

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

EVOLVED WIRELESS, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 15-cv-542-SLR-SRF
	)	
APPLE INC.,	)	
	)	
Defendant.	)	
EVOLVED WIRELESS, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 15-cv-543-SLR-SRF
	)	
HTC CORPORATION and	)	
HTC AMERICA, INC.,	)	
	)	
Defendants.	)	
EVOLVED WIRELESS, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	
	)	C.A. No. 15-cv-544-SLR-SRF
LENOVO GROUP LTD.,	)	
LENOVO (UNITED STATES) INC., and	)	
MOTOROLA MOBILITY,	)	
	)	
Defendants.	)	
EVOLVED WIRELESS, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 15-cv-545-SLR-SRF
	)	
SAMSUNG ELECTRONICS CO., LTD.	)	
and SAMSUNG ELECTRONICS	)	
AMERICA, INC.,	)	
	)	
Defendants.	)	

EVOLVED WIRELESS, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 15-cv-546-SLR-SRF
	)	
ZTE CORPORATION, ZTE (USA) INC.,	)	
and ZTE SOLUTIONS INC.,	)	
	)	
Defendants.	)	
	)	

EVOLVED WIRELESS'S OPENING CLAIM CONSTRUCTION BRIEF

Dated: June 16, 2016

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I. INTRODUCTION

Plaintiff Evolved Wireless, LLC (“Evolved Wireless”) proposes constructions for three terms in United States Patent No. 7,809,373 (the “’373 Patent”), each of which are supported by the plain claim language, specification, and file history. This litigation involves five patents essential to the standard for Long Term Evolution (“LTE” or “4G”) wireless communications between a mobile device and a base station, *e.g.* a cell phone and a cell tower. The ’373 Patent is directed towards improved devices and methods for performing a *handover* of a mobile device’s active connection with one base station to another. Evolved Wireless’s proposed constructions are consistent with the plain and ordinary meanings of the disputed terms as they would be understood by one of ordinary skill in the art in light of the claim language, the patent specification, and the prosecution history. In contrast, Defendants’ proposed constructions for these terms are made in a vacuum, divorced from the claim language, specification, and file history.

The ’373 Patent is the only patent-in-suit for which the parties have offered competing constructions for *any* claim terms. Defendants assert that 20 terms across the five asserted patents are indefinite, and Defendants have not proposed constructions for *any* of these terms. Given that Defendants bear the burden to prove indefiniteness by clear and convincing evidence, Evolved Wireless reserves its discussion of these allegedly indefinite terms for its answering brief. This opening brief addresses only the constructions for the three terms of the ’373 Patent as proposed by Evolved Wireless. For the reasons stated below, Evolved Wireless respectfully requests that the Court adopt its proposed constructions.

II. NATURE AND STAGE OF THE PROCEEDINGS

On June 25, 2015, Evolved Wireless filed these patent infringement lawsuits against Defendants alleging infringement of a standard-essential patent portfolio relating to LTE or 4G,

wireless communication systems.¹ D.I. 1.² Pursuant to the Court’s Scheduling Order, *see* D.I. 16, Evolved Wireless proposed constructions for three terms relating to the ’373 Patent. *See* Evolved Wireless’s Identification of Claim Terms and Proposed Constructions, attached as Ex. 1.³ The Defendants did not initially propose constructions for any terms in the five asserted patents and instead asserted only that 21 terms were indefinite. *See* Defendants’ Preliminary Identification of Terms Needing Construction and Proposed Constructions, attached as Ex. 2. The parties conferred, and the Defendants offered counter-constructions for the three terms proposed by Evolved Wireless, but continue to allege 20 terms over the five asserted patents are indefinite. *See* Joint Claim Construction Statement, D.I. 54.

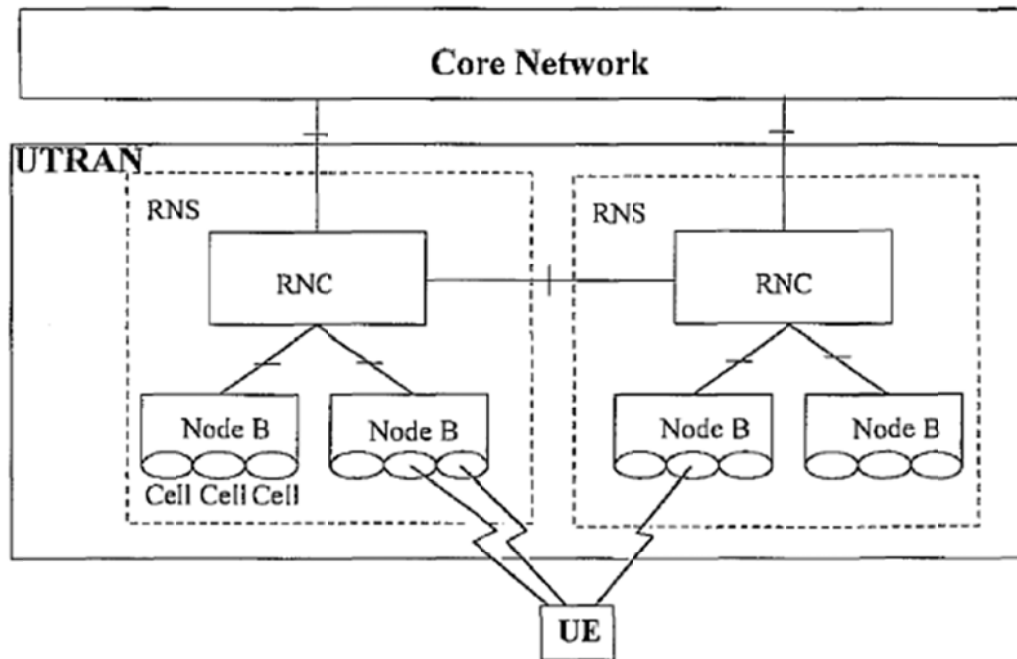
III. STATEMENT OF FACTS

Mobile devices allow users to transmit and receive information, voice or data, wirelessly over a wide geographical area. Prior art 3G mobile device networks are made up of, among other things, Radio Network Controllers (“RNCs”), base stations (“Node Bs”) and mobile devices, referred to as User Equipment (“UE”). A base station is a fixed point of communication, e.g., a cell tower, for mobile devices to connect with on a network. *See* ’373 Patent at Fig. 1, JA-1152. The base station and UE have an active connection for transferring information, such as voice or data. An RNC is hardware and software that controls the UE’s active connection, in other words, which UE “talks” to which base station. This prior art system is depicted below in the ’373 Patent.

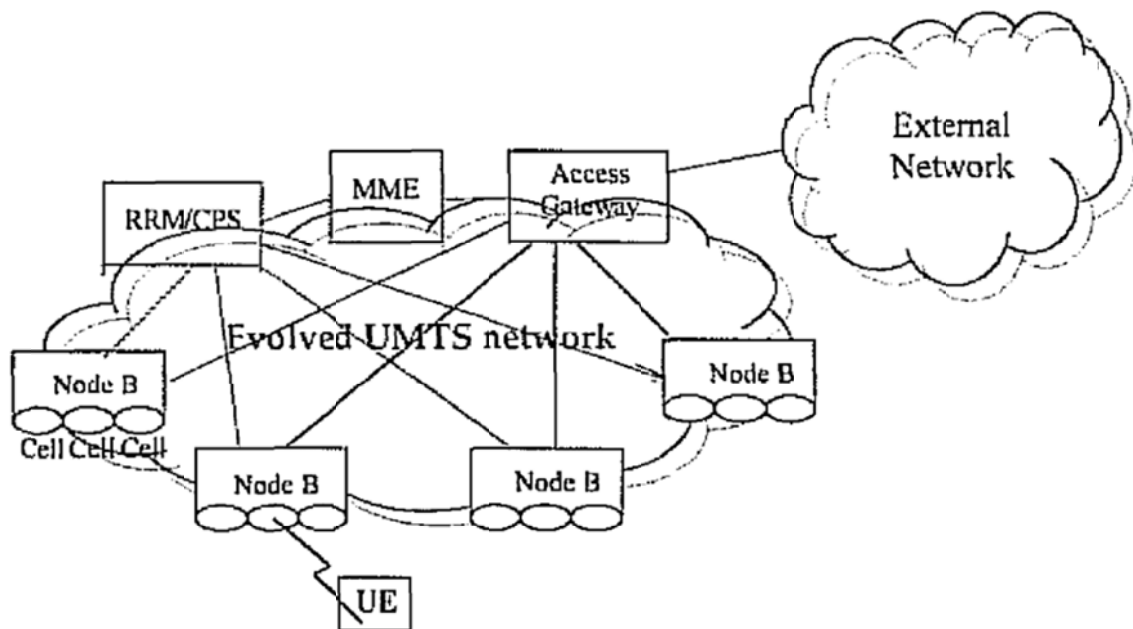
¹ The patents are U.S. Patent Nos. 7,746,916, 7,768,965, 7,809,373, 7,881,236, and 8,218,481.

² Docket entry citations refer to the docket for C.A. 15–cv-542–SLR–SLR.

³ Exhibits are attached to the concurrently submitted declaration of Ryan M. Schultz in Support of Evolved Wireless’s Opening Claim Construction Brief.



Id. When a mobile device (UE in the figure above) with an ongoing call or data session moves away from the coverage area of one base station (e.g., the “source base station”) and towards the coverage area of the second base station (e.g., the “target base station”), it is necessary to *handover* the mobile device’s radio connection to avoid an interruption or total loss of service. Handovers are fundamental to a wireless system because without a handover, the mobile device would lack its very purpose—mobility. The inventions claimed in the ’373 Patent are directed to an improved handover of a mobile device from one base station to another. *See id.* at 5:58-63, JA-1161. The inventions of the ’373 Patent achieve this improved handover process in two key respects. First, in contrast to prior art systems described above, the inventions reduce hardware complexity by eliminating the need for RNCs and put the relevant functionality of the RNC in the “evolved” or “enhanced” base stations (“eNB” for short). *Id.* at 3:37-53, JA-1160.



Id. at Fig. 6, JA-1156. These evolved base stations are able to “talk” directly to each other without the need for a separate radio network controller. Therefore, unlike the prior art, which relied heavily on RNCs to determine handover and mobility functions, the inventions claimed in the ’373 Patent utilize the source base station to make the handover decision. *See id.* at 6:19-23, JA-1161. This reduces delays and service disruption during the handover process, as well as network complexity and costs to deploy telecommunications networks, like LTE networks. *Id.* at 5:11-17; 5:58-63; Fig. 6, JA-1156, -1161.

Another advantage over prior art systems is the use of the claimed “dedicated preamble.” A “preamble” is an identifier used, for example, to synchronize and identify a mobile device to a base station. *Id.* at 2:54-58; 6:45-49, JA-1159, -1161. More specifically, a mobile device employs what is referred to as a Random Access Channel (“RACH”) transmission to connect to a base station, including during a handover. *See id.* at 2:54-61; 4:66-5: 7, JA-1159, -1160. The RACH transmission includes a preamble part and a message part (e.g., data). *Id.* at 2:54-61, JA-

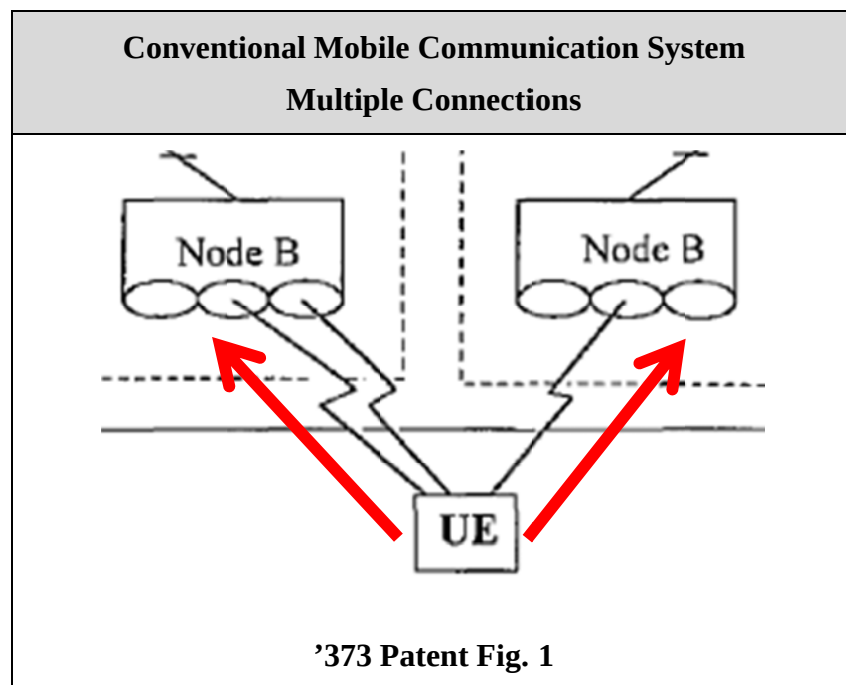
1159. The base station uses the received preamble to determine the specific mobile device that transmitted the received data. *Id.* at 6:45-49, JA-1161.

As explained in the specification of the '373 Patent, in prior art systems, the mobile device randomly selects the preamble from a finite number of available preambles. *Id.* at 6:45-46. Because the number of preambles is finite, it is possible for more than one mobile device to select the same preamble for transmission. When this occurs, the RACH message is susceptible to what is referred to as a "collision"—two mobile devices may transmit the same preamble to the base station at the same time. Thus, the base station cannot determine which device sent the data and the handover is disrupted. *Id.* at 6:38-49 ("However, in some cases, one or more UEs could select a same signature because there are a limited number of signatures. Therefore, if two or more UEs transmit the preamble of the same signature to the eNB at the same time, the eNB cannot possibly determine which UE transmitted such preamble."). Preamble collision causes delays during the handover process and can ultimately lead to interruption or total loss of service. *Id.* at 5:51-57 ("[B]ecause of a possibility for a RACH collision (i.e. the same signature is being selected from multiple terminals that use of the RACH), the processing time for the handover process may be delayed.").

The inventions of the '373 Patent employ "dedicated preambles" in the handover process. The "dedicated preamble" is assigned by the target base station for use by a specific mobile device during the handover process. As described in the specification, the use of the dedicated preamble provides that "when the UE transmits the preamble to the target eNB for establishing a radio connection to the target cell, the target eNB may determine an ID of the UE *using the preamble.*" *Id.* at 6:58-60 (emphasis added).

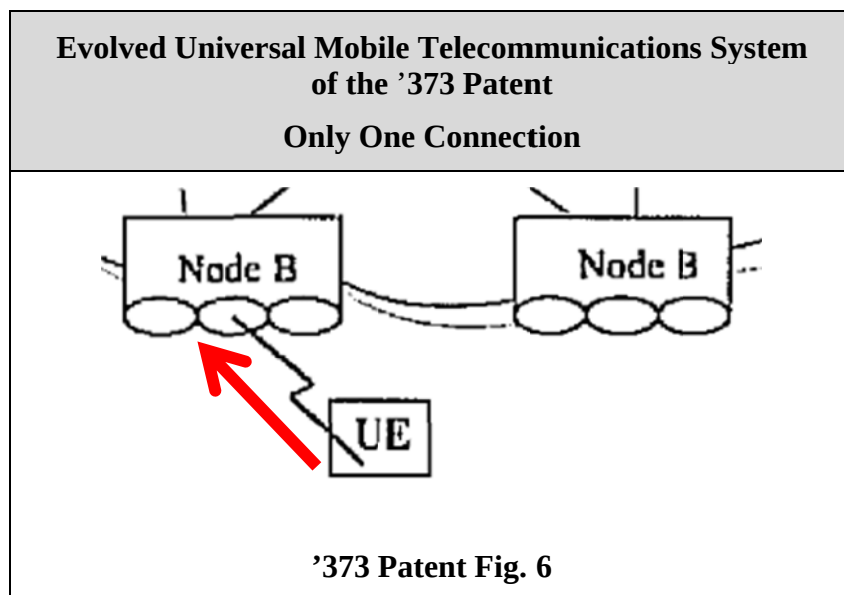
Because the use of randomly generated, non-dedicated preambles are susceptible to

collision, prior art systems employ what is referred to as a make-before-break handover—also known as a soft handover—to avoid loss of service when transferring a mobile device from one base station to another base station. With a make-before-break handover, a second connection with a target base station is formed concurrently with the first connection to the source base station and only then is the first connection released. *See id.* at Fig. 1, JA-1152; '373 Patent File Wrapper at JA-1325(April 1, 2009 Response to Office Action and Amendment at 10) (discussing U.S. Patent Application Publication No. 2006/0039327, filed Aug. 23, 2004, hereinafter “Samuel” and attached as Ex. 3) (“A second wireless link concurrent to the first wireless link is formed in response to the handover request, whereupon the first wireless link is dropped.”).



In these prior art systems, the first base station maintains a connection with the UE in order to avoid a loss of service in the event of an unsuccessful connection with the second base station. The prior art could not resolve the problems associated with using the less complex break-before-make handover (i.e., hard handover)—a handover where the connection with the source base station is dropped *before* a connection is made with the target base station. *See* '373 Patent

at Fig. 6, JA-1156; Samuel at [0006]-[0007] (describing that hard handovers have “a number of disadvantages” where “the service will be impeded because of the discontinuity that arises when the service is stopped and then re-established. The discontinuity may become a time disconnect that could result in the call being interrupted or dropped.”).



As discussed in the art cited during prosecution, soft “make-before-break” handovers do not suffer from the service and delay problems associated with hard “break-before-make” handovers because the mobile device establishes a connection with the target base station before dropping the connection with the source base station. See U.S. Patent Application Publication No. 2002/0048266 at [0009]-[0010], hereinafter “Choi” and attached as Ex. 4 (“Because a hard handoff is completed by a temporary disconnection of the traffic channel, information in the received signal may be lost. The soft handoff (as used in a CDMA environment) alleviates the problem of the temporary disconnection.”); *id.* at [0014] (“In the soft handoff environment, the call between a mobile station and an end user is not interrupted by the eventual handoff . . .”). The prior art in the intrinsic record further describes that because of these problems, using a hard handover has “a number of disadvantages” and should be avoided “where voice calls may be

handed over frequently,” such as in “4th Generation wireless systems.” Samuel at [0007]. This is because of the inherent delay caused by dropping the connection with the source base station before establishing a connection with the target. *Id.*

In the inventions of the '373 Patent, the use of a dedicated preamble allows the mobile device to successfully connect to a target base station without delay and without having to maintain a simultaneous connection to a source base station (i.e., a make-before-break connection). The '373 Patent claims a method and apparatus wherein the mobile device uses a pre-determined *dedicated* RACH preamble during the handover. Importantly, because the risk of collision is eliminated, a make-before-break connection is not necessary. As set forth by the specification, “[i]n contrast [to the prior art], the features of the present invention provide that the terminal receives necessary information from a source cell in advance (i.e., before the terminal transmits a RACH setup request to a network) in order to utilize the RACH in a later step. As a result, the terminal can connect with the target cell with minimal delays.” '373 Patent at 5:58-63, JA-1161; *see also id.* at 6:49-60; Fig. 9, JA-1158 (“To avoid [collision] from happening, the UE should not transmit a preamble that is selected from the signatures used in the RACH during the handover; but rather, the UE may transmit a preamble of a previously defined signature through the handover confirm message from the target eNB.”). In this regard, the '373 Patent “allows a terminal to access a target base station (i.e., target eNB) in a faster and more efficient manner.” *Id.* at 1:21-24, JA-1159.

Using the '373 patented technology, the risk of interruption or loss of service during a handover is significantly reduced, and the “hard handover,” where the radio connection with the source base station is dropped before a new connection is made with the target base station, becomes a better and more viable option in telecommunications systems than previously

considered by the art.

IV. ARGUMENT

A. Principles of Claim Construction

Construing patent claims is a question of law for the Court. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996). Claim construction begins with the “ordinary and customary meaning” of the terms, which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005) (en banc). “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” and the prosecution history. *Id.*

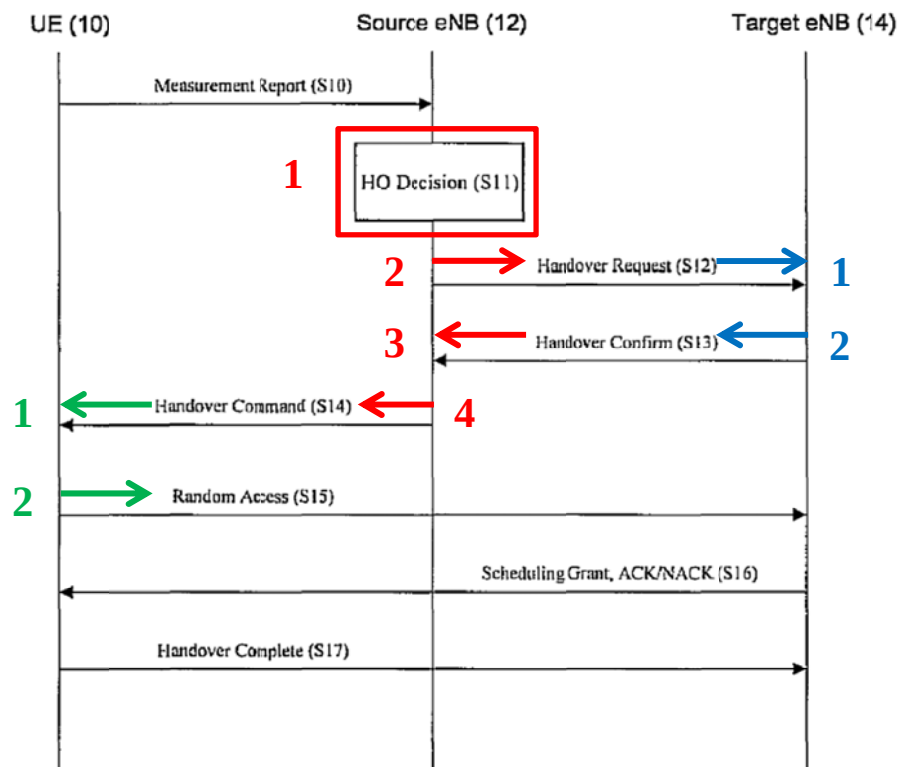
Further, the prosecution history is instructive because it “provides evidence of how the [PTO] and the inventor understood the patent.” *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1327 (Fed. Cir. 2009) (quoting *Phillips*, 415 F.3d at 1317) (alteration in original). “Included within an analysis of the file history may be an examination of the prior art cited therein.” *Vitronics Corp v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996); *see also Autogiro Co. of Am. v. United States*, 384 F.2d 391, 399 (Ct. Cl. 1967) (“In its broader use as source material, the prior art cited in the file wrapper gives clues as to what the claims do not cover.”). “The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Phillips*, 415 F.3d at 1316 (citing *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998)).

B. Construction of Disputed Terms in the Asserted Claims

Evolved Wireless has asserted claims 15 through 21 and 23 through 25 (the mobile device

claims) against all defendants, as well as claims 1 through 10, 12, and 13 (the base station claims) against the Samsung defendants. Figure 9 of the '373 Patent, shown below, discloses sequentially from top to bottom how the claimed handover occurs. The '373 Patent claims three independent methods, each independent claim and its accompanying dependent claims performed by a different device. Claim 1 is performed by the source base station (shown in red below), claim 8 is performed by the target base station (shown in blue), and claim 15 is performed by the mobile device (shown in green). These claims are reproduced below, with the disputed terms underlined, and the steps of the methods color coordinated. Additionally, asserted claims 24 and 25 are directed at “mobile terminals,” or mobile devices, capable of performing the claimed handover.

Fig 9



Source Base Station

1. A method of transmitting access information in a mobile communications system, the method comprising:

- 1** deciding to perform a handover for a terminal to a cell of a target base station;
- 2** transmitting, from a source base station to the target base station, a handover request for performing a handover of the terminal from the source base station to the target base station;
- 3** receiving, at the source base station, access information from the target base station that received the handover request, wherein the receiving of the access information occurs after the transmitting of the handover request; and
- 4** transmitting, from the source base station to the terminal, the access information being configured to permit the terminal to access the target base station;
wherein the access information includes preamble information for a random access procedure,
wherein the preamble information is a dedicated preamble used only for a specific terminal, and
wherein the dedicated preamble is determined by the target base station.

Target Base Station

8. A method of transmitting access information in a mobile communications system, the method comprising:

- 1** receiving, at a target base station from a source base station, a handover request for performing a handover of a terminal from the source base station to the target base station; and
- 2** transmitting, from the target base station to the source base station, access information upon receiving the handover request, wherein the access information is used to allow the terminal to access the target base station,
wherein the access information includes preamble information for a random access procedure,
wherein the preamble information is a dedicated preamble used only for a specific terminal, and
wherein the dedicated preamble is determined by the target base station.

Mobile Terminal

15. A method of receiving access information in a mobile communications system, the method comprising:

- 1** receiving access information from a source base station after a handover request is accepted by a target base station,
wherein the access information includes preamble information for a random access procedure,

wherein the preamble information is a dedicated preamble used only for a specific terminal, and

wherein the dedicated preamble is determined by the target base station; and

- 2 performing the random access procedure with the target base station using the received access information, such that the access information is configured to permit the terminal to access the target base station.

1. “handover”

Claims	Evolved Wireless’s Proposal	Defendants’ Proposal
1, 4, 7, 8, 13, 15, 17, 23-24	“a process to transfer a telecommunication link by establishing radio connection with the target base station after radio connection with the source base station has ceased”	To the extent this term requires construction, “handover” and “handover request” should both be construed in order to specify the meaning of “handover” when used as a noun and as an adjective. “handover” means “transfer of a terminal’s connection with a source base station to a target base station” “handover request” means “a request to transfer a terminal’s connection with a source base station to a target base station”

The term “handover” appears in asserted claims 1, 4, 7, 8, 13, 15, 17, 23, and 24. The only dispute between the parties’ constructions revolves around when the transfer occurs. As supported by both the specification and the file history, the proper construction for “handover” is “a process to transfer a telecommunication link by establishing radio connection with the target base station after radio connection with the source base station has ceased.” *See Phillips*, 415 F.3d at 1315 (“[T]he best source for understanding a technical term is the specification from which it arose, informed, as needed, by the prosecution history.”) (citation omitted).

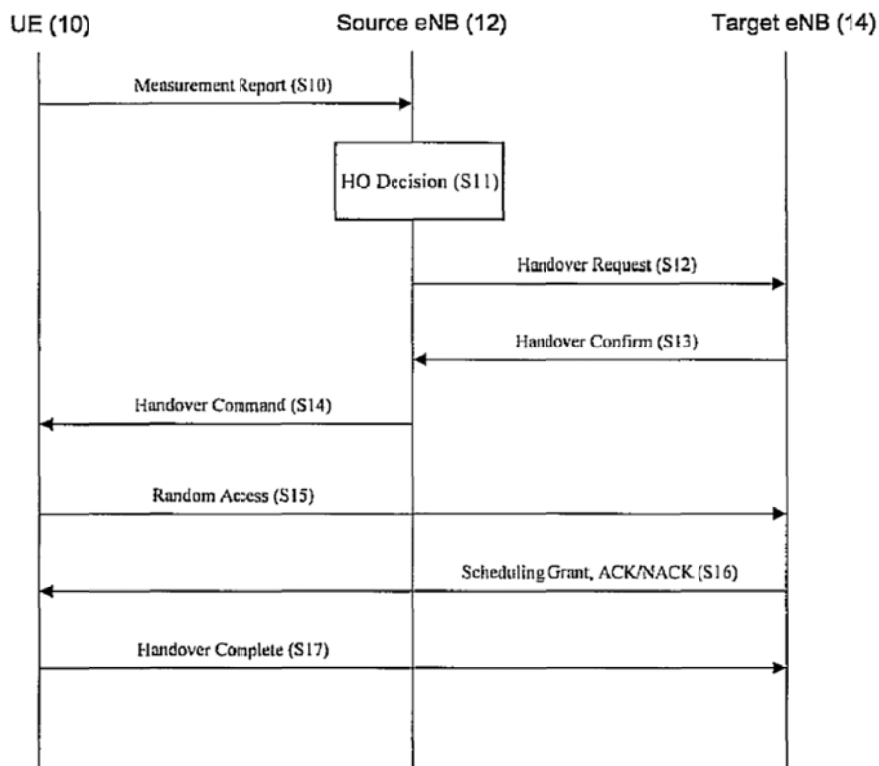
As set forth in the specification, prior art systems are susceptible to collisions through the use of randomly generated and potentially duplicative preambles during a handover of a mobile

device from one base station to another. Thus, the processing time for the handover may be delayed. '373 Patent at 5:51-63, JA-1161. Because of this limitation, the prior art systems used a “soft”, or make-before break, handover process to ensure quality of service by maintaining a radio connection with the source base station until a simultaneous connection was established with the target base station.

“In contrast, the features of the present invention provide that the terminal receives *necessary information* from a source cell in advance (i.e., before the terminal transmits a RACH setup request to a network) in order to utilize the RACH in a *later step*. As a result, the terminal can connect with the target cell with minimal delays.” *Id.* at 5:58-63. (emphasis added). In other words, as recited in the claims, the mobile device receives “access information”—which includes a “dedicated preamble”—from the source base station so that it may thereafter use it to connect to the target base station after the connection to the source base station has ceased. *Id.* at claim 1, 10:10-13, JA-1163 (“transmitting, from the source base station to the terminal, the access information being configured to permit the terminal to access the target base station”); claim 8, 10:41-44 (“transmitting, from the target base station to the source base station, access information upon receiving the handover request, wherein the access information is used to allow the terminal to access the target base station”); claim 15, 11:12-15, JA-1164 (“performing the random access procedure with the target base station using the received access information, such that the access information is configured to permit the terminal to access the target base station”). The use of the “dedicated preamble” allows for the inventions of the '373 Patent to perform a handover where the radio connection of the source base station is terminated before the radio connection with the target base station is made, i.e. a break-before-make “hard” handover process, without the service delays experienced in the prior art.

This proper construction of “handover” is further evidenced by Figure 9 and its accompanying text in the specification.

Fig 9



'373 Patent, Fig. 9

As shown in Figure 9, in the inventions of the '373 Patent, the source base station “Source eNB (12)” receives a measurement report from the mobile device “UE (10),” uses the report to make the “HO Decision (S11),” and sends a “Handover Request (S12)” to the target base station “Target eNB (14).” *Id.* at 6:9-29, JA-1161. The target base station “Target eNB (14)” sends a “Handover Confirm (S13)” (which includes the signature related information, i.e. “dedicated preamble”) to the source base station “Source eNB (12).” *Id.* at 6:50-54 (describing the mobile device using a “preamble of a previously defined signature through the handover confirm

message from the target eNB”). The dedicated preamble is then sent to the mobile device “UE (10)” in the “Handover Command (S14).” *Id.* at 7:4-7, JA-1162. The mobile device uses the signature information, i.e. the “dedicated preamble,” to then access the target base station directly, as evidenced by the “Random Access (S15).” *Id.* at 7:8-11. The dedicated preamble eliminates the need for the more-complex soft handover, wherein the mobile device maintains a simultaneous connection with both the target and source base station, and instead allows the network to utilize a hard handover without the collision and service delay experienced by the prior art. *Id.* at 5:58-63, JA-1161. As shown in Figure 9, the mobile device “UE (10)” no longer maintains communication with the source base station once it receives the necessary access information in the “Handover Command (S14)” and the radio connection has ceased. In other words, after “Handover Command (S14),” there is no further line of communication originating from “UE 10” to the “Source eNB (12).” The specification of the ’373 Patent thus makes clear that “handover” as used in the patent means “a process to transfer a telecommunication link by establishing radio connection with the target base station after radio connection with the source base station has ceased.”

This proper construction of “handover” is further confirmed by the applicant’s statements in the file history. The applicant distinguished the prior art as being limited to traditional soft handovers (i.e., make-before-break handovers) and as failing to disclose the use of signature information for a random access procedure to access the target base station by a hard handover. As discussed above, the use of signature information, in the form of a dedicated preamble, avoids service delays and the need for a concurrent connection to both the target and source base stations.

More specifically, during prosecution, the applicant explained why the inventions of ’373

Patent reflected improvements over the make-before-break handovers disclosed in the Samuel reference. As explained by the applicant, Samuel disclosed a method for performing soft handovers wherein a “second wireless link *concurrent* to the first wireless link is formed in response to the handover request.” ’373 File Wrapper at JA-1325 (April 1, 2009 Response to Office Action and Amendment at 10) (emphasis added). The applicant distinguished Samuel by arguing “Samuel merely discloses a conventional soft handover technique between networks.” Further, the applicant argued Samuel “fails to teach or suggest the limitations of independent claim 1 of receiving access information from the target base comprising random access information used in a random access procedure, or that the random access information includes at least one of signature information and preamble information for the random access procedure.” As such, the applicant distinguished the inventions of the ’373 Patent as being directed to transfer a terminal’s connection with a source base station to a target base station after the connection with the source has stopped—as compared with the soft handovers of the prior art in which the terminal maintains concurrent connections with both base stations.

In response to a request by the Examiner, the applicant agreed to amend the claim language “to clarify the subject matter” so that it was clear that the signature information was a “dedicated preamble” and that the information was used to permit the terminal to access the target base station. *Id.* at JA-1484 (Sept. 18, 2009 Interview Summary); *id.* at JA-1490, -1492-93 (Sept. 25, 2009 Response to Office Action and Amendment at 2, 4-5). It is this dedicated preamble, which is pre-selected by the target base station and forwarded to the mobile device before the handover occurs, that allows for the use of handovers without service delays. In prior art systems like Samuel, the system maintained a concurrent connection to both the source and the target base stations to avoid disruptions should a collision occur. With the inventions of the ’373 Patent, the

use of the dedicated preamble eliminates the possibility of collision and enables the terminal to access the target base station without the need to simultaneously maintain a connection to the source base station. “As a result, the terminal can connect with the target with minimal delays.” ’373 Patent at 5:62-63, JA-1161.

The intrinsic record is clear: the specification and file history consistently describe the claimed “handover” as being one where the active connection, or radio connection, with the target base station has been made after the radio connection with the source base station has been terminated. Indeed, the specification and file history do not describe the claimed “handover” in any other manner or method. Thus, Evolved Wireless’s proposed construction is proper as it “stays true to the claim language and most naturally aligns with the patent’s description of the invention,” and does not import any limitation from the specification. *Phillips*, 415 F.3d at 1316.

Defendants propose a construction of the term “handover” as a “*transfer* of a terminal’s connection with a source base station to a target base station.” As discussed in the specification and further clarified in the file history, the handover claimed in the ’373 Patent does not include a concurrent connection to the source base station and the target base station. Rather, the claimed handover is “a process to transfer a telecommunication link by establishing radio connection with the target base station after radio connection with the source base station has ceased.” Indeed, it is the use of the dedicated preambles that makes this hard handover possible without service delay and is the crux of the invention. Under Federal Circuit precedent, the Court should avoid construing claim terms in a way at odds with the invention’s stated purpose. *Osram GmbH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007).

Likewise, Defendants’ proposed construction is broad enough to capture claim scope that Evolved Wireless would be precluded from asserting under prosecution history estoppel. As

discussed above, the applicant clearly distinguished the inventions of the '373 Patent from the prior art "conventional soft handover technique," like that disclosed in Samuel. *See Ekchian v. Home Depot, Inc.*, 104 F.3d 1299, 1304 (Fed. Cir. 1997) (finding arguments made to distinguish prior art in prosecution history can create an estoppel); *Advanced Transformer Co. v. Levinson*, 837 F.2d 1081, 1083 (Fed. Cir. 1988) ("Positions taken in order to obtain allowance of an applicant's claims are pertinent to an understanding and interpretation of the claims that are granted by the PTO, and may work an estoppel as against a subsequent different or broader interpretation."), *overturned on other grounds by Cardinal Chem. Co. v. Morton Int'l, Inc.*, 508 U.S. 83 (1993). Thus, the proper construction of "handover" must not be broad enough to cover items that were distinguished during prosecution. Defendants' construction does not properly define the limits of the claims in view of both the specification and file history and should be rejected.

It is also unclear why Defendants believe "handover request" requires a separate construction from "handover."⁴ First, Defendants' construction of "handover request" includes the term "request" in the construction, and it is not clear how the construction differs from the claim language. Second, the term "handover" appears in the claims in different contexts and Defendants have not offered a construction for either "handover command" or "handover complete message." Thus, a construction for "handover request" is not needed.

⁴ Defendants did not identify or offer a construction for "handover request" in its Preliminary Identification of Terms Needing Construction and Proposed Constructions. Ex. 2. It was not until the day the Joint Claim Construction Statement was filed that Defendants identified and provided a construction for this term.

2. “target base station”

Claims	Evolved Wireless’s Proposal	Defendants’ Proposal
1, 3, 8, 15, 18, 20, 23-25	“the base station to which the source base station determines the mobile terminal will be transferred”	To the extent this term requires construction, “target base station” means “base station to which a terminal’s connection may be transferred”

The claimed “target base station” appears in asserted claims 1, 3, 8, 15, 18, 20, and 23-25. As disclosed in the specification and discussed in the prosecution history, the target base station is properly construed as “the base station to which the source base station determines the mobile terminal will be transferred.” *See Phillips*, 415 F.3d at 1316 (“The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.”) (citation omitted). Evolved Wireless’s construction is consistent with the specification, the claims of the patent, and the file history.

As disclosed in Figure 9, the source base station “Source eNB (12)” receives the “Measurement Report S10” from the mobile device “UE (10).” ’373 Patent at 6:9-13, JA-1161; Fig. 9, JA-1158. The source base station “Source eNB (12)” determines to handover the mobile device during the “HO Decision (S11).” *Id.* at Fig. 9, JA-1158. The specification makes clear that the source base station “Source eNB (12)” uses the Measurement Report S10 to determine whether to perform the handover, and if so, which target base station to transfer the device to. *See id.* at 6:19-23, JA-1161 (“Using the measurement report, . . . the source eNB (12) may determine whether to perform a handover for the UE (10).”). Thus, it is clear from the specification that the target base station is determined by the source base station.

The specification is also consistent with and follows the structure of the claims, with claims 1 through 7 directed at methods performed by source base stations, claims 8 through 14

directed at methods performed by target base stations, and claims 15 through 23 directed at methods performed by mobile devices. For example, according to Figure 9, the source base station performs the four steps of claim 1: deciding to perform a handover, transmitting a handover request, receiving access information from the target base station, and transmitting the access information to the terminal. *Id.* at Fig. 9, JA-1158. Further, the structure of the dependent claims also follow Figure 9 and the text in the specification: the source base receives the measurement report from the terminal (claim 2) and makes the handover decision (claim 4). *Id.* at 6:9-10, JA-1161 (“As illustrated in FIG. 9, the UE (or terminal) (10) may transmit a measurement report to the source eNB (12)”); *id.* at 6:19-24 (“Using the measurement report, . . . the source eNB (12) may determine whether to perform a handover for the UE (10)”). This structure confirms that the target base station is determined by the source base station.

Evolved Wireless’s proposed construction is also consistent with the statements made by the applicant during prosecution. The prior art systems employed Radio Network Controllers (“RNCs”) to control the base stations and the mobility of mobile devices between those base stations. *Id.* at 1:36-45. But as discussed with the Examiner, the inventions are directed to a “new concept of handover” with direct communication between the base stations: “transmitting [from the] source base station to the target base station a handover request.” ’373 File Wrapper at *Id.* at JA-1484 (Sept. 18, 2009 Interview Summary). The claims were amended after the interview “to clarify the subject matter” so that it was clear the base stations were communicating directly with each other. *Id.* at JA-1490, -1492-93 (Sept. 25, 2009 Response to Office Action and Amendment at 2, 4-5) (“transmitting, from a source base station to the target base station, a handover request for performing a handover of the terminal from the source base station to the target base station,” “receiving, at the source base station, access information from the target base station”). Indeed,

one of the benefits of the claimed invention is the reduction of handover delay caused in part by complex prior art systems with RNCs and the additional communications beyond the base stations, such as with or between RNCs.

Evolved Wireless's proposed construction is consistent with the entire intrinsic record of the '373 Patent. Thus, the proper construction for "target base station" is "the base station to which the source base station determines the mobile terminal will be transferred."

In contrast, Defendants' proposed construction for "target base station" construes the term inconsistent with the surrounding claims and the specification as the "base station to which a terminal's connection may be transferred." The construction ignores Figure 9 and the disclosures in the specification, which make clear that the source base station communicates with the target base station directly and determines to make the handover in the "HO Decision (S11)." '373 Patent at Fig. 9, JA-1158.

Using the measurement report which contains information about the condition of the downlink physical channel for other cells, **the source eNB (12) may determine whether to perform a handover** for the UE (10) from a current cell to the other cell, or whether to keep the UE in current cell (S11).

Id. at 6:19-23, JA-1161 (emphasis added). On this basis alone, Defendants' proposed construction should be rejected.

Moreover, Defendants' proposed construction injects ambiguity into the claims. Defendants propose that the "target base station" is the base station where the connection "may be transferred." The claims and specification make clear that the "target base station" is the base station to which the connection is transferred. *See, e.g., id.* at 11:12-15, JA-1164, Fig. 9, JA-1158. The claims and specification do not provide any alternative or possibility. The "target base station" is the base station to which the mobile device will be handed over to, i.e. the one to which the mobile device will "perform[] the random access procedure" and establish a

connection. Defendants’ proposed construction seeks to introduce uncertainty into the claims when none needs or should exist. As such, Defendants’ proposal should be rejected and Evolved Wireless’s proposal adopted.

3. “the measurement report is used to determine”

Claims	Evolved Wireless’s Proposal	Defendants’ Proposal
17	“the measurement report is used by the source base station to determine”	No construction necessary. Evolved Wireless’s proposed construction improperly inserts the words “by the source base station” into this claim limitation.

The claim language “the measurement report is used to determine” is found in dependent claim 17. As the context of the claims and the specification make clear, the source base station uses the measurement report to determine whether to perform the claimed handover.

Claim 17 is dependent on claim 16, which recites “transmitting a measurement report to the source base station.” *Id.* at 11:16-20, JA-1164 (emphasis added). Because the measurement report of claim 16 is sent to the source base station, it necessarily follows that the measurement report of dependent claim 17 is used *by the source base station* to determine whether to perform a handover. As the Federal Circuit has made clear, the context in which a claim term is used is “highly instructive” as to the proper meaning of the term. *Phillips*, 415 F.3d at 1314. Indeed, proper claim construction requires interpretation of the entire claim in context, not a single element in isolation. *ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1090 (Fed. Cir. 2003).

The proper construction is further confirmed by the specification, which makes clear that it is the source base station that uses the measurement report. The specification provides:

Using the measurement report which contains information about the condition of the downlink physical channel for other cells, **the source eNB (12) may determine whether to perform a handover** for the UE (10) from a current cell

to the other cell, or whether to keep the UE in current cell (S11).

'373 Patent at 6:19-23, JA-1161.; *see also id.* at Fig. 9, JA-1158. Thus, the specification confirms that Evolved Wireless's construction is the proper construction. Defendants contend that Evolved Wireless is improperly inserting language into the claims, but Defendants ignore the logical flow of the claims and the discussion of the handover decision in the specification. Defendants' criticisms are without merit and should be rejected.

V. CONCLUSION

For the reasons set forth above, Evolved Wireless respectfully requests that the Court construe the terms of the '373 Patent, "handover" and "target base station," in full view of the intrinsic evidence as proposed by Evolved Wireless and as understood by a person of ordinary skill in the art. The Court should construe claim 17 for similar reasons, as well as to simplify the context of the dependent claim for the jury.

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Respectfully submitted,

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