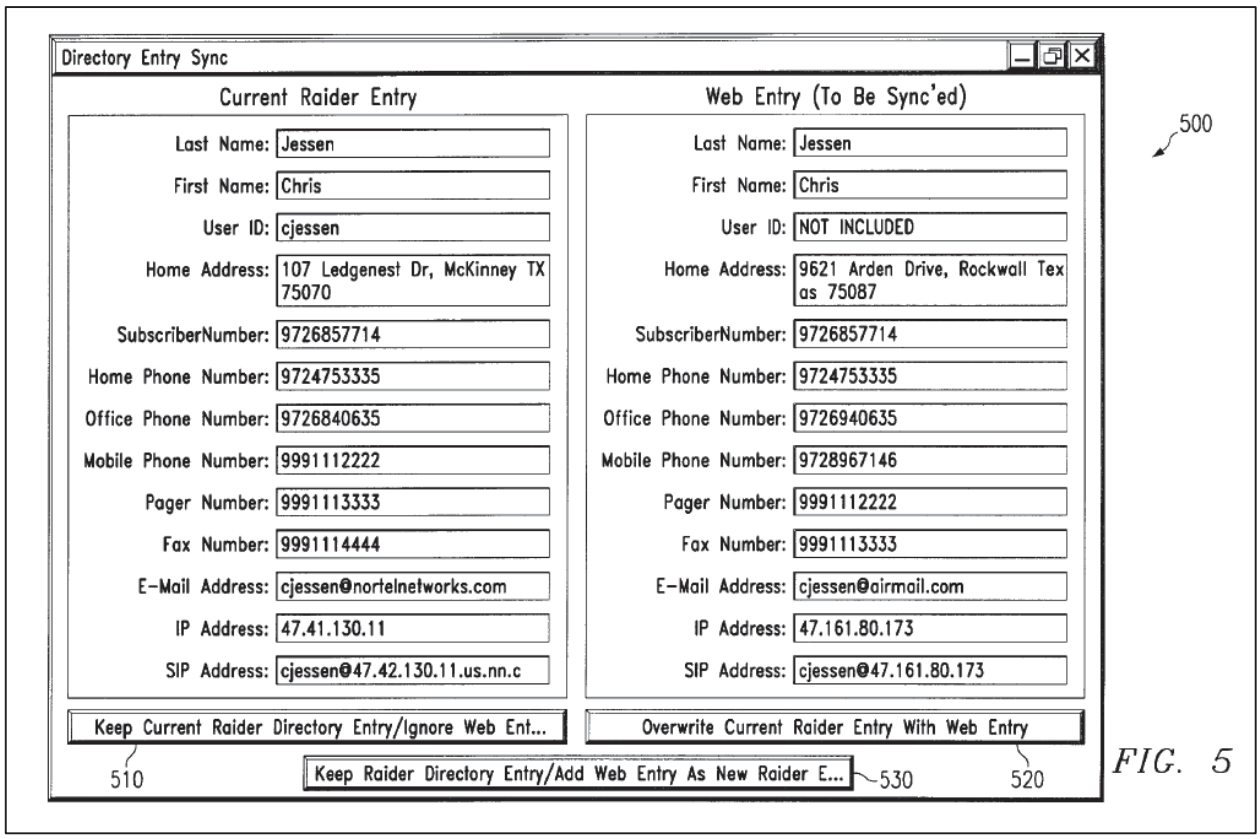


FIG. 5

As illustrated in Figure 5, the "Directory Entry Sync" interface compares entries and provides "buttons 510-530 for performing the functions of keeping the local directory listing, overwriting the local directory listing with the downloaded listing, or keeping both listings." '899 Patent at 7:30-33. Accordingly, the Court finds that the intrinsic evidence indicates that "updating" requires more than just "overwriting," as Plaintiff contends. Instead, "updating" requires "comparing" and executing instruction based on the comparison. Indeed, the Summary of the Invention section states that the "update" process involves a comparison. '899 Patent at 1:59–61 ("The apparatus further compares the directory update information against local directory information to determine if corresponding directory listings are present.")

Regarding Plaintiff's claim differentiation argument, the Court finds that claim

differentiation does not apply here, because claim 1 and claim 5 have different scope. Specifically, claim 1 requires the step of comparing entries and executing instructions to either overwrite an entry, add an entry, or delete the updated information. Claim 5 further narrows claim 1 by requiring the identification of a directory listing from the updated telephony directory that corresponds to a second directory listing in the local directory. Moreover, claim differentiation is "not a hard and fast rule and will be overcome by a contrary construction dictated by the written description or prosecution history." *Seachange Int'l, Inc. v. C-Cor, Inc.*, 413 F.3d 1361, 1369 (Fed. Cir. 2005). Here, the specification indicates that updating requires "comparing" and executing instructions based on the comparison.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court construes the phrase **"updating the local telephony directory based on the updated telephony directory information"** to mean **"comparing an entry in the local telephony directory with an entry in the updated telephony directory information and executing instructions to overwrite an entry in the local telephony directory, add an entry to the local telephony directory, or delete the updated telephony directory information."** The Court construes the phrase **"updates a local telephony directory based on the updated telephony directory information"** to mean **"compares an entry in a local telephony directory with an entry in the updated telephony directory information and executes instructions to overwrite an entry in the local telephony directory, add an entry to the local telephony directory, or delete the updated telephony directory information."** The Court construes the phrase **"the updated telephony directory information being used by the telephony device to update the local telephony directory"** to mean **"using the updated telephony directory information to compare an entry in a local telephony directory with an**

entry in the updated telephony directory information and executing instructions to overwrite an entry in the local telephony directory, add an entry to the local telephony directory, or delete the updated telephony directory information."

C. The '614 Patent

The parties' dispute focuses on the meaning and scope of three terms/phrases in the '614 Patent.

1. "communications session(s)"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"communications session(s)"	Ordinary and customary meaning. Does not need to be rewritten.	a connection between two devices that must be established and later terminated

a) The Parties' Positions

The parties dispute whether the recited "communication session" must later be terminated. Plaintiff contends that "communications session(s)" has an ordinary and customary meaning and does not require further construction. (Dkt. No. 45 at 35.) In the alternative, Plaintiff argues that the patent provides an express definition for the term. (Dkt. No. 45 at 35) (citing '614 Patent at 3:66–4:7). Plaintiff argues that Defendants' construction adds the limitation that the connection between devices "must be established and later terminated." (Dkt. No. 45 at 35) Plaintiff contends that Defendants derive their support for this construction solely by referring to exemplary embodiments from the specification. (Dkt. No. 45 at 35.) Plaintiff argues that this is an improper attempt to import a limitation from the specification into the claim. (Dkt. No. 45 at 35.)

Defendants argue that a person of ordinary skill in the art would consider "communications sessions" to describe communications that are established and then terminated. (Dkt. No. 49 at 39) (citing Dkt. No. 40 at 18-20 (Akl Decl. at ¶¶ 56–58)). Defendants argue that a "communication

session" is reflected by the time period between establishment of a connection, and a timeout or disconnect between the communicating devices. (Dkt. No. 49 at 39-40) Defendants contend that the specification consistently describes "communications session" in the context of first establishing a connection and then later terminating the connection. (Dkt. No. 49 at 40) (citing '614 Patent at 3:47–49; 5:47–49; 5:63–65; 5:65–67; 6:4–5; 1:52–53; 10:64–65; 11:24–25). Defendants further argue that Figure 6 specifically illustrates the process of establishing and then terminating a connection. (Dkt. No. 49 at 40.)

Defendants also contend that Plaintiff's position would read the word "session" out of the term "communication session." (Dkt. No. 49 at 41.) Defendants argue that the Microsoft Computer Dictionary defines "session" as "the time during which a program is running," and more specifically, "in communications, the time during which two computers maintain a connection." (Dkt. No. 49 at 41) (citing Dkt. No. 50-15 at 4 (Microsoft Computer Dictionary)). Defendants argue that since a session is limited in time, the session must be established and later terminated, as described in the specification. (Dkt. No. 49 at 42.)

Plaintiff responds that Defendants completely ignore the patent's express definition of this term. (Dkt. No. 56 at 35) (citing '614 Patent at 3:66–4:7). Plaintiff argues that Defendants make no argument as to why the exemplary embodiments or extrinsic evidence should override an express definition of this term. (Dkt. No. 56 at 36.) Plaintiff further argues that Defendants' construction would have the effect of reading a "termination" limitation into the claims that otherwise is not present. (Dkt. No. 56 at 36.) Plaintiff contends that method claims 1, 9, and 11 each contain steps related to "establishing" a communication session, but do not contain a step requiring "termination" of the communication session. (Dkt. No. 56 at 36.)

Defendants respond that the '614 Patent does not clearly provide an express definition for

this term, because the passage cited by Plaintiff states communication sessions "may more generally refer to . . . ." (Dkt. No. 57 at 33.) Defendants further argue that Plaintiff's expert does not contend that there is an express definition for this term. (Dkt. No. 57 at 33) (citing Dkt. No. 39 at 50-51 (Franzon Decl. at ¶ 96)). Defendants further argue that Plaintiff's construction is contradicted by both the intrinsic and extrinsic evidence relating to this term. (Dkt. No. 57 at 33.) Defendants argue that the claims themselves indicate that a communication session is established. (Dkt. No. 57 at 34.) Defendants contend that the specification uses "communication session(s)" in the context of being established and later terminated. (Dkt. No. 57 at 34.) Defendants further argue that a "communication session" is reflected by the time period between establishment of a connection and a timeout or disconnect between the communicating devices. (Dkt. No. 57 at 34.) Finally, Defendants argue that the extrinsic evidence supports their construction. (Dkt. No. 57 at 34.)

For the following reasons, the Court finds that the term "**communications session(s)"** should be construed to mean **"streaming call sessions as well as other types of communications in which any type of data may be exchanged."**

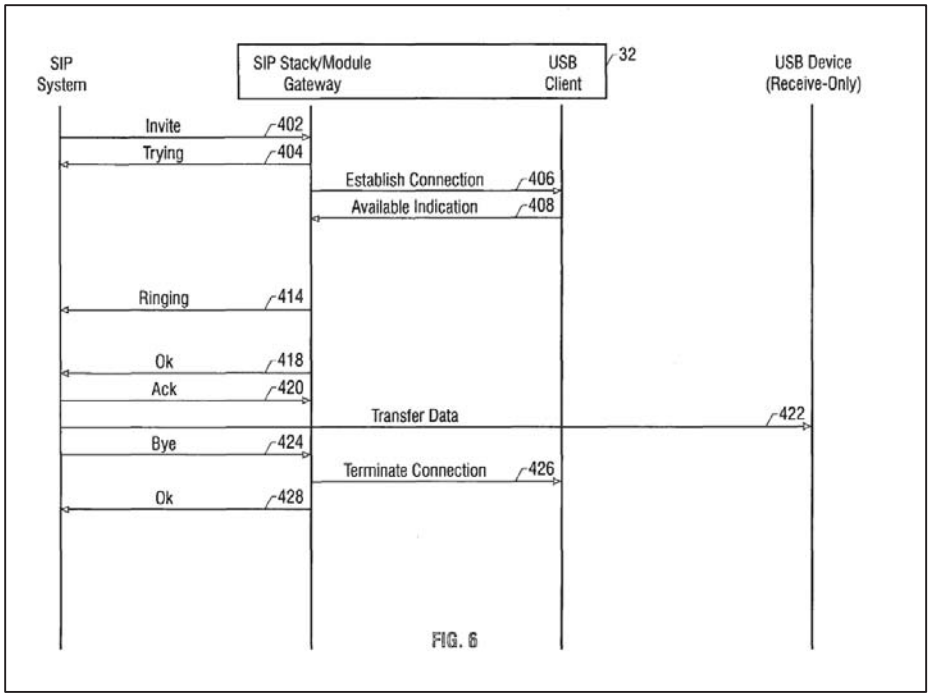
b) Analysis

The term "communications session(s)" appears in claims 1, 2, 6, 8, 9, 11, 12, 17, and 28 of the '614 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same meaning in each claim. The Court further finds that the claim language indicates that "communication session" is a session where data is exchanged between a first device and a peripheral device. For example, claim 9 recites "[a] method of communications between a first device and a peripheral device over a network, … establishing a communications session between the first device and the system over the network." The specification further confirms this

understanding by explicitly defining "communication session" as "streaming call sessions as well as other types of communications in which any type of data may be exchanged."[12] '614 Patent at 4:5–8.

Defendants contend that this is not an explicit definition, because it includes "may more generally refer to" language. The Court disagrees and finds that this definition is consistent with the claim language. Defendants also argue that a "communication session" is reflected by the time period between establishment of a connection, and a timeout or disconnect between the communicating devices. (Dkt. No. 49 at 39-40.) According to Defendants, the specification uses "communication session(s)" in the context of being established and later terminated. The problem with Defendants' argument is that the claim language only requires "establishing" a communication session, and does not recite "terminating" a communication session. For example, method claims 1, 9, and 11, each contain steps related to "establishing" a communication session, but do not contain a step requiring "termination" of the communication session. Furthermore, the specification delineates the step of establishing a communication session from the step of later terminating a communication session. For example, Figure 6 illustrates establishing a connection at 406, and then later terminating the connection at 426. '614 Patent at 10:40–66.

[12] The specification uses the terms "communication session" and "communications session" interchangeably.



Unlike the disclosure in the specification, the claims do not recite "terminating" the communication session. This does not mean that the communication session is never terminated, it only means that it is not a claim limitation. *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1347 (Fed. Cir. 2009) ("It is the claims that define the metes and bounds of the patentee's invention.") Given the intrinsic evidence, the Court finds that Defendants' construction would improperly read into the claims an additional "terminating" limitation. The Court has also considered the extrinsic evidence submitted by the parties, and given it its proper weight in light of the intrinsic evidence. Accordingly, the Court rejects Defendants' construction and adopts the explicit definition provided by the patentees in the specification.

c) Court's Construction

In light of the intrinsic evidence, the Court construes the phrase **"communications session(s)"** to mean **"streaming call sessions as well as other types of communications in which any type of data may be exchanged."**

2. "peripheral link"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"peripheral link"	Ordinary and customary meaning. Does not need to be rewritten.	physical link between a system and a peripheral device

a) The Parties' Positions

The parties dispute whether the recited "peripheral link" must be a physical link. Plaintiff argues that the ordinary meaning of "link" is a communications channel. (Dkt. No. 45 at 36.) According to Plaintiff, a "peripheral link" is a communications channel between a peripheral device and a host. (Dkt. No. 45 at 36) (citing Dkt. No. 39 at 52-53 (Franzon Decl. at ¶ 98-99)). Plaintiff argues that Defendants' construction adds the limitation that the link must be a "physical" link. (Dkt. No. 45 at 36.) Plaintiff contends that Dr. Akl acknowledged that this construction would exclude a wireless link. (Dkt. No. 45 at 36) (citing Dkt. No.48 at 150–151 (Akl Depo. at 176:17-21; 179:5-16)). Plaintiff argues that Defendants' construction should be rejected because the patentees did not provide a special definition or a disclaimer of claim scope. (Dkt. No. 45 at 36.) Plaintiff contends that Defendants are attempting to import a limitation from the specification into the claims. (Dkt. No. 45 at 36.)

Defendants argue that the claim language itself shows that its construction should be adopted. (Dkt. No. 49 at 42.) Defendants contend that claim 9 recites that the "the peripheral link is selected from the group consisting of a Universal Serial Bus port, a parallel port, a serial port, a Small Computer Systems Interface port, and a Personal Computer Memory Card International Association port." (Dkt. No. 49 at 42.) Defendants argue that all of these ports provide a physical link between a system and a peripheral device. (Dkt. No. 49 at 43.) Defendants further contend that no claims describe the peripheral link being anything other than physical links between the system and peripheral devices. (Dkt. No. 49 at 43.)

Defendants further argue that their construction is supported by the specification. (Dkt. No.

49 at 43) (citing '614 Patent at 5:51–54; 5:41–46). Defendants argue that the specification expressly defines ports as "peripheral links," and lists ports that provide physical links between the system and the peripheral devices. (Dkt. No. 49 at 43.) Defendants contend that a person of ordinary skill in the art would understand that "peripheral links" should be construed as "a physical link between a system and a peripheral device." (Dkt. No. 49 at 43) (citng Dkt. No. 40 at 20-21 (Akl Decl. at ¶¶ 59–62)).

Finally, Defendants argue that Plaintiff cites to definitions of "peripheral" and "link," because there are no dictionary definitions for "peripheral link." (Dkt. No. 49 at 43-44.) Defendants argue that combining these definitions would provide an overly broad definition, which ignores the context of the invention and the patentees' use of the term "peripheral link" throughout the '614 Patent. (Dkt. No. 49 at 44.)

Plaintiff responds that Defendants urge the Court to look at limitations that are present only in some claims to interpret "peripheral link" in a way that would have the effect of importing those limitations into other claims. (Dkt. No. 56 at 37.) Plaintiff argues that Defendants point to the required peripheral links in claims 9 and 23 to support their construction. (Dkt. No. 56 at 37.) Plaintiff contends that these limitations do not appear in other claims in which the term "peripheral link" appears, such as claim 11. (Dkt. No. 56 at 37.) Plaintiff argues it would be error to interpret "peripheral link" to include these limitations for purposes of claim 11, where the limitations were expressly not included. (Dkt. No. 56 at 37.) Plaintiff contends that the remainder of Defendants' argument is a reference to an exemplary embodiment. (Dkt. No. 56 at 37.) Plaintiff argues that the mere presence of a certain limitation in the exemplary embodiment is not a sufficient justification for rewriting the claim language to import an additional limitation into the claims. (Dkt. No. 56 at 37) (citing *Thorner*, 669 F.3d at 1366-67).

Defendants respond that Plaintiff's construction of this term is again based on the incorrect claim construction process of only looking at a dictionary definition. (Dkt. No. 57 at 34.) Defendants argue that simply combining the term "peripheral" with a definition of "link" provides an overly broad definition that ignores the context of the invention. (Dkt. No. 57 at 34.) Defendants argue that the claim language and specification shows that a "peripheral link" is a physical connection. (Dkt. No. 57 at 35.) Defendants also argue that the specification expressly defines ports as "peripheral links," and lists ports that provide physical links between the system and the peripheral devices. (Dkt. No. 57 at 35.) Defendants contend that a person of ordinary skill in the art would understand that "peripheral links" should be construed as "a physical link between a system and a peripheral device." (Dkt. No. 49 at 43) (citing Dkt. No. 40 at 20-21 (Akl Decl. at ¶¶ 59–62))

Finally, Defendants argue that the patentee amended claim 9 during prosecution to overcome prior art. (Dkt. No. 57 at 35.) Specifically, Defendants argue that the patentee amended the claim to include the peripheral link limitation and argued that "[the prior art] fails to disclose a peripheral link that is selected from the group consisting of a Universal Serial Bus port, a parallel port, a serial port, a Small Computer Systems Interface port, and a Personal Computer Memory Card International Association port." (Dkt. No. 57 at 35) (quoting Dkt. No. 57-2 at 119 ('614 Pros. Hist.)).

For the following reasons, the Court finds that the phrase **"peripheral link"** should be construed to mean **"an access point used to couple a peripheral device."**

b) Analysis

The term "peripheral link" appears in claims 1, 9, 11, 23, 24, 26, and 28 of the '614 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same

meaning in each claim. The Court further finds that claims 9 and 23 recite that "the peripheral link is selected from the group consisting of a Universal Serial Bus port, a parallel port, a serial port, a Small Computer Systems Interface port, and a Personal Computer Memory Card International Association port." The parties appear to agree that these ports are all physical links. Accordingly, the Court is not persuaded that it needs to construe the broader term "peripheral link" as a physical link when claims 9 and 23 recite specific types of ports. Indeed, this was the amendment made to these claims during the prosecution history. (Dkt. No. 57-2 at 119 ('614 Pros. Hist.)).

However, the Court finds that claim 11 does not require the "peripheral link" to be selected from a group of specific ports. Accordingly, the Court agrees with Plaintiff that it would be improper to interpret "peripheral link" to include these limitations for purposes of claim 11, where the limitations were not expressly included. Moreover, the specification provides a definition for the term "peripheral link" that does not indicate that the patentees intended to limit the term to a physical link. Specifically, the specification states that "the ports 34A, 34B, and 44 may be generally referred to as 'peripheral links' that peripheral devices may be coupled to." '614 Patent at 5:51-54. This definition does not require the "peripheral link" to be a physical link, it only requires the link to couple a peripheral device.

Indeed, the specification indicates that the "peripheral link" provides an access point for coupling a peripheral device. For example, the specification states that "a SIP or H.323 device may be used to *access* the functionality of another type of device, such as a computer peripheral device (e.g., a Universal Serial Bus device). This enables *access* by a remote user of the many functionalities provided by peripheral devices." '614 Patent at 2:32-37 (emphasis added); *see also id.* at 6:57–7:13 ("A user that is at a remote site away from the home location may be able to access

such peripheral devices over the data network 11."). Thus, the Court finds that the term 'peripheral link' should be construed to mean "an access point used to couple a peripheral device." Unlike Defendants' construction, this definition is consistent with all of the claims. It is consistent with claims 9 and 23 that recite a specific list of ports, and is also consistent with claim 11 that does not recite a specific list of ports.

Finally, the Court is not persuaded that the term "peripheral link" should be limited to the preferred embodiments or to ports explicitly recited in some claims, but not others. Indeed, the specification states that "the term 'peripheral device' [that is coupled to the port] may refer to any peripheral or input/output (I/O) device coupled to any port of the gateway 32 (or other type of system)." '614 Patent at 7:55–58. The specification adds that "[t]he peripheral device may be located within the system 32 or it may be located outside the system 32 and coupled over some type of a link to the system." '614 Patent at 7:58–60. Accordingly, the Court rejects Defendants' construction, which requires a physical link.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court construes the term **"peripheral link"** to mean **"an access point used to couple a peripheral device."**

3. "over-riding the first communications session"

Disputed Term	Plaintiff's Proposal	Defendants' Proposal
"over-riding the first communications session"	Ordinary and customary meaning. Does not need to be rewritten.	terminating the first communication session

a) The Parties' Positions

The parties dispute whether "over-riding" should be construed as "terminating," as Defendants propose, or if it should be construed as "temporarily preventing," as Plaintiff proposes. Plaintiff argues that the ordinary and customary meaning of "over-ride" allows for a temporary

appropriation of a communication channel, and does not require that the first communication session be terminated. (Dkt. No. 45 at 36) (citing Dkt. No. 39 at 56-57 (Franzon Decl. at ¶¶ 104-105)). Plaintiff argues that Defendants' construction would expressly exclude an embodiment in which the communication channel was temporarily appropriated. (Dkt. No. 45 at 37.) Plaintiff argues that Defendants' only support for this construction is reference to certain exemplary embodiments. (Dkt. No. 45 at 37.)

Defendants argue that Plaintiff's position is based on an IEEE definition that relates to a microcomputer system bus, which is not applicable in this case. (Dkt. No. 49 at 44) (citing Dkt. No. 39 at 56 (Franzon Decl. at ¶ 104)). Defendants contend that their construction is based on the claim language itself and the specification. (Dkt. No. 49 at 44) (citing '614 Patent at 11:19–26). According to Defendants, a person of ordinary skill in the art would understand that "over-riding the first communications session" should be construed as "terminating the first communication session." (Dkt. No. 49 at 45) (citing Dkt. No. 40 at 22 (Akl Decl. at ¶¶ 66–68)) Defendants contend that Plaintiff's reliance on an inapplicable dictionary definition cannot overcome the meaning set forth in the patent specification. (Dkt. No. 49 at 45) (citing *Vitronics Corp*, 90 F.3d at 1584).

Plaintiff responds that Defendants' construction would rewrite the claim language to require "terminating" the first communication session. (Dkt. No. 56 at 38.) Plaintiff argues that Defendants' citation to exemplary embodiments is insufficient to show a special definition or a disclaimer of claim scope (Dkt. No. 56 at 38) (citing *Thorner*, 669 F.3d at 1366-67). Plaintiff argues that Defendants' construction is inconsistent with the plain and ordinary meaning of this term, which would be understood to encompass a temporary appropriation of the communications channel. (Dkt. No. 56 at 38) (citing Dkt. No. 39 at 56-57 (Franzon Decl. at ¶¶ 104-105)).

Defendants respond that Plaintiff's dictionary definition relates to a micro computer system

bus, which is different from and inapplicable to the claim at issue. (Dkt. No. 57 at 36.) Defendants argue that once the irrelevant extrinsic evidence is put aside, it is clear from the intrinsic evidence that the meaning of "overriding" in the '614 Patent is "terminating." (Dkt. No. 57 at 36) (citing '614 Patent at 11:19–26).

For the following reasons, the Court finds that the phrase **"over-riding the first communications session"** should be construed to mean **"terminating the first communication session."**

b) Analysis

The phrase "over-riding the first communications session" appears in claim 11 of the '614 Patent. The claim language recites "receiving … a message from the first device to establish a communications session with the peripheral device, … receiving another message to establish a second communications session while the first communication session is active; and performing one of sending a busy indication and over-riding the first communications session." This claim language indicates that there is a first and a second communication session, with the disputed phrases addressing what happens to the first communication when a message is received to establish a second communication. In describing this scenario, the specification states the following:

> In another arrangement, a current session may be *over-ridden by a new session*. Thus, in this other arrangement, if the gateway 32 receives a new Invite request while a current session is active, the SIP gateway 32 may send a SIP Bye request to the remote SIP system involved in the current SIP session *to close the communication session*. As the current communication session *is being terminated*, the gateway 32 may participate in an exchange of SIP protocol messaging with the SIP system that originated the new Invite request to start the establishment of the new session. Thus, *once the previous session is closed*, the SIP Ringing and OK responses may be sent by the gateway 32 to the new SIP system. Whether a current session is to be *over-ridden by a new session* may be according to policies set by the user or a system administrator. Such policies may rely on the identity of the originating system. Thus, for example, certain calling parties may have higher

priority then other calling parties.

'614 Patent at 11:19–36 (emphasis added). Here, the specification states that "over-riding" the communication session is terminating or closing the communication session. Accordingly, a person of ordinary skill in the art would understand that "over-riding" the first communication means "terminating" the first communication.

Additionally, the Court agrees with Defendants that Plaintiff's dictionary definition relates to a micro computer system bus, which is different from the claim at issue. Furthermore, there is nothing in the intrinsic record that indicates that the patentees intended "over-ride" to mean allowing for a temporary appropriation of a communication channel, as Plaintiff contends. The Court is also not persuaded that a person of ordinary skill in the art would interpret the claim to include embodiments where the communications channel is temporarily appropriated without terminating or closing the communication session. Instead, the intrinsic evidence indicates that "over-riding" the first communication means "terminating" the first communication.

c) Court's Construction

In light of the intrinsic and extrinsic evidence, the Court construes the phrase **"over-riding the first communications session"** to mean **"terminating the first communication session."**

VI. CONCLUSION

For the foregoing reasons, the Court hereby **ADOPTS** the claims constructions as set forth above. For ease of reference, the Court's claim interpretations are set forth in Appendix A. The parties may not refer, directly or indirectly, to each other's claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning in the presence of the jury any portion of this opinion, other than the actual definitions adopted by the Court.

SO ORDERED.

March 19, 2015.

BARBARA M. G. LYNN
UNITED STATES DISTRICT JUDGE
NORTHERN DISTRICT OF TEXAS

APPENDIX A

Claim Term	Court's Construction
"displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station" ('599 Patent)	plain and ordinary meaning
"first processor means at the handset for displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station" ('599 Patent)	Governed by 35 U.S.C. §112 ¶ 6 **Function:** Displaying keyed alphanumeric data on the screen and concurrently transmitting the alphanumeric data and commands to the base station. **Corresponding Structure:** microprocessor 96, liquid crystal display (LCD) module 98, LCD driver 99, LCD screen 16, dialpad 15, ROM 94, EEPROM 97, modem 95, and transceiver 77
"second processor means at the base station for receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands" ('599 Patent)	Governed by 35 U.S.C. §112 ¶ 6 **Function:** Receiving the alphanumeric data and commands, retrievably storing the data in a first submemory of the base station and operably responding to the commands. **Corresponding Structure:** microprocessor 33, NVRAM 34, bidirectional data bus 37, data bus 48, microprocessor 39, ROM 45, modem 51, and transceiver 53.
"editorially revising the alphanumeric data stored in the submemories" ('599 Patent)	"altering the alphanumeric data stored in the submemories"
"radio communication comprises a bidirectional radio link between the handset and the base station for full duplex data transmission" ('599 Patent)	"radio communication comprises a bidirectional radio link between the handset and the base station that is capable of data transmission in both directions simultaneously"
"half duplex radio communication between the base station and handset" ('599 Patent)	"radio communications between the handset and the base station in both directions, but only one direction at a time (not simultaneously)"

"network directory server" ('899 Patent)	**[AGREED]** network server that acts as a centralized repository of directory information
"network" ('899 Patent)	plain and ordinary meaning
"applet" ('899 Patent)	a small application program having limited utility
"network browser application" ('899 Patent)	an application used to browse a network
"updating the local telephony directory based on the updated telephony directory information" ('899 Patent)	comparing an entry in the local telephony directory with an entry in the updated telephony directory information and executing instructions to overwrite an entry in the local telephony directory, add an entry to the local telephony directory, or delete the updated telephony directory information
"updates a local telephony directory based on the updated telephony directory information" ('899 Patent)	compares an entry in a local telephony directory with an entry in the updated telephony directory information and executes instructions to overwrite an entry in the local telephony directory, add an entry to the local telephony directory, or delete the updated telephony directory information
"the updated telephony directory information being used by the telephony device to update the local telephony directory" ('899 Patent)	using the updated telephony directory information to compare an entry in a local telephony directory with an entry in the updated telephony directory information and executing instructions to overwrite an entry in the local telephony directory, add an entry to the local telephony directory, or delete the updated telephony directory information
"communications session(s)" ('614 Patent)	streaming call sessions as well as other types of communications in which any type of data may be exchanged
"peripheral link" ('614 Patent)	an access point used to couple a peripheral device
"over-riding the first communications session" ('614 Patent)	terminating the first communication session
"ring cadence"	**[AGREED]** the on/off pattern of the ring

('814 Patent)	
"another predetermined DTMF signal after said playing step" ('814 Patent)	**[AGREED]** a second predetermined DTMF signal (which may be a different DTMF signal from the first DTMF signal or may be a second occurrence of the first DTMF signal) after said playing step