UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF FLORIDA

CASE NO. 10-24063-CIV-MORENO

MOTOROLA MOBILITY, INC.,
Plaintiff / Counterclaim Defendant,
v.
MICROSOFT CORPORATION,
Defendant / Counterclaim Plaintiff.

MOTOROLA MOBILITY INC.'S OPENING CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

Motorola Mobility, Inc. ("Motorola") respectfully submits this opening claim construction brief. Disputed terms for Motorola's seven asserted patents are presented first followed by disputed terms for Microsoft's seven counterclaim patents. Submitted with this Brief are the parties' claim constructions (Tab A), the asserted claims with disputed terms emphasized for the Court's convenience (Tab B), and the Declaration of Leslie Spencer with supporting Exhibits 1-53 (Tab C).¹

II. APPLICABLE LAW

A determination of infringement requires a two-step analysis. "First, the court determines the scope and meaning of the patent claims asserted... [Second,] the properly construed claims are compared to the allegedly infringing device." *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998) (en banc) (citations omitted). Step one, claim construction, is an issue of law and is the subject of this brief. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (en banc), *affd*, 517 U.S. 370 (1996). Patent claims are construed from the perspective of a hypothetical "person of ordinary skill in the art." *Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1115-16 (Fed. Cir. 2004) (en banc).

There are two categories of evidence that may be used to construe claims: intrinsic and extrinsic. See Gillette Co. v. Energizer Holdings, Inc., 405 F.3d 1367, 1370 (Fed. Cir. 2005). Intrinsic evidence is the evidence in the public record of the patent. It includes the words of the claims themselves, the patent's written description, and the history of the patent application's prosecution before the U.S. Patent and Trademark Office. See Phillips v. AWH, 415 F.3d 1303, 1314-17 (Fed. Cir. 2005). In contrast, extrinsic evidence is all other evidence, and includes dictionaries, treatises, the prior art and expert testimony. Id. at 1317. There is a strong preference to construe patent

Throughout this brief all emphasis is added unless noted otherwise and the citation format x:y-z refers to the indicated column and lines of the cited patent.

claims based solely on the intrinsic evidence. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996).

The Claim Language. Claim construction begins with the words of the claims themselves. *See Phillips*, 415 F.3d at 1314. The scope of the claims is presumed to be consistent with the plain and ordinary meaning of those words, as understood by a person of ordinary skill in the art. *See Deering Precision Instruments, L.L.C. v. Vector Distribution Sys., Inc.*, 347 F.3d 1314, 1322 (Fed. Cir. 2003).

"Other claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment as to the meaning of a claim term." *Phillips*, 415 F.3d at 1314 (citing *Vitronics Corp.*, 90 F.3d at 1582). Indeed, "[t]he doctrine of claim differentiation stems from the common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope." *Seachange Int'l, Inc. v. C-Cor, Inc.*, 413 F.3d 1361, 1368 (Fed. Cir. 2005) (internal quotation marks omitted). "[T]he doctrine is at its strongest where the limitation sought to be read into an independent claim already appears in a dependent claim...." *Id.* at 1368-69 (internal quotation marks omitted).

The Patent Specification. "Importantly, 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." *Phillips*, 415 F.3d at 1313. "Usually, [the specification] is dispositive; it is the single best guide to the meaning of a disputed term." *Id.* at 1315 (internal quotation marks omitted). When the patentee acts as his own lexicographer and includes an explicit definition of a claim term in the specification, that definition is dispositive over any ordinary meaning. *See id.* at 1316. Absent a special definition in the specification, however, it is improper to read limitations into the claim language from embodiments disclosed in the specification. *See Comark Comme'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed Cir. 1998).

The Prosecution History. The prosecution history is another tool that supplies context for claim construction because it "provides evidence of how the PTO and the inventor understood the patent." *Phillips*, 415 F.3d at 1317. "The evolution of restrictions in the claims, in the course of examination in the PTO, reveals how those closest to the patenting process – the inventor and the patent examiner – viewed the subject matter." *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1478 (Fed. Cir. 1998).

Extrinsic Evidence. Extrinsic evidence "consists of all evidence external to the patent and the prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317. In most situations, claims can be construed based on the intrinsic evidence alone (the claims, specifications and prosecution history). In such circumstances, it is improper to rely on extrinsic evidence. *Vitronics*, 90 F.3d at 1583. In those circumstances, however, in which the intrinsic evidence does not resolve an ambiguity, it is proper to rely on extrinsic evidence. *Markman*, 52 F.3d at 979. Extrinsic evidence may only be considered in the context of the intrinsic evidence, never alone, as "undue reliance on extrinsic evidence poses the risk that it will be used to change the meaning of claims in derogation of the 'indisputable public records consisting of the claims, the specification, and the prosecution history." *Phillips*, 415 F.3d at 1319. And, under no circumstances may extrinsic evidence be used to contradict the plain meaning of a claim term as defined by the claims, patent specification or prosecution history. *Bell Atl. Network Servs., Inc. v. Covad Comme'ns, Group, Inc.*, 262 F.3d 1258, 1269 (Fed. Cir. 2001).

It is important to note that the "testimony of an inventor 'cannot be relied on to change the meaning of the claims." *Markman*, 52 F.3d at 983. As clearly stated by the Federal Circuit, "[w]e hold that inventor testimony as to the inventor's subjective intent is irrelevant to the issue of claim construction." *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1346-47 (Fed. Cir. 2008).

In addition to the rules of claim construction relating to intrinsic and extrinsic evidence, there are a few additional legal issues that are relevant to claim construction.

Means-Plus-Function Claim Elements. Some claim elements are written in "means-plus-function" form pursuant to 35 U.S.C. § 112, ¶6. The claim construction of "means-plus-function" elements is governed by different rules than those for ordinary claim elements.

Claim elements in "means-plus-function" format are construed to cover the structures disclosed in the patent specification for performing the claimed function, and their equivalents. Accordingly, to construe a means-plus-function claim element, courts must: (1) identify the function to be performed; (2) determine the scope of the function using ordinary rules of claim construction; and, (3) identify all structures implicitly or explicitly disclosed in the patent specification for performing the claimed function. *See Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1330 (Fed. Cir. 2003). A person of ordinary skill in the art can identify the corresponding structure based on implicit disclosures in the patent specification. *See Atmel Corp. v. Info. Storage Devices, Inc.*, 198 F.3d 1374, 1379-80 (Fed. Cir. 1999).

An issue will sometimes arise as to whether a claim is in means-plus-function form. A claim element including the word "means for" is presumed to be in means-plus-function form. The presumption may be overcome, however, if the claim element (1) "uses the word 'means' but recites no function" or (2) "specifies a function, [but] also recites sufficient structure or material for performing that function." *Allen Eng'g Corp. v. Bartell Indus., Inc.*, 299 F.3d 1336, 1347 (Fed. Cir. 2002) (internal quotation marks omitted). "A claim term recites sufficient structure if 'the term, as the name for structure, has a reasonably well understood meaning in the art." *Id.* (quotation omitted). Thus, if a person of ordinary skill in the art could understand what the claimed structure is from the claim language alone without having to review the specification to find exemplary structures, the claim term is not in "means-plus-function" form. *Id.*

A claim element that does not use the word "means" is presumptively *not* written in "means-plus-function" form. *Lighting World, Inc. v. Birchwood Lighting, Inc.*, 383 F.3d 1354, 1358 (Fed. Cir. 2004). "The presumption flowing from the absence of the term 'means' is a strong one that is not readily overcome." *Id.* In order to overcome the presumption, it must be shown that "the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002).

Preambles. Whether a preamble of a claim is treated as a claim limitation is determined "on the facts of each case in light of the claim as a whole and the invention described in the patent." Storage Tech. Corp. v. Cisco Sys., Inc., 329 F.3d 823, 831 (Fed. Cir. 2003); see also Advanced Software Design Corp. v. Fiserv, Inc., 641 F.3d 1368, 1374 (Fed. Cir. 2011) (holding that a claim limitation in the preamble does not necessarily limit the apparatus or process claimed, but can instead limit the environment in which the method or apparatus operates). As explained in American Med. Sys., Inc. v. Biolitec, Inc.

While there is no simple test for determining when a preamble limits claim scope, we have set forth some general principles to guide that inquiry. Generally, we have said, the preamble does not limit the claims. Nonetheless, the preamble may be construed as limiting if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim. A preamble is not regarded as limiting, however, when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention. . . . We have held that the preamble has no separate limiting effect if, for example, the preamble merely gives a descriptive name to the set of limitations in the body of the claim that completely set forth the invention.

618 F.3d 1354, 1358-59 (Fed. Cir. 2010) (internal quotations marks and citations omitted).

Indefiniteness. The law requires a patent specification to "conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112 ¶ 2. Claims that do not satisfy section 112 ¶ 2 are said to be "indefinite." Whether or not a claim term is indefinite is an issue of law the Court can determine

during claim construction. *Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1318 (Fed. Cir. 2008). Whether a claim is "indefinite" depends on whether one skilled in the art would understand the bounds of the claim when read in light of the specification, and whether the legal scope is clear enough that a skilled artisan could determine if a particular product or method infringes. *Howmedica Osteonics Corp. v. Tranquil Prospects, Ltd.*, 401 F.3d 1367, 1371 (Fed. Cir. 2005).

If a claim is at all amenable to construction, is not indefinite. "[A] claim is not indefinite merely because it poses a difficult issue of claim construction; if the claim is subject to construction, i.e., it is not insolubly ambiguous, it is not invalid for indefiniteness That is, if the meaning of the claim is discernible, 'even though the task may be formidable and the conclusion may be one over which reasonable persons will disagree, we have held the claim sufficiently clear to avoid invalidity on indefiniteness grounds." *Bancorp Servs., L.L.C. v. Hartford Life Ins. Co.*, 359 F.3d 1367, 1371 (Fed. Cir. 2004).

III. THE PATENTS AND CLAIM CONSTRUCTIONS OF THE DISPUTED TERMS OF MOTOROLA'S ASSERTED PATENTS

Motorola has asserted seven patents against Microsoft: U.S. Patent Nos. 6,272,333 (the "Smith '333 patent"), 6,408,176 (the "Urs '176 patent"), 6,983,370 (the "Eaton '370 patent"), 5,784,001 (the "Deluca '001 patent"), 6,757,544 (the "Rangarajan '544 patent"), 5,764,899 (the "Eggleston '899 patent"), and 5,502,839 (the "Kolnick '839 patent"). In each of the following sections, Motorola first provides a brief overview of the technology to assist the Court in understanding the inventions. Motorola then focuses on the parties' disputes over the meanings of particular claim terms. Throughout, Motorola has proposed constructions that are both technically correct and consistent with the scope of the inventions disclosed.

A. Smith '333 Patent

Overview of the Invention

The Smith '333 Patent teaches a new approach for managing the delivery of data to a portable, wireless device – such as a smart phone – in a limited-bandwidth environment (*i.e.*, where only limited information can be transmitted at any time). Exh. 1. The patent introduces the idea of storing on each portable, wireless device a list of all applications that the device can use, while also storing a copy of that list within the infrastructure of a wireless communication system. When appropriate, the device updates its list and communicates the change to the system's infrastructure, allowing the system to determine what data should be sent to the device.³

Motorola's brief only addresses claim terms that the parties agree require construction, but for which the parties have been unable to agree upon an appropriate construction. Tab B identifies additional terms for construction, for which the parties have agreed upon appropriate constructions. Motorola reserves the right to address additional terms in the future, if it becomes apparent that construction is necessary as the parties further develop their infringement and validity contentions.

The Smith '333 Patent is directed to the field of portable wireless communication systems. A person of ordinary skill in the art at the time of the invention (mid-1998) would have had a bachelor's or equivalent degree in mathematics, computer science, electrical engineering, or the equivalent, and approximately two years experience with mobile wireless communication systems.

Claims 12 and 13 are asserted and are set forth with disputed terms emphasized in Tab B.

1. "controlling a delivery of data"

Motorola	Microsoft
managing whether and when data is delivered	delivering data only after checking in the fixed portion whether an application compatible with the data is accessible to the subscriber unit

The preamble of claim 12 includes the phrase "a wireless communication system for controlling a delivery of data." Because this phrase in the preamble is a stated goal or purpose of the disclosed wireless communication system and sets forth the intended use or purpose of the disclosed system, "controlling a delivery of data" does not limit the '333 Patent claims, is not a limitation and, therefore, does not require construction.⁴

If the Court determines that construction is required, the phrase "controlling a delivery of data" should be construed in view of its plain and ordinary meaning: "managing whether and when data is delivered." Nothing in either the specification or the prosecution history suggests a special definition for this claim phrase. Exhibit 2 highlights portions of the patent that support Motorola's construction.

Microsoft's proposed construction would improperly read limitations from the body of claims 1 and 7 into the preamble of claim 12. These claims separately and specifically require checking for a compatible application and delivering data only when a compatible application is accessible, and have nothing to do with claim 12. To read this limitation into claim 12 is improper.

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Advanced Software Design Corp., 641 F.3d at 1374 (holding the preamble limits only the claimed environment, not the claimed method or system); Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp., 320 F.3d 1339, 1345 (Fed. Cir. 2003) ("A preamble simply stating the intended use or purpose of the invention will usually not limit the scope of the claim"); Insured Deposits Conduit, Inc. v. Index Powered Fin. Servs, No. 07-22735, 2008 U.S. Dist. LEXIS 94024, at *9-10 (S.D. Fla. Feb. 27, 2008) ("Whether a preamble to a claim requires construction depends on whether the preamble language limits the language found in the claim itself.").

And there is nothing in the specification requires limiting claim 12 in the way proposed by Microsoft.⁵

2. "data"

Motorola	Microsoft
digital information	information to be processed by an application, not an application or a software update for an
	application

Motorola proposes to construe "data" consistent with its plain and ordinary meaning, and its use in the patent specification and prosecution history. At the time the Smith '333 Patent application was filed, the term "data" was well-understood to refer to "information" that could be transported over a digital network. In fact, in 1998, Microsoft itself published a technical dictionary defining "data" in precisely this way. Exh. 3, Microsoft Press Computer User's Dictionary at 93 ("Plural of the Latin *datum*, meaning an item of information. . . ."). The specification repeatedly uses the term "data" without further qualification, consistent with its broad, general meaning. 6 See, e.g., Exh. 4 at Title, Abstract, 1:5-11, 1:41-2:24, 7:6-9. Exhibit 4 highlights these portions of the specification, as well as others, that support Motorola's construction of data.

Nothing in the claim language, specification or prosecution history supports Microsoft's position that applications and updates are not "data." First, the asserted claims use "data" consistent with its general meaning – these claims, like the specification, speak of delivering and/or sending data to a subscriber unit as described above. And the specification and the prosecution

See Phillips, 415 F.3d at 1324-25 (acknowledging that "claim terms should not be read to contain a limitation 'where another claim restricts the invention in exactly the [same] manner.").

For example, claims 1 and 7 require determining that an application compatible with the "data" is accessible to the subscriber unit. The term "data" in these claims includes applications and software updates as well as to other type of data, such as instructions, notifications, and commands. Indeed, the specification provides an example of delivering an application to a subscriber unit as an action triggering a software update. Exh. 4 at Fig. 6, 5:6-18, 6:32-7:5.

history do not disclaim or modify the generally understood meaning of data as digital information. Thus, "application" and "software update" are *types* of data which are not mutually exclusive, as Microsoft's proposed construction implies.

3. "fixed portion of a/the wireless communication system"

Motorola	Microsoft
the stationary portion of the wireless	the stationary portion of the wireless
communication system that includes base	communication system that includes base
stations and a controller	stations and a controller that controls the base
	stations, as distinct from the portable portion
	that includes subscriber units, or the public
	network portion that includes telephones or
	computers that originate data messages

The specification shows, and the parties agree, that a "fixed portion" is "the stationary portion of the wireless communication system that includes base stations and a controller." Exhibit E highlights portions of the specification that showing the fixed portion is stationary. Microsoft, however, tacks on a slew of additional words that are confusing, contribute nothing to the construction of "fixed portion," and are ultimately unnecessary. For example, Microsoft proposes to define "fixed portion" as distinct from "the portable portion that includes subscriber units." Because the claims already recite "a subscriber unit" as a separate element of the wireless communication system, Microsoft's language is extraneous and unnecessary. Moreover, while the parties agree that the claimed subscriber unit is portable, this characteristic should be recited in the separate definition of "subscriber unit" (which Motorola proposes) — not in the definition of a different limitation.

Microsoft also seeks to define "fixed portion" as distinct from "the public network portion that includes telephones or computers that originate data messages." This language, however, is not required by the claims, specification, or prosecution history. While the specification includes an example of a wireless communication system with a computer coupled to a public switched

telephone network, from which selective call originations comprising data messages "can be generated" (*see*, *e.g.*, Exh. 5, 117 in FIG. 1; 3:18-24), the specification repeatedly emphasizes that this is just an example. This provides no basis for defining the claimed "fixed portion" to exclude computers that originate data messages.

4. "subscriber unit"

Motorola	Microsoft
a portable device for use in a wireless	a device that can receive data from the fixed
communication system	portion of the wireless communication system

The primary dispute between the parties is whether the subscriber unit should be defined here as being "portable" or whether this characterization should appear in the separate definition of "fixed portion." Common sense dictates that this characterization be included in the definition of a subscriber unit. Indeed, the specification describes examples in which subscriber units are portable and also wireless (which further suggests portability). For example, the specification states that subscriber units are "preferably similar to PageWriter 2000 data messaging units" – a then-popular portable and wireless two-way paging device. Exh. 6 at 2:61-67. Exhibit 6 highlights this portion of the specification as well as others that support Motorola's construction.

By incorporating the portable attribute of the subscriber unit into the definition of the "fixed portion" but omitting that attribute from the construction of subscriber unit, Microsoft creates inconsistencies in its constructions that may cause potential jury confusion. There is simply no reason to describe the subscriber unit as portable in the separate construction of "fixed portion" but not in the construction of "subscriber unit."

5. "application registry comprising a list of all software applications that are currently accessible to the subscriber unit"

Motorola	Microsoft
a portion of memory that includes a list of all software applications that are immediately available for use by the subscriber unit	one official list of all applications currently accessible to the subscriber unit, including applications that can be downloaded over the air

The specification and prosecution history make absolutely clear that an "application registry" is a portion of memory including a list of all accessible software applications. Exh. 7 at 3:65-4:6. That the application registry (226) is a portion of memory (212) is also shown explicitly in Figure 2. Exhibit 7 highlights these and other portions of the specification that support Motorola's construction.

The patent claims, moreover, were amended to require that the application registry include "a list of all software applications that are currently accessible to the subscriber unit." Exh. 8 at MOTM-24063-0001708–09; MOTM-24063-0001730–31. In light of these explicit teachings, all that remains for construction is the term "currently accessible." By its plain meaning, "currently accessible" requires an application be "accessible" (*i.e.*, usable) at the "current" time (*i.e.*, now, immediately). This comports with the specification, which explains that currently accessible applications are those immediately available for use, including those installed on the device or an actively coupled external device. Exh. 7 at 3:67-4:4.

The basis for Microsoft's proposed definition, much less what it means, is unclear. The '333 specification does not include the word "official" and nothing in the specification or prosecution history suggests or refers to an "official" list. Nor does Microsoft provide any explanation in its construction as to what characteristics would make a list "official."

B. Urs '176 Patent

Overview of the Invention

The Urs '176 Patent claims user-friendly technology that enables a person to use, for example, a smart phone to initiate a phone call by using caller-related information (e.g., a telephone number) stored in a voice mail message. Exh. 9. To accomplish this, the Urs '176 Patent teaches that caller-related information, such as a telephone number, is extracted from the voice mail message and converted into an alpha-numeric string (e.g., text format in an email or a text). Using this information, a user of a communication unit is able to initiate a call without having to manually enter the caller-related information relating to that device.

For example, an acquaintance may leave a voice mail stating: "I'll be on the road next week. Call me on my Motorola Droid at 555-123-4567." A system that practices the Urs '176 Patent would convert that voice mail to an email or text message using speech-recognition technology. The system would also recognize that there is a telephone number contained in the message and would permit a user, for example, to select the telephone number in the message to initiate a call to the device corresponding to that number.⁷

Motorola has asserted independent claims 1, 8 and 11, and dependent claims 4-7, 9, 10, 12 and 15 of the Urs '176 Patent against Microsoft. The asserted claims with disputed terms emphasized are set forth in Tab B.

The invention of the Urs '176 Patent is directed to the field or art of telephony and data communication systems. A person of ordinary skill in the art of the Urs '176 Patent at the time of the invention, no later than mid-1997, would have had a bachelor's degree in computer science or, computer engineering, or the equivalent, and approximately two years of experience designing both computer communications software and voice mail or equivalent telephony application software.

1. "caller-related information"

Motorola	Microsoft
Information provided by a caller in a stored audio message	Information present in a stored voice mail that enables a communication device to initiate a communication to a target device

Motorola's definition is consistent with the ordinary meaning of the phrase "caller-related information" (i.e., information provided by a caller) and is supported by the intrinsic evidence. The specification, for example, states that: "[T]he caller *leaves a voice mail message* at the voice mail device ... *[that] includes* caller-related information." Exh. 10 at 3:16-21. Thus, the caller is providing information. This portion of the specification also makes clear that the caller-related information" is in a "stored audio message" because it specifies that the caller-related information is in a voice mail message. Exhibit 10 highlights these portions of the specification as well as others that support Motorola's construction. Claims 1, 8 and 11 further confirm that "caller-related information" is in the stored audio message. *See*, *e.g.*, Claim 1 ("converting the call-related information *from a voice format* ...").

Finally, during prosecution the applicant repeatedly distinguished the prior art because – unlike the inventions of the 'Urs 176 patent – the prior art did not extract caller-related information from a stored audio message: "[T]he applicant asserts that Agraharam [a prior art reference] does not teach extracting the caller-related information from the voice mail. Agraharam does not extract anything from the *stored audio message*." Exh. 11 at MOTM-24063-0001410; 1429-31; 1460-1462.

In contrast to the plain meaning of Motorola's construction, Microsoft's proposed construction is vague and potentially confusing as to the meaning of "[i]nformation *present* in a voice mail." A voice mail can have several discrete parts, including the message portion of the voice mail, a time stamp and/or caller ID information. Arguably, Microsoft's construction expands the

construction of "caller-related information" to include all of these portions of a voice mail even though, as explained above, the Urs '176 Patent makes clear that the claimed "caller-related information" is limited to just the voice message portion.

Microsoft's construction also sweeps in other types of information, such as ANI (automatic number identification).⁸ But the applicant distinguished this type of information during prosecution, arguing that ANI and caller ID are **not** "caller-related information" that is extracted "from the stored audio message." *Id.* The Examiner accepted applicant's characterization of her invention and the patent was ultimately allowed over this prior art.

The remainder of Microsoft's proposed construction, which requires that the caller-related information "enable[] a communication device to initiate a communication to a target device" is already part of the claim and is, therefore, superfluous to the construction of this term. For example, Claim 1 states that "caller related information [is used] to initiate communication between the communication unit and at least one target device."

2. "extracts"; "extracting"; and "extraction"

Motorola	Microsoft
Selecting	To select and remove from a group of items those which meet specific criteria

The parties agree that "extracts" means "selects." Microsoft, however, adds the additional language "remove from a group of items those which meet specific criteria" to the end of its construction. There is no support in the intrinsic record for this additional verbiage.

Throughout the specification of the Urs '176 Patent, the term "extracts" is used to describe the selection of caller-related information so that it can be used at a later time to initiate a

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ANI is a telephone network feature that provides the receiver of a telephone call with the number of the calling phone. It was originally developed by AT&T for billing purposes. *See* http://searchcrm.techtarget.com/definition/ANI.

communication with a target device. Nothing in the specification, however, requires the caller-related information be "removed" from anything in order to initiate that communication. Indeed, the word "remove" does not even appear in the specification. Nor does the specification discuss how or where any caller-related information would be "removed." Rather, the specification simply requires that the "extracted" (i.e., selected) caller-related information be conveyed to the communication unit. *See, e.g.*, Exh. 9 at Claim 1.

The remainder of Microsoft's proposed construction ("from a group of items those which meet specific criteria") is simply additional verbiage that is not supported by the intrinsic record, is unclear, and may create potential jury confusion. The word "criteria" is not mentioned or suggested in the specification. And Microsoft's construction itself requires further construction and raises questions that need to be answered – what is a "group of items," what are the "specific criteria," who "specifie[s]" them, and when are they "specified?" Microsoft's vague, complicated and unsupported construction will not be helpful to the jury and should be rejected.

3. "extracts the caller-related information from the voice mail; extracting the caller-related information from the stored voice mail; receiving the caller-related information ... after extraction from stored voice mail"

Motorola	Microsoft
See above for constructions of "extracting" and "caller-related information"	To select and remove the spoken words that relate to the caller (e.g. a telephone number) from the
	remainder of the stored voice mail message to produce caller-related information in voice format

There is no need for these phrases to be construed – the parties have already provided separate constructions for the terms "extracts" and "caller-related information" and the term "voice mail" does not require construction. In addition to being unnecessary, Microsoft's construction is nonsensical. Microsoft requires the extraction step "to produce caller-related information in voice format." But the caller-related information is already part of the voice mail and, therefore, is already

in voice format. Accordingly, Microsoft's confusing and complicated construction should be rejected.

4. order of the "extraction" operation (claim 1: "extracts caller-related information"; claim 8: "extracting the caller-related information"; claim 11: "extraction from stored voice mail") and the "conversion" operation (claim 1: "converts the caller-related information from a voice format to an alpha-numeric string format"; claim 8: "converting the caller-related information from a voice format into an alpha-numeric string format"; claim 11: "caller-related information in an alpha-numeric string format resulting from a voice-to-alphanumeric-string format conversion")

Motorola	Microsoft
The operation of "extracts"; "extracting";	The functional operation (Claim 1 - extracts caller
"extraction" of caller-related information	relation information/(Claim 8 - extracting the caller-
and the operation of "converts" /	related information/Claim 11 - extraction from
"converting" / "conversion" of caller-related	stored voice mail) is performed prior to the
information may take place in any order in	functional step (Claim 1 – converts the caller-related
accordance with known speech-recognition	information from the voice format to an alpha-
techniques	numeric string format/Claim 8 - converting the
-	caller-related information from a voice format into
	an alphanumeric-
	string format/Claim 11 - caller-related information
	in an alpha-numeric string format resulting from a
	voice-to-alphanumeric-string-format conversion)

This dispute between the parties relates to the order of operation of the steps of "extracting" the caller-related information and "converting" caller-related information. Any imposition of a specific order of steps in a claim must be required by the language of the claims, specification and the prosecution history. *See Respironics, Inc. v. Invacare Corp.*, 303 Fed. Appx. 865, 870-71 (Fed. Cir. 2009).

Motorola contends that "extracting" and "converting" caller-related information may take place in any order. Microsoft contends that the operation of "extracting" caller-related information

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The following explanation applies to all variations of the terms "extracting" and "converting" listed in the proposed construction.

must take place before "converting" the caller-related information to alpha-numeric string format.

Nothing in the intrinsic evidence requires that this be the case.

First, the claim language itself does not require the extracting step to take place before the converting step. For example, claim 8 simply requires "extracting caller-related information..." and "converting caller-related information..." This does not *require* that one step happen before the other. If the inventor intended for extracting to take place before the converting, the claim could have been drafted as "extracting caller-related information..." and "converting *the extracted* caller-related information" Or the applicant could have used ordering terms in the claim (such as "first extracting caller-related information" and "then second, converting caller-related information" — similar to the approach Microsoft took in its Keely '853 patent (*see infra* Section IV.B). But the applicant did not impose such a requirement here — clearly, a specific order was not, and should not be, required.

Similarly, the specification also does not *require* that the extracting step take place before the converting step. While Figure 2 shows a flow diagram for an embodiment of the invention in which extracting taking place before converting, the specification includes no language that would require this order of operation. In fact, the Urs '176 Patent discloses an embodiment in which a converter device may "extract and convert the caller-related information in real-time...." Exh. 12 at 3:66-4:2. Thus, these steps can effectively occur simultaneously.

Motorola's construction is further supported by the identification of the IBM ViaVoice speech recognition software as an example of the converter device 112 (Exh. 9 at 2:67-3:4) because this software operates to first convert speech and then extract the converted speech. Specifically, the IBM ViaVoice Software Developer's Kit ("SDK") explains that the speech processing engine first processes an incoming speech signal by matching the spoken words with a stored "vocabulary" and after a "best match" is found the engine converts (or decodes) the speech to text. See Exh. 53 at

95-96.¹⁰ Thereafter, the function SmGetFirmWords is used to "retrieve [or extract] the recognized text from the message." *Id.* at 96. Accordingly, and contrary to Microsoft's argument, the specification directly supports converting and then extracting caller related information.

Finally, when the inventor wanted to require an ordered operation, she used clear language like "then" to show that one operation must come before the other. For example, "the communication system infrastructure, using speech recognition techniques, extracts ... and converts the caller-related information into an alpha-numeric string format. The communication system infrastructure *then* transmits the caller-related information in the alpha-numeric string format to the communication unit." *Id.* at 4:56-63. Thus, the transmission must happen after conversion and extraction. But again, when referring to the "extraction" and "conversion" steps at issue here, the inventor used no such language, so no specific order of steps in required.

5. "fixed network equipment" or "FNE"

Motorola	Microsoft
Communication system infrastructure component"	A telecommunication equipment installation that routes voice calls between the communication, target and voice mail devices and routes data between the converter and the communication devices

The dispute between the parties is whether the claimed "fixed network equipment" must be (1) an "installation" that (2) "routes calls" and (3) "routes data." While Microsoft's proposed definition injects each of these extraneous limitations into its construction, Motorola's definition comes straight from the language of the patent's specification: "The [fixed network equipment or] FNE 108, the converter device 112, and the voice mail device 114 may be collectively referred to as

The SDK provides information regarding developing speech-aware applications using ViaVoice with Windows 95/98 and NT. See SDK at 1, 3. This suggests that the SDK is applicable to ViaVoice 98, which was made available in June 1998 and before the '176 patent was filed (http://www-03.ibm.com/press/us/en/pressrelease/2621.wss).

the communication system infrastructure." Exh. 13 at 3:4-6. Thus, the FNE is simply a "communication system infrastructure" component. Consistent with this, claim 1 describes the functionality of the "fixed network equipment," namely that it "provides communication services to a communication unit." Exh. 9 at Claim 1.

In contrast to Motorola's simple and straight-forward construction, Microsoft's definition uses extraneous language that does not appear in the Urs '176 Patent, such as "installation" and "routes." Nothing in the specification describes the "fixed network equipment" as "a telecommunication equipment installation" that "*routes* ... voice calls ... and data." If anything, the specification only requires that the FNE "provide telephony services." Exh. 13 at 1:11-14.

6. "receiving a request from a user of the communication unit"

Motorola	Microsoft
This element requires no construction and should be accorded its plain and ordinary	The communication system infrastructure is receiving a request from the communication unit
meaning	receiving a request from the communication time

The phrase "receiving a request from a user of the communication unit" is non-technical and can easily be understood by the jury. If the Court determines that construction is required, however, then the phrase should be construed in a manner consistent with both its plain meaning and how the phrase is used in the claims: "the *communication unit* receiv[es] a request from a user of the communication unit."

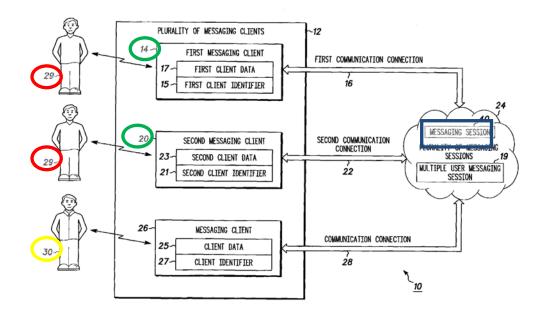
Microsoft's construction is wrong because it requires that the "communication system infrastructure" receives the request. Claim 11 includes no such requirement. Indeed, different claims – claims 1 and 8 – include this requirement. It is improper to read this limitation from claims 1 and 8 into Claim 11, and Microsoft's construction should be rejected for that reason. *See Seachange*, 413 F.3d at 1368 ("The doctrine of claim differentiation stems from the common sense notion that

different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope.") (internal quotation marks omitted).

C. Eaton '370 Patent

Overview of the Invention

The Eaton '370 Patent relates to instant messaging ("IM") systems. Exh. 14. The inventions of the patent generally provide users with the ability to continue an IM session started on one device seamlessly on a separate device. An exemplary system is set forth in Figure 1:



As shown in the figure, an account user (29, shown in red), for example, can start an instant messaging session (40, shown in blue) with a second account user (30, shown in yellow) by using a first device, such as a smartphone, that includes appropriate messaging software (14, shown in green). When the account user arrives home, he can seamlessly transfer his messaging session to a second device, such as his personal computer, which also includes the appropriate messaging software (20, also in green).

The patent refers to the software that allows for the transfer and receipt of the messaging session described above as a "messaging client" (14 and 20). This "messaging client" software is

used to transfer and/or receive data about the message session that allows the user to continue his instant messaging session on a second device.¹¹

Motorola has asserted claims 1, 2, 6, 12, 13, 18-20, 22, 29, 33, 36, 42, 45-46, 50-52, 54, 59, and 61. The asserted claims with disputed terms emphasized are set forth in Tab B.

1. "messaging session"

Motorola	Microsoft
A session of real time electronic messaging, between two or more messaging clients	"communication connection during which there is a transfer of electronic messages between two
	or more communicating devices with a defined beginning and end."

Motorola's construction of "messaging session" as a session of "real time electronic messaging" is fully supported by the Eaton '370 patent. The specification repeatedly and consistently describes messaging sessions as "real time electronic messaging." For example, the Background of the Invention states: "real time electronic messaging allows the simultaneous access to a message or a plurality of messages by multiple account users, with each account user capable of inputting a message or a plurality of messages to a messaging session." Exh. 15 at 1:18-22. Similarly, the specification describes the "plurality of messaging sessions" as "facilitating substantially real time communication among the plurality of messaging clients." Id. at 4:37–40. As another example, the specification provides: "[F]irst account user 29 is available for real time electronic communications such as participation in one or more of the plurality of messaging sessions." Id. at 34:64-66. Exhibit 15 highlights these portions of the specification, as well as others, that support Motorola's construction.

the invention, no later than late 2001, would have had a bachelors or equivalent degree in computer science, computer engineering, or the equivalent, and approximately five years of practical experience in the field of designing computer communications software.

The invention of the Eaton '370 Patent is directed to the field or art of real time messaging communication systems. A person of ordinary skill in the art of the Eaton '370 Patent at the time of

Nothing in the Eaton '370 Patent teaches – or even remotely supports – Microsoft's construction of "messaging session" as "an active communication connection during which there is a transfer of electronic data." Microsoft's construction, for example, confuses "session" with "connection." Session refers to the real time messaging; the connection is the physical means that permits the real time messaging to take place – they are two different things. The '370 Eaton patent confirms this. The specification teaches that a communication connection is *first* established so that a user can *later participate* in a messaging session: "the second messaging client can establish the second communication connection 22 but not yet be participating in a messaging session." *Id.* at 24:28-31. As another example, Figure 17 outlines separate steps for establishing the communication connection (step 318) and later transferring data to allow an account user to engage in a messaging session (step 372). *Id.* at 30:15-25. There is nothing in the Eaton '370 Patent that describes a session as an "active communication connection." In fact, the phrase "active communication connection" does not appear anywhere in the patent.

The claims also distinguish between the terms "messaging session" and "communication connection." For example, claim 22 provides:

22. Within a messaging communication system having a plurality of messaging clients, a method for providing continuity between the plurality of messaging clients comprising:

establishing a first *communication connection* for a first messaging client;

establishing at least one *messaging session* having a session identifier

Finally, Microsoft's construction also equates "messaging" with "transfer of electronic data." By doing so, Microsoft improperly broadens the term "messaging" far beyond instant messaging to include transfer of any kind of electronic data. For example, under Microsoft's construction, transferring electronic data relating to a sitcom to a digital home television could qualify as a "message." But the transfer of this type of data is not "instant messaging" as described in the patent

and watching TV is certainly not a "messaging session."

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2. "Providing continuity between a plurality of messaging clients" ¹²

Motorola	Microsoft
Allowing an account user to continue at least	Indefinite; no construction proposed
one messaging session on different messaging	
clients	

The phrase "providing continuity between a plurality of messaging clients" describes one of the main purposes of the Eaton '370 Patent. It appears in both the Title and Field of the Invention of the patent, and the phrase is contained in each of the patent's 67 claims. Exh. 16.

The Background of the Invention of the Eaton '370 Patent provides the framework for what it means to "provide continuity" between messaging clients, and identifies a problem that systems existing prior to the Eaton '370 Patent failed to solve – they did not allow for an instant messaging session started on one client to be transferred to another client:

In order to switch to a different device with existing technology, the account user may have to cause the currently connected device to disconnect from the message server. The account user would then have to cause the second device to connect to the message server and login. Finally, the account user would have to re-initiate each messaging session (one-to-one, public chat, private chat, electronic game) that was in progress on the first device. The disadvantage of this method is the numerous manual operations required of the account user to change devices. A further disadvantage is the lack of *messaging session continuity*. For example, the second device will not have the session history that was available on the first device, and the second device may not be able to re-connect to chat rooms that restrict the number of active account users since another account user may have connected to the chat room after the account user's

This claim limitation appears in the preamble of the asserted claims. Although preamble

Microsoft takes the position in its opening brief that the preamble is not limiting, Motorola will address these arguments in its responsive brief.

language that merely states the purpose or intended use of an invention is generally not treated as limiting the scope of the claim, see Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp., 320 F.3d 1339, 1345 (Fed. Cir. 2003), a preamble is a claim limitation if it includes the "essence of the invention" or if it is "necessary to give life, meaning, and vitality" to the claim. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed. Cir. 1999). Based on its claim construction statement, Microsoft appears to agree with Motorola that the preamble in the asserted claims is a limitation. If

first device disconnected.

What is needed is a system and method for *maintaining continuity* between messaging clients.

Exh. 16 at 3:21-39. Thus, when the Eaton '370 patent refers to "providing continuity," it refers to exactly what Motorola proposes as its construction – allowing an account user to continue at least one messaging session on different messaging clients. There is nothing indefinite in light of this explanation in the patent.

The Eaton '370 patent discloses a number of systems and methods for accomplishing this goal. For example, the patent explains in great detail (*see, e.g.*, Exh. 16 at 23:4-25:27) how the flowchart of Figure 13 allows an account user to start a messaging session on one client and continue that session on a different client. For example, the patent states:

The method illustrated by the flowchart of FIG. 13 allows messaging sessions to be easily transferred between messaging clients while maintaining session continuity and assuring session security. The account user can switch to a different messaging client on a different messaging system without being required to re-initiate each messaging session that was in progress on the first messaging client. Session continuity is maintained within the two messaging clients, and optionally the transfer does not affect other messaging session participants.

Exh. 16 at 25:28-25:37. As another example, after the description of each of the embodiments shown in Figures 20-23, the specification discloses substantially the following:

The messaging session seamlessly continues between the first account user and the second account user through the second messaging client and the messaging client as illustrated by the plurality of session messages 412 to 422. The messaging session continues seamlessly without the second account user being necessarily aware of the transfer of the first client data from the first account user's first messaging client to his/her second messaging client.

See Exh. 16 at 34:10-34:14; 36:35-36:39; 39:9-39:13; 41:24-41:29.

Moreover, the term "messaging session continuity" or its variants appear dozens of times in

the specification. In each instance, the terms are used consistent with Motorola's definition: "allowing an account user to continue at least one messaging session on different messaging clients." Exhibit 16 highlights these portions of the specification, along with others that support Motorola's construction.

Microsoft does not provide a construction "for providing continuity" and instead claims that the phrase is indefinite. But as shown above, the intrinsic evidence amply sets forth the meaning of "providing continuity." Because the claim term is amenable to construction, it cannot be indefinite. *See Haemonetics Corp. v. Baxter Healthcare Corp.*, 607 F.3d 776, 783 (Fed. Cir. 2010) ("Only claims not amenable to construction or insolubly ambiguous are indefinite.") (quotations and citations omitted).

3. "session data"

Motorola	Microsoft
Data relating to one or more of the messaging	Data relating to each of the plurality of
sessions in which the account user is	messaging sessions for which the account user is
participating, has previous participated, or plans	currently participating, has participated in, or
to participate, using the messaging client	plans to participate in

The parties' constructions of "session data" differ in only one respect – whether "session data" must be the data relating to "one or more" of the messaging sessions, as Motorola has proposed, or "each" of the messaging sessions, as Microsoft has proposed.

Although the patent does describe session data in one embodiment as client data relating to "each" of the plurality of messaging sessions, the specification makes clear that more than once that "session data" does not need to be data for "each" session, but instead can be data about *any one* messaging session. *See, e.g.*, Exh. 14 at 36:20-25 ("It will be appreciated by one of ordinary skill in the art that the session data signal 436 can include the plurality of *session data 36 for one messaging session or for a plurality of messaging sessions*"); *Id.* at 41:11-14 ("It will be appreciated by one of ordinary skill in the art that the data signal 458 can include *session data for*

one messaging session or for a plurality of messaging sessions, the first client data 17, or a portion of the first client data 17.").

4. "first messaging client"; "second messaging client"

Motorola	Microsoft
first client software to interface a user's device within a messaging communication system second client software to interface a user's device within a messaging communication system	Client application operating on a messaging device that includes software capability for transferring client data to and receiving client data from at least one other messaging client. The First and Second Messaging Clients can be operated by one or more account users

Motorola's construction is taken nearly verbatim from the Eaton '370 Patent:

Each of the plurality of messaging clients 12 such as a first messaging client 14 and a second messaging client 20 includes *client software* to interface within the messaging communication system 10.

Exh. 17 at 4:46 -50. Both the claims and the specification of the Eaton '370 patent use the term "messaging client" in a way that is entirely consistent with Motorola's construction. For example, claim 1 states that the messaging client establishes a communication connection (i.e., interfaces) with a messaging communication system:

Within a *messaging communication system* having a message server for managing the communication of a plurality of messages among a plurality of messaging clients, a method . . .comprising: *establishing a first communication connection* including a plurality of client data between *a first messaging client* and the message server.

Id. at 43:58-44:3. Similarly, the specification also makes clear that the messaging client interfaces with the messaging communication system:

To communicate within at least one of the plurality of messaging sessions 24 *the messaging client 26 establishes a communication connection 28.* For example, the first messaging client 14 establishes a first communication connection 16 for communication within at least one of the plurality of messaging sessions 24.

Id. at 5:4-9. Exhibit 17 includes these portions as well as other portions of the specification that

support Motorola's construction.

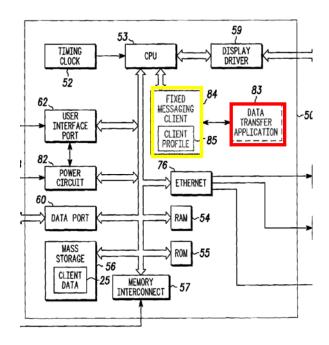
In contrast, Microsoft's construction, which requires that the first and second messaging clients both must transfer and receive client data, is inconsistent with the Eaton '370 Patent. Microsoft appears to rely on the following portion of the specification (*Id.* at 10:9-19):

In accordance with the present invention, the fixed messaging client 84 includes *software capability for transferring all or a portion of the plurality of client data 25* to one or more other messaging clients for use by the other messaging client to participate within one or more of the plurality of messaging sessions 24. The fixed messaging client 84, in accordance with the present invention, further includes *software capability for receiving all or a portion of the plurality of client data* 25 from at least one other messaging client to participate within one or more of the plurality of messaging sessions 24.

In isolation, Microsoft's construction may seem consistent with this passage. But Microsoft ignores language that immediately follows, which makes clear that the messaging client is *not* required to provide the software capabilities Microsoft includes in its construction:

As illustrated in FIG. 5, the software capability for transferring and/or the capability for receiving the plurality of client data 25 can be incorporated into the fixed messaging client 84, or *alternatively can be contained within a separate data transfer application 83*.

Id. at 10:19-23. *See also* FIG. 5, reproduced below.



As quoted above, the patent explains that although the software capabilities Microsoft includes in its construction *might* be provided by the messaging client, those capabilities can also be part of a separate data transfer application. Indeed, including them as part of a data transfer application has certain advantages, such as "minimiz[ing] incorporation timeframes and also the cost of upgrading the fixed network device 50 to include this feature." *Id.* at 10:28-31. Therefore, limiting the term "messaging client" as Microsoft has proposed would be improper.

The claims of the Eaton '370 patent also confirm that software capabilities included in Microsoft's construction need not be part of the first or second messaging client themselves – the capability can be part of a separate application. *See, e.g.*, Claim 7 ("the second messaging client operates within a second messaging device, wherein the second messaging device includes a data transfer application") and Claim 8 ("the first messaging client operates within a first messaging device, wherein the first messaging device includes a data transfer application").

5. "adding the second messaging client to the at least one messaging session using the session identifier"

Motorola	Microsoft
Plain and ordinary meaning or alternatively:	Indefinite; no construction proposed
using the session identifier to allow the second messaging client to participate in the at least one messaging session	

To the extent "adding the second messaging client to the at least one messaging session using the session identifier" needs to be construed at all, it should be construed to mean exactly what it says — using the session identifier to allow the second messaging client to participate in the at least one messaging session. This is consistent with the specification of the '370 Eaton patent. For example, Figures 18 and 19 (and the corresponding discussions of these Figures in the

specification) disclose an embodiment that uses the session identifier to allow the second messaging client to participate in an existing messaging session. As shown in Figure 18, before a second messaging client can participate in the messaging session (step 383), a session transfer message (also called a data transfer message) must be sent to the server (step 382). As shown below, the session transfer message contains session data, including a session identifier. *See* Exh. 14 at 31:25–30.

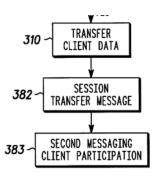


FIG.18

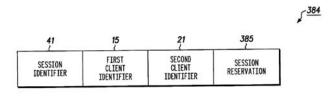


FIG.19

The transfer of this session data (including the session identifier) allows the second

messaging client to participate in the messaging session:

The operation of the message communication system 170 as illustrated in FIG. 18 provides a means for the first account user 29 to *ensure that there is an opening* within the multiple user messaging session 19 when the first account user 29 transfers at least a portion of the first client data 17 including the plurality of *session data* 36 (and accordingly the communication means) from the first messaging client 14 to the second messaging client 20....

Id. at 31:49-61.

Microsoft did not provide a construction and instead argues that it is indefinite. But as shown above, this term is amenable to construction and, therefore, cannot be indefinite. *See, e.g.*, *Bancorp Servs.*, 359 F.3d at 1371.

6. "transfer the at least one messaging session from the first messaging client to the second messaging client using the session identifier"

Motorola	Microsoft
Plain and ordinary meaning	Indefinite; no construction proposed
OR	
using the session identifier to transfer	
the at least one messaging session from	
the first messaging client to the second	
messaging client.	

The claim element "transfer the at least one messaging session from the first messaging client to the second messaging client using the session identifier" is similar to the previous claim element. To the extent it requires construction at all, it should be construed to mean exactly what the patent describes – "using the session identifier to transfer the at least one messaging session from the first messaging client to the second messaging client."

Like the prior claim element, the specification of the Eaton '370 Patent describes how to "transfer the at least one messaging session from the first messaging client to the second messaging client using the session identifier." For example, the patent states that "the method illustrated by the

flowchart of FIG. 13 allows *messaging sessions* to be easily *transferred* between *messaging clients* while maintaining session continuity and assuring session security." Exh. 14 at 25:27-31. In describing the method of FIG. 13, the patent explains that the session identifier is part of the session data and that this data is used to transfer the session from one messaging client to another. Exh. 14 at 23:34-38, 23:40-45, 24:6-8, 25:19-28. The patent also describes other embodiments in which the session identifier is used to transfer the messaging session from one client to another.

Microsoft did not provide a construction and instead argues it is indefinite. But as shown above, this term is readily amenable to construction and, therefore, is not indefinite.

7. The "messaging client" limitations

There are two messaging client limitations:

- "a first messaging client, for establishing a first communication connection including a plurality of client data with a message server"; and
- "a second messaging client for receiving the plurality of client data from the first messaging client and for establishing a second communication connection including the plurality of client data with the message server."

The parties have a number of disputes relating to these limitations. The first is whether these limitations are subject to 35 U.S.C. § 112, ¶6. Microsoft contends they are; Motorola contends that they are not. If § 112, ¶6 *does not* apply, Microsoft apparently does not contest that plain meaning should apply and the Court is not required to do any further analysis.

If, on the other hand, \S 112, \P 6 *does* apply, the parties agree on the claimed function, but disagree as to the corresponding structure in the specification that practices the claimed function. Thus, the Court would need to decide what structure is covered by this limitation.

(a) Does § 112, ¶6 apply?

A claim element that does not use the word "means" is presumptively **not** written in "means-plus-function" format. *Lighting World, Inc. v. Birchwood Lighting, Inc*, 383 F.3d 1354, 1358 (Fed. Cir. 2004). Indeed, "the presumption flowing from the absence of the term 'means' is a strong

one that is not readily overcome." *Id.* That strong presumption applies here – neither one of the "messaging client" limitations includes the word "means."

Despite this strong presumption, Microsoft contends that these limitations are written in means-plus-function format. But in order to overcome the presumption, Microsoft must show that "the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002). "To help determine whether a claim term recites sufficient structure, we examine whether it has an understood meaning in the art." *Id.*

Microsoft cannot overcome this presumption. Microsoft itself has defined "messaging client" as "[a]n application program that enables its user to send or receive messages (such as e-mail or fax) to and from other users with the help of a remote server." Exh. 18, Microsoft Computer Dictionary 336 (5th ed. 2002). Consistent with this, the Eaton '370 Patent describes the claimed "messaging client" as software that would be understood and appreciated by one of ordinary skill in the art:

Each of the plurality of messaging clients 12 such as a *first* messaging client 14 and a second messaging client 20 includes client software to interface within the messaging communication system 10. The client software, for example, can include a software application for communication through an Internet service provider. Further, the client software can include a software application for participation in one or more electronic games offered by a gaming software provider. It will be appreciated by one of ordinary skill in the art that the client software can be any of those mentioned herein or an equivalent. Further, it will be appreciated by one of ordinary skill in the art that in accordance with the present invention, the interface capabilities of the client software can also be designed into client hardware of a messaging client.

Exh. 19 at 4:46-61.

Other instances of the term "messaging client" in the specification make clear that the term "messaging client" is a well-understood structure to those of skill in the art. See Exhibit 19. Finally,

Microsoft construes "first messaging client" and "second messaging client" as a "client application operating on a messaging device" *See supra* Section III.C.4. Microsoft's construction illustrates that "messaging client" is a well known, definite structure.

Based on the Eaton '370 Patent, Microsoft's own computer dictionary and Microsoft's own proposed constructions in this case, "messaging client" is a well known, definite structure and § 112, ¶6 does not apply. If the Court agrees, these terms should be given their plain and ordinary meaning and the Court is not required to perform any further analysis.

(b) If § 112, ¶6 does apply, what is the claimed function and corresponding structure?

Motorola	Microsoft	
"a first messaging client, for establishing a first communication connection including a plurality of client data with a message server"		
<u>Claimed function</u> : "establishing a first communication connection including a plurality of client data with a message server"	Claimed function: "establishing a first communication connection including a plurality of client data with a message server"	
Corresponding structure: "first messaging client"	Corresponding structure: none	
"a second messaging client for receiving the plurality of client data from the first messaging client and for establishing a second communication connection including the plurality of client data with the message server"		
Claimed function: "receiving the plurality of client data from the first messaging client, and establishing a second communication connection including the plurality of client data with the message server"	Claimed function: "receiving the plurality of client data from the first messaging client, and establishing a second communication connection including the plurality of client data with the message server"	
Corresponding structure: "second messaging client"	Corresponding structure: none	

If the Court decides that the strong presumption against application of § 112, ¶6 has been rebutted, the Court must then determine the claimed function and the structure in the specification that performs that function. As shown in the table above, the parties agree to the claimed function

for both terms. Thus, the Court needs only to identify the corresponding structure described in the specification that performs each function.

With respect to the "a first messaging client" limitation, the specification clearly disclose that the structure performing the function of "establishing a first communication connection including a plurality of client data with a message server" is the first messaging client shown, for example, in Figure 8 which describes exactly what it is (i.e., client software):

Each messaging client 26 of the plurality of messaging clients 12 such as the first messaging client 14 and the second messaging client 20 includes client software to interface within the messaging communication system 10. . . . To communicate within the messaging communication system 170, the messaging client 26 establishes the communication connection 28 via the message server 172. For example, the first messaging client 14 establishes the first communication connection 16 via the message server 172 for communication within at least one of the plurality of messaging sessions 24. . . . The first messaging client 14 includes the first client data 17.

Exh. 19 at 16:27-17:11; *see* also FIG. 8. The patent at column 23, lines 4-16¹³ also describes how it performs the function of establishing a first communication connection:

FIG. 13 is a flowchart illustrating the operation of the messaging communication system 10,170 in accordance with the present invention. Beginning with Step 296, the first messaging client 14 establishes the first communication connection 16 for communication within at least one of the plurality of messaging sessions 24 within the messaging communication system 10,170. For example, when the first messaging client 14 operates within the fixed network device 50, the first messaging client 14 accesses the appropriate network and notifies the messaging communication system 10,170 of its connection information (i.e.: IP address and number of the port assigned to the first messaging client 14).

The Eaton '370 Patent provides further details about the first messaging client, what it is, and how it establishes a communication connection with the network. *See, e.g., id.* at Figs. 5, 6; 9:4-10:31, 12:42-13:57.

With respect to "a second messaging client...," similar portions of the patent clearly

35

Figure 13 is described as "illustrating the operation of the messaging communication system of FIGS. 1 and 8." Exh. 19 at 4:5-8.

discloses that the second messaging client of Figure 8 performs the function of "receiving the plurality of client data from the first messaging client, and establishing a second communication connection including the plurality of client data with the message server." See Exh. 19.

Microsoft contends that these claim limitations are indefinite because the specification fails to identify a structure capable of performing the claimed functions. But as set forth above, the specification of the Eaton '370 Patent clearly identifies the corresponding structure for each of the claimed functions, and explains in great detail what these structures are and how they perform the claimed function.

D. Deluca '001 Patent

Overview of the Invention

HOME" displays as the text "CALL BOB AT" and a house

image in place of the key word "HOME".

The Deluca '001 patent describes a data communication receiver for displaying alphanumeric messages, such as a text or instant message (IM). Exh. 20. A message may be displayed with an image that corresponds to a key word (or keystroke sequence) appearing in the message. For example, FIG. 20 (right) shows the message "CALL HOME" displayed as the image of a phone and a house. Similarly, FIG. 15 shows the text message "CALL BOB AT 494-1100" displayed with the image FIG. 20 of a phone, which corresponds to the key word "CALL." In another example (not shown), the message "CALL BOB AT FIG. 15

The patented device also receives programming messages that provide information for associating a new key word with an image.¹⁴ Motorola has asserted claims 1, 3, 4, and 6 of the Deluca '001 Patent. The asserted claims with disputed terms emphasized are set forth in Tab B.

1. "A method for displaying messages in a data communication receiver"; "A data communication receiver for presenting information"

Motorola	Microsoft
The preamble is a limitation that should be	The preamble is limiting. All claim elements are
construed according to its plain and ordinary	a part of or performed on the mobile
meaning	communication device receiving the message

The parties agree that the preamble is a limitation. It recites a "data communication receiver" – structure essential to the other claim elements. However, Microsoft attempts to limit that term to only one type of data communications receiver – a mobile device. That is improper. The plain meaning of a "data communication receiver" is a device for receiving data communications. Data communications receivers are as varied as the systems in which they operate, e.g., wireless networks, local area networks and wide area networks. In other words, a data communication receiver may be any device for communicating data within a networked communication system, including a portable, laptop or desktop device.

The specification and prosecution history do not prescribe any limits on the scope of the term "data communication receiver." And nothing in the intrinsic and extrinsic evidence identified by Microsoft requires limiting "data communication receiver" to mobile devices alone. For example, Figure 1 of the patent shows "an electrical block diagram of a data communication receiver 100, *such as a pager*" Exh. 21 at 2:18-19. In other words, a pager is one example of a data communication receiver. The patent also states "codes and image data associated therewith can be

The DeLuca '001 Patent is directed to the field of networked communication systems. A person of ordinary skill in the art at the time of the invention (late 1995) would have had a bachelor or equivalent degree in computer science, electrical engineering, or the equivalent, and approximately two years experience with networked communication systems.

programmed into [the data communication receiver] by means such as the controls 140 downloading through a *data port* (not shown)." *Id.* at 3:8-10. In this embodiment, receiver 110 of the data communication receiver does not receive over-the-air programming or demodulate radio signals – thus, it is not necessarily a mobile, or wireless, device. *Id.* at 2:18-21. Rather, it may be any data communication device with a data port, such as a portable, laptop or desktop device.

2. "referencing a database to determine whether at least one word included in the alphanumeric message matches at least one key word included in the database"; "determining whether at least one word included in the alphanumeric message matches at least one key word included in the database"; "determining whether at least one alphanumeric word included in the message matches at least one key word included in the database"

Motorola	Microsoft
Plain and ordinary meaning	Searching a particular database on the data communication receiver to compare each alphanumeric word parsed from the message for
	a match between it and the alphanumeric key words in the database. Alphanumeric only includes numbers and alphabet characters

The parties agree that these three claim phrases have the same meaning. They disagree whether the Court needs to construe the phrases. Each of the phrases uses ordinary terms that can be readily understood by a lay jury. They mean exactly what they say – determining whether at least one word included in an alphanumeric message matches at least one key word included in a database. This is clear without further explanation, and Microsoft's construction would only serve to confuse the jury.

The patent confirms that the phrases have their ordinary meaning. For example, Figure 17 (below) depicts operation of the presentation element of the data communication receiver, including step 405, which compares the words of a message with key words stored in a graphics database, and step 410, which determines if any words match. Exh. 22 at 6:39-47.

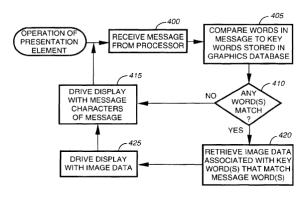


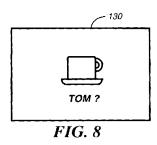
FIG. 17

Microsoft's proposed construction adds unnecessary words (e.g., parsed) that will not be helpful to the jury. Microsoft also attempts to add the requirement that "alphanumeric only includes numbers and alphabet characters." This definition is inconsistent with the way the patent uses the term and its meaning in the field of networked communications. For example, the patent refers to the characters "#07TOM?" as "alphanumeric" characters. Exh. 22 at 3:51-58. Thus, "alphanumeric" includes symbols like "#" and "?" in addition to letters and numbers. The Microsoft Press Computer Dictionary, 2d ed. (1994), defines "alphanumeric" as "comprising both letters and digits, sometimes also including control characters, space characters, and other special characters." Exh. 23, Microsoft Press Computer Dictionary at 16. Therefore, Microsoft's definition is improperly limiting and should be rejected.

3. "graphic message that is accompanied by the alphanumeric message";"graphic message accompanied by the alphanumeric message";"graphic message accompanied by the message"

Motorola	Microsoft
At least one image is displayed along with a	At least one supplemental image is displayed
portion of, or the entire, alphanumeric message	along with the entire alphanumeric message

The parties appear to agree that the term "graphic message" refers to displaying an image to convey a message. The dispute centers on whether the phrase "graphic message [that is]



accompanied by the [alphanumeric] message" requires displaying the image along with the entire alphanumeric message as originally sent. Under Motorola's construction, an image may be displayed in place of its associated key word in the original message. This construction is consistent with the patent and prosecution history.

The specification of the '001 patent makes clear that the image can be displayed with either a portion of or the entire alphanumeric messages. Figure 8, for example, "illustrates the combination of both a graphic message and a text message including, for example, alphanumeric characters." Exh. 20 at 3:51-53. Figure 8 is displayed in response to receiving the alphanumeric message "#07TOM?" The #07 is recognized as the key word for a cup of coffee, which is displayed along with a portion of the message (i.e., TOM?).

The '001 patent also discloses displaying the image with the entire alphanumeric message. In this situation, the patent calls the image a "supplemental graphic message." For example, "FIGS. 15 and 16 are illustrations of supplemental graphic messages provided with text." Id. at 2:4-5.

FIG. 15 (shown) displays the entire text message "CALL BOB AT 494-1100" along with a supplemental image of a phone corresponding to the key word "CALL".

Motorola's construction covers both of these embodiments. Microsoft's construction does not. As an initial matter, the express claim language does not include the term "supplemental" or "entire." It appears that Microsoft is attempting to limit the claims to the "supplemental graphics message" and "entire" message by putting misplaced reliance on portions of the file history that discuss presenting the graphic message with an "original alphanumeric message" or the "alphanumeric message itself." Neither of these support Microsoft's construction.

During prosecution, the Examiner cited two primary references – Gaskill and Miyashita.

Gaskill described a pager built into a watch. In one embodiment, the watch has a first row for

displaying predetermined icons, such as a house or office image, and a second row for displaying a phone number or other alphanumeric message. By pressing a number key, the user could display one of the predetermined icons, e.g., 1 for call home, 2 for call office. By pressing number 5, the user could enter a free-form alphanumeric message of up to 50 characters. Motorola argued that Gaskill did not disclose the step of "presenting, when the word matches a key word, a graphic message corresponding to the key word as well as the original alphanumeric message received by the data communication receiver." Exh. 24 at MOTM-24063-0000555 at -638. In this context, "original alphanumeric message" meant that the Gaskill's graphical message was presented in response to entry of a code, rather than key words in a message *originally* in alphanumeric format.

Miyashita also described a pager that displayed one of several "canned messages" in response to entry of a code. The sender could enter a "general message" in alphanumeric format, and both would be displayed. Again here, Motorola argued that "the alphanumeric message itself" was not used to generate the graphic message: "Miyashita therefore teaches away from presentation of a graphic message along with the general message in response to determining that one or more words included in the general message match a stored key word." *Id.* at MOTM-24063-0000555 at -640. The issue was not whether the entirety of the alphanumeric message was displayed, but whether words in that message (as opposed to separately entered codes) caused a graphic message to be displayed along with the message.

The remainder of the prosecution record confirms that the Examiner and Motorola understood the graphic message could be displayed with a partial alphanumeric message. In the April 18, 1997 Office Action, Exh. 24 at -648 to -649, the Examiner cited the Reed patent, WO 91/03885, as disclosing the "presenting" step. Specifically, the Examiner cited Reed Figure 3, and page 3, lines 21-31, and page 5, lines 17-24, which discloses a communication unit displaying a graphical message along with an alphanumeric message (driver's alias) constituting only a portion of

the message being conveyed. Motorola did not challenge this interpretation of the Reed patent, Exh. 25, and thus acquiesced in an interpretation of the "presenting" step as including a partial alphanumeric message.

4. "programming message"

Motorola	Microsoft
A message that creates or modifies an association between a key word and image data	A message, received by the receiver separately from the alphanumeric message, that includes a
	predetermined programming word indicative of programming information, a key word, and an image associated with the key word

The parties do not dispute that the "programming message" includes a key word and image data. Motorola's construction, however, clarifies that the "programming message" provides information for creating or modifying an association between the key word and image data. Microsoft's construction, on the other hand, adds several improper limitations to the programming message: (1) that is "received by the receiver separately from the alphanumeric message"; (2) that it always includes a "predetermined programming word"; and (3) that it includes an "image," not "image data" – as the claim recites.

Motorola's construction is consistent with the claims and patent specification. Specifically, the programming message "includes a code, either existing or new, followed by image data to be written into the graphics database 155." Exh. 20 at 5:60-62. If existing, the association is modified. If new, the association is created.

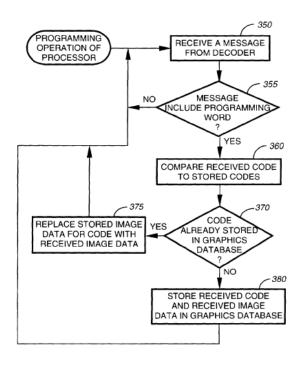


FIG. 13

The flowchart of FIG. 13 (above) confirms that the programming messaging creates or modifies an association between a key word and image data. The processor compares the received code (or key word) to the codes (or key words) stored in the graphics database. *Id.* at 6:1-7. If the code (or key word) exists in the graphics database, the associated image data is updated (i.e., modified). *Id.* at 6:7-10. If the code (or key word) is new, both the code (or key word) and image data are added to the database, thereby creating an association. *Id.* at 6:10-13. In other words, the programming message is used to create or modify an association between a key word and image data stored in a graphics memory. *See also id.* at 5:39-44.

Microsoft contends that the programming message must be "received by the receiver *separately* from the alphanumeric message." Nothing in the patent requires this added limitation. Rather, the patent explicitly states, at Column 7, lines 24-31, that the programming message can be provided over the air – just like the alphanumeric message. A programming message sent over the air includes a programming word indicating that it is not a conventional message. *Id.* at 6:1-4. This

shows that the programming message may be transmitted with the alphanumeric message, and distinguished based on its programming word.

Microsoft also contends that the programming message always includes a "predetermined programming word." According to the patent, the programming word is appended when the programming message is received over the air. However, programming information may also provided via controls 140 or a data port of the data communication receiver. *Id.* at 5:41-47. In these embodiments, the programming message does not require a programming word – let alone a "predetermined" programming word as Microsoft contends – to distinguish it from the alphanumeric message.

Further, Microsoft asserts that the programming message must include an image. That is not so. Indeed, it is a technical possibility – only image data can be transmitted. The image can then be reconstructed and displayed from the image data. The patent confirms that this is true. FIG. 1 shows "IMAGE A DATA" and "IMAGE B DATA" in database 155. Exh. 20.

5. "programming means coupled to the processor and to the database for programming the database, the programming means further comprising: the receiver for receiving a programming message including a key word and image data; a memory for storing a programming word; and storing means for storing the key word and image data in the database in response to determining that the programming message includes the programming word"

Motorola	Microsoft
This element is not a means-plus-function	Recited function: programming the database,
element that should be construed according to	receiving a programming message including a
35 U.S.C. §112, ¶6 because it recites sufficient	key word and image data, storing a
structure to perform the claimed function in its	programming word, storing the key word and
entirety.	image data in the database in response to
	determining that the programming message
To the extent that this element is construed	includes the programming word
according to 35 U.S.C. §112:	
	Corresponding structure:
<u>Claimed function:</u>	
"programming the database"	The claim is indefinite for claiming processor

Motorola	Microsoft
	120, programmed to perform the function of
Corresponding structure:	"storing the key word and image data in the
Receiver 110, Decoder 115, Memory 135, and a	database in response to determining that the
program for operating the Processor according	programming message includes the
to the algorithm of Figure 13.	programming word" without disclosing the
	internal structure of that processor in the form
	of an algorithm.

The parties have a number of disputes relating to this claim element. The first is whether these limitations are subject to 35 U.S.C. § 112, ¶6. Microsoft contends they are; Motorola contends that they are not. If § 112, ¶6 *does not* apply, Microsoft apparently does not contest that plain meaning should apply and the Court is not required to do any further analysis.

If, on the other hand, § 112, ¶6 *does* apply, the parties disagree as to the claimed function and corresponding structure in the specification that practices the claimed function. Thus, the Court would need to decide what the function is and what the associated structure is.

Does § 112, ¶6 apply? Although a claim element that uses the word "means" is presumptively in "means-plus-function" format, that presumption is rebutted when the claim language recites sufficient structure to perform the function. See supra Section III.C.7(a) See, e.g., Bancorp Servs., 359 F.3d at 1371.. That is the case here. The limitations recited as elements of the "programming means" are well-known structures to persons of ordinary skill in the art – a receiver, a memory and a computer program for storing data in a memory. In view of the fact that the claim recites sufficient structure, the claimed "programming means" should be construed as ordinary claim language, and not pursuant to § 112, ¶6. See, e.g., Envirco Corp. v. Clestra Cleanroom, Inc., 209 F.3d 1360, 1365 (Fed. Cir. 2000) (finding that "second baffle means" was not subject to 35 U.S.C. § 112, ¶6 because the term was sufficiently structural); Greenberg v. Ethicon Endo-Surgery, 91 F.3d 1580, 1583 (Fed. Cir. 1996) (finding that "detent mechanism" was not subject to 35 U.S.C. § 112, ¶6 because the term was sufficiently structural).

If § 112, ¶6 applies, what is the claimed function and structure? The parties appear to agree that the claimed function includes "programming the database." Microsoft also contends that the claimed function includes "receiving a programming message including a key word and image data," "storing a programming word," and "storing the key word and image data in the database in response to determining that the programming message includes the programming word." The claim language makes clear that the function of the programming means is simply to program the database. The additional language Microsoft includes in its construction relates to components and structures (and not functions) that are involved in programming the database:

programming means coupled to the processor and to the database for programming the database, the programming means further comprising:

the receiver for receiving a programming message . . .;

a memory for storing a programming word; and

storing means for storing the key word and the image data in the database in response to determining that the programming message includes the programming word.

Motorola contends the corresponding structure is a combination of the Receiver 110, the Decoder 115, the Memory 135, and a program for operating the Processor 120 according to the algorithm of Figure 13. Figure 1 of the patent shows Receiver 110, Decoder 115 and Memory 135 connected to Processor 120. Decoder 115 recovers messages included in the radio signal demodulated at Receiver 110. Memory 135 stores code formats and programming words. The flowchart of Figure 13 (shown above) depicts the operation of Processor 120 to add or update image data in a graphics database. The patent explains that: "[w]hen, at step 350, a message is received by the processor 120 from the decoder 115, the processor 120 determines, at step 355, whether the message includes the programming word indicative of over-the-air programming." Exh. 20 at 6:1-4. Processor 120 then compares the received code (or key word) to the codes (or key

words) stored in a graphics database. *Id.* at 6:1-7. If the code (or key word) exists in the database, the corresponding image data is updated. *Id.* at 6:7-10. If the code (or key word) is new, both the code (or key word) and image data are added to the database. *Id.* at 6:10-13.

Microsoft contends that the claim is indefinite because the patent does not disclose an algorithm for performing the function of "storing the key word and image data in the database in response to determining that the programming message includes the programming word." However, as will be discussed below respecting the "storing means," the specification includes the flow chart of Figure 13, which depicts such an algorithm.

6. "storing means for storing the key word and image data in the database in response to determining that the programming message includes the programming word"

Motorola	Microsoft
This is a means-plus function element that	Recited function:
should be construed according to 35 U.S.C.	storing the key word and image data in the
§112, ¶6.	database in response to determining that the
	programming message includes the
Claimed function:	programming word
"storing the key word and the image data in the	
database in response to determining that the	Corresponding structure:
programming message includes the	The claim is indefinite for claiming processor
programming word"	120, programmed to perform the function of
	"storing the key word and image data in the
Corresponding structure:	database in response to determining that the
A program for operating the Processor	programming message includes the
according to steps 360, 370, 375, and 380 of the	programming word" without disclosing the
algorithm of Fig. 13.	internal structure of that processor in the form
	of an algorithm.

The parties agree that "storing means . . ." is written in means-plus-function format pursuant to 35 U.S.C. § 112, ¶6. The parties also agree that the claimed function is: "storing the key word and the image data in the database in response to determining that the programming message includes the programming word." The parties disagree whether structure is disclosed in the specification for performing the claimed function.

Motorola's identification of the structure is fully supported by the intrinsic record. The flowchart of Figure 13 (see above) and in particular, steps 360, 370, 375, and 380 provide an algorithm for storing key words and associated image data in a graphics database. The specification also clearly links those steps of Figure 13 with the "storing" function. *See* Exh. 20 at 6:1-13. Microsoft contends that this is not sufficient structure. But the relevant case law is to the contrary. A flow chart is sufficiently definitive if one skilled in the art would know what computer program to use by reading the chart. *See, e.g., Bedrock Computer Techs., LLC v. Softlayer Techs., Inc.*, No. 09CV269, 2011 WL 91089, at *13 (E.D. Tex. January 10, 2011); *Better Educ., Inc. v. EInstruction Corp.*, No. 08CV446, 2010 WL 1711254, at *5 (E.D. Tex. April 27, 2010).

E. Rangarajan '544 Patent

Overview of the Invention

The Rangarajan '544 Patent discloses a new approach to determining a location relevant to a user of a cell phone or other type of communication device. Exh. 26. This new approach can be used to determine the accurate location of the communication device or to determine a point of interest, such as a nearby airport or ATM. To accomplish this, the Rangarajan '544 Patent describes using both "general location information" and "specific location information." The general location information might be, for example, the city in which the communication device is currently located or the area served by the cell phone tower with which the device is communicating. The specific location information, as its name implies, is more specific than the general location information and might be, for example, a street address, an intersection, or a landmark. The patent describes using the general location information to determine a list of "location parameters" such as streets,

landmarks, restaurants, businesses, etc. The location relevant to the user can then be determined by comparing that list of location parameters with the specific location information.¹⁵

Motorola is asserting claims 1, 3, 5, 6, 9, and 10 of the Rangarajan '544 Patent. The asserted claims, with disputed terms emphasized are set forth in Tab B.

1. "general location information of the location relevant to the user"

Motorola	Microsoft
Plain and ordinary meaning or alternatively:	A geographic area that is determined by the nature of the service request of a user
Information about the general area of a location relevant to the user	

This phrase is easily understood and does not need to be construed. If the Court determines that the term requires construction, however, Motorola proposes a construction that is consistent with its plain and ordinary meaning and with the specification – information about the general area of a location relevant to the user. *See, e.g.*, Exh. 26 at 2:2-6, 6:38-42. Microsoft's proposed construction, on the other hand, has several problems.

By limiting the claim term to just a "geographic area," Microsoft's proposed construction excludes non-geographic information. But the patent specifically states that general location information "may include, for example, cell and/or sector identification and other *geographic and non-geographic information*." *Id.* at 6:38-42. Microsoft's construction also misses the distinction between an area and information about an area, and, in doing so, renders meaningless the word "information" and effectively reads that term out of the claims.

The inventions taught in the Rangarajan '544 Patent are directed to communications and location-oriented systems. A person of ordinary skill in the art at the time of the invention (2001) would have had at least a bachelor's degree in electrical engineering or computer science or the equivalent, and at least two years of experience working in the area of communications and location-oriented systems.

Microsoft's proposed construction is also confusing and unhelpful to a jury. The disputed claim term is preceded by the word "determining." Reading Microsoft's construction, within the context of the claims results in the following circular claim element: "determining a geographic area that is determined by the nature of the service request of a user." Finally, Microsoft improperly limits the claim to determining general location information based on "the nature of the service request of a user." There is no basis for this limitation in the express claim language or the specification. See Nissim Corp. v. ClearPlay, Inc., No. 08-80535-CIV, 2010 WL 1038511, at *3 (S.D. Fla. Mar. 19, 2010). Nothing in the Rangarajan '544 Patent expresses a clear requirement that general location information be "determined by the nature of the service request of a user."

2. "specific location information of the communication device"

Motorola	Microsoft
Plain and ordinary meaning or alternatively:	Location information input by the user to indicate the location of the communication
Information about the specific location of the communication device	device

The phrase "specific location information of the communication device" is easily understood by a jury – especially when contrasted with "general location information" – and thus does not require construction. If the Court determines that the phrase requires construction, however, Motorola proposes construing the phrase, consistent with its plain and ordinary meaning, as "information about the specific location of the communication device."

The main dispute between the parties relates to whether, as Microsoft contends, specific location information must be "input by the user." Microsoft's construction would exclude other ways of determining specific location information, such as with automatic position determination technology like GPS. Nothing in the claim language or the specification requires that specific location information be input by the user. To the contrary, the specification indicates that specific

location information can be determined using automatic position determination technology. For example, after explaining that "different position determination technologies provide different levels of location accuracy," the specification contrasts "cell and sector identification-based positioning," which it describes as being "inadequate to accurately identify one *specific location*," with GPS, which "can accurately locate a wireless transceiver in open, unobstructed environments." Exh. 26 at 1:32-33, 36-39.

Moreover, the prosecution history confirms that specific location information could be determined automatically. The original patent application included a dependent claim (original claim 26) that provided for "determining specific location information *through an automatic position determination technology.*" Exh. 27.¹⁶ Thus, specific location information of the communication device was not, by definition, limited to being input by a user, and the inventors explicitly contemplated that specific location information could be determined automatically.¹⁷

3. "determining the location relevant to the user by comparing the list of location parameters with the specific location information"

Motorola	Microsoft
Identifying the location relevant to the user by selecting from the list of location parameters based on the specific location information	Determining the geographic location that corresponds to the specific location information by matching the specific location information with a list of location parameters to identify a matching location parameter

The comparison step in this claim element – comparing the list of location parameters with the specific location information – is perhaps best illustrated by "Example A" in the patent specification. This describes an application of the invention that is used to help a man, Bob, in

Original dependent claim 27 further explained that the automatic position determination technology referred to in claim 26 could be triangulation, GPS, or various other technologies.

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Claim 26 ultimately was canceled without prejudice during prosecution. This does not diminish its value as evidence of the meaning of "specific location information."

Chicago find a nearby ATM. *See* Exh. 28 at 9:62-10:39. The application first determines Bob's general location information and "a list of streets and ATMs near, around, within, or corresponding to Bob's location" (i.e., a list of location parameters). *Id.* at 10:9-10. The step of comparing this list with specific location information of the communication device is then performed twice. First, Bob speaks the intersection corresponding to his current location and the application compares this information with the list of location parameters to determine his accurate location, such as his street address. *Id.* at 10:16-23. Second, after determining his location, the application "compares Bob's location to the list of ATMs" to determine the closest ATM. *Id.* at 10:26-28. In both of these comparison steps, a location relevant to the user – first, Bob's accurate location, and second, a nearby ATM – is identified by using the specific location information to select a location parameter from the broader list of location parameters. This is captured by Motorola's construction.

On the other hand, Microsoft's proposed construction unduly limits the scope of the claim language and excludes embodiments described in the specification. First, Microsoft limits the phrase "location relevant to the user" to the "geographic location that corresponds to the specific location information." This is improper. Because the "specific location information" referred to here is that of the communication device, Microsoft is effectively limiting "location relevant to a user" to just the location of the communication device. But the patent makes clear that the "location relevant to the user" can be a point of interest, such as a nearby airport or ATM, and, therefore, is not limited to just the location of the device. *See, e.g., id.* at 8:32-35.

Microsoft's phrase "matching the specific location information with a list of location parameters to identify a matching location parameter" is also problematic. This language is very similar to the following language in the specification: "[the location relevant to the user is

A person of ordinary skill in the art reading the patent would recognize that this step involving user input could be skipped by using automatic position determination technology to determine the specific location information of the communication device.

determined] by matching the specific location information responses with the database of location parameters." *Id.* at 8:28-30. However, immediately preceding this language, the specification notes that this is just "*one embodiment* of the invention." *Id.* at 8:27-28. Thus, the claim is not so limited.

Finally, by using the word "matching," Microsoft's construction limits the scope of the claim to a narrow meaning of "comparing." A broader sense of "comparing" is required, though, for the claim to make sense in the context of determining a point of interest near the communication device such as a nearby airport or ATM. In addition, the word "matching" appears in other claims, demonstrating that the inventors likely would have used that word if they meant for "comparing" to have the same meaning as "matching." *See, e.g., id.* at Claim 3, 19:16-17 ("matching the selection with the selection list to determine a matched selection").

F. Eggleston '899 Patent

Overview of the Invention

The Eggleston '899 Patent teaches an optimized wireless e-mail system, which incorporates a new approach for minimizing the amount of reply e-mail data transmitted between a "communication unit" (e.g., a smart phone) and a communication server. Exh. 29. Traditionally, a reply e-mail typically is included the original e-mail message that was received by the recipient, plus whatever reply data the recipient has added in response to this message. Recognizing that sending original and reply data together could dramatically increase the amount data being transmitted wirelessly, the Inventors of the Eggleston '899 Patent realized that instead of sending data representing the *entire* reply e-mail (i.e., the original email plus the reply data) from the remote client, they could transmit only the new reply data plus an identifier for the original e-mail message – this more simplified message is called an "optimized reply."

When the communication server receives this optimized reply, it can use the identifier to retrieve the original e-mail message from a mailbox and assemble the full reply e-mail ("replica reply") by adding the reply data to the original e-mail message. This replica reply can then be transmitted to the e-mail recipient, just like a normal e-mail string. By not transmitting data representing the original e-mail string from the user to the server, valuable wireless bandwidth can be conserved.¹⁹

Motorola has asserted independent claim 1 and its associated dependent claims 15-18 against Microsoft. The asserted claims with disputed terms emphasized are set forth in Tab B.

1. "A system for communicating reply data with a communication unit comprising"

Motorola	Microsoft
The preamble is not limiting and should be construed according to its plain and ordinary meaning	The preamble is limiting. The term means "A system for transmitting or receiving the reply email composed on the communication unit before optimization."

The parties dispute whether the preamble of claim 1 is a limitation. As noted above, a claim preamble does not limit a claim where the preamble merely sets forth an intended use or purpose for the invention that follows. And if the preamble is "reasonably susceptible to being construed to be merely duplicative of the limitations in the body of the claim," the preamble is not a limitation.

For these reasons, the preamble of claim 1 is not a limitation. The preamble describes only the purpose, context and intended use of the claim – communicating reply data with a communication unit. It is the body of the claim itself that describes the complete invention and explains how communicating reply data to the communication unit is accomplished. In fact, the

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The Eggleston '899 Patent is directed to the field of networked communication systems. A person of ordinary skill in the art at the time of the invention (late 1995) would have had a bachelor or equivalent degree in computer science, electrical engineering, or the equivalent education and/or experience, and approximately two years experience with networked communication systems, including e-mail systems.

preamble provides nothing essential to the invention that is not expressly provided for in the body of the claim. *See Catalina*, 289 F.3d at 809 ("[A] preamble generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention.").

2. "a host server" or "a host server in communication with the communication server"

Motorola	Microsoft
A computer or a program that operates as an e-	The host server and the communication server
mail post office, which can exchange data with	are separate processing devices (e.g, computers)
the communication server	transmitting to or receiving from each other
	over a network

Motorola's construction of "host server" to mean "a computer or program that operates as an e-mail post office, which can exchange data with the communication server" is consistent with the specification's repeated and consistent description of host server. For example, the patent provides: "[a]n Electronic mail (email) *post office* is coupled locally to VSM 230, either as *another program* running on the same communications server 220 or located on *another server 240*..." Exh. 30 at 4:58-5:13. Server 240 is a "Post Office Host server."

Similarly, the specification uses phrases like "[downloading] email from a *host post office*." *Id.* at 3:3-5; *see also* 3:41-47 (referring to the "further host" as "the post office mailbox of the user associated with the remote unit"); 10:19-21 ("When the host (i.e. a post office server in the illustrated case) receives"). These portions of the specification as well as others that support Motorola's construction are attached at Exhibit 30.

Microsoft's construction, in contrast, ignores the teaching of the specification and the plain meaning of the term. Microsoft imposes a requirement that "the host server and the communication server are separate processing devices." But the specification of the Eggleston '899 Patent says the opposite – the host server can be either "another program running *on the same*

communications server or located on another server" *Id.* at 4:58-5:13. In fact, the patent goes on to say that "it is not important . . . where the post office [i.e, the host server] is located...." *Id.* at 4:62-65. Microsoft's construction also attempts to limit a server to a computer. But as shown above, the host server is described by the specification as being a "program."²⁰

3. "email," "e-mail"

Motorola	Microsoft
Plain and ordinary meaning or alternatively:	A message, transmitted to a mailbox, having text
	and header information used for transmitting
electronic mail	the text. The header information includes at
	least the recipient mailbox address and the
	author address and may include other message
	attributes such as subject, date, and priority
	level.

There is no justification for Microsoft's monumentally-complex construction. The term "email" (or "e-mail") is a well-known term that will be readily understood by the jury. It is not used in the patent in a way that contradicts its plain and ordinary meaning. Exh. 31 at 1:44-49, 11:5-15, 11:37-47, 12:19-45, 16:3-7. Accordingly, there is no reason to construe it. *See, e.g. O2 Micro Int'l v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1361 (Fed. Cir. 2008) (recognizing that "district courts are not (and should not be) required to construe *every* limitation present in a patent's asserted claims"); *Lantronix, Inc. v. Digi Int'l, Inc.*, No. 6:05cv35, 2006 WL 543992, at *4 (E.D. Tex. Mar. 6, 2006) (stating that "connector" does not require construction and that the term has an ordinary meaning that will be easily understood by a lay jury).

Microsoft's proposed definition complicates an otherwise uncomplicated term and is littered with unnecessary words (e.g., header, priority level, etc.). Microsoft's construction will not be helpful to the jury and the uncertain meaning of these terms will demand further definition. For

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In a recent case involving analogous patents, Microsoft relied on its own Microsoft Computer dictionary in arguing that a server is "a term of art" that can be either a "computer or program." *Visto v. Microsoft*, No. 2:05CV546, 2007 WL 5688730, *11 (E.D. Tex. August 28,2007)

example, the terms "recipient mailbox address" and "text . . . used for transmitting the text" will require further construction, but the intrinsic record provides no guidance to their meaning. And inclusion in the definition of header items that "*may* [be] include[d]" – but are not required – adds unnecessary complication without specifying anything about the actual claims requirements.

4. "forwarding"; "forwards"; "forwarded"; "forward"

Motorola	Microsoft
Plain and ordinary meaning or alternatively:	Sending [send, sends, sent] from one processing
Forwarding from one computer or program to	device (e.g., computer) to a separate processing device (e.g., computer)
another	(6.8., 66.1.1)

As with the term "e-mail" above, the term "forwarding" has a well-known meaning that the jury will readily understand. Because it is not used in the patent in a way that contradicts its plain and ordinary meaning, (*see*, *e.g.*, Exh. 29 at 3:4-6, 6:60, 11:3-5) there is simply no reason to construe it.

As discussed above in connection with the "host server" construction, Microsoft's definition of "forwarding" is yet another attempt to limit a host server to a computer (rather than a program) and to import a non-existent "separateness" requirement into the claim language. This is improper. While the word "forwarding" is used in several places in the claims, one usage is in the context of the host server "forwarding the first data unit to the communication server." As discussed above, there is no requirement in the patent that the communication server and host server be separate devices. Accordingly, the proper construction for this term cannot limit "forwarding" to an act of sending between *separate* devices.

5. "a determination is made whether to forward the optimized reply or a replica reply"

Motorola	Microsoft
Plain and ordinary meaning or alternatively:	A comparison is made at the communication
	server whether to forward the optimized reply
"the communication server decides whether to	or replica reply based on the known parameters
forward the optimized reply or the replica	of the target communication unit, such as
reply."	whether the target is served by the same
	communication server, was an original
	addressee, or has deleted the original message.

The phrase "a determination is made whether to forward the optimized reply or a replica reply" does not need to be construed by the court. The jury will readily understand this phrase and it should be given its plain and ordinary meaning.

Microsoft's definition is long, confusing, complex, and improperly imports limitations described in the specification into the claim. *See Comark*, 156 F.3d at 1187 (stating that it is improper to read limitations into the claim language from embodiments disclosed in the specification). While the Eggleston '899 Patent describes how the communication server may determine whether to forward the optimized reply or the replica reply (Exh. 29 at 12:9-28), neither the patent's specification nor the claim language itself limits how that "determination" must be made, as Microsoft's construction suggests. Further, Microsoft's definition requires that the determination is made "based on known parameters." *Id.* at 12: 9-28 ("known parameters (if any)"). Other language in Microsoft's construction, "such as whether the target is served by the same communication server, was an original addressee, or has deleted the original message," is useless in assisting the jury to determine what is actually **required** by the claim.

G. '839 Kolnick Patent

Overview of the Invention

The Kolnick '839 Patent discloses software that interacts with "virtual" representations of input and output ("I/O") data, rather than "real" or physical I/O devices (such as a mouse, keyboard, screen or printer). Exh. 32. The '839 patent introduces the idea of converting real input

data to virtual data and virtual data to real output data as core functionality of the operating system. *See* Figure 12 (right). This allows multiple different physical devices to be utilized – even added, replaced or removed – without disrupting the operating system or any processes or applications running with it. The patent generally refers to this novel operating environment for interacting with a user as the Human Interface.

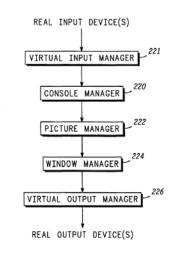
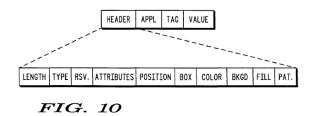


FIG. 12

The patent describes "virtual", device-independent representations of input and output data as "picture elements." A "picture element" comprises one or more data structures having one or more data fields that describe information about the picture element. Figure 10 below is one embodiment.



Claims 9-16 and 18-23 of the Kolnick '839 Patent are asserted against Microsoft. The asserted claims with disputed terms emphasized are set forth in Tab B.

1. "source of virtual input"

Motorola	Microsoft
A process which generates one or more picture elements from user input.	A physical input device corresponding to a virtual input device

The parties dispute the meaning of this claim limitation, and in particular, the meaning of the term "virtual input" within this limitation. As discussed more fully below, the claim language expressly recites that "virtual input" comprises "one or more picture elements," and the patent states that all input from a user is stored as pictures, which comprise "picture elements." (Exh. 33 at Claim 9, element [A]; see also 14:3-7; 17:29-30; 30:52-55). Thus, Motorola's construction of "source of virtual input" to mean a "process which generates one or more picture elements from user input" is wholly consistent with the plain language of the clams and the patent specification.

The '839 patent provides several examples of sources of virtual input. In one example, user input captured by a physical input device (e.g., mouse or keyboard) is translated into virtual data by an Input Manager process (see, e.g., id. at 12:14-23; 27:67-28:3), which in turn sends virtualized data to a Console Manager for processing as picture elements. See, e.g., id. at 25:26-29. In another example, the patent describes that an application – or a process by which it requests input data – is a source of virtual input when it requests input from a user and accesses the services of the Human Interface (e.g., the Console Manager) to create a picture and picture elements. See, e.g., id. at 27:45-53; 28:4-6. In particular, an application may explicitly request user input in dialog form, such as by a menu or prompt, which the Human Interface also represents as picture elements. Id. at 27:45-53. In a further example, the patent states that a method of virtual input is to "query the current state of a virtual input device (e.g., the current cursor position)." For instance, cursor coordinates are within a particular window, which is represented by a picture, or picture elements. Id. at 28:6-8.

Microsoft, on the other hand, proposes a construction – "a physical input device corresponding to a virtual input device" – that would limit the source of virtual input to a software process or function by which input from a physical input device is virtualized, that is, what is commonly referred to as an input device driver. Microsoft's construction reads out examples expressly described in the patent, and should be rejected.

2. "virtual input" and "virtual output"

Motorola	Microsoft
"virtual input" means one or more picture	"Virtual input" is a device-independent
elements generated from user input	abstraction of physical input represented as one
"virtual output" means one or more picture	or more of a set of standard messages
elements of a picture	"Virtual output" is a device-independent
	abstraction of physical output represented as
	one or more of a set of standard messages

The parties agree that the terms "virtual input" and "virtual output" should be construed consistent with one another. However, as noted above, they disagree on proper construction of the term "virtual input," and by extension the term "virtual output." As discussed, the claim language itself requires that "virtual input" comprise "one or more picture elements" (Exh. 33 at Claim 9, element [A]). Motorola's construction incorporates this plain language as well as the patent's description that all user input is stored as pictures comprised of picture elements. *See, e.g., id.* at 14:3-7; 17:29-30; 30:52-55. Further, the patent expressly teaches that "[a]ll output from the Human Interface to a user is via pictures." *Id.* Consistent with this description and the definition of "virtual input," Motorola construes "virtual output" to mean one or more picture elements that describe a picture.

Microsoft's proposed construction ignores the claim language expressly stating that "virtual input" comprises one or more picture elements, as well as the patent's teachings that all input and output is via pictures. Instead, Microsoft incorrectly defines "virtual input" and "virtual output" as

"one or more of a set of standard messages," which describes a single embodiment disclosed in the specification. *Comark Comme'ns, Inc.*, 156 F.3d at 1187. Nothing in the specification or prosecution record requires this limitation to "standard messages." Accordingly, Microsoft's construction should be rejected.

3. "picture element comprising a plurality of device-independent data structures in a predetermined, standard data format, at least one of said data structures comprising a plurality of different data fields each containing information describing said picture element"

Motorola	Microsoft
A device-independent abstraction of a	An abstraction of a displayable object made up
displayable object (e.g., line, text, etc.)	of a collection of predefined, standard device- independent data structures, including at least a
	common header data structure

Motorola proposes to construe "picture element" as explicitly defined by Kolnick in the patent specification. *See Phillips*, 415 F.3d at 1316. Column 30, lines 52-55 describe a picture element as "a device-independent abstraction of a displayable object (line, text, etc). Exh. 34. Exhibit 34 highlights other portions of the specification that support Motorola's constructions.

Microsoft ignores the '839 patent's express definition and adds the unsupported requirement of "predefined, standard device-independent data structures" having "at least a common header data structure." While one embodiment of a picture element is depicted as a collection of data structures including one for a common "header", the patent states that this is a "general structure" for a picture element – not its exclusive form. *Id.* at 33:8-36:12 and FIG. 10. Indeed, the patent goes on to describe a wide variety of fields that may comprise a picture element as well as optional forms of a picture element – *e.g.*, a "macro" element or "meta-element." *Id.* at 33:8-36:12. Accordingly, the

"picture element" term should not be limited to the single embodiment urged by Microsoft. *See, e.g., Phillips,* 415 F.3d at 1314.²¹

4. "means for performing processing operations on said virtual input and for generating virtual output"

Motorola	Microsoft
This is a means-plus-function limitation that should be construed according to 35 U.S.C. §112, ¶ 6	<u>Function</u> : performing processing operations on said virtual input and generating virtual output
Function: performing processing operations on virtual input and generating virtual output	Structure: the operations performed by the Console Manager process as explicitly defined at 44:6-34, and 5:20-46.
Corresponding structure: Console Manager, which is any process that processes virtual input and, in response, generates virtual output as described, for example, at least at FIGs. 8, 9, 12,	
13; Col. 15:30-17:17; Col. 24:49-26:24; Col. 27:5-28:17; Col. 29:65-30:48; 43:51-65; 44:6-34; 47-56.	

The parties agree that this term is in means-plus-function format and that the claimed function is "performing processing operations on said virtual output and generating virtual output." The parties further agree that the corresponding structure is the Console Manager described in the patent specification. The parties disagree, however, as to whether the Console Manager is limited to the process described in the patent at lines 6 through 34 of column 44. *See* Exh. 35. The patent's description of the Console Manager is not so limited.

As set forth in Motorola's construction, the Console Manager process is described throughout the patent specification as performing processing operations on virtual input and

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Microsoft also appears to rely upon definitions of data field and data structure from McGraw Hill Dictionary of Electronics & Computer Technology (1984) and definitions of picture element and pixel from Webster's Dictionary of Computer Terms, 3rd Ed. (1988). None of these definitions, however, include or discuss a "common header data structure." Indeed, it is unclear how the definitions in these various dictionaries support Microsoft's proposed construction of "picture element."

generating virtual output, including in the figures, parts of the source code and many other portions of the specification not cited by Microsoft. *See, e.g.*, Exh. 35 at FIGs. 8, 9, 12, 13; 15:30-17:17; 24:49-26:24; 27:5-28:17; 29:65-30:48; 55-70. Each of the portions of the specification cited by Motorola is necessary to render the bounds of the claim understandable to one of ordinary skill in the art and thus relevant to a determination of the structure corresponding to the claimed function. *See, e.g., AllVoice Computing PLC v. Nuance Communications, Inc.*, 504 F.3d 1236, 1245 (Fed. Cir. 2007).

5. "means for accepting said virtual output"

Motorola	Microsoft
This is a means-plus-function limitation that should be construed according to 35 U.S.C. §112, ¶ 6	Function: accepting said virtual output
<u>Function</u> : Accepting virtual output <u>Corresponding structure</u> : Picture Manager, which is any process that accepts virtual output as described, for example, at least at FIGs. 8, 9, 12, 14; Col. 16:4-56; Col. 25:44-56; Col. 30:51- 33:5; Col. 43:60-65; Cols. 145-150.	

<u>Structure</u>: the process by which a Picture Manager process receives and processes incoming process received and processes incoming

requests related to picture elements, as explicitly defined at 17:23-25,

17:23-25, 17:63-18:10, and 5:20-46.

The parties agree that the "means for accepting said virtual output" is a means-plus-function claim limitation and that the recited function is accepting virtual output. The parties further agree that the corresponding structure disclosed in the specification relates to the "Picture Manager." Motorola, however, disagrees that the Picture Manager structure should be limited to the process described at column 17, lines 23 through 25 and column 17, line 63 through column 18, line 18, as Microsoft proposes. *See* Exh. 36.

Again here, Motorola cites extensive portions of the specification that describe a Picture Manager process for performing the recited function of accepting virtual output, or picture elements. *See id. at* FIGs. 8, 9, 12, 14; 16:44-56; 25:44-56; 30:51-33:5; 43:60-65; 145-150. Microsoft cites only a subset and ignores portions of the specification that help to define the bounds of the claim for one of ordinary skill in the art. Microsoft's construction therefore should be rejected. *See, e.g., AllVoice Computing*, 504 F.3d at 1245.

6. "means for converting said virtual output into at least one physical output suitable for use by at least one physical output device"

Motorola	Microsoft
This is a means-plus-function limitation that should be construed according to 35 U.S.C. §112, ¶ 6	Function: converting said virtual output into at least one physical output suitable for use by at least one physical output device
<u>Function</u> : converting picture elements into output suitable for use by a particular hardware device.	Structure: the operations performed by the Output Manager process as defined at 19:32-20:64 and 5:20-46
Corresponding structure: Output Manager, which is any process that converts virtual output into physical output suitable for use by a physical output device as described, for example, at least at FIGs. 8, 9, 12, 14; 19:32-20:64; 23:51-24:44; 25:33-43; 26:33-43; 43:58-65.	

The parties agree that the "means for converting said virtual output into at least one physical output suitable for use by at least one physical output device" is a means-plus-function claim limitation. However, consistent with their differences on construction of the term "virtual output," the parties offer different constructions for the recited function. Motorola interprets "virtual output" to mean "one or more picture elements of a picture," and thus construes the "converting" means of Claim 9 to convert picture elements into a form of output suitable for use by a particular hardware (or physical) device. By contrast, it would appear that Microsoft takes the position that the "converting means" converts one or more of a set of standard messages into at least one physical output suitable for use by at least one physical output device. For at least the same reasons that

construing "virtual output" to "a set of standard messages" was too limiting, construing the recited function here to mean converting a set of standard messages is also improperly limiting.

Similar to the means-plus-function limitations discussed above, the parties only partially agree on the corresponding structure of the Output Manager. Motorola contends that the '839 patent repeatedly describes the Output Manager and its function of converting picture elements into output suitable for use by a physical output device. *See, e.g.,* Exh. 37 at FIGs. 8, 9, 12, 14; 22:42-63; 23:51-24:44; 25:33-43; 26:33-43. Microsoft, on the other hand, focuses solely on the operations of the Output Manager described at column 19, line 32 through column 20, line 64 and column 5, lines 20-46. Exh. 37. Microsoft's construction ignores substantial portions of the specification relevant to proper construction of the "converting" means, and therefore should be rejected.

7. "picture manager process"

Motorola	Microsoft
A process that constructs a device-independent representation of a picture using a set of related picture elements and controls modification and	a process that constructs a device-independent representation of a picture using a small set of elemental picture elements and controls
retrieval of the picture elements.	modification and retrieval of these elements, as explicitly defined at 17:23-25, 17:63-18:10, and 5:20-46.

Motorola's construction of "picture manager process" mirrors the specification. The specification defines "picture manager process" as "a device-independent representation of a picture using a small set of elemental picture elements and controls modification and retrieval of these elements." Exh. 38 at 17:9-12. Motorola's construction clarifies that a picture is represented using a set of picture elements that are related – namely, in terms of defining the picture, as recited in the claim language. Microsoft appears to reference the same specification definition as Motorola, but introduces limitations not found in that definition – or the other specification sections that Microsoft cites.

Specifically, Microsoft construes a picture manager process as limited by the "process" description at column 5, lines 20-46. However, the patent uses the term "process" more broadly, consistent with its plain meaning. For example, in the lines that follow Microsoft's reference, a "context process" is described at column 5, lines 47-65 as a process that communicates messages to or from processes in other contexts. *Id.* The '839 patent also uses the term "process" as a synonym for an "application" or "application process." *See, e.g., id.* at 31:14-17; 31:66-32:2. Nothing in the claim language precludes such common usage of the term "process."

Furthermore, the picture manager process is described throughout the specification in various examples and embodiments of the invention – none of which limit the picture manager process to the "process" described at column 5, lines 20-46. *See, e.g., id.* at FIGs. 2, 3, 5, 7-9, 12-14; 5:14-6:58; 7:5-8:29; 9:8-10:7; 15:26-20:64; 24:59-25:4; 28:54-57; 31:14-20. Absent clear intent by the patentee to so define the term "picture manager process" – and there is none here, the term should not be construed as limited any one embodiment. *Phillips*, 415 F.3d at 1316.

8. "window manager process"

Motorola	Microsoft
The Window Manager process is a process that maps all (or a portion) of a picture to a particular rectangular area (window) of a display screen, updates the display screen and controls the size and appearance of the window.	a process that maps a given picture (or portion thereof) to a rectangular area of a given size on a given screen (a "window") in virtual pixels, as explicitly defined at 22:53-24:11 and 5:20-46.

The parties' dispute regarding construction of the "window manager process" term is similar in many respects to the dispute about "picture manager process" discussed above. The parties generally agree that a "window manager process" maps all (or a portion) of a picture to a particular rectangular area (window) of a display screen. *See* Exh. 32 at 22:53-59. Motorola's construction further provides, as discussed, *see, e.g., id.* at 22:53-59, that a window manager process updates the display screen and controls the size and appearance of the window. By contrast, Microsoft adds the

requirement that the window manager process maps a picture to virtual pixels, but that mapping is not explicitly defined in the '839 patent. In addition, for the reasons as discussed above, the parties fundamentally disagree that a window manager process is limited to a process as described at column 5, lines 20-46. In short, Motorola's construction is more consistent with the patent's description of the invention and should be adopted.

9. "wherein said virtual output accepting means comprises a picture manager process for controlling said plurality of related picture elements"

Motorola	Microsoft
This element is not a means-plus-function	Function: accepting virtual output to
element that should be construed according to	control a picture, a meta element, or a
35 U.S.C. §112, ¶ 6 because it recites sufficient	macro element
structure to perform the claimed function in its	
entirety.	Structure: the operations by which a
,	Picture Manager process controls the
	modification and retrieval of a picture,
(see Picture Manager Process above)	meta element, or macro element as
	explicitly defined at 17:23-25, 17:63-
	18:10, and 5:20-46.

The parties disagree that the "wherein" clause recited in the dependent claim 10 is subject to 35 U.S.C. § 112, ¶6. Microsoft contends that § 112, ¶6 applies; Motorola contends that it does not. If § 112, ¶6 *does not* apply, Microsoft apparently does not contest that plain meaning should apply and the Court is not required to do any further analysis, except in respect of the term "picture manager process."

If the Court determines that § 112, ¶6 *does* apply, the parties disagree as to the claimed function, and the corresponding structure in the specification that practices the claimed function. Thus, the Court would need to decide those issues.

Does § 112, ¶6 apply? A claim element that does not use the word "means" is presumptively **not** written in "means-plus-function" format. *Lighting, Inc*, 383 F.3d 1354, 1358 (Fed. Cir. 2004). Indeed, "the presumption flowing from the absence of the term 'means' is a strong one

that is not readily overcome." *Id.* That strong presumption applies here – the "wherein" clause adds the "picture manager process" as further structure for the "accepting" means of claim 10; it does not introduce another "means."

Despite this strong presumption, Microsoft contends that the "wherein" clause is written in means-plus-function format. But in order to overcome the presumption, Microsoft must show that "the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1369 (Fed. Cir. 2002). "To help determine whether a claim term recites sufficient structure, we examine whether it has an understood meaning in the art." *Id.*

Microsoft cannot overcome this presumption. Microsoft itself proffers a definition of "picture manager process" without resort to § 112, ¶6. Microsoft's construction illustrates that the term "picture manager process" read in light of the specification is a well-understood, definite structure to those of skill in the art. If the Court agrees, then § 112, ¶6 does not apply, and the Court is not required to perform any further analysis.

If § 112(6) applies, what is the claimed function and structure? The parties disagree that the claimed function of "said virtual output accepting means" of claim 10 differs from the function of the "means for accepting said virtual output" recited in Claim 9. For claim 10, Microsoft adds to the proposed function of "accepting virtual output" that it is "to control a picture, a meta element, or a macro element." Similarly, the parties disagree on the corresponding structure for at least the reason that Microsoft adds the unsupported requirement that it "controls the modification and retrieval of a picture, meta element, or macro element." However, according to '839 patent, meta elements and macro elements are potential data structures within a picture element; they are not required for all picture elements — or every picture manager process. See Exh. 32 at 35:31-36:13.

10. "wherein said virtual output accepting means further comprises a window manager process for controlling the display of said plurality of related picture elements on said display device"

Motorola	Microsoft
This element is not a means-plus-function	In addition to the structure and function
element that should be construed according to	defined in claim 10, the claimed means includes:
35 U.S.C. §112, ¶ 6 because it recites sufficient structure to perform the claimed function in its	includes:
entirety.	Function: mapping said plurality of
	related picture elements onto a
/ W/ 1 M D 1	rectangular area (called a "window) on
(see Window Manager Process above)	the screen of said display device
	Structure: the operations performed
	by the Window Manager process,
	which is a process that maps a given
	picture (or portion thereof) to a
	rectangular area of a given size on a
	given screen (a "window") in virtual
	pixels, as explicitly defined at 22:53-
	24:11 and 5:20-46.

The parties have the same fundamental dispute about the "wherein" clause of dependent claim 11, as with dependent claim 10 – whether the limitation is subject to 35 U.S.C. § 112, ¶6. Again, Microsoft contends that § 112, ¶6 applies; Motorola contends that it does not. In particular, Motorola contends that the only term requiring construction is "window manager process." The parties' proposed constructions for that term are set forth above.

If, however, § 112, ¶6 *does* apply, the parties disagree on the claimed function, and the corresponding structure in the specification that practices the claimed function. Thus, the Court would need to decide those issues.

11. "wherein said virtual output converting means comprises a virtual output manager process responsive to said one or more processed picture elements for coupling said one or more processed picture elements to said at least one physical output device"

Motorola	Microsoft
This element is not a means-plus-function	Function: coupling ¹ said one or more
element that should be construed according to	processed picture elements to said at
35 U.S.C. §112, ¶ 6 because it recites sufficient	least one physical output device
structure to perform the claimed function in its	
entirety.	Structure: the operations performed
	by the Output Manager process as
	explicitly defined at 19:32-20:64 and
"Virtual output manager process" means the	5:20-46, wherein the physical output
process by which virtual output is converted	suitable for the screen is sent to the
into real output on a particular physical device.	display device
	¹ Coupling is defined at 18:51-52, 19:59-
	61, and 23:51-54 as processes or structures
	that exchange messages via process
	identifiers (PID's) rather than by name

The parties' dispute relating to the "wherein" clause of dependent claim 12 is similar to the other "wherein" clauses – is the limitation subject to 35 U.S.C. § 112, ¶6? Motorola contends that § 112, ¶6 does not apply, and that the term "virtual output manager process" read in light of the specification connotes definite structure to be understood by those of skill in the art. Motorola proposes that "virtual output manager process" means a process by which virtual output is converted into real output on a particular physical device. As discussed above, the '839 patent describes the Output Manager as a process that converts virtual output into physical (or real) output suitable for use by a physical output device as described. See, e.g., Exh. 32 at FIGs. 8, 9, 12, 14; 23:51-24:44; 25:33-43; 26:33-43. The claim language recites this capability for the virtual output manager process. Thus, Motorola's construction is consistent with the patent's description of the Output Manager as well as the plain language of the claim.

Microsoft contends that § 112, ¶6 applies, and that the claimed function and corresponding structure are limited by the description of the Output Manager at column 19, line 32 through column 20, line 64, and the process description at column 5, lines 20-46. Microsoft also introduces a confusing interpretation of the "coupling" function – that it means "processes or structures that exchange messages via process identifiers (PID's) rather than by name." But a function is not a structure and the cited portions of the specification do not teach otherwise. For at least the reasons discussed above as well as in connection with the "converting" means, the Court should not adopt Microsoft's construction.

12. "means responsive to one of said physical input devices for generating a picture"

Microsoft
<u>Function</u> : generating a picture from the input from a physical input device ²
Structure: the Input Manager, Console Manager, and Picture Manager processes communicating between each other as described at 25:25-31, 25:44-56, and 5:20-46. ² as the term "said physical input devices" has no antecedent basis other than in the preamble, this term becomes indefinite unless the preamble to Claim 15 is limiting

The parties agree that the "means responsive to one of said physical input devices for generating a picture" is a means-plus-function claim limitation, and that the claimed function involves at least generating a picture. Motorola, however, contends that the claimed function is generating a picture comprising one or more picture elements and responsive to a user's interaction with a physical input device. The corresponding structure under Motorola's construction is a combination of Input Manager and Console Manager processes that perform the claimed function,

as described through the patent specification (*see, e.g.*, Exh. 32 at FIGs. 8, 9, 12; 12:14-23; 13:64-14:7; 18:24-19:31; 25:25-31, 25:44-56; 43:51-65; 47-56; 70-71). For example, the '839 patent describes that an Input Manager process translates inputs captured from a physical input device (*e.g.*, mouse or keyboard) into virtual data (*see, e.g.*, *id.* at 12:14-23; 18:24-62; 27:67-28:3), and in turn sends this virtual data to a Console Manager for processing as picture elements. *See, e.g.*, *id.* at 25:26-29; 43:56-60; and Fig. 12.

Microsoft takes the position that the function of the "means responsive to one of said physical input devices for generating a picture" is to generate a picture directly from inputs received on a physical input device, and that the structure for doing that is a combination of the Input Manager, Console Manager, and Picture Manager processes. As discussed, the "839 patent teaches that an Input Manager process sends inputs captured from a physical input device to the Console Manager, which in turn creates a picture. *See, e.g., id.* at 25:26-29; 43:56-60; and Fig. 12. The Console Manager also creates an instance of a Picture Manager for the newly created picture. *See, e.g., id.* at 16:51-56. Therefore, a Picture Manager process is not required to perform the claimed function. Furthermore, Microsoft incorrectly asserts that the corresponding structure is limited to operations of the Input Manager, Console Manager, and Picture Manager processes described at column 25, lines 25-31 and 44-56, as further limited by the process describing operations of the Input Manager, Console Manager, and Picture Manager for performing the claimed function, and therefore must be rejected. ²²

²² Microsoft asserts that the term "said physical output devices" lacks antecedent basis except in the preamble, and for that reason the preamble to Claim 15 is limiting. Assuming that to be true -- though Microsoft cites no authority for this proposition, it does not alter the function or corresponding structure of the "means responsive to one of said physical input devices for generating a picture."

13. "means for performing processing operations on said one or more picture elements"

Motorola	Microsoft
Function: performing processing operations on one or more picture elements. Corresponding structure: Console Manager processes that perform processing operations on one or more picture elements, as described, for example, at least at FIGs. 8, 9, 12, 13; Cols. 15:30-17:17; 24:49-26:24; 27:5-28:17; 29:65-30:48; 43:51-65; 44:6-34; 47-56	Function: performing processing operations on said one or more picture elements Structure: the operations performed by the Console Manager process on picture elements as described at 44:6-34 and 5:20-46.

The parties agree that this term is in means-plus-function format and that the claimed function is "performing processing operations on one or more picture elements." The parties further appear to agree that the corresponding structure relates to a Console Manager process. Motorola, however, disagrees that the Console Manager process is exclusively described at column 44, lines 6-34, and column 5, lines 20-46, as Microsoft contends. *See* Exh. 32.

Throughout the patent specification, the '839 patent describes Console Manager processes that perform processing operations on one or more picture elements (*see, e.g.*, Exh. 32 at FIGs. 8, 9, 12, 13; 15:30-17:17; 24:49-26:24; 27:5-28:17; 29:65-30:48; 55-70). And Microsoft cannot reasonably dispute that the cited portions of the specification would assist one of ordinary skill in the art in understanding the bounds of the claim. *See, e.g., AllVoice Computing PLC v. Nuance Communications, Inc.*, 504 F.3d 1236, 1245 (Fed. Cir. 2007). Microsoft's attempt to impose limitations from a single embodiment of the invention should be rejected.

14. "means responsive to said one or more processed picture elements for coupling said one or more processed picture elements to one of said physical output devices"

Motorola	Microsoft
Function: coupling said one or more processed picture elements to a physical output device Corresponding structure: Output Manager processes that couple one or more processed picture elements to a physical output device, as described, for example, at least at FIGs. 8, 9, 12, 14; Cols. 19:32-20:64; 23:51-24:44; 25:33-43;	Function: sending one or more processed picture elements to one or more said physical display devices ³ for display Structure: the operations performed by the virtual output manager process as described at 20:4-42 and 5:20-46
26:33-43; 43:58-65.	³ as the term "said physical output devices" has no antecedent basis other than in the preamble, this term becomes indefinite unless the preamble to Claim 15 is limiting

The parties agree that the "means responsive to said one or more processed picture elements" is a means-plus-function claim limitation. They disagree on the claimed function, and the corresponding structure in the specification that practices the claimed function.

Motorola contends that the claimed function is "coupling said one or more processed picture elements to a physical output device," and the corresponding structure is an Output Manager process. As discussed above, the '839 patent describes throughout the specification Output Manager processes and their function of coupling of processed picture elements to a physical output device. *See, e.g.*, Exh. 35 at FIGs. 8, 9, 12, 14; Cols. 19:32-20:64; 23:51-24:44; 25:33-43; 26:33-43; 43:58-65. Specifically, an Output Manager process converts virtual output – that is, processed picture elements – into output suitable for use by a physical output device.

By contrast, Microsoft argues that that the claimed function is "sending one or more processed picture elements to one or more said physical display devices for display," and the corresponding structure is the virtual output manager process as described at 20:4-42 and 5:20-46. This impermissibly limits the virtual output manager process to the cited portions of the

specification, even though Output Manager processes performing the claimed function are further described elsewhere in the specification.

15. "wherein said means responsive to one of said physical input devices comprises a virtual input manager process"

Motorola	Microsoft
"Virtual input manager process" means the	Function: generating a picture from
process by which input from a physical device is	the input from a physical input device
converted into virtual form	
	Structure: the operations performed
	by the virtual input manager process as
	defined at 18:24-19:31 and 5:20-46.

As with the other "wherein" clauses, the parties dispute whether this limitation of claim 22 is subject to 35 U.S.C. § 112, ¶6. Motorola contends that § 112, ¶6 does not apply, and that the term "virtual input manager process" recites sufficient, definite structure that can be understood by those of skill in the art in light of the specification. Motorola proposes that "virtual output manager process" means a process by which input from a physical device is converted into virtual form. As discussed above, the '839 patent describes the Input Manager as a process that converts input from a physical device into virtual form. *See, e.g.,* Exh. 32 at 12:14-23; 18:24-62; 27:67-28:3.

Microsoft contends that § 112, ¶6 applies, and that the claimed function and corresponding structure is defined by the operations of the virtual input manager process described at column 18, line 24 to column 19, line 31 and column 5, lines 20-46. For at least the reasons discussed for the wherein clauses above, the Court should adopt Motorola's construction for the wherein clause of claim 22.

16. "wherein said means responsive to said one or more processed picture elements comprises a virtual output manager process"

Motorola	Microsoft
"Virtual output manager process" means the process by which virtual output is converted into real output on a particular physical device	Function: coupling one or more processed picture elements to one or more said physical display devices
	Structure: the operations performed by the virtual output manager process as defined at 20:4-42 and 5:20-46.

The dispute on the "wherein" clause of dependent claim 23, like claim 12, centers on the applicability of 35 U.S.C. § 112, ¶6. Both "wherein" clauses recite a "virtual output manager process." Microsoft argues that § 112, ¶6 should apply; Motorola contends that it does not. As discussed above, Motorola contends that the term "virtual output manager process" read in light of the specification recites sufficient, definite structure that would be understood by one of skill in the art. Microsoft contends that the claimed function and corresponding structure are limited by the description of the virtual output manager process at column 20, lines 4-42, and the process description at column 5, lines 20-46. For at least the reasons discussed for the wherein clause of claim 12, the Court should adopt Motorola's construction for the wherein clause of claim 23.

IV. THE PATENTS AND CLAIM CONSTRUCTIONS OF THE DISPUTED TERMS OF MICROSOFT'S ASSERTED PATENTS

Microsoft has asserted seven patents against Motorola: U.S. Patent Nos. 7,024,214 and 7,493,130 (the "Loveland patents"), U.S. Patent No. 6,791,536 (the "Keely '536 patent"), U.S. Patent No. 6,897,853 (the "Keely '853 patent"), U.S. Patent No. 7,383,460 (the "Sherwin '460 patent"), U.S. Patent No. 6,785,901 (the "Horowitz '901 patent"), and U.S. Patent No. 6,897,904 (the "Potrebic '904 patent"). As it did with Motorola patents, Motorola first provides a brief overview of the technology of each patent to assist the Court in understanding the alleged inventions and then focuses on the parties' disputes over the meanings of particular claim terms. Throughout, Motorola

has proposed constructions that are both technically correct and are consistent with the scope of the inventions disclosed.

A. Loveland '214 and '130 Patents

Overview of the '214 and '130 Patents

The '214 and '130 Patents (collectively, "the Loveland Patents")²³ are directed to systems and methods for synchronizing a given data item (e.g., an email) between two devices (e.g., a mobile device and an e-mail server). Exh. 39. Synchronization of data between devices was well known prior to the Loveland patents and ensures that the data items on the mobile device are identical to the data items on the e-mail server. The Loveland patents purportedly improve on prior synchronization methods by providing greater control over synchronization. This is accomplished by consulting a set of "flexible selection rules" – such as the value of the data, the cost of synchronizing, and the security of the synchronization mechanism – to determine which synchronization mechanism to use to carry out the synchronization.²⁴

Microsoft asserts infringement of claims 1, 3-6, 10, 14, 17, 19, 22-29, 32-34, 38, 39, 41-44, 46-52, 54-56 of the '214 patent and claims 1, 2, 4-8, 10, 11, 13, and 14-19 of the '130 patent. The asserted claims with disputed terms emphasized are set forth in Tab B.

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The '130 patent is a continuation of the '214 patent. They share a common specification, *i.e.*, the same figures and written disclosure. Only their claims are different. For ease of reference, citations will be to the '214 patent only.

A person of ordinary skill in this art at the time the applications for the Loveland patents were filed (February 2002) would have at least bachelor's degree in computer science, computer engineering, or the equivalent, and at least two years of experience working in software engineering of user interfaces, and knowledge of and some professional experience with pen or tablet computing. Such a person would have had a general awareness of developments in the field of pencomputing before the priority date of the '536 and '853 patents.

1. "synchronization mechanism"

Motorola	Microsoft
a communication channel used for	Plain and ordinary meaning or alternatively,
synchronization	"process or technique for synchronization"

As an initial matter, Microsoft's contention that "synchronization mechanism" does not require construction and that plain and ordinary meaning applies should be rejected. The phrase "synchronization mechanism" requires construction because it is a technical term that lacks a readily apparent meaning to a lay jury.

Motorola's construction is supported by the specification, which states:

Current synchronization techniques also typically do not consider security concerns associated with synchronization. For example, the *channel* used for synchronization may have various levels of inherent security that guard against eavesdropping.

Exh. 40 at 2:6-13. As another example:

The flexible selection rules take into consideration the value of the data, the economic cost of synchronization, the security of the synchronization mechanism, and the security of the mobile device. Accordingly, it is much less likely that the flexible rules will allow for highly sensitive data to be shared with an insecure device or over an insecure synchronization *channel*.

Id. at 2:65-3:3. These portions of the specification as well as others that support Motorola's construction are set forth in Exhibit 40.

Consistent with Motorola's construction, the claim language provides that the synchronization mechanism is a connection (i.e., a channel): "an act of the first computer system identifying which of a plurality of *synchronization mechanisms*, including one or more hardwired or wireless communication *connections*, are available to use for synchronization." In fact, the '214 patent repeatedly describes the synchronization mechanisms as a connection. *See, e.g., id.* at 1:55-2:5; 2:6-13. Finally, Motorola's construction is corroborated by the applicant's statement during prosecution, where he informed the Patent Office that synchronization mechanisms include

"wireless *connections* such as WiFi, Bluetooth, cellular phone protocols such as GSM and GPRS (Paragraph 46), etc. Other synchronization mechanisms include hardwired *connections* (Paragraph 27)." Exh. 41 at page 20.

Microsoft's proposed construction is improper for at least two reasons. First, the patents claim a synchronization *mechanism*. As set forth in each independent claim of the Loveland patents, a "synchronization mechanism" is a *thing* (i.e., "a hardwired or wireless communications connection"), not a "process" or "technique." Second, Microsoft's construction is not supported by the intrinsic evidence. Nowhere does the record refer to or define a "mechanism" as a "process or technique." Nor does the patent or the prosecution history ever describe the "mechanism" as a "process or technique."

2. "flexible selection rule(s)"

Motorola	Microsoft
changeable rule(s) which specify which synchronization mechanisms can be used for synchronizing certain types of data	Plain and ordinary meaning, or alternatively: "rules for selection to determine whether, when, and/or how"

As an initial matter, Microsoft's contention that "flexible selection rule(s)" does not require construction and that plain and ordinary meaning applies should be rejected. The phrase lacks a readily apparent meaning and cannot be understood by one of ordinary skill in the art (or a lay jury) without reference to the intrinsic evidence.

Motorola's definition is straightforward and mirrors the definition that the applicants provided to the Patent Office during prosecution. The applicant unambiguously told the patent Examiner that "[t]he rules *specify which synchronization mechanisms can be used for synchronizing certain types of data.*" Exh. 41. Such an express statement during prosecution demonstrates how the Patent Office and the applicant understood the claim terms. *DeMarini Sports, Inc. v. Worth, Inc.*, 239 F.3d 1314, 1323 (Fed. Cir. 2001) ("The prosecution history is considered to

determine whether or not there were any express representations made in obtaining the patent regarding the scope and meaning of the claims.").

This characterization of the "flexible selection rules" is consistent with the specification. The specification teaches to use flexible rules may be used to determine whether or not to synchronize a data item and the particular synchronization mechanism to be used to synchronize the data item. Exh. 42 at Abstract, 2:49-59, 4:11-30, 7:52-66, 8:4-35. Moreover, the flexible rules are changeable, *i.e.*, they "may be set by a user of one of the computer systems, and possible [sic] overwritten as dictated by a network administrator." *Id.* at 7:20-24. The specification in multiple places describes the flexible selection rules as changeable by the user and/or a network administrator. *Id.* at Abstract, 2:49-52, 2:60-61, 4:11-15, 7:20-24.

Microsoft's construction – "rules for selection to determine whether, when, and/or how" – is unclear, incomplete, and will not help the jury. Microsoft's amorphous construction is directed to what Microsoft says the rules are used for but, unlike Motorola's construction, it does not actually say what the rules are. Microsoft's construction also fails to account for the term "flexible." As explained above, "flexible" means that the rules are changeable by the user or network administrator. Finally, Microsoft's proposal provides more questions than answers – the construction does not specify what the rules are for or what the rules relate to.

3. "value, from having access to synchronized data"

Motorola	Microsoft
importance to the user of having access to the synchronized data item	Plain and ordinary meaning, or alternatively: "value associated with obtaining synchronized data"

The phrase "value, from having access to synchronized data," is contextually confusing and requires construction because the term "value" is used twice in the claim, but with two different meanings. Here, "value" is the subjective importance to the user of having access to the

synchronized data item (as Motorola proposes) and not from obtaining the data (as Microsoft contends).²⁵ This is understood by examining the specification.

The patent teaches that the "value" of having access to a particular data item means that the user of the synchronized data has placed subjective importance on having that data item available to her. For example, in the narrative of "Michelle the stock broker" (see, e.g., Exh. 39 at 9:58-10:50), the patent teaches that at certain points in the day, the ability to access certain data is more important to Michelle than others. On weekday mornings, it is important to Michelle that she be able to access her synchronized "weekday morning" data; when she enters the office, she has time and opportunity to synchronize and access her "in-the-office" data; and at night, after work, she values access to "weekend personal items." Thus, to Michelle "some data is more valuable than others." *Id.* at 1:47. The "value, from having access to synchronized data" is, therefore, properly defined as "the importance to the user of having access to the synchronized data item."

B. '536 & '853 Patents

Overview of the '536 Patent

The '536 patents relate to providing input to a device by using a touch screen instead of a conventional keyboard or mouse. The '536 patent, for example, discloses methods for simulating a pointing device, such as a conventional two-button mouse, using the touch screen. Exh. 43. The specification discloses that a user can simulate a mouse left-button click by first touching the stylus to the screen, keeping it held against the screen for less than a certain amount of time, and then removing it. *Id.* at 2:60-65. Touching the stylus to the screen simulates "activation" of the mouse button (*i.e.*, pressing the button), while removing the stylus simulates "deactivation" of that button

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Motorola agrees with Microsoft that the second use of "value" in the claims – "value of data being synchronized" – has a readily apparent meaning and should be given its plain and ordinary meaning.

(i.e., releasing the button). *Id.* at 6:25-37. These complementary actions (activation/deactivation) result in a simulated mouse click.²⁶

Microsoft asserts claims 14, 16, 17 and 37-40 of the '536 patent. The asserted claims with disputed terms emphasized are set forth in Tab B.

1. "generating at least one event representing an activation of the primary switch of the pointing device"

"generating at least one event representing an activation of the secondary switch of the pointing device"

Motorola	Microsoft
generating at least one down event of the primary switch of the pointing device	Plain and ordinary meaning or alternatively, "generating at least one action representing an activation of the primary switch of the pointing device such as the signal to select an object"
generating at least one down event of the secondary switch of the pointing device	Plain and ordinary meaning or alternatively, "generating at least one action representing an activation of the secondary switch of the pointing device such as the signal to display a context sensitive command menu"

As an initial matter, Microsoft's position that these claim limitations do not require construction or that plain and ordinary meaning should apply should be rejected. The limitations are not straightforward and the jury will not understand these limitations without guidance from the Court. The patent, moreover, sets forth a specific meaning for these phrases and, thus, they should be construed consistently with their use in the patent.

The '536 patent and the '853 patent are both directed to graphical user interfaces for stylus-based computers. A person of ordinary skill in this art at the time of the alleged inventions (November 2000) would have had at least bachelor's degree in computer science, computer engineering, or the equivalent, and at least two years of experience working in software engineering of user interfaces, and knowledge of and some professional experience with pen or tablet computing.

As described above, "activating" a switch of pointing device (such as a mouse) means pressing down on one of its buttons. Consistent with this, the specification repeatedly describes that the "event" generated by the "activation of a switch" of a pointing device is a "down event":

Responsive to the computer 201 detecting the stylus being placed down, the computer 201 may begin counting time . . . If the computer 201 detects that the stylus moves prior to the timeout condition occurring (step 302), then in response the computer 201 may *generate* a standard Microsoft WINDOWS *LeftMouseButtonDown event* (or other event that *represents the primary switch of the pointing device being activated*) . . . Exh. 44 at 5:63-6:12.

[I]f the computer 201 detects that the stylus 204 is not moved prior to the timeout condition (step 302), and if instead the stylus 204 is brought up prior to the timeout condition (step 303), then in response the computer 201 may *generate* first a *LeftMouseButtonDown event* (or other event that *represents the primary switch being activated*). . . . *Id.* at 6:25-35.

To simulate a right click of a mouse without dragging . . . the computer 201 may *generate* first a Microsoft WINDOWS *RightMouseButtonDown event* (step 307) (or other event that *represents the secondary switch of the pointing device being activated*). *Id.* at 6:38-48.

To simulate a right drag of a mouse, if the computer 201 detects that the stylus 204 is not moved until after the timeout condition (step 305), then in response the computer 201 may *generate* a *RightMouseButtonDown event* (step 309) (or other event that *represents the secondary switch being activated*). *Id.* at 6:63-7:1.

If instead the stylus 204 is further held at least 5 seconds, then the special subroutine may, in response, immediately *generate a LeftMouseButtonDown event* (or other event that *represents the primary switch of the pointing device being activated*). *Id.* at 7:25-29.

Consistent with Motorola's constructions, *every* use of the term "activate" in the specification relates to the generation of a corresponding "down event." See Exh. 44. This is consistent with the usage of this term in the prosecution file history:

Claim 7 further recites *generating at least one event representing the primary switch of the pointing device being activated* responsive to the stylus being removed from the touch-sensitive display surface before the threshold amount of time as detected in the step of detecting. . . . This is consistent with at least a portion

Not surprisingly, the specification defines releasing a button or switch as "deactivating" that switch and thereby generating an "up event." '536, 6:17-23; 25-35; 49-53; 7:6-9; 30-33.

of claim 1. In step 304, if the stylus is removed before the timeout, then a *left_mouse_button_down event* is performed.... Exh. 45 at 13.

[C]laim 9... [a]t least one event is *generated representing the primary switch of the pointing device being activated* responsive to the stylus being moved along the touch-sensitive display surface as detected in the step of sixth detecting. . . . This is consistent with at least a portion of claim 1. In step 302, the system detects whether the stylus moves prior to the timeout. If so, *then a Left_mouse_button,_down event is performed* in step 314. This is consistent with at least a portion of claim 9. *Id.* at 14.

Microsoft's proposed constructions should be rejected. The first portion of Microsoft's construction simply parrots the claim language and replaces the term "event" with "action." Describing an "event" as an "action" will not be helpful to the jury. It provides no further context as to the meaning of this phrase, will require construction itself, and injects confusion into the definition. Microsoft next adds unnecessary and incorrect examples to the back-end of its constructions ("generating at least one action representing an activation of the primary switch of the pointing device *such as the signal to select an object*" and "generating at least one action representing an activation of the secondary switch of the pointing device *such as the signal to display a context sensitive command menu*"). These "examples" are not generated as the result of the switches being activated (*i.e.*, a mouse button being pressed down). Rather, as the specification makes crystal clear, these result from the entire "click" cycle of mouse (*i.e.*, a button being pressed down (activated) and then released (deactivated)):

For instance, many applications make extensive use of a primary switch of the pointing device such as the left button of a mouse (a gesture commonly referred to as a "*left click*" of a mouse) *to select an object*, and a secondary switch such as the right button of the mouse (a gesture commonly referred to as a "*right click*" of a mouse) *to display context-sensitive command menus*. Exh 44 at 1:60-66.

This distinction is important because "clicking" a mouse button necessarily requires activation and deactivation of the mouse button – it must be pushed down (switch activation) and then released (switch deactivation). *See id.* at 6:25-53, Figure 3. Microsoft's own Computer Dictionary makes clear that "a click" requires both the activation and deactivation of the mouse button: "click. To press

[i.e., activate] and release [i.e., deactivate] a mouse button without moving the mouse." Exh. 46. The claim language, however, covers only the "activation" – **not** "deactivation" – of the button.

Other unasserted claims confirm that Motorola's constructions are correct, while Microsoft's are not. For example, dependent claims 2, 6, 8, 15, and 19 are directed to both the "activating" and "deactivating" steps. See, e.g., Claim 2: "wherein the step of generating further includes generating at least one event representing the secondary switch being deactivated after the event representing the secondary switch of the pointing device being activated"; Claim 43: directed to generating a click event when a stylus is pressed against a touch screen and then is removed. Accordingly, these claims – and not the claims Microsoft chose to assert – are directed to complete mouse "clicks" that could result in the selection of an object or the display of a context menu.

Overview of the '853 patent

The '853 patent discloses methods for categorizing user input to a touch screen based on a combination of (1) the length of time a stylus is in contact with the screen, and (2) how far (and when) it is moved (if at all). Exh. 47. Four types of user input "gestures" are disclosed: stroke, tap, hold, and hold and drag. *Id.* at 2:41-46. According to the patent, once the stylus makes contact with the screen, the system first determines if the input is "stroke" by assessing whether the stylus has moved a certain distance. If the input is not determined to be a "stroke," the system determines whether the gesture is a "tap" by checking whether the stylus has been removed from the screen before a certain amount of time has elapsed. If the user input is determined not to be either a "stroke" or a "tap," the system categorizes the input as (1) a "hold" if the stylus has stayed in contact with the screen for a certain time, but has not moved, or (2) a "hold and drag" if having made contact with the screen for the requisite time, the stylus is then moved a second certain distance. *Id.* at 5:66-6:39. Microsoft asserts claims 7-11 of the '853 patent. The asserted claims with disputed terms emphasized are set forth in Tab B.

1. "determining whether the input is a stroke based on a first move threshold"; "determining whether the input is a tap based on a time threshold"; "determining whether the stroke is a hold or a hold and drag..."

Motorola	Microsoft
Plain and ordinary meaning or alternatively, "determining that the input is a stroke if the input exceeds a first <i>predetermined distance</i> ." Plain and ordinary meaning or alternatively,	determining that the input is a stroke if the input exceeds a first <i>threshold</i> based upon movement of the input does determining if the input is a tap if the input does
"determining that the input is a tap if the input does not exceed a <i>predetermined amount of time</i> "	not exceed a threshold dependent on time
Plain and ordinary meaning or alternatively "determining that the input is a hold if the input exceeds a <i>predetermined amount of time</i> and does not exceed a <i>second predetermined distance</i> or a hold and drag if the input exceeds a <i>predetermined amount of time</i> and exceeds a second <i>predetermined distance</i> "	determining that the input is a hold if the input exceeds a <i>threshold dependent on time</i> and does not exceed a second <i>threshold based upon movement</i> of the input or a hold and drag if the input exceeds a <i>threshold dependent on time</i> and exceeds a second <i>threshold based upon movement of the input</i>

These phrases are easily understood and need no construction. If the Court determines that construction is required, Motorola proposes constructions that are consistent with their plain and ordinary meaning and with the specification. The dispute between the parties is limited to the construction of three phrases, which are emphasized in the table above.

Motorola's construction defines "first move threshold" and "second move threshold" as a measure of distance. This is consistent with the meaning of the word "move" in the context of the entire phrase. Specifically, whether something has exceeded a "move" threshold requires knowing how far (i.e., the distance) it has moved. Consistent with this, the words "stroke" and "drag" imply relative movement across a finite distance. Motorola's construction is consistent with the specification, which describes move thresholds in terms of distance:

The first and second move thresholds may be identical or different. For example, both may be 0.25 mm. Or, the first may be 0.5 mm or one mm and the second be

0.3 mm. Further, the first may be 1.2 mm or more and the second may be 0.5 mm or more. Exh. 48 at 6:24-28.

Microsoft's construction fails to restrict "first move threshold" and "second move threshold" to distance. Instead, Microsoft proposes the overly broad term "threshold based upon movement of the input." This encompasses inputs that cannot be characterized as either a "stroke" or "drag," because the input has not travelled a predetermined distance. For example, moving the stylus up and down at a single location on the screen would meet Microsoft's construction but such an act cannot, as a matter of common sense, be a drag or a stroke.

Similar to "move threshold," Motorola defines "time threshold" as a measure of time, which is consistent with its plain and ordinary meaning and its use in the specification. *See id.* at 6:15-21 ("If the first threshold has not been exceeded, the system determines if the stylus was still in contact with the digitizer when a time threshold had expired in step 306."). Microsoft again proposes a construction that impermissibly broadens this term because a "threshold *dependent* on time" may include dependencies on other factors, such as distance. There is no support in the intrinsic or extrinsic record to support this construction. Indeed, it contradicts the language of the term itself, which makes clear that time is the only factor.

2. "simulating a right mouse click"

Motorola	Microsoft
generating a down event followed by an up event of a right mouse button	Plain and ordinary meaning or alternatively, "generating an action that represents an activation of a secondary switch of a pointing device"

Microsoft's position that these claim terms do not require construction or that plain and ordinary meaning should apply should be rejected. The parties dispute what constitutes a "right mouse click" and, accordingly, the Court must resolve this issue.

As an initial matter, Microsoft's requirement that a click only include the activation (and not deactivation) of a switch (e.g., mouse button) directly contradicts Microsoft's own Computer Dictionary. Microsoft's dictionary defines "a click" as "to press [i.e., activate] and release [i.e., deactivate] a mouse button without moving the mouse." Exh. 46. The '853 patent states that steps for a right mouse click are described in a provisional application that is incorporated by reference into the '853 patent. Exh. 48 at 7:57-65. Consistent with Microsoft's Computer Dictionary, the provisional application teaches that simulating a right click necessarily requires both a down event (activation) followed by an up event (deactivation). Exh. 49 at page 4, lines 8-17. This is shown in Figure 3, which is described as "a flow chart showing an exemplary set of steps that may be performed in order to simulate a right click of a mouse according to aspects of the present invention." Id. at page 6, lines 10-11. As shown in the Figure (and described in the provisional at page 11, lines 7-18), a right click requires steps 301-303, 305, 306, 307, 308 and 313. These steps "RIGHT_MOUSE_BUTTON_DOWN" include both (step 307) and "RIGHT_MOUSE_BUTTON_UP" (step 313) event to simulate a complete "right click".

Microsoft's proposed construction ignores Figure 3 and contradicts the specification. First, Microsoft's construction reads out the necessary "deactivation" step that is required to simulate a "click." Instead, Microsoft attempts to define the "click" as only the "activation" step. Second, the claim language is limited to a "right mouse click." Microsoft's construction broadens the claim term to cover any "pointing device," such as a joystick or a trackball.

C. Sherwin '460 Patent

Overview of the '460 Patent

The '460 patent is directed to a system and a method for facilitating communication between a software application and a hardware interrupt timer. Exh. 50. Ordinarily, software applications do not have direct access to computer hardware, like a timer. *Id.* at 1:35-40. To overcome this, the '460

patent discloses a "calling application" to pass parameters to a hardware-independent "application programming interface (API)" that validates the parameters and relays them to a hardware dependent API. '460, Abstract. The hardware-dependent API then establishes a connection with the hardware timer according to the validated parameters. With this connection established, the API can recognize when the timer "times out" and will send a signal to the software application. '460, Abstract.²⁸ Microsoft asserts claims 7-13 of the '460 patent. The asserted claims with disputed terms emphasized are set forth in Tab B.

1. "high precision event timer (HPET)"

Motorola	Microsoft
a hardware timer that operates in accordance with the 'Intel Architecture/ Personal Computer (IA/PC) HPET (High Precision Event Timers) Specification"	the combination of a counter, comparator, and match register

The term "HPET" is given a particular definition in the specification:

[t]he general behavior and operation of HPET timers are known in the art and are set forth in Intel's Intel Architecture/Personal Computer (IA/PC) HPET (High Precision Event Timer) Specification, Revision 1.0a, October 2004. Accordingly, details regarding HPET timers will not be further discussed except as the operation and general behavior of the HPET timer pertains to the described embodiments of the present invention.

Exh. 50 at 5:39-46. Thus, the patent establishes unambiguously that it is the Intel HPET specification that defines the high precision event timer. Exh. 51 at 5. The applicants intended – and a person of ordinary skill in the art would have understood – that the HPET of the claimed invention is a *particular type of hardware timer* having the specific attributes set forth in the Intel specification.

operating systems and operating system kernels.

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A person of ordinary skill in this art at the time the application for the Sherwin '460 patent was filed (March 2005) would have at least a Bachelor of Science degree in a relevant technical field (such as computer science, computer engineering, or electrical engineering) and with at least two years of experience in software programming and design. Such a person would be familiar with

Microsoft's construction ignores the applicants' clear limitation of HPET and instead improperly broadens HPET to an imprecise combination of "a counter, comparator, and match register" – generic components that are found in any number of electronic devices. Moreover, Microsoft's construction does not specify how these components are interconnected and interoperate. In fact, in an impermissible attempt to broaden the meaning of this term, Microsoft's construction would cover every conceivable combination of these components – even those that are not hardware timers and/or do not function similarly to an HPET.

2. "the hardware-dependent process"

Motorola	Microsoft
Indefinite under 35 U.S.C. § 112 ¶ 2	the hardware-dependent interface

As Microsoft implicitly acknowledges with its proposed construction, the claim term "the hardware dependent process" needs to be re-written in order for the claim language to make sense. Microsoft proposes that it be rewritten as "the hardware-dependent *interface*" – replacing "process" with the term "interface." This could be one plausible interpretation. But the term can also be plausibly interpreted as "a hardware-dependent process" – replacing "the" with "a." Because there is no way to tell which of these two meanings should be ascribed to it, the Court can not correct the patent and term is, therefore, invalid as indefinite. *Novo Industries, L.P. v. Micro Molds Corp.*, 350 F.3d 1348, 1357 (Fed. Cir. 2003) (holding that "a district court can correct a patent only if ... the correction is not subject to reasonable debate based on consideration of the claim language and the specification").

The insoluble ambiguity of this term is evident from the claim language itself, which separately references both "hardware-dependent process" and "hardware-dependent interface":

a hardware-dependent interface to the timer; and

a processor in which the hardware-independent interface operates to validate a request from an application to set the timer and to relay the validated request to

the hardware-dependent process, and further in which the hardware-dependent interface operates to set the timer to expire in accordance with the validated request and to execute a timer interrupt service routine upon expiration of the timer.

"The hardware-dependent process" (shown in red) – the claim term in dispute – has no antecedent basis. In other words, there is no earlier recitation of *a* hardware-dependent process, so that it is unclear as to what earlier-recited element (if any) the limitation refers. One possibility is that the article "the" was merely a clerical error, and the term should have been written "*a* hardware-dependent process." This possibility is corroborated by the fact that the patentee chose to use the term "a hardware-dependent process" in other claims, thereby making it a viable possibility. *See* claims 1 and 14.

However, an equally viable possibility – indeed, the option Microsoft advocates – is that the error was not one of antecedent basis, but rather something more substantial. Microsoft's position is not that "a" was inadvertently swapped for "the," but that "interface" was swapped for "process." Thus, Microsoft claims, "*the* hardware-dependent process" should be rewritten as "the hardware-dependent *interface*." As with the antecedent basis argument, there is evidence to support this conclusion as well. The claim elsewhere recites "a hardware-dependent interface," such that it is possible that the error may have been in the noun and not the article. But there is simply no way to tell from the claim itself which of these possibilities might have been intended.

_

Nothing in the intrinsic record suggests that "hardware-dependent process" and "hardware-dependent interface" are interchangeable. The term "interface," on its face, connotes a particular *thing* and is used throughout the specification in reference to "application programming interfaces" and "I/O interfaces." Exh 50 at Abstract, 1:35-40, 2:14-17, 3:65-4:2, 5:47-53, 9:26-32 and 11:20-35. One of ordinary skill in the art would have understood an interface to be a point of interaction between two layers or components. A "process" on the other hand, connotes an activity or routine, and would have been understood by one of ordinary skill in the art as an instance of executing or carrying out something. The fundamental difference between an "interface" and a "process" is acknowledged by the applicants, who chose to claim them differently among the claims.

Because the claim contains a limitation that can reasonably be interpreted by one of ordinary skill in the art to mean two distinctly different things, the claim term is indefinite.

D. Potrebic '904 Patent

Overview of the '904 Patent

The "Potrebic '904 Patent" relates to televisions, set top boxes and other devices that tune broadcast signals using at least two tuners. Generally, the patent provides a system for selecting among and assigning multiple tuners to tune to a particular channel in a manner that is least intrusive to a user. Exh. 52 at 1:36-38. Microsoft is asserting claims 12 and 18-20 of the '904 patent. The asserted claims with disputed terms emphasized are set forth in Tab B.

1. "program content currently being tuned"

Motorola	Microsoft
live program content	the program content that a tuner is currently receiving

The phrase "program content currently being tuned" should be construed based on the meaning attributed to it in the specification. According to the patent, when a channel is selected, the program content can simultaneously be sent to the hard drive for storage and displayed directly to the user. *See id.* at 4:64-5:33; FIG. 4. In the context of claim 19, which depends from claim 12, the "program content currently being tuned," necessarily excludes content that is *played back* from the hard drive (i.e., content that has been previously recorded). Rather, it refers to the portion of the program currently being recorded which is sent to the display for viewing instead of to the disk drive for recording. *See, e.g., id.* at 6:29-37. The specification defines this as the "live" program content:

design, engineering, or product development experience (software or hardware) in set-top boxes.

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The inventions taught in the Potrebic '904 Patent are directed to set-top box design. A person of ordinary skill in this art at the time of the invention (2002) would have had at least a bachelor's degree in electrical engineering, computer engineering or the equivalent and 2 years of

Tuners 402 and 404 are also coupled to decoders 410 and 412 and may provide tuned signals directly to decoder 410, 412 if the tuned signal is being watched *live* (i.e., *not being played back from the disk drive* 408). *Id.* at 5:28-33.

Microsoft's construction is incorrect because it covers both types of content the tuner could be currently receiving – content that is received live as well as content that is received and played back from storage on a hard disk. Thus, Microsoft's construction is too broad and would directly contradict the intrinsic evidence of the patent specification.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on July 21, 2011, I electronically filed the foregoing document with the Clerk of the Court using the CM/ECF filing system. I also certify that the foregoing document is being served this date on all counsel of record or pro se parties on the Service List below in the manner specified, either via transmission of Notices of Electronic Filing generated by the CM/ECF system or; in some other authorized manner for those counsel or parties who are not authorized to receive electronically Notices of Electronic Filing.

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Case No.: 1:10-CV-24063-MORENO/TORRES
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