

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

**CORE WIRELESS LICENSING  
S.A.R.L.,**

**Plaintiff,**

**v.**

**LG ELECTRONICS, INC., and LG  
ELECTRONICS MOBILECOMM  
U.S.A., INC.**

**Defendants.**

**Case No. 2:14-cv-911-JRG-RSP  
(lead case)**

**Case No. 2:14-cv-912- JRG-RSP  
(consolidated)**

**JURY TRIAL DEMANDED**

**CORE WIRELESS LICENSING S.A.R.L.'S  
OPENING CLAIM CONSTRUCTION BRIEF - GROUP 2 PATENTS**

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## **I. INTRODUCTION**

This brief sets out Core Wireless’s proposed claim constructions for five families of standard-essential patents (SEPs) (7 patents total) that are asserted solely against LG – the Group 2 patents. Core Wireless asserted five of these seven patents against Apple in a case that went to trial in the Eastern District of Texas in March of this year (the *Apple I* case).<sup>1</sup> The two remaining patents were not involved in that trial and are not being asserted against Apple currently.

Core Wireless and LG have agreed to accept all the claim constructions determined by the Court in the *Apple I* case. Nevertheless, in this brief, Core Wireless is requesting that the Court decide a handful of additional claim constructions for the *Apple I* patents asserted against LG because of Core Wireless’s experience at the *Apple I* trial, where Apple made several non-infringement arguments based on what became apparent were unresolved claim construction issues. Apple made arguments both contrary to the Court’s earlier claim construction decisions, and based on erroneous claim constructions that had never surfaced before trial. For these additional terms, LG declines to provide a proposed construction, which provides a strong inference that LG does not want these issues to be settled at the proper time – during the claim construction process – but intends to follow Apple’s strategy of making those erroneous claim construction arguments for the first time at trial. Core Wireless asks the Court for guidance at the proper time – now – and asks the Court to adopt Core Wireless’s constructions as set forth in Appendix A.<sup>2</sup>

## **II. BACKGROUND OF THE TECHNOLOGY**

The patents at issue in the LG 912 case all relate to the standardized technology that underlies the basic functional operations of cell phones and other data-capable mobile devices. Nokia has spent decades as an innovator of cellular technology. The patents asserted in the LG

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<sup>1</sup> *Core Wireless Licensing S.A.R.L. v. Apple Inc.*, Case No. 6:12-cv-100-JRG-JDL (“*Apple I*”).

<sup>2</sup> Appendix A sets forth Core Wireless’s and LG’s constructions with headings corresponding to the headings in this brief. Appendix A was written to be read in conjunction with this brief so that the Court would have in one place a summary of the parties’ various claim constructions while reading this brief.

912 case are the result of that legacy work. In the global cellular system created by Nokia and other early innovators, which is still in use today, there have been four generations of cellular networks, each generation making a massive improvement in speed and bandwidth over the previous generation. The first generation network, called 1G, is now obsolete. The second generation, or 2G, was a tremendous advance over 1G and is still in use in many places. All mobile phones must be 2G compatible because there are still many areas in the United States where 2G service predominates. The 2G technology relevant to the patents in this case is called GSM, for Global System for Mobile Communications. 3G networks provided another major improvement in speed and bandwidth, and 3G networks have been the dominant networks for several years. The 3G technology is also called UMTS, for Universal Mobile Telecommunications System. The 4G technology, also called LTE, is just now being implemented. The patents in this group relate to 2G and 3G technology.

Cell phones<sup>3</sup> communicate with a base station to send and receive information through the use of radio waves. Base stations are scattered throughout many neighborhoods in equipment sheds attached to large antennas (sometimes disguised as trees or flagpoles for aesthetic reasons) for receiving the radio waves from the cell phones. Coverage areas for a cell phone are referred to as cells, and each cell is served by at least one base station.

In addition to voice and data transmissions that the user wishes to send and receive, many other signals must also be exchanged between cell phones and networks to enable the system to operate with high performance. For example, both the cell phone and network must operate on the same radio channel, and they must send and receive other signals, such as information relating to the radio channel they are using or wish to use. These signals are called control signals. Data may be sent on a shared, or common, radio channel, in which case the transmission must wait its turn, or it may be sent on a radio channel that is dedicated to a particular cell phone.

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<sup>3</sup> For simplicity, this brief refers to cell phones, but the patents may use the terms mobile device, mobile unit, UE (User Equipment), Mobile Station (MS), terminal, or other terminology. Additionally, the technology equally applies to cellular data-enabled devices like LG's tablets.

The patents asserted in the LG 912 case relate to these basic operations. Specific functionality relevant to each patent is described in more detail below.

### III. LEGAL PRINCIPLES

The principles of claim construction are well established. Claim terms are to be given their “ordinary and customary meaning,” as determined by “a person of ordinary skill in the art in question at the time of the invention.”<sup>4</sup> When construing the claims, the Court first considers intrinsic evidence, including the claims themselves, the remainder of the specification, and the prosecution history.<sup>5</sup> However, “the inventor’s lexicography governs”<sup>6</sup>; thus, the patentee is entitled to define claim terms to identify the invention precisely. As such, a claim construction that “excludes the preferred embodiment is rarely, if ever, correct.”<sup>7</sup> Although this allows the Court to construe claims with guidance from the patent specification,<sup>8</sup> the Court should refrain from writing the specification into the claims.<sup>9</sup> “[I]t is improper to read limitations from a preferred embodiment described in the specification – even if it is the only embodiment – into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.”<sup>10</sup>

#### A. Order of Steps

“Unless the steps of a method actually recite an order, the steps are not ordinarily construed to require one.”<sup>11</sup> Otherwise, an order of steps is only required when “the method steps implicitly require that they be performed in the order written.”<sup>12</sup> To determine whether or

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<sup>4</sup> *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc).

<sup>5</sup> *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), aff’d, 517 U.S. 370 (1996); see also *Phillips*, 415 F.3d at 1315-17.

<sup>6</sup> *Phillips*, 415 F.3d at 1316.

<sup>7</sup> *Adams Respiratory Therapeutics, Inc. v. Perrigo Co.*, 616 F.3d 1283, 1290 (Fed. Cir. 2010) (internal quotation omitted).

<sup>8</sup> *Phillips*, 415 F.3d at 1317.

<sup>9</sup> *Id.* at 1322.

<sup>10</sup> *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

<sup>11</sup> *Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1369 (Fed. Cir. 2003) (quoting *Interactive Gift Express, Inc. v. CompuServe Inc.*, 256 F.3d 1323, 1342 (Fed. Cir. 2001)).

<sup>12</sup> *Id.*



not a method's steps implicitly require an order, the Court first must "look to the claim language to determine if, as a matter of logic or grammar, they must be performed in the order written."<sup>13</sup> If the first step does not require an order, the Court must "look to the rest of the specification to determine whether *it* directly or implicitly requires such a narrow construction."<sup>14</sup>

## **B. Indefiniteness**

A party seeking to invalidate a patent must overcome a presumption that the patent is valid.<sup>15</sup> The Supreme Court of the United States has "read [35 U.S.C.] § 112, ¶ 2 to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty."<sup>16</sup> It is also a "well-settled rule that claims are not necessarily invalid for a lack of antecedent basis."<sup>17</sup> Even absent an explicit antecedent basis, a claim is not indefinite "[i]f the scope of a claim would be reasonably ascertainable by those skilled in the art."<sup>18</sup>

## **IV. U.S. PATENT NO. 6,266,321<sup>19</sup>**

### **A. Background of Technology and Invention**

In cellular telecommunication systems, two types of information are typically sent on two separate channels — user data on a data channel and control data on a control channel. The two types of data by their nature have widely different bandwidth and power level requirements. But, the data and control channels are transmitted through a common power amplifier in the radio of cell phones. The differences between the two channels being fed to the same amplifier caused substantial inefficiencies, and caused the power amplifier to use an excessive amount of

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<sup>13</sup> *Id.*

<sup>14</sup> *Id.* at 1370 (internal quotation omitted).

<sup>15</sup> 35 U.S.C. §282.

<sup>16</sup> *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014).

<sup>17</sup> *Id.* at 1376.

<sup>18</sup> *Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1370-71 (Fed. Cir. 2006) (internal quotation omitted).

<sup>19</sup> For the '321 patent, LG contends that Core Wireless should be precluded from arguing for claim constructions other than those decided in the *Apple I* case. However, the Court did not provide any claim constructions for the '321 patent in the *Apple I* case.

power, which shortened battery life. To solve this problem, the inventors of the '321 patent developed a way to combine and process the two channels in a unique way that minimizes power use. Processing the channels in this manner increased the efficiency of the power amplifier, and in turn increased the battery life of the cell phone. The importance of this invention in prolonging battery life was immediately recognized by the standards body and invention was rapidly adopted into the standard.

**B. '321 Patent: Claims 8-10, 14 – “spreading” (Term 1)**

Core Wireless requests that the Court recognize in its claim construction that the claim term “spreading” also encompasses “scrambling,” because the specification makes clear that “scrambling” is just a special case of “spreading.” This construction is necessary because of a non-infringement argument made by Apple in the *Apple I* trial that was entirely based on a legally incorrect interpretation of this claim term, which had not been construed. There is every reason to expect that LG will make the same argument in this case based on the same legally incorrect interpretation. In the *Apple I* trial, Apple ignored the definition for this term in the patent’s specification and presented a specious argument that “scrambling,” which is described in the standard and elsewhere, did not meet the “spreading” claim limitation. However, the terms *spreading* and *scrambling* are synonymously used in the '321 patent as clearly demonstrated by the intrinsic and extrinsic evidence. Therefore, the term “spreading” should be construed as “spreading or scrambling.”

The '321 patent specification states that “[s]crambling can be considered a special case of spreading. . . .” This statement shows that the inventors of the '321 patent did not intend for the claim term “spreading” to exclude scrambling. In addition, descriptions of the preferred embodiments depicted in Figures 2a and 2b of the '321 patent refer to the spreading codes  $C_I$  and  $C_Q$  in blocks **47** through **50** as either spreading *or* scrambling.<sup>20</sup>

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<sup>20</sup> See, e.g., Ex. 1 [’321 patent] at 4:66-67 (“the operations performed on the symbol stream with codes  $C_I$  and  $C_Q$  in blocks **47** and **50** are called scrambling”); 5:11-13 (“the bit stream is spread or the symbol stream is scrambled in block **48** with code  $C_Q$  and in block **49** with code  $C_I$ ”); 5:21-25 (“The signal taken

There is nothing unusual about how the inventors used the term “spreading” in the specification and claims.<sup>21</sup> The extrinsic evidence also shows that spreading may mean scrambling. For example, the U.S. Patent 6,833,770, which concerns the same W-CDMA technology as the ’321 patent, repeatedly explains that “*spreading codes . . . are also called scramble codes.*”<sup>22</sup> Indeed, consistent with the definition in the ’321 patent, scrambling is widely recognized by persons of ordinary skill in the art as a special case of spreading.<sup>23</sup> Thus, for the sake of clarity, “spreading” should be construed as “spreading or scrambling.”

**C. ’321 Patent: Claims 8-9, 14 – “first spreading code”/“second spreading code” (Terms 2 & 3)**

Core Wireless’s construction makes clear that a first and second “spreading code,” as defined by the patent, can include the real and the imaginary part of a complex spreading code. Core Wireless seeks this construction to prevent LG from re-urging a legally incorrect argument made by Apple in the previous trial that was also based on an incorrect claim construction. In *Apple I*, Apple claimed it did not infringe because a “first spreading code” and a “second spreading code” necessarily *excluded* the real and imaginary codes that were a part of a complex valued code. That argument is contrary to the intrinsic and extrinsic evidence.

As background, a complex number is just a pair of ordinary numbers in a particular order. If we call those two ordinary numbers  $a$  and  $b$ , a complex number can be written as  $(a, b)$  or alternatively as  $a + bi$ . A specific example of a complex number is  $(2, 3)$ , which can also be written as  $2 + 3i$ . The first number  $a$ , or 2 in our example, is called the “real” part of the

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to the I branch is the difference of the DTCH channel spread with code  $C_I$  (or spread with code  $SC_I$  and scrambled with code  $C_I$ ) and PCCH channel spread with code  $C_Q$  (or spread with code  $SC_Q$  and scrambled with code  $C_Q$ ”).

<sup>21</sup> See, e.g., Ex. 16, Expert Declaration of Richard R. Chandler (Chandler Decl.), ¶ 56. On July 9, 2015, Core Wireless served Mr. Chandler’s declaration on LG in view of LG’s misinterpretation of P.R. 4-4. See No. 2:14-cv-911, Dkt. 96, 109, and 111. Core Wireless respectfully requests that the Court consider Mr. Chandler’s declaration as timely for the reasons set forth in Core Wireless’s briefing.

<sup>22</sup> See, e.g., Ex. 2 [U.S. Patent No. 6,833,770] at 2:66-3:3; 2:22-29; 5:4-15; 6:23-29; 9:1-5; 9:32-40.

<sup>23</sup> Chandler Decl., ¶ 56.

complex number. The second number  $b$ , or 3 in our example, is called the “imaginary” part of the complex number. The symbol “ $i$ ” shows which number is the imaginary number.<sup>24</sup>

The specification of the ’321 patent makes clear that the “first” and “second spreading codes” can be the real and imaginary parts of a complex valued code. Indeed, that is the case in the preferred embodiment. The specification calls these two spreading codes  $C_I$  and  $C_Q$ .<sup>25</sup> It was well known in the art of modulating signals that the “ $I$ ” component of a signal stands for the In-phase component and the “ $Q$ ” component stands for the Quadrature-phase component, and that the “ $I$ ” component is the real part and the “ $Q$ ” component is the imaginary part of a complex value. This is shown, for example, in U.S. Patent 5,751,705 (“Sato”), which explains that “the spread code is also composed of the in-phase component and the quadrature component [and] . . . considering the in-phase and quadrature components of the transmission data and the spread code as a real part and an imaginary part of a complex signal.”<sup>26</sup> By using the standard notation “ $I$ ” and “ $Q$ ” in the codes  $C_I$  and  $C_Q$ , the inventors were explicitly signaling, in standard technical terminology, that the two spreading codes of the invention were the real and imaginary part of a complex valued code. The inventors made the same point elsewhere in the specification by stating that “[c]odes  $C_I$  and  $C_Q$  can be e.g. long Gold codes, which are . . . known to one skilled in the art.” It is well known in the art that long Gold codes were used in telecommunications for complex valued codes with real (I) and imaginary (Q) parts.<sup>27</sup>

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<sup>24</sup> *Id.* at ¶ 57.

<sup>25</sup> *See, e.g.*, Ex. 1 at Abstract (“a first spreading code  $C_I$ ”; “a second spreading code  $C_Q$ ”); 4:22-25 (“[a] first code, represented by the symbol  $C_I$ ”; “a second code, represented by the symbol  $C_Q$ ”); 5:22-28 (“spread with code  $C_I$ ”; “spread with code  $C_Q$ ”)

<sup>26</sup> Ex. 3 [U.S. Patent 5,751,705] at 8:65-9:4; *see also id.* at 8:19-35; Ex. 4 [CORE\_L-00631368] at CORE\_L-00631370) (“The complex envelope of the modulated signal consists of a real part and an imaginary part namely the in-phase channel (I-channel) and the quadrature channel (Q-channel).”); Ex. 5 [CORE\_L-00631316] at CORE\_L-00631320) (“With the scrambling operation the real (I) and imaginary (Q) parts of the spread signal are further multiplied by a complex-valued scrambling code.”); Ex. 6 [CORE\_L-00631375] at CORE\_L-00631378) (“the I-plot or real component . . . the Q, or imaginary, component”).

<sup>27</sup> Chandler Decl., ¶ 60.

The evidence therefore shows that the preferred embodiment of the invention comprises a first spreading code ( $C_I$ ) and a second spreading code ( $C_Q$ ) that are the real and imaginary parts of the complex code  $C$ . Any claim construction of “first” and “second spreading code” that excludes this embodiment is contrary to the intrinsic record and the standard use of terms found in the specification. The Court should make it explicit that the two spreading codes can be the real and imaginary parts of a complex valued code to avoid jury confusion and prejudice that will occur if LG is allowed make non-infringement arguments based on a legally incorrect claim construction.

**D. '321 Patent: Claims 8, 11-14 – “changing the power level of said data” (Term 4)**

Core Wireless makes two separate arguments with respect to this claim term. Again, the reason for Core Wireless’s proposed constructions is to avoid the same arguments at trial that were made in the *Apple I* case based on erroneous claim interpretations.

Asserted method claim 8 recites two “spreading” steps followed by the “changing the power level” step. Core Wireless first requests that the Court make explicit that the “changing the power level” step need not occur later in time than the two preceding “spreading” steps; i.e., that the order that the steps happen to fall on paper is not a claim limitation. The claim language, on its face, does not recite nor require an order of steps for changing the power level relative to the spreading steps. For example, claim 8 recites in relevant part, a “method for simultaneously transmitting *data related to two channels . . . spreading data related to a second channel . . . changing the power level of said data related to the second channel . . .*” There is nothing in this language that would prevent performing the “changing” and “spreading” steps in the reverse order – i.e., “changing the power level of said data” related to the second channel first, and then “spreading” the data whose power level had been changed.<sup>28</sup> If a claim does not impose an order

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<sup>28</sup> As Core Wireless understand LG’s argument, LG is saying that the term “said data” in the “changing the power level of said data” refers back to “spreading data” in the “spreading” step. Based on this, LG argues that the “said data” term makes mandatory that the “changing the power level” step occur after the “spreading” step. This is a misreading of the claim. The term “data” is first used in the preamble (“A

of steps, then the steps need not be read sequentially and doing so would require improperly reading limitations into the claim.<sup>29</sup> Second, although Core Wireless understand that LG intends to argue that the order of steps it deems mandatory is the order shown in Figures 2a and 2b, there is nothing in the specification that necessarily requires the power change step to be performed in a specific order relative to the spreading steps. Under similar circumstances, the Federal Circuit has held that it is improper to import the limitations of those embodiments into the claims.<sup>30</sup> Further, the language of claim 10 is most telling here — when the applicants of the '321 patent intended a specific order of steps, they conveyed it plainly by reciting “said data related to the first channel are spreading using a predetermined third spreading code *before* they are spread using other spreading codes.”<sup>31</sup>

Second, Core Wireless seeks clarity that “changing the power level” of that data means changing the gain applied to the data. Again, Core Wireless requests this construction to avoid the same legally incorrect arguments that Apple first raised in the *Apple I* trial: that changing the gain factor did not change the power level. The intrinsic evidence demonstrates that *changing the power level of said data* means to “change the gain factor applied to data related to a second channel so as to produce a power difference between the first and second channels.” The '321 patent’s specification states that “[m]ultiplying the symbol streams generated from the PCCH channel by a *gain factor G* unequal to one *produces a power difference between the DTCH and PCCH channels,*” where DTCH is the first channel and PCCH is the second channel as shown in

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method for simultaneously transmitting *data* related to two channels . . .”), not the spreading step. LG has provided no rebuttal to the common sense reading that “said data” in the “changing the power level” step refers back to the first use of the term “data” in the preamble, and therefore no ordering of steps is implied.

<sup>29</sup> *Altiris*, 318 F.3d at 1369-70; see also *In re Chatani*, No. 2007-1150, 2007 U.S. App. LEXIS 26745, \*4-5 (Fed. Cir. Nov. 19, 2007) (unpublished).

<sup>30</sup> *Id.* at 1371. While specification at issue in *Altiris* discusses only a single embodiment, the Federal Circuit still held that it was improper to read a specific order of steps into method claims where, as a matter of logic or grammar, the language of the claims did not impose a specific order on the performance of the method steps, and the specification did not directly or implicitly require a particular order.

<sup>31</sup> Ex. 1 at claim 10.

Figures 2a or 2b of the preferred embodiments.<sup>32</sup> By arguing that changing the gain factor does not change the power level in the *Apple I* trial, Apple was essentially arguing that the asserted claims did not cover the preferred embodiment. A claim construction of that nature is highly disfavored, and the Court should rule on this claim construction issue now to avoid subjecting the jury to a legally erroneous claim interpretation that Core Wireless fully expects LG will make if it is not resolved now.

**V. U.S. PATENT NO. 6,978,143**

**A. Background of Technology and Invention**

The '143 patent discloses and claims a novel and more efficient way of determining the channel on which to transfer packet data between a cell phone and a network in a cellular system.<sup>33</sup> Data from a cell phone can be sent to the network in two ways: by means of a common channel shared by all cell phones in the cell, or a dedicated channel for a particular cell phone.<sup>34</sup> In general, it is preferable to use a dedicated channel when the amount of data to send is large, but dedicated channel capacity is limited – not all cell phones can use a dedicated channel all the time, even if it would always be faster. A common channel is shared by all users, and hence, may not be preferred in many circumstances.

In the prior art, a cell phone could request dedicated channel resources at any time. This was not efficient. In this scenario, the network had no information about the packets that the cell phone needed to send to the network and therefore did not know whether a common or dedicated channel was more advantageous.<sup>35</sup> Likewise, the cell phone had no information about the network channel utilization. Thus, each request required substantial transfer of information between the network and the phone for the phone to provide the information to the

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<sup>32</sup> *Id.* at 5:35-39 (emphasis added).

<sup>33</sup> *See* Ex. 7 ['143 patent] at 1:11-17.

<sup>34</sup> *See id.* at 1:65-2:4.

<sup>35</sup> *Id.* at 3:41-43.

network. This information transfer used up traffic capacity and slowed down data transfer.<sup>36</sup>

The '143 patent provides for a different way of arriving at the decision to select a common or a dedicated channel. First, the network sends a threshold value of a channel selection parameter to the phone.<sup>37</sup> The channel selection parameter can be chosen from a variety of parameters, including the size of the data packet or the amount of data in cell phone buffers.<sup>38</sup> Importantly, the network sends this threshold in view of the current load and available channel capacity. Next, the cell phone compares the current value of the channel selection parameter with the threshold value of the parameter sent from the network and makes a determination whether the threshold is met.<sup>39</sup> The threshold determination is then used as a basis to determine if the packets should be sent using a common channel, or whether a dedicated channel should be requested.<sup>40</sup> This novel procedure decreases the signal traffic between a cell phone and a network and minimizes the initial delay associated with starting a data transfer from the cell phone to the network.<sup>41</sup>

**B. '143 Patent: Claim 17 – “selected channel” (Term 5)<sup>42</sup>**

The '143 patent specification explains that data may be sent either on a dedicated channel (called DCH) allocated to the mobile station or on a common channel (called RACH).<sup>43</sup> The broadest claim of the '143 patent asserted by Core Wireless is independent claim 17. Core Wireless requests the Court to make explicit that neither channel selection nor the means for selecting a channel is a limitation of claim 17. Claim 17 has three elements in the body of the

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<sup>36</sup> *Id.* at 3:43-48.

<sup>37</sup> *Id.* at 3:53-56.

<sup>38</sup> *Id.* at 4:1-12.

<sup>39</sup> *Id.* at 6:23-26.

<sup>40</sup> *Id.* at 6:26-36.

<sup>41</sup> *Id.* at 3:64-67.

<sup>42</sup> At the July 1, 2015 hearing, Core Wireless agreed to withdraw its request for construction of the '143 means plus function claim terms construed in *Apple I* case and Judge Payne allowed Core Wireless to construe the three '143 patent terms that are part of this brief. See July 1, 2015 hearing transcript at 4-8.

<sup>43</sup> Ex. 7 at 1:65-2:1; 2:66-3:3; 9:7-9.



claim: (1) “means for receiving a threshold value . . . ,” (2) “means for storing said threshold value . . . ,” and (3) “means for comparing said threshold value . . . .” The means for channel selection is in fact first introduced in dependent claim 18, which recites “A mobile station according to claim 17,” further comprising “means for making said channel selection . . . .” Thus, under the basic claim differentiation principles, claim 17 cannot be read to include selecting a channel or impose any limitation related on where channel selection takes place.

The argument that claim 17 requires channel selection, and that channel selection must take place in the mobile station was used prominently by Apple in the *Apple I* case. The argument no doubt contributed to substantial jury confusion because it allowed Apple to focus the jury’s attention on a limitation that had absolutely nothing to do with infringement of claim 17. It is Core Wireless’s understanding that LG is taking the same position and intends to make the same erroneous claim construction argument to the jury in this case. Thus, it is important for the Court to decide this important issue of law now to avoid jury confusion at trial.

Because Apple knew that a simple claim differentiation argument undercut its positions, Apple supplemented its positions with erroneous arguments, all of which LG is likely to rehash in this case. Claim 17 includes several means-plus-function limitations. Accordingly, Apple argued that the requirement that channel selection be performed in the mobile station arises from the Court’s construction of those means-plus-function limitations. As discussed in detail below, Apple was wrong, and Core Wireless asks the Court enter a ruling to this effect.

In *Apple I* case, the function for the “means for comparing” in claim 17 was construed to be “comparing said threshold value of the channel selection parameter to a current value of the channel selection parameter for basis of said channel selection.”<sup>44</sup> Nothing in this function requires that channel selection take place in the mobile station (or even suggests that function concerns making a channel selection at all), but instead requires only a comparison. The

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<sup>44</sup> *Apple I*, Dkt. 263 at 15.

structure required for the “means for comparing” likewise does not require the “means for making channel selection.” The Court’s claim construction of this element below properly includes step 650 “COMPARE CHANNEL SELECTION PARAMETERS AND PACKET DATA INFORMATION TO THRESHOLD VALUES” in Figure 6 (but not step 660 “CHANNEL SELECTION”):

A control unit 803 wherein the control unit 803 is programmed to control the comparison of the threshold value of the channel selection parameter to the current value of the channel selection parameter in accordance with the algorithm shown in Fig. 6, *step 650*, and described in 6:20-39; 7:17-20; and 7:24-28 of the ‘143 specification; and statutory equivalents thereof<sup>45</sup>

The construction of “means for sending” in claim 17 also does not require “channel selection.” The function of “means for sending,” is “sending uplink packet data to the system using a selected channel.”<sup>46</sup> Again, nothing in this function indicates that channel selection is a limitation of claim 17 or that it takes place in any particular location. The structure of the “means for sending” below includes steps 670 “SEND PACKET ON RACH” and 690 “SEND PACKET DATA ON ALLOCATED DCH” in Figure 6 (but again not step 660 “CHANNEL SELECTION”). Steps 670 and 690 occur after step 660 “CHANNEL SELECTION.”

Antenna 801, switch 802, control unit 803, burst generator 822, modulator RF transmitter 823, as shown in Fig. 8 and in Fig. 6, *steps 670 and 690*, and as described in the Patent at 7:4-13; 7:17-20; 7:24-28; and statutory equivalents thereof.<sup>47</sup>

Core Wireless notes again that claim differentiation confirms that “channel selection” is not a limitation of claim 17. Dependent claim 18 contains as its sole limitation, “means for making said channel selection.” Notably, step 660 “CHANNEL SELECTION” is included within the construction of the means element of claim 18.<sup>48</sup> The presence of dependent claim

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<sup>45</sup> *Id.* at 15 (emphasis added).

<sup>46</sup> *Id.*

<sup>47</sup> *Id.* (emphasis added).

<sup>48</sup> *Apple I*, Dkt. 245 at 40 – The structure for “means for making said channel selection ...” in claim 18 (“A control unit 803 wherein the control unit 803 is programmed in accordance with the algorithms shown in Fig. 6, steps 650-~~660~~, and described in 6:14-43; 7:12-13; 7:17-20; and 7:24-28 of the ‘143 specification; and statutory equivalents thereof.”) (emphasis added).

18 that adds a particular limitation raises a strong presumption that the limitation in question is not found in the independent claim 17.<sup>49</sup>

Indeed, the Court already expressly rejected an attempt to include a “channel selection” limitation within the scope of claim 17. In *Apple I*, Apple’s originally proposed structures for “means for sending” and “means for comparing” were:

“means for sending” - a control unit 803 programmed to send uplink packet data via a *selected channel according to the channel selection performed in the mobile*, . . . .<sup>50</sup>

“means for comparing” - a control unit 803 programmed to compare the threshold value of a channel selection to a current value of the channel selection parameter and provide the comparison result to *a channel selection function within the mobile station*, . . . .<sup>51</sup>

The Court rejected Apple’s attempts to inject the requirement that channel selection occur in the mobile, and removed Apple’s additions from the final claim constructions.<sup>52</sup> LG has agreed to be bound by this Court’s previous claim constructions in the *Apple I* case, so this ruling applies equally to LG.

LG, like Apple, will likely argue that Core Wireless is wrong because the “means for sending” and the “means for comparing” constructions in claim 17 include column 7, lines 17-20, which states that “[c]hannel selection is advantageously performed in the control unit 803.” LG will also likely argue that the comparison of the means for comparing must be done “for basis of said channel selection.” While true, none of this imposes performing channel selection in the mobile station into claim 17. Control unit 803 performs many functions and is

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<sup>49</sup> *Liebel-Flarsheim*, 358 F.3d at 910; *see also SunRace Roots Enter. Co. v. SRAM Corp.*, 336 F.3d 1298, 1302-03 (Fed. Cir. 2003) (the presumption that an independent claim does not have a limitation that is introduced for the first time in a dependent claim “is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim”); *Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001) (“Claim differentiation . . . is clearly applicable when there is a dispute over whether a limitation found in a dependent claim should be read into an independent claim, and that limitation is the only meaningful difference between the two claims.”).

<sup>50</sup> *Apple I*, Dkt. 108-1 at 14 (emphasis added).

<sup>51</sup> *Id.* at 15-16 (emphasis added).

<sup>52</sup> *See Apple I*, Dkt. 263 at 15.

identified as all or part of the structure for multiple means elements. The fact that the specification discloses that it may also perform channel selection does not make performing channel selection a limitation of claims 17 and 21. Further, the statement that channel selection is “advantageously” performed in the control unit 803 does not suggest that “channel selection” *must* be performed in control unit 803, or even in the mobile station. Finally, the fact that comparison happens “for basis of said channel selection” does not dictate where the channel selection occurs. The comparison can be done for “for basis of said channel selection” even if the network does the channel selection.

Because the step of or means for performing “channel selection” is not a limitation of claim 17, it should not be included in the construction of this term. The Court should make clear that claim 17 contains no requirement that channel selection be performed in the mobile station.

**C. ’143 Patent: Claim 17 – “for basis of said channel selection”  
(Term 6)**

*See* discussion for Term 5 above incorporated herein by reference.

**D. ’143 Patent: Claims 18-19 – “making said channel selection”  
(Term 7)**

Channel selection is performed in one of two ways described in the ’143 patent. Under the first approach, a mobile station makes a channel selection when it decides to send a capacity request for resources in form of a dedicated channel. The example in the specification explains, “If the size of the RLC packet is greater than the maximum allowed size on the RACH, the MAC layer *requests transfer resources in the form of a dedicated channel* from the RRC layer.”<sup>53</sup> A few lines later, that patent states that, if a decision is made to ask for a dedicated channel, the mobile station “takes care of the *capacity request* signaling” to the network.<sup>54</sup> Under the second approach, a mobile station makes a channel selection when it decides to send data on the

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<sup>53</sup> Ex. 7 at 6:26:29 (emphasis added).

<sup>54</sup> *Id.* at 6:37-39 (emphasis added).

common channel autonomously – i.e., by itself, without any involvement of the network. The example in the specification explains, “If the size of the RLC packet is smaller than the maximum allowed packet size, the MAC layer schedules the sending of the data on the RACH autonomously.”<sup>55</sup> Therefore, “making channel selection” should be defined as “deciding to send a request for transfer resources in the form of a dedicated channel or deciding to send data on the common channel autonomously.”

Core Wireless asks for this claim construction to counter a legally erroneous claim construction argument made by Apple in the *Apple I* trial (and apparently being readied by LG for this case). Apple argued that “making said channel selection” meant actually allocating a dedicated channel to the mobile station. The actual allocation of a dedicated channel occurs in the network, not in the mobile station, as is and has been the case for every cellular system ever created.<sup>56</sup> It is always the network that has the final say in allocating a new dedicated channel to a mobile station because only the network knows whether it has the capacity to support a new channel.<sup>57</sup> The patent clearly distinguishes between allocation of a dedicated channel, which is shown as box 680 of Fig. 6, and channel selection, which is shown as box 660 in that same figure. In the preferred embodiment, channel selection, as shown in box 660 and the portions of the specification discussed above in column 6, means deciding to send a request for a dedicated channel or deciding to send data on a common channel autonomously. By arguing that “channel selection” meant “channel allocation,” Apple urged the jury to adopt a construction that did not cover the preferred embodiment because the actual allocation of a dedicated channel does not occur in the mobile station (and in fact corresponds to no cellular network that ever existed). That construction cannot be right, and the Court should not allow LG to argue this erroneous construction at trial.

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<sup>55</sup> *Id.* at 6:33:36.

<sup>56</sup> *Id.* at 1:65-2:1; 3:10-14.

<sup>57</sup> *Id.*

## VI. U.S. PATENT NOS. 7,383,022 & 7,599,664<sup>58</sup>

### A. Background of Technology and Invention

The cell phone network sends signals and data to a cell phone. The cell phone measures the received data and signals to determine any degradation in link quality because of potential problems in the communication channel. These problems include loss of signal, the signal bouncing off buildings and other objects which creates confusing multiple signals, and interference from unrelated signals and noise, etc.<sup>59</sup> A cell phone collects a number of these link quality measurements together, filters them, and sends back to the network an indication of filtered link quality measurement data. Movement of the cell phone itself can also affect signal quality. Rapid and large changes in the signal quality can occur, for example, when the cell phone is moving rapidly.<sup>60</sup> If the cell phone is stationary, however, its signal quality can remain more consistent.<sup>61</sup>

The '022 and '664 patents disclose an innovative way of filtering the cell phone signal quality measurements, so that, for example, the measurement report representing measurements over a shorter period of time will be transmitted for a fast-moving cell phone, while the measurement report representing measurements over a longer period of time will be sent for a stationary cell phone.<sup>62</sup> This is done by means of a “forgetting factor,” which sets the finite length of the filter used in filtering of quality measurements. Using the forgetting factor to set the filter length essentially causes the cell phone to “forget” all but the most recent measurements when appropriate, but can be modified for each cell phone in a given area to remember and send measurements over a longer period of time when needed.<sup>63</sup>

One important term related to the filters disclosed and claimed in these patents is what is

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<sup>58</sup> Ex. 8 ['022 patent]; Ex. 9 ['664 patent].

<sup>59</sup> Ex. 8 at 4:23-32.

<sup>60</sup> *Id.* at 3:65-4:3.

<sup>61</sup> *Id.*

<sup>62</sup> *Id.* at 3:65-4:7, 6:47-59.

<sup>63</sup> *Id.* at 3:65-4:7, 6:47-59.

called a “weighting coefficient.” Each measurement taken by the mobile station is multiplied by a weighting coefficient.<sup>64</sup> Recent measurements are multiplied by large weighting coefficients; measurements taken in the past are multiplied by smaller weighting coefficients. This has the effect of increasing the importance of recent measurements over older measurements. At some point in the past, the weighting coefficients become so small that they are negligible, and the measurements taken at such times have essentially no effect on the measurement report sent from the mobile station. That is by design, because the more recent measurements of signal quality are the ones that are the most important. Setting the forgetting factor of the filter affects the measurement report by changing the weighting coefficients used. If the forgetting factor is set to be large, the weighting coefficients decrease in size quickly, and only the most recent measurements have any effect on the report sent by the mobile station. That might occur, for example, in a fast moving car. But if the forgetting factor is set to be small, the weighting coefficients decrease in size more slowly, and older measurements play a more important part in the report. That might occur, for example, when the cell phone is stationary and signal quality is changing slowly or not at all. The quicker the weighting coefficients decrease in size, the shorter the filter length.

**B. ’022/’664 Patents: Claim 1 – “set a finite length of a filter / setting a finite length of a filter” (Term 8)**

Core Wireless requests that the Court provide a construction of what it means to set a finite length of the filter – specifically, that the length of the filter is set when the weighting coefficients of the filter become negligible. This construction is fully supported by the intrinsic evidence, including the file history and the specifications of the patents.

LG asks that the Court not construe these terms. Core Wireless is asking for a construction to prevent LG from making an incorrect claim construction argument that Apple made at the *Apple I* trial. Apple incorrectly argued at trial that the filter used in Apple’s products

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<sup>64</sup> *Id.* at 2:11-21, Fig. 1 and Fig. 2.

and the filter described in the preferred embodiment, have infinite lengths. Apple was able to make this argument only because the Court had not construed the term “setting a finite length of a filter.” This same issue is now the subject of post-trial motions in the *Apple I* case.<sup>65</sup> Because LG is arguing that no construction of this term is necessary here, Core Wireless fully expects LG to make the same argument in this case.

The proper construction of setting the filter length is found in the applicants’ file history:

The filter length is theoretically infinite. However, from some point, *the weighting coefficients can be considered as negligible*. Therefore the filter length can be considered as finite. This finite length should also be understood as the number of input data which is required to stabilize the filter output.<sup>66</sup>

As stated in the file history, the length of the filter described in the patent is not infinite. *It is finite*. The length of a filter is set when the weighting coefficients can be considered as negligible. At that point, the filter described in the patent and in the claims has a finite length.

The specification further shows that the filter length of the filter is finite and controlled by setting the forgetting factor (“In general, a larger value of ‘a’ causes  $Y_n$  to be dominated by the last few measurement data at higher speeds (a reduced filter length), whereas a smaller value of ‘a’ causes  $Y_n$  instead to reflect a larger number of past measurement data at lower speeds (an increased filter length)”).<sup>67</sup>

Finally, during his recent deposition, an inventor of the ’022/’664 patents, Mr. Sebire, explained that the running average filter in the patent and standards is finite and that no filters used in any real products can be infinite:

**Q.** So then in reality, there is no such thing as an infinite filter? Is that your testimony?

**A.** There is no infinite filter in any product today, no.

...

**Q.** So then why do you call a filter a finite filter if there is no such thing as an infinite filter in reality?

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<sup>65</sup> See *Apple I*, Dkt. 443, 449, 458, 460.

<sup>66</sup> Ex. 10 [March 4, 2004 Response to Office Action] at 9 (emphasis added).

<sup>67</sup> Ex. 8 at 6:54-59; see also *id.* at 2:11-21; 3:67-4:16.



- A. There is a theoretical description of an infinite filter, but the implementation the patent and the product that we are claiming and we have claimed use a finite filter.<sup>68</sup>

Although LG does not want to pin itself down to a construction of this term, LG appears to be prepared to argue that the filters disclosed by the '022/'664 patents (as well as those used in the accused products) are infinite in length. That cannot be the case, because this would improperly exclude the filter described in the preferred embodiment of the patent from the scope of the claims.<sup>69</sup> LG can only make this specious argument by leaving these terms unconstrued – thus, its reluctance to propose its own construction. The inventors made clear that adding the language “finite” to the claim language had no impact on the scope of the claim, or in other words, still included within their scope the filter disclosed in the specification.

Each of the independent claims 1, 6-10, 17, and 19-20 are amended herein to remove the terms “filtering operation” and to recite that the filter length is a finite filter length.

...  
*None of the above changes are seen to change the scope of the claims* as compared to previously used language.<sup>70</sup>

These terms are almost certain to be the locus of hotly-contested issues at trial. For that reason, LG’s invitation to avoid construing these terms should be rejected. It is important for the Court to provide guidance now to avoid arguments at trial based on clearly erroneous claim construction arguments. For the foregoing reasons, this term should be construed as “the length of a filter is set when the weighting coefficients can be considered as negligible.”

**C. '022/'664 Patents: '022 Claim 7, '664 Claim 14 – “filter having a finite filter length” (Term 9)**

*See* discussion for Term 8 above, incorporated herein by reference.

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<sup>68</sup> Ex. 11 [June 26, 2015 Sebire Draft Dep. Tr.] at 183:17–185:11. While Mr. Sebire’s deposition transcript is marked “Confidential/Attorneys’ Eyes Only,” the cited portions of the transcript do not contain any confidential material.

<sup>69</sup> “A construction that would exclude the preferred embodiment ‘is rarely, if ever, correct and would require highly persuasive evidentiary support.’” *Hill-Rom Servs. v. Stryker Corp.*, 755 F.3d 1367, 1379 (Fed. Cir. 2014) (*quoting Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996)). There is no such highly persuasive evidentiary support here.

<sup>70</sup> *See* Ex. 12 [July 8, 2004 reply to Office Action of April 8, 2004] at 9 (emphasis added).

## VII. U.S. PATENT NO. 7,804,850

### A. Background of Technology and Invention

The '850 patent introduces a novel control parameter, called a virtual TTI (virtual transmission time interval), that defines the minimum time interval between subsequent new transmissions.<sup>71</sup> In other words, the virtual TTI limits the times when the mobile station can transmit certain signals. This invention helps alleviate signal congestion caused by interference among mobile stations and can conserve control overhead and save battery power.<sup>72</sup>

### B. '850 Patent: Claims 1, 11, 21 – “integer” (Term 10)

LG argues that the term “integer” should be given a dictionary definition supplied by LG – i.e., it should include positive and negative whole numbers and zero – and then argues that the claim is indefinite because the dictionary definition supplied by LG makes no sense in light of the specification. LG inverts the rules of claim construction to arrive at this conclusion. The proper way to interpret a claim is to read it in light of the specification, rather than to ignore the specification entirely and rely solely on extrinsic evidence from a dictionary. “[T]he specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.”<sup>73</sup> LG’s admission that its construction makes no sense in light of the specification is strong evidence that it is proposing the wrong construction. It is *not* evidence that the term is indefinite.

Read in light of the specification, the term “integer” means a “whole number greater than 1,” and does not include negative integers, zero, or 1, even if LG can find a dictionary definition that includes them. The integer in the specification is represented by “n.”<sup>74</sup> The letter “n” is

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<sup>71</sup> Ex. 13 [’850 patent] at 3:34-41.

<sup>72</sup> *Id.* at 11:55-63.

<sup>73</sup> *Phillips*, 415 F.3d at 1315 (citing *Vitronics*); *also see id.* at 1316 (“The specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor. In that instance as well, the inventor has dictated the correct claim scope, and the inventor’s intention, as expressed in the specification, is regarded as dispositive.”).

<sup>74</sup> *See* Ex. 13 at 3:53-55 (“The MAC-e PDU is sent to the physical layer every n\*TTI, instead of once every transmission time interval (TTI).”), *also see id.* at 7:2-4.

commonly used in mathematics and related engineering fields to refer to natural numbers or whole numbers.<sup>75</sup> Here, the “integer multiple of transmission time interval” (or “ $n \cdot TTI$ ”) describes the interval of time between subsequent new transmissions of packets (called “MAC-e PDUs” in the patent). An interval of time between transmissions cannot be negative (which would nonsensically put the subsequent transmission in the past); nor can it be zero (which would nonsensically make the transmissions occur simultaneously and instantaneously).<sup>76</sup> This can be compared to a train station where a train departs every hour on the hour. One would say that the time interval between subsequent trains is one hour. It would be nonsensical to say the time interval between subsequent trains is minus one hour, or zero hours.

The specification also shows that an “integer” as used in the claims does not include the number “1.” According to the patent, “The MAC-e PDU is sent to the physical layer every  $n \cdot TTI$ , *instead of once every transmission time interval (TTI).*”<sup>77</sup> If the integer were to be 1, the MAC-e PDU would be sent to the physical layer once every TTI, which is expressly excluded by the specification.”<sup>78</sup> In addition, from Fig. 3 to Fig.7, all “virtual TTI” (i.e., “integer multiple of TTI”) are all positive and greater than one TTI.<sup>79</sup>

**C. '850 Patent: Claims 1, 11, 21 – “checking to determine” / “check to determine” (Term 11)**

LG argues that the “checking” step is indefinite because the “checking” recited by the claims is purportedly not the same as the “checking” disclosed in the specification. As evidence, LG points to a part of the specification that deals with are called “autonomous” transmissions (i.e., transmissions that occur without getting specific authorization from the network). But the specification of the '850 patent fully discloses the “checking” step of the claim in other parts of

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<sup>75</sup> Chandler Decl., ¶¶ 21, 33, and 35-40.

<sup>76</sup> *Id.* at ¶¶ 21-30.

<sup>77</sup> Ex. 13 at 3:53-55 (emphasis added).

<sup>78</sup> Chandler Decl., ¶¶ 31-33; *Astrazeneca AB v. Mut. Pharm. Co.*, 384 F.3d 1333, 1340 (Fed. Cir. 2004) (“[E]xpressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.”).

<sup>79</sup> Chandler Decl., ¶ 34.

the specification that do not involve so-called “autonomous” transmissions. LG simply ignores those other parts of the specification. LG cannot prove indefiniteness by pointing to irrelevant parts of the specification while ignoring the relevant parts.

The specification gives clear examples of how to check to determine whether the medium access control entity is transmitting data packets from the apparatus in a current air interface transmission interval.<sup>80</sup> (“Here, the MAC-d would check the RLC buffer of the UE once per virtual TTI . . . In addition, the MAC is permitted to check the RLC buffer more frequently in certain special cases . . . then the MAC will check the RLC buffer at the next predetermined subsequent time interval after the virtual TTI.”).<sup>81</sup> A skilled person in the art would understand from these passages that the specification fully informs how to implement the checking step.<sup>82</sup> The claims themselves provide further detail on how the checking step is done. For example, dependent claim 3 recites, “wherein checking to determine whether the medium access control entity is transmitting data packets in a current air interface transmission time interval comprises checking to determine if the medium access control entity emptied its radio link control buffer.”<sup>83</sup>

In the Joint Claim Construction Statement, LG is simply pointing to the wrong part of the specification when it identifies Fig. 2 and col. 3:42-49. Those citations relate to autonomous transmission. It is the other portions of the specification identified above that support this claim term.<sup>84</sup> A skilled person in the art would understand that the corresponding claims of autonomous transmissions are claims 10, 20, and 30, not claims 1 and 21.<sup>85</sup> Accordingly, Core Wireless requests that the Court adopt the plain and ordinary meaning of this term understood by the skilled person in the art in light of the specification.

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<sup>80</sup> See Ex. 13 at 10:59-11:4, 11:15-30

<sup>81</sup> Chandler Decl., ¶¶ 41-47.

<sup>82</sup> *Id.* at ¶¶ 46-47.

<sup>83</sup> *Id.* at Chandler Decl. ¶ 48; *see also* claims 13 and 33.

<sup>84</sup> Chandler Decl., ¶ 49.

<sup>85</sup> *Id.* at ¶ 50.

## **VIII. U.S. PATENT NOS. 8,165,049 & 8,792,398<sup>86</sup>**

### **A. Background of Technology and Invention**

In cellular telecommunication systems, users have been able to send to one another short text messages via a service, known as short message service or “SMS.” In SMS a sender can send a message, which is sent to a network relay, which then transfers it to the recipient’s mobile phone over the cellular radio interface.

At the time of the invention, a service similar to SMS was being developed for multimedia messages such as photos, audio clips, etc. This service was known as multimedia message service or “MMS.” Because MMS was based on SMS, which by nature transferred messages to recipients without any assent or approval, there arose a need to allow recipients to decide whether they wished to receive a message before the network began to transfer it. This was particularly true in the MMS context for at least two reasons: (1) the potential of recipients being subjected to offensive multimedia (e.g., unwanted advertising or messages with salacious content) and (2) the potential waste of processing power, battery life, and radio resources caused by receiving unwanted large multimedia files. The inventor of the ’049 and ’398 patents realized this need and developed a way for the network to notify a recipient with an indication of the nature of the content of the sender’s message in advance of receiving the message. With that information, the recipient could then allow or prevent such a message from being transferred to him or her. The invention also allowed this to be done automatically by pre-setting the recipient’s preferences based on classifications of the types of message content so that the recipient did not have to make the decision in real time whenever a message was sent. For example, a recipient might set up his phone so that it would automatically refuse to accept advertisements.

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<sup>86</sup> Ex. 14 [’049 patent]; Ex. 15 [’398 patent].

**B. '049/'398 Patents: '049: Claims 11, 14, 28 – “automatically”; '049: Claim 14, '398: Claims 11-13 – “preventing the receiving of”; '049: Claims 28, 30, 31 – “cause receiving” (Terms 12-14)**

The parties agree that the proper construction for the term, “automatically” must include the phrase “based on settings input by the user in advance of receiving the filtering parameter and electronic information.” Indeed, this definition is well supported by the intrinsic evidence and accurately captures the “automatic” aspect of the “allowing or preventing” steps recited in the claim.<sup>87</sup>

The only difference between the constructions proposed by the parties is an improper limitation added by LG — “occurring through action taken by the apparatus.” This surplus phrase should be rejected, because it improperly narrows the claim by requiring that affirmative action be taken by the apparatus to “allow or prevent” receiving a message. But the claim is broader than that because the processor may be configured to allow or prevent the receiving of a message through *inaction* too. Suppose the phone by default does not allow any messages to be received unless it acts affirmatively to allow them. In that case, the phone does not prevent receiving the messages “through action taken by the apparatus” – it prevents receiving them by inaction. There is nothing in the claim language that excludes the case where a phone rejects (or accepts) a message by inaction, and LG is simply adding a limitation where none exists.

The same is true for the claim phrases, “preventing the receiving of” and “cause receiving,” which have plain and ordinary meanings. To the extent that “cause receiving” requires clarification, an appropriate construction consistent with the intrinsic record is “allow receiving.”<sup>88</sup> However, for all three claim phrases, nothing in the claims or the specifications requires that affirmative action be taken to allow or prevent, and thus, LG’s proposal should be rejected.

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<sup>87</sup> See, e.g., Ex. 14 at 2:65-3:43; 4:11-34; 5:35-51; 15:2-11; 16:6-20.

<sup>88</sup> *Id.* at 2:65-3:43; 4:11-34; 5:35-51; 15:2-11.

**C. '049/'398 Patents: '049: Claims 11-14, 17 – “cellular telecommunication connection” (Term 15)**

This claim term needs no construction. The term holds ordinary meaning that is understandable and well-known to a lay juror who has likely had experience with cell phones. Thus, the Court does not need to construe this phrase. To the extent that a juror does not understand any of the three words, there is nothing in LG's construction that will help him or her. LG does not define or explain any of the terms. Moreover, LG has changed the meanings of the words of the claims, which will cause jury confusion, not prevent it. For example, LG replaces “cellular” with “over a wireless network.” Those two terms are not synonymous; a wireless network can include networks like WiFi and Bluetooth that are not cellular. Moreover, LG's construction characterizes the connection as only used for transmission and excludes reception. This proposed construction appears to be designed to fit some non-infringement theory of LG rather than to be useful to the jury.

To the extent that the Court decides that this term requires clarification, Core Wireless proposes that the explanation found in the patent at 5:3-10 of the '049 patent be the construction. Core Wireless's construction – “a radio interface for communication of data over a cellular network” – is a fair summary of what is contained in that part of the patent specification and would serve as a neutral and fair construction if the Court believes one is necessary.

**D. '049/'398 Patents: '049: Claims 11-12, 28; '398: Claim 10 – “arranged/configured not to receive” / “arranged to receive” (Terms 16 & 17)**

These claim phrases need no construction. The phrases hold ordinary meaning that is understandable to a lay jury. LG does nothing to assist the jury but appears to have simply rearranged the syntax of the claims (e.g., the claim phrase “the apparatus arranged not to receive electronic information” becomes in LG's formulation “the apparatus arranged such that the electronic information will not be received”). Core Wireless has no idea how these inconsequential modifications can be expected to assist the jury in any way, but the best course in such a situation is to let the claims speak for themselves. LG's proposal should be rejected.

**E. '049/'398 Patents: '049: Claims 11, 14, 28; '398: Claim 10 – “allow or prevent” terms (Term 18)**

The four claim phrases at issue here are similar and center on the idea of allowing or preventing the reception of electronic information or content information of the multimedia messages on the basis of the filtering parameter, which is sent before the message and contains information about the type of message to follow. The language of the claim is sufficiently clear that there is no need for a construction from the Court. There is nothing highly technical in any of the words in the phrases, and the phrases should be readily understandable to a lay jury. To the extent anything in the phrases might need some elaboration, it is the idea that the phone must be set in advance of receiving the filtering parameter to allow or prevent the receiving of a message. Core Wireless's proposal (to the extent the Court thinks this concept is not completely clear in the original language) is focused on clarifying this issue by adding the phrase “based on settings input by the user in advance of receiving the filtering parameter and electronic information/multimedia message.” Otherwise, Core Wireless's proposal tracks the original language closely.

LG adds essentially the same phrase to its proposed constructions (only leaving out the phrase “and electronic information/multimedia message” from Core Wireless's proposal), and therefore the parties do not have a dispute on including this language if the Court believes it is appropriate. But the rest of LG's proposed construction is merely unnecessary verbiage that is not found in the claim language and does nothing to clarify the meaning of the phrases. Core Wireless particularly notes LG's proposals (for claim 11 and 28 of the '049 patent and claim 10 of the '398 patent) that include the phrase “the processor is further configured such that , , , .” But those claims already recite, “the processor is configured to automatically allow or prevent the receiving,”<sup>89</sup> which means that, using LG's proposed construction, claim 11 would read “the processor is configured to automatically the processor is configure such that . . . ,” which is

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<sup>89</sup> *Id.* at 17:14-16; 20:5-8; Ex. 15 at 16:62-64.



ungrammatical and makes no sense. If the Court believes that there is anything unclear in the claim language as written, it should adopt Core Wireless’s proposal, which makes a single clarification to the language that might be helpful to the jury (and is essentially undisputed by the parties) but otherwise does not disturb the claim language.

**F. ’049/’398 Patents: ’049: Claim 12; ’398: Claim 10 – “user interface” terms (Term 19)**

This claim phrase needs no construction. The phrase consists of words with ordinary meaning that are understandable and well-known to a jury which has likely had experience with electronic devices and appliances with user interfaces. To the extent that LG has identified anything that could usefully be clarified, it is the phrase “a user interface for marking in advance . . . .” Core Wireless’s proposal states that this phrase means “a user interface that can be set in advance of receiving the filtering parameter,” and LG makes the same proposal with some slight grammatical differences. Core Wireless is not opposed to the Court adopting this part of LG’s and Core Wireless’s proposals if it appears helpful.

But LG goes on to add the limitation “whereby the user stores an indication” of whether a message should be allowed to be received. There is nothing in the claim that suggests that the user must “store an indication . . . .” Nor does the portion of the specification cited by LG as intrinsic support contain this phrase. The Court should not allow LG to add unsupported additional limitations to the claim language. To the extent the Court believes any construction is necessary, it should adopt the proposal of Core Wireless.

**G. ’049/’398 Patents: ’049 Claim 13 – “to receive a filtering parameter” (Term 20)**

This claim phrase needs no construction and is adequately defined in the intrinsic evidence. For example, the ’049 patent specification describes “a specific parameter intended for filtering” that a terminal receives, and on the basis of which, the terminal either allows or prevents the receiving of electronic information.<sup>90</sup> To the best of Core Wireless’s understanding,

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<sup>90</sup> Ex. 14 at 3:1-10.

LG's basis for alleging indefiniteness is the use of the article "a" in front of "filtering parameter" instead of "the," on the ground that the filtering parameter term was introduced in independent claim 11. Any reader of claims 11 and 13 would understand immediately that the "filtering parameter" of claim 13 refers to the same "filtering parameter" recited in claim 11, and this trivial grammatical point raised by LG falls far short of making claim 13 indefinite.<sup>91</sup>

**H. '049/'398 Patents: '049: Claims 13, 30, 31; '398: Claim 13 – "connectionless push method" (Term 21)**

This claim term requires no construction, but to the extent that the Court wishes to clarify its meaning, Core Wireless's construction reflects the inventor's own definition. The specification describes a connectionless push method as one where "no connection link needs to be established, but data transmission can be effected immediately."<sup>92</sup> In contrast, LG's proposal adds additional limitations not found in the intrinsic record, and thus should be rejected.

**I. '049/'398 Patents: '049: Claim 17 – "a cellular telecommunication connection" (Term 22)**

Core Wireless understands that LG contends that this dependent claim phrase is indefinite because it should have recited the word "the" in relation to independent claim 14 instead of "a." However, anyone who reads claims 14 and 17 would understand that claims 14 and 17 refer to the same cellular telecommunication connection.<sup>93</sup> Moreover, nowhere in the file history did the examiner raise any rejections or corrections regarding this, which further suggests that this term has an ascertainable meaning. This claim phrase is not indefinite.

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<sup>91</sup> See, e.g., *Datatresury Corp. v. Ingenico S.A.*, No. 5:02-cv-95, 2004 U.S. Dist. LEXIS 31457, \*32 (E.D. Tex., Nov. 2, 2004) ("The appearance of the word 'the' before [the disputed term] does not render the claim invalid for indefiniteness in view of the clear meaning from the specifications"); see also *Stragent LLC v. Intel Corp.*, No. 6:11cv421 LED-JDL, 2013 U.S. Dist. LEXIS 128979, \*9-12 (E.D. Tex. Aug. 8, 2013).

<sup>92</sup> Ex. 14 at 4:35-46.

<sup>93</sup> See, e.g., *Datatresury*, U.S. Dist. LEXIS 31457, at \*32 ("The appearance of the word 'the' before [the disputed term] does not render the claim invalid for indefiniteness in view of the clear meaning from the specifications").

**J. '049/'398 Patents: '049: Claims 11-15, 28; '398: Claims 10-11, 13 – “filtering parameter” (Term 23)**

This claim phrase needs no construction, and both words in the phrase have ordinary meanings understandable to a jury, particularly in light of the patent specification. To the extent that the Court decides that this phrase requires clarification, the proposals of the parties are identical, except Core Wireless proposes using the word “an indication” transmitted to the mobile terminal, whereas LG uses the word “information.” The term “electronic information” is used later in both proposals and refers to something different from what the parties refer to as an either an “indication” or “information.” Core Wireless proposes using “indication” rather than “information” to avoid confusion with the later use of the term “electronic information.”

**K. '049/'398 Patents: '398: Claim 10 – “the receiving of electronic information” (Term 24)**

This claim phrase needs no construction, and is not indefinite. There is ample support in the specification describing the idea of allowing or preventing the reception (“receiving”) of electronic information.<sup>94</sup> LG may be raising its argument based on the use of the article “the.” It is clear to anyone reading claim 10 that the article “the” is used for grammatical reasons, and there is no confusion as to what this term refers to.

**IX. CONCLUSION**

For the reasons set out above, Core Wireless asks the Court to adopt its proposed claim constructions as set out in Appendix A hereto.

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<sup>94</sup> See, e.g., Ex. 14 at 3:1-52; 5:35-51.

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**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing document was filed electronically in compliance with Local Rule CV-5(a). Therefore, this document was served on all counsel who are deemed to have consented to electronic service. Local Rule CV-5(a)(3)(A). Pursuant to Fed.R.Civ.P. 5(d) and Local Rule CV-5(e), all other counsel of record not deemed to have consented to electronic service were served with a true and correct copy of this document via email, facsimile and/or U.S. First Class Mail.

Dated: July 27, 2015

*/s/ Henry C. Bunsow*

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