

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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**MICROSOFT CORPORATION**

*Petitioner*

v.

**IPR LICENSING, INC.**

*Patent Owner*

U.S. Patent No.: 8,380,244

Filed: November 9, 2009

Issued: February 19, 2013

Title: Dual Mode Unit for Short Range, High Rate and Long Range, Lower Rate  
Data Communications

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**PETITION FOR *INTER PARTES* REVIEW  
OF U.S. PATENT NO. 8,380,244**

Case No.: \_\_\_\_\_

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Petition for *Inter Partes* Review of U.S. Patent No. 8,380,244

Pursuant to 35 U.S.C. § 311 *et seq.* and 37 C.F.R § 42.1 *et seq.*, Microsoft Corporation (“Microsoft” or “Petitioner”) hereby petitions for *Inter Partes* Review of U.S. Patent No. 8,380,244 (“244 patent”). On September 17, 2014, the Patent Trial and Appeal Board instituted an *Inter Partes* Review of the 244 patent in Case No. IPR2014-00525 (“ZTE IPR”). Pursuant to 35 U.S.C. § 315(c) and 37 C.F.R. §§ 42.22 and 42.122(b), Petitioner submits concurrently herewith a request for joinder with the ZTE IPR. However, even if joinder is not granted, Petitioner respectfully request that a proceeding be instituted based on this petition alone.

This petition demonstrates a reasonable likelihood that at least one of Claims 1-8, 14-16, 19-29, 36-38, and 41-44 (“the challenged claims”) is obvious in view of the prior art discussed below. Indeed, the similar claims of related U.S. Patent No. 7,616,970 (“970 parent patent”), the parent of the 244 patent, have already been invalidated based on the same prior art. Applying the more demanding clear and convincing evidence standard, the International Trade Commission (“ITC”) held those claims invalid in its Final Determination in Investigation No. 337-TA-800 (“800 Investigation”). *In the Matter of Certain Wireless Devices with 3G Capability and Components Thereof*, USITC Inv. No. 337-TA-800, Comm’n Op. (Dec. 20, 2013). (Ex. 1011 at 293-382). As the claims of the 244 patent and the 970 parent patent are similar and for the reasons set forth below, an *inter partes* review should be instituted, and all of the challenged claims should be held

unpatentable.

**I. MANDATORY NOTICES (37 C.F.R. § 42.8)**

**A. Real Party-in-Interest (§ 42.8(b)(1))**

Microsoft Corporation is the real party-in-interest.

**B. Related Matters (§ 42.8(b)(2))**

The 244 patent is the subject of the following judicial or administrative matters, which may affect, or be affected by, a decision in this proceeding: (i) *InterDigital Commc'ns Inc. v. ZTE Corp.*, Case No. 13-cv-00009-RGA (D. Del.), filed January 2, 2013; (ii) *InterDigital Commc'ns Inc. v. Nokia Corp.*, Case No. 13-cv-00010-RGA (D. Del.), filed January 2, 2013; and (iii) *ZTE Corp. et al. v. IPR Licensing, Inc.*, Case No. IPR2014-00525. Patent Owner and several InterDigital entities (collectively “InterDigital”) were the named Plaintiffs in the two listed district court cases.

**C. Counsel and Service Information (§§ 42.8(b)(3)-(4))**

Microsoft designates the following counsel:

Lead Counsel	Backup Counsel
John Haynes	David Frist
Reg. No. 44754	Reg. No. 60511
Alston & Bird LLP	Alston & Bird LLP
One Atlantic Center	One Atlantic Center
1201 West Peachtree Street	1201 West Peachtree Street
Atlanta, GA 30309-3424	Atlanta, GA 30309-3424
E-mail: john.haynes@alston.com	E-mail: david.frist@alston.com
Telephone: (404) 881-7737	Telephone: (404) 881-7874
Fax: (404) 253-8292	Fax: (404) 253-8284

Service of any document via hand-delivery, express mail, or regular mail may be made at the postal mailing addresses above. Electronic service may be made at the above-designated e-mail addresses.

## **II. PAYMENT OF FEES (§ 42.15(A) AND § 42.103)**

Microsoft authorizes the Director to charge the filing fee specified by 37 C.F.R. § 42.15(a), as well as any other necessary fees, to Account No. 16-0605.

## **III. REQUIREMENTS FOR *INTER PARTES* REVIEW**

### **A. Grounds for Standing (§ 42.104(a))**

Petitioner hereby certifies that the 244 patent is available for *inter partes* review and that the Petitioner is not barred or estopped from requesting *inter partes* review challenging the claims of the 244 patent on the ground identified herein.

More particularly, Petitioner certifies that: (1) Petitioner is not the owner of the 244 patent; (2) Petitioner has not filed a civil action challenging the validity of a claim of the 244 patent; (3) the estoppel provisions of 35 U.S.C. § 315(e)(1) do not prohibit this *inter partes* review; and (4) the 244 patent is a patent that is not described in section 3(n)(1) of the Leahy-Smith America Invents Act and so is available for this *inter partes* review, per 37 C.F.R. § 42.102(a)(2).

Should joinder be granted, this Petition is proper because it has been filed within the time period set forth in 37 C.F.R. § 42.122. In the alternative, this Petition is proper under 35 U.S.C. § 315(b) because it is not filed more than one year after the date on which the Petitioner, the Petitioner's real party-in-interest, or a privy of the Petitioner was served with a complaint alleging infringement of the 244 patent.

To date, Petitioner has not been served with a complaint alleging infringement of the 244 patent. The fact that Petitioner's subsidiary, Nokia Inc., was served with a complaint on March 13, 2013 does not bar the present petition. Petitioner's wholly-owned subsidiary Microsoft Mobile Oy ("MMO") acquired Nokia Inc. on April 25, 2014 and assumed certain liabilities related to the complaint filed against Nokia Inc. alleging infringement of the 244 patent. (Ex. 1026 (Microsoft Press Release); Ex. 1027 (Pending Litigation Agreement)). Petitioner, however, was selling the Surface Pro 2 with a 3G and 4G chip and WiFi

prior to the acquisition of Nokia Inc. and still does so today (Ex. 1028 (Microsoft Product Listing); Ex. 1029 (Surface 2 Launch)). Thus, Petitioner was and is exposed to liability under the 244 patent separate and apart from any liability to Nokia Inc. Moreover, because Petitioner acquired an interest in Nokia Inc. more than one year after the complaint was filed against Nokia Inc., Petitioner is not barred under § 315(b) because of the complaint filed against Nokia Inc. because Petitioner was not in privity with Nokia Inc.

The relevant time period for determining privity under § 315(b) is “on the date of service of the complaint.” *Chi Mei Innolux Corp. v. Semiconductor Energy Lab. Co., Ltd.*, IPR2013-00028, Paper 14 at 6; *id.* at 6-7 (“[Patent Owner] does not provide persuasive evidence or explanation establishing that [non-party] CMO (or Innolux) was a privy of the (eventual) Petitioner CMI [which was later formed from a merger of three companies, including non-party CMO] on the date of service of the complaint . . . As such, the service of a complaint against [CMO] more than a year before the filing of the instant Petition by CMI has not been demonstrated to run afoul of 35 U.S.C. § 315(b)"); *see also Zoll LifeCor v. Philips*, IPR2013-00616, Paper 17 at 15-16 (stating that the relevant time period for privity analysis is at the time the complaint is served). Further, Section 315(b) does not bar institution of *inter partes* review where parties became privies after the service of the complaint. *ABB Tech., Ltd. v. IPCO, LLC*, IPR2013-00482, Paper 8 at 10



(P.T.A.B., Feb. 9, 2014) (finding that § 315(b) did not bar institution when a privity relationship was formed six (6) years after service of the complaint).

Because Petitioner was not in privity with Nokia Inc. at the time the complaint was served, the present relationship between the companies does not bar institution under § 315(b).

The fact that Petitioner's subsidiary MMO acquired Nokia Inc. does not dictate a different result. Antitrust regulations, such as gun-jumping laws, precluded Microsoft from interfering with the InterDigital/Nokia litigation directly or via filings in the Patent Office. *See* Section 1 of the Sherman Act, 15 U.S.C. § 1; Hart-Scott-Rodino Act, Section 7A of the Clayton Act, 15 U.S.C. § 18a.

Because the transaction through which Petitioner acquired Nokia Inc. was not completed until after the one-year window expired, Microsoft could not influence or control any action by Nokia, Inc., including any decision on whether to file an IPR in response to the complaint filed against Nokia Inc. Further, Petitioner sells products separate and apart from the products sold by Nokia Inc. so Petitioner's interests extend beyond those of Nokia Inc. Because Petitioner was and is exposed to liability separate from Nokia Inc., only obtained rights in Nokia Inc. after the one year period of § 315(b) expired, and was precluded from interfering with the Nokia litigation under gun-jumping laws, the present Petition cannot be barred based on the assumption of liabilities as a result of the acquisition of Nokia Inc.

*See Apple, Inc. v. Achates Reference Pub. Co.*, IPR2013-00080, Paper 22 at 18-20 (holding that being a co-defendant is not necessarily the type of relationship that would establish privity, if the co-defendant was exposed to liability separate and apart from the actions of the other co-defendant).

Finally, MMO and Nokia Inc. are not real parties-in-interest to this Petition. The determination of whether a party is a real party-in-interest to a petition focuses on whether the non-party exercises, or could exercise, control over the petitioner's participation in the proceeding, and whether the non-party is funding or directing the proceeding. *Id.* at 48,759-60; *see also ABB Tech., Ltd. v. IPCO, LLC*, IPR2013-00482, Paper 8 at 10 (P.T.A.B., Feb. 9, 2014) ("A primary consideration includes whether a non-party exercises control over a petitioner's participation in a proceeding"). MMO and Nokia Inc. are subsidiaries of Petitioner and have no control over the present proceeding and are not funding or directing the proceeding. *Medtronic, Inc. v. Robert* -00488, Paper 17 at 9-11 (finding that a subsidiary was not a real party-in-interest to its parent's petition because a parent company "has the ability to exercise some measure of control over its subsidiary, and not necessarily the reverse."); *see also ABB Tech.*, IPR2013-00482, Paper 8 at 10-11 (Patent Owner did not set forth sufficient evidence that Petitioner's sister company was a real party-in-interest where it showed only that the sister company would benefit from the IPR, but did not show that the sister company had control

over the proceeding); *TRW Auto. US LLC v. Magna Elecs., Inc.*, IPR2014-00293, Paper 18 at 12 (two parties “related” to petitioner are not real parties-in-interest absent additional evidence regarding the two parties control, direction, or funding of the petitioner’s participation in the proceeding); *Alcon Research, Ltd. v. Neev*, IPR2014-00217, Paper 21 at 7 (fact that Petitioner is a subsidiary of non-party is not sufficient to demonstrate that non-party had control over Petitioner in the proceeding or was funding the proceeding, and therefore, non-party was not a real party-in-interest).

**B. Identification of Challenged Claims (§ 42.104(b)(1))**

Microsoft requests *inter partes* review of challenged claims 1-8, 14-16, 19-29, 36-38, and 41-44 and requests that each of these claims be found unpatentable and cancelled.

**C. Priority Date, Prior Art and Specific Grounds for Challenging Claims (§ 42.104(b)(2))**

For purposes of determining what is prior art to the 244 patent, InterDigital is limited to the September 21, 1999 priority date on the face of the 244 patent. (See Ex. 1001 (244 patent) at 1-2). In the 800 Investigation, the ITC rejected InterDigital’s attempt to show conception with diligence earlier than the filing date for the 970 parent patent, which shares the same specification as the 244 patent and claims only trivial differences. (Ex. 1011 (337-TA-800 ALJ’s Initial Determination (Public) at 342-45). To the extent that InterDigital offers evidence

and argues for a priority date earlier than September 21, 1999, Microsoft reserves the right to proffer arguments rebutting any alleged earlier conception, reduction to practice and/or diligence by InterDigital.

Microsoft requests *inter partes* review of the 244 patent in view of the following references, which qualify as prior art based on the claimed priority date of September 21, 1999, as shown and discussed below.<sup>1</sup>

<b>Exhibit</b>	<b>Description</b>	<b>Dated</b>	<b>Type of Prior Art</b>
1003	U.S. Patent No. 6,243,581 to Jawanda	Dec. 11, 1998 (U.S. filing date)	§ 102(e)
1005	GPRS Standards	publicly available	§§ 102(a) and (b); and in combination under § 103
	GSM 02.60 v. 6.1.1 R97	Nov. 1998	
	GSM 03.02 v. 6.1.0 R97	July 1998	
	GSM 03.60 v. 6.1.1 R97	Aug. 1998	
	GSM 03.64 v. 6.1.0 R97	Oct. 1998	
	GSM 04.07 v. 6.1.0 R97	July 1998	

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<sup>1</sup> Exhibits 1001 through 1024 to this Petition are identical to the exhibits with the same number in the ZTE IPR.

<b>Exhibit</b>	<b>Description</b>	<b>Dated</b>	<b>Type of Prior Art</b>
	GSM 04.08 v. 6.1.1 R97	Aug. 1998	
	GSM 04.60 v. 6.1.0 R97	Aug. 1998	
	GSM 04.64 v. 6.1.0 R97	July 1998	
	GSM 04.65 v. 6.1.0 R97	July 1998	
	GSM 05.01 v. 6.1.1 R97	July 1998	
1019	IEEE 802.11 Standard	August 20, 1999	§§ 102(a) and (b)

There is no dispute that Jawanda is prior art against the 244 patent under 35 U.S.C. § 102(e), as a U.S. patent issued from an application filed on December 11, 1998, which was more than eight months prior to the September 21, 1999 priority date for the 244 patent.

The IEEE 802.11 Standard is prior art because it was available to the interested public on or before August 20, 1999. (Exhibit 1019 at 00003).

For purposes of this petition, “GPRS Standards” refers to the ten sections of the Global System for Mobile Communication (“GSM”) standard listed above, which define portions of the General Packet Radio Service (“GPRS”). Although the GPRS Standards are defined in a series of sections, one of ordinary skill in the art would treat the sections for each standard as a single, cohesive reference because they collectively define a single standard, specifically reference one

another, and are not meant to be considered in isolation. (Ex. 1002 (Bims Decl.) at ¶122). Therefore, it would have been obvious to one of ordinary skill in the art at the time to combine the selected documents for a given standard. The motivation to combine them is compelling because the documents are designed to work together as a single, coherent reference. (*Id.*). The standards sections can be considered different chapters of a manual for building and operating a standard-compliant cellular communication system, so it would be not only obvious, but also necessary, for a person of ordinary skill to read all the related sections of the standard together. (*Id.*).

The GPRS Standards, and each of the constituent sections of the GPRS Standards, is prior art because it was available to the interested public on or before November 1998. (Ex. 1002 (Bims Decl.) at ¶¶120-121, 123; Ex. 1007 (3GPP TR 21.900)).

A document that has been made available to interested members of the public qualifies as a “printed publication” under 35 U.S.C. § 102. *In re Hall*, 781 F.2d 897, 898-99 (Fed. Cir. 1986). Indeed, the Federal Circuit has upheld a previous finding by the Commission that similar GSM standards documents were widely available to the interested public. *Kyocera Wireless Corp. v. U.S. Int’l Trade Comm’n*, 545 F.3d 1340, 1350-51 (Fed. Cir. 2008) (finding that standards developed by the standards body responsible for the GPRS standards were

sufficiently public to qualify as prior art).

Although GSM 3.60 v. 6.1.1 R97 (Ex. 1005.03) and GSM 4.60 v. 6.1.0 R97 (Ex. 1005.06) are labeled “Draft” and for “Public Enquiry,” the documents were still publicly available well prior to August 1999 (Ex. 1034 (Bims Supp.), ¶¶7-16; *see also* Ex. 1030 (“ETSI Working Procedures”)). The ETSI Working Procedures, which were publicly available in 1998, identify the document management process of the ETSI Working Group and explains how the GPRS specifications at issue were available to the public well prior to August 1999 (Ex. 1034 (Bims Supp.), ¶¶8-11; Ex. 1030 (“ETSI Working Procedures”)).

For example, the ETSI Working Procedures explain that a “Draft” specification is sent out for Public Enquiry (“PE”) (Ex. 1030 (ETSI Working Procedures), §§ 4.4.1, 4.4.2; Ex. 1034 (Bims Supp.), ¶ 10). In a section entitled “Availability and distribution of UMTS and GSM specifications” of the ETSI Working Procedures, the established procedures confirm that specifications that have reached the initiation of the Public Enquiry stage “are made available through the ETSI Publications Office (Fax: +33 93 95 81 33) to anybody (ETSI member or not)” and may be made available in paper copies at the delegates meetings (Ex. 1030 (ETSI Working Procedures), §§ 4.5.1, 4.5.2; Ex. 1034 (Bims Supp.), ¶ 11).

Current versions of the ETSI Drafting Rules, which specify the rules for structure and drafting of ETSI documents, also confirm that documents submitted

for Public Enquiry are made publicly available (Ex. 1034 (Bims Supp.), ¶¶ 12-15; Ex. 1031 (ETSI Drafting Rules) at 196 (describing that, for ETSI, “public availability is a broader concept than publication” and confirming that “[a] Public Enquiry version of an ETSI deliverable is made publicly available by ETSI”); *id.* (defining “publicly available” as “a document that may be obtained from the source organization or its distribution channels by any person (with or without payment), simply by quoting the reference given in the ETSI deliverable to the source organization or other typical supplier (e.g. National Standards Organization, Library, etc.)” and stating that “ETSI deliverables are made publicly available during the various stages of the relevant approval procedures prior to publication and at the point of publication”). The ETSI Drafting Rules thus distinguish “publicly available” from “published” and define “published” as a specific case of public availability that occurs when “all relevant approval procedures have been successfully completed.” (Ex. 1031 (ETSI Drafting Rules) at 197; Ex. 1034 (Bims Supp.), ¶15).

GSM 3.60 v. 6.1.1 R97 (Ex. 1005.03), and GSM 4.60 v. 6.1.0 R97 (Ex. 1005.06), which each have a 1998 copyright date, are both documents that were submitted for Public Enquiry and thus were publicly available under ETSI guidelines. (Ex. 1034 (Bims Supp.), ¶16).

Microsoft challenges claims 1-8, 14-16, 19-29, 36-38, and 41-44 based on



the following statutory grounds:

Ground	Basis
1	Under 35 U.S.C. § 103, Jawanda alone or in combination with the GPRS and IEEE 802.11 Standards renders the challenged claims obvious.

Ground 1 asserted by Petitioner here is identical to Ground 1 asserted by ZTE in its IPR. (ZTE IPR, Paper 1 at 8; *id.*, Paper No. 19 at 8, 20-21). As in the ZTE IPR, Petitioner alleges that Jawanda alone renders the challenged claims obvious. If Jawanda is found not to disclose a limitation related to the cellular network, then Jawanda in combination with the GPRS Standards renders that limitation obvious. If Jawanda is found not to disclose a limitation related to the 802.11 network, then Jawanda in combination with the IEEE 802.11 Standards renders that limitation obvious. If Jawanda is found not to disclose limitations related to the 802.11 network and the cellular network, then Jawanda in combination with the GPRS and IEEE 802.11 Standards renders that limitation obvious.

**D. Claim Construction (§ 42.104(b)(3))**

A claim subject to *inter partes* review receives its broadest reasonable construction in light of the patent's specification. 37 C.F.R. § 42.100(b). In determining the broadest reasonable construction, the Patent Office may consider the patentee's prior statements concerning the scope of the claims. 35 U.S.C. §

301. Microsoft offers proposed claim constructions only to comply with 37 C.F.R. § 42.100(b) and for the sole purpose of this Petition. Therefore, Microsoft's proposed constructions in this Petition do not bind Microsoft in any infringement litigation, where a different claim construction standard applies. The constructions proposed below by Microsoft are identical to the constructions offered by ZTE in its IPR.

Since the filing of the petition in the ZTE IPR, the court in the pending ZTE and Nokia Delaware district court cases issued a *Markman* Order construing each of the terms identified in the ZTE IPR (*see* Ex. 1025 (Delaware Claim Construction Opinion)). The following explains why ZTE's proposed constructions are appropriate for this IPR and how those proposed constructions are consistent with the Delaware *Markman* Order and the broadest reasonable construction of the terms.

**1. “release,” “allocate,” and “deallocate” in conjunction with the “assigned physical channels”**

The claims of the 244 patent recite various forms of the terms “release,” “allocate,” and “deallocate” when referring to the “assigned physical channels.” For example, Claims 1, 5, 7, 15, and 21 recite the term “assigned physical channels.” Claims 5 and 21 recite the “release” of assigned physical channels. Claim 15 recites a configuration that can “allocate” and “deallocate” the assigned physical channels. All of these terms are used to describe states or state changes of

the “physical channels” of the cellular wireless network. In order to keep these terms in context of the “assigned physical channel” to which the “release,” “allocate,” and “deallocate” actions apply, the terms are discussed together below.

In the pending Nokia and ZTE district court proceedings, the parties proposed constructions for “[a]/[the] plurality of assigned physical channel” and separate constructions for “release,” “allocate,” and “deallocate.” For purposes of this petition, Microsoft submits that the constructions of the Delaware district court, which mirror Nokia and ZTE’s proposals, should be adopted.

	<b>Nokia and ZTE</b>	<b>InterDigital</b>	<b>Delaware Construction</b>
plurality of assigned physical channels	<b>plurality of physical channels available for the subscriber unit to select for use</b>	two or more physical layer channels allocable by the subscriber unit as needed to transfer data	<b>[plurality of] physical channels available for the subscriber unit to select for use</b>
release	<b>make no longer assigned</b>	stop the subscriber unit from using	<b>make no longer assigned</b>
allocate	<b>select for use</b>	Assign	<b>select for use</b>
deallocate	<b>select to stop using</b>	stop the subscriber unit	<b>select to stop using</b>

		from using	
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(Ex. 1008 (10-8-13 Amended Joint Cl. Const. Chart) at Ex. A, p. 18-23; Ex. 1025 (Delaware Claim Construction Opinion) at 14-16).

The Delaware district court’s constructions should be adopted because they accurately reflect that the terms “allocate” and “assign” have different meanings. The claim language itself mandates that “allocate” and “assign” must have different meanings because the claims require physical channels to be both “assigned” *and* “allocated.” For example, claim 1 recites “a plurality of *assigned* physical channels,” which means that the physical channels have already been assigned. Claim 15, which depends from claim 1, recites that “the processor is further configured to *allocate* and deallocate at least one of the plurality of *assigned* physical channels.” (Ex. 1001 (244 patent), 12:1-3). As a result, “allocate” must mean something different from “assign.”

The Delaware district court’s constructions give consistent meaning to each word in the claim. “Assign” is the opposite of “release” and, thus, a state of “assigned” or “released” describes whether or not the subscriber unit has been given permission to use a physical channel. (Ex. 1002 (Bims Decl.) at ¶¶97-99; Ex. 1001 (244 patent) at 7:24-29, 9:64-66, 10:34-38). Similarly, “allocate” is the opposite of “deallocate” and, thus, a state of “allocated” or “deallocated” describes whether or not the subscriber unit has selected to use or to stop using assigned

channels. (*Id.*). This is driven by the well-known network requirement that a subscriber unit cannot use (allocate) a resource (physical channel) until it has been made available (assigned) to the subscriber unit. (Ex. 1002 (Bims Decl.) at ¶97).

The intrinsic record supports Nokia and ZTE's proposed constructions for each of these terms. (*See* Ex. 1009 (Joint Cl. Const. Br.) at 71-81; Ex. 1002 (Bims Decl. at ¶¶98-99; Ex. 1001 (244 patent) at 7:24-29, 9:64-66, 10:34-38). The specification of the 244 patent teaches that the subscriber unit includes a bandwidth management function that selects assigned channels for use [*i.e.*, allocates assigned channels] as needed to send data. (Ex. 1001 (244 patent) 7:24-29; Ex. 1002 (Bims Decl.) at ¶98). For example, the specification explains how the subscriber unit may allocate assigned channels depending on whether the channels are needed to send data at any particular time:

[W]ireless bandwidth is *allocated* only when there is actual data present from the terminal equipment to the CDMA transceiver 140. Therefore, the network layer need not *allocate* the *assigned* wireless bandwidth for the entirety of the communications session. That is, when data is not being presented upon the terminal equipment to the network equipment, the bandwidth management function 134 deallocates initially assigned radio channel bandwidth 160 and makes it available for another transceiver and another subscriber unit 101.

(Ex. 1001 (244 patent) 10:34-43; *see also* Ex. 1002 (Bims Decl.) at ¶99).

It is clear from the first two sentences of this passage that the patentee

understood the difference between “assign” and “allocate” and intentionally used those words to mean different things. The patent unmistakably uses “assigned” to mean a channel that has been made available for the subscriber unit to use—even if the subscriber unit is not actually using the channel. By contrast, to “allocate” an assigned channel means to “select” that channel for use to send data. (Ex. 1002 (Bims Decl.) at ¶¶98-99). The last sentence of the quoted passage further confirms that the subscriber unit “deallocates” assigned bandwidth when not needed to transmit data. In other words, the device stops using the assigned bandwidth when it has no data to transmit. (Ex. 1002 (Bims Decl.) at ¶99; Ex. 1001 (244 patent) at 9:64-66, 10:34-38)).

InterDigital’s proposed constructions in Delaware are circular and nonsensical. For example, InterDigital has proposed that “allocate” means “assign.” Substituting this interpretation into the language of claim 15 would result in a circular and indefinite claim limitation: “the processor is further configured to *assign* and deallocate at least one of the plurality of *assigned* physical channels.” See *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1255 (Fed. Cir. 2010) (“A claim construction that renders asserted claims facially nonsensical ‘cannot be correct.’”). The 244 patent's specification also distinguishes between “allocate” and assigned”: “[T]he network layer need not *allocate* the *assigned* wireless bandwidth for the entirety of the communications

session.” (Ex. 1001 (244 patent) at 10: 36-38 (emphasis added)).

In addition, taken together, InterDigital’s proposed constructions would inject the unsupported requirement that the subscriber unit itself must “assign” the physical channels. Specifically, considering InterDigital’s construction of “allocate,” the term “assigned physical channels” would mean “two or more physical layer channels [assignable] . . .” This result does not make any sense as a channel that has already been assigned cannot be assignable. In contrast, the intrinsic record supports Nokia and ZTE’s proposed construction for “assigned physical channels,” which means “physical channels available for the subscriber unit to select for use” (e.g., Ex. 1001 (244 patent) at 2:8-10; 6:30-7:2; 10:36-38). The specification explains that “[t]he bandwidth management function 134 is responsible for *allocating* and *deallocating* CDMA radio channels 160 as required,” but neither the specification nor the other claims ever state or suggest that the subscriber unit is responsible for *assigning* the physical channels. (Ex. 1002 (Bims Decl.) at ¶98; Ex. 1001 (244 patent) at 7:24-29, 9:64-66, 10:34-38).

From the use of “assigned” and “allocate” in the specification and claims, it is clear that the patentee drew a distinction between the two words. The correct construction of the claim should preserve that choice and avoid a nonsensical result. *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 FJd 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, . . . the use

of . . . different terms in the claims connotes different meanings.”). Thus, Nokia, ZTE, and the Delaware District Court’s constructions should be adopted for the present proceeding because these constructions avoid a nonsensical result and are consistent with the plain and ordinary meaning of those terms. However, should the Board determine that no construction is necessary for these terms or to adopt InterDigital’s proposed constructions, the challenged claims are still invalid under that interpretation for the same reasons discussed in Part V.

**2. “maintain a communication session with the cellular wireless network in an absence of the plurality of assigned physical channels”**

Claim 1 recites the term “maintain a communication session with the cellular wireless network in an absence of the plurality of assigned physical channels.” In district court, the parties proposed the constructions below for this term. For purposes of this petition only, and for the reasons explained below, Petitioner submits that InterDigital’s proposed construction of this term should be adopted. This is the same construction that was adopted by the court in Delaware (Ex. 1025 (Delaware Claim Construction Opinion) at 12-14).



<b>Nokia and ZTE</b>	<b>InterDigital</b>	<b>Delaware Construction</b>
spoof the subscriber unit to make it appear that a cellular wireless communication link is continuously available in an absence of the plurality of assigned physical channels	<b>maintain a logical connection with the cellular wireless network when none of the plurality of physical channels are in use by the subscriber unit</b>	<b>maintain a logical connection with the cellular wireless network when none of the plurality of assigned physical channels are in use by the subscriber unit</b>

(Ex. 1008 (10-8-13 Amended Joint Cl. Const. Chart) at Ex. A, p. 16-17; Ex. 1025 (Claim Construction Memorandum Opinion) at 12-14).

InterDigital's and the Delaware district court's proposed construction is broader than Nokia and ZTE's proposal, and InterDigital has relied on its construction in the district court. Nokia and ZTE opposed InterDigital's proposed construction for a variety of reasons, including that the broader construction is not supported by the specification. (*See* Ex. 1009 (Joint Cl. Const. Br.) at 66-70). However, for purposes of this proceeding, Petitioner submits that InterDigital's

and the Delaware district court's construction should be adopted.<sup>2</sup>

In the 800 Investigation, InterDigital succeeded in proposing nearly the same construction for a very similar limitation of the 970 parent patent. Specifically, InterDigital proposed interpreting “*maintain a communication session above a physical layer . . . when none of the plurality of physical layer channels are assigned*” to mean “*a connection above the physical layer . . . is maintained when the allocable physical layer channels are not in use by the subscriber unit.*” (Ex. 1002 (Bims Decl.) at ¶¶101-102; Ex. 1011 (337-800 Initial Determination) at 312). Although Respondents opposed InterDigital's construction in that investigation, the ITC adopted and applied InterDigital's construction in its infringement and invalidity analysis, ultimately finding the claims of the 970 patent to be infringed but invalid. (Ex. 1002 (Bims Decl.) at ¶101; Ex. 1011 (337-800 Initial Determination) at 312, 446). Because InterDigital has already succeeded once in obtaining its broad construction of the 970 parent patent and its proposed construction was adopted in Delaware, Microsoft submits, for purposes of this proceeding only, that InterDigital's proposed construction should be adopted for

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<sup>2</sup> To be clear, Petitioner does not agree with InterDigital's proposed construction, but, as that construction is broader than the construction proposed by Nokia and ZTE, the claims should be construed at least broad enough to capture InterDigital's construction.

the corresponding limitation of the 244 patent, and therefore, “*maintain a communication session with the cellular wireless network in an absence of the plurality of assigned physical channels*” should be construed to mean “*maintain a logical connection with the cellular wireless network when none of the plurality of physical channels are in use by the subscriber unit.*” Applying this construction, the challenged claims are invalid, as discussed in Part V.

However, should the Board determine that no construction is necessary, the challenged claims are still invalid for the same reasons discussed in Part V.

#### **IV. OVERVIEW OF THE TECHNOLOGY**

##### **A. Alleged Invention**

InterDigital contends that the alleged invention of the 244 patent is a dual-mode device that can preferentially transfer packet data using a short range, higher-speed communication path (802.11 wireless local area network, or “WLAN”) while maintaining a communication session with a cellular network, even when physical channels of the cellular network are absent. As will be shown, dual-mode devices were known in the art, and the idea of preferentially selecting one of the alternative communication paths was well known in the art at the time of the alleged invention. (Ex. 1002 (Bims Decl.) at ¶¶158-161; Ex. 1016 (Hanson Patent) at 2:19-28, at 7:49-65)). Further, InterDigital has taken the position in prior litigation that the “maintain a communication session” limitation is met by

preserving routing information (such as an IP address) and other session management parameters contained in the “PDP Context” of WCDMA or the “session” of CDMA2000 standards. (Ex. 1002 (Bims Decl.) at ¶¶250-258; Ex. 1032 (IDC Infringement Chart) at 3-4). Because the prior art GPRS Standards also taught preserving this same information in the same form, the claims of the 244 patent are not patentable over the prior art under InterDigital’s broad interpretation of the claims. (Ex. 1002 (Bims Decl.) at ¶¶126-130, 135).

## **B. Prior Art**

As admitted in the Background section of the 244 patent, both cellular and WLAN communication protocols were well known in the art (Ex. 1001 (244 patent) at 1:46-2:1, 2:21-34). Cellular protocols known at the time (such as the GPRS Standards) allowed for data communications over a wider area but, at the time of the 244 patent, the data transfer rates were slow. (Ex. 1002 (Bims Decl.) at ¶¶49-50; Ex. 1001 (244 patent) at 1:34-66). On the other hand, wireless local area networks WLANs known at the time (such as the IEEE 802.11 Standard) offered higher data rates but had a shorter range than cellular networks. (Ex. 1002 (Bims Decl.) at ¶¶46-48; Ex. 1001 (244 patent) at 2:21-34). As explained in detail below, it was also known in the prior art to combine access to these two types of networks in a single dual-mode device that included all of the features claimed in the 244

patent. An example of a patent that disclosed this known combination is Jawanda. (Ex. 1002 (Bims Decl.) at ¶¶104-111).

### **C. Prosecution History**

The 244 patent stems from a series of continuations claiming priority to an application filed on September 21, 1999. (Ex. 1002 (Bims Decl.) at ¶¶68-69; Ex. 1001 (244 patent)). Most notable in the chain is the 970 parent patent because its claims were held invalid by the ITC in the 800 investigation. (Ex. 1002 (Bims Decl.) at ¶68). The ITC found that the prior art presented in this petition invalidated the claims of 970 parent patent by clear and convincing evidence. *In the Matter of Certain 3G Wireless Devices and Components Thereof*, USITC Inv. No. 337-TA-800, Comm’n Op. at 11 (adopting the ALJ’s findings (Ex. 1011) as to the invalidity of 970 patent by clear and convincing evidence) (Ex. 1010). The 244 patent and the 970 parent patent share a common specification and very similar claims. (Ex. 1002 (Bims Decl.) at ¶6).

The prosecution history of the 244 patent itself is surprisingly short, particularly given that the Examiner initially rejected many of the claims based on some of the same prior art references presented in this petition. Even more surprising is the apparent disconnect between those initial rejections and the Examiner’s ultimate reasons for allowance. The Notice of Allowance (first mailed on May 31, 2012, and reissued subsequent to multiple IDS submissions) was silent

as to why the claims were allowable over Jawanda, even though the Examiner had previously relied on this reference in rejecting various claims. (Ex. 1002 (Bims Decl.) at ¶85). Instead, the Examiner only provided reasons for allowing the claims over a different prior art reference—U.S. Patent No. 5,577,033 (Chang et. al)—which was never relied on in any written rejection or cited in any “Notice of References Cited.” (Ex. 1002 (Bims Decl.) at ¶85). Based on this apparent disconnect, it seems reasonably likely that the Examiner made a mistake in allowing the claims of the 244 patent, and the patentability of those claims should be revisited based on at least the Jawanda reference, which formed the basis for the Examiner’s initial rejections and was held by the ITC to invalidate the very similar claims of the related 970 parent patent.

**D. Level of Skill of a Person of Ordinary Skill in the Art**

The person of ordinary skill in the art of the 244 patent would have a master’s degree or the equivalent in electrical engineering and three or more years of work experience relating to data communications over wireless networks. (Ex. 1002 (Bims Decl.) at ¶90).

**V. THERE IS A REASONABLE LIKELIHOOD THAT AT LEAST ONE CLAIM OF THE 244 PATENT IS UNPATENTABLE.**

As explained above, the 244 patent describes and claims a dual-mode subscriber unit capable of transmitting data on either a cellular communication network or a WLAN network. The following sections explain how this concept—

and all of the claimed features—were already well known in the art prior to the purported invention of the 244 patent. Specifically, the prior art Jawanda patent teaches dual-mode devices with both cellular and WLAN capabilities. To the extent this reference provides insufficient disclosure of specific implementation details required by the challenged claims of the 244 patent, those details are provided in the GPRS Standards and/or IEEE 802.11 Standard.

**A. Ground 1: Under 35 U.S.C. § 103, Jawanda alone or in combination with the GPRS and IEEE 802.11 Standards renders the challenged claims obvious.**

Jawanda renders obvious all of the challenged claims, either alone or in combination with GPRS and IEEE 802.11 Standards. Each of these references is prior art to the 244 patent for the reasons explained above in Part III.C. A detailed claim chart applying these disclosures to the challenged claims is provided in Part VII.A below.

**1. Jawanda and the GPRS and IEEE 802.11 Standards**

Jawanda discloses a dual-mode subscriber unit (mobile phone 16 connected to terminal unit 14) for communicating via either of two wireless connections: a higher-speed network, such as a WLAN network; and a lower-speed network such as a CDMA or GPRS cellular network. (Ex. 1003 (Jawanda) at Abstract, 2:42-47; Ex. 1002 (Bims Decl.) at ¶¶177-79). Jawanda specifically mentions the GPRS Standards as one option for the cellular network, and it would have been obvious to

one of ordinary skill in the art that the IEEE 802.11 Standard presented one available option for the WLAN network. (Ex. 1003 (Jawanda) at 3:6-9; Ex. 1002 (Bims Decl.) at ¶¶166-67;181-82 (citing Ex. 1003 (Jawanda) at 3:1-9, 4:31-44; Ex. 1012 (Geier Treatise) at 90)).

The remainder of this Part maps the challenged claims to Jawanda and the GPRS and IEEE 802.11 Standards, as well as the motivation to combine those teachings with each other. The other independent and dependent claim limitations are addressed in the claim charts in Part VII.A, which show that every limitation of the challenged claims was either expressly disclosed by or would have been obvious in view of the teachings of Jawanda, either alone or in combination with the GPRS and IEEE 802.11 Standards.

## **2. The Independent Challenged Claims**

### **a. Jawanda and the GPRS and IEEE 802.11 Standards render obvious the limitations of independent Claim 1.**

#### **(1) “A subscriber unit comprising”**

Although this preamble is not limiting, Jawanda discloses a dual-mode subscriber unit (mobile phone 16 connected to terminal unit 14) for communicating via either of two wireless connections: a higher-speed network, such as a WLAN network; and a lower-speed network such as a CDMA or GPRS cellular network. (Ex. 1003 (Jawanda) at Abstract, FIGS. 1&2, 2:42-47, 3:28-55; Ex. 1002 (Bims Decl.) at ¶¶177-79).



(2) **“a cellular transceiver configured to communicate with a cellular wireless network via a plurality of assigned physical channels”**

Jawanda discloses “a cellular transceiver configured to communicate with a cellular wireless network via a plurality of assigned physical channels.”

Jawanda discloses a mobile phone 16 capable of communicating with a wireless wide area network (“WWAN”) 10, such as a cellular network. (Ex. 1003 (Jawanda) at FIG. 1; 3:1-9; 4:31-44, 4:47-53; Ex. 1002 (Bims Decl.) at ¶181). One of ordinary skill in the art would understand that the mobile phone 16 necessarily includes a cellular transceiver configured to communicate with a cellular network, and Jawanda expressly cites GPRS as one such available cellular network. (Ex. 1002 (Bims Decl.) at ¶¶181-82; Ex. 1003 (Jawanda) at 3:1-9, 4:31-44)). A person of ordinary skill in the art would understand that, to communicate via a cellular network, a handset must communicate via physical channels. (Ex. 1002 (Bims Decl.) at ¶¶183, 220, 223; Ex. 1003 (Jawanda) at 3:66-4:19). For example, the GPRS Standards define a plurality of physical channels that may be assigned to a mobile phone, and so this teaching is inherent in Jawanda given its reference to GPRS. (Ex. 1002 (Bims Decl.) at ¶¶183-84; *see* Ex. 1005.09 (GSM 05.01) at §§ 2, 5)). Accordingly, Jawanda at least inherently discloses “a cellular transceiver configured to communicate with a cellular wireless network via a plurality of assigned physical channels.”

To the extent Jawanda lacks disclosure of any particular cellular implementation details required by the challenged claims, the GPRS Standards expressly disclose those details. A person of ordinary skill in the art that wanted to find out the details of how GPRS is implemented would be motivated to look at the standards that define the GPRS protocols, i.e. the GPRS Standards. (Ex. 1002 (Bims Decl.) at ¶¶122, 166; Ex. 1003 (Jawanda) at 3:1-9). The GPRS Standards provide for multiple physical data channels that a mobile station may use to transmit data. (Ex. 1005.09 (GSM 05.01), at § 2, 5; Ex. 1002 (Bims Decl.) at ¶184). For example, GPRS included eight basic physical data channels per mobile station, with each physical channel being identified by a time slot number and frequency hopping sequence. (Ex. 1005.09 (GSM 05.01), at §§ 2, 5; Ex. 1002 (Bims Decl.) at ¶184). The GPRS Standards teach that these physical channels can be grouped to form logical uplink channels, like the Packet Data Traffic Channel (PDTCH) and Packet Associated Control Channel (PACCH), which a subscriber unit may use to transmit packet data. (Ex. 1002 (Bims Decl.) at ¶184; Ex. 1005.09 (GSM 05.01) at §§ 2, 5).

The GPRS Standards also teach that a user device may allocate available physical channels to transmit data by selecting one or more channels for use in the transmission. (Ex. 1005.10 (GSM 03.64), at § 6.1.1.2, 6.2.2; Ex. 1002 (Bims Decl.) at ¶¶232-33). In particular, the GPRS Standards disclose that a mobile

station may allocate one or more of the assigned uplink PDTCHs, and thus the physical channels that the PDTCHs are mapped to, as needed for transmission of data. (Ex. 1005.09 (GSM 05.01), at § 2; Ex. 1005.10 (GSM 03.64), at § 5.5.1; Ex. 1002 (Bims Decl.) at ¶184).

**(3) “an IEEE 802.11 transceiver configured to communicate with an IEEE 802.11 wireless local area network”**

Jawanda renders obvious “an IEEE 802.11 transceiver configured to communicate with an IEEE 802.11 wireless local area network.” Jawanda discloses a WLAN transceiver (wireless LAN adapter 64), which is configured to communicate with a WLAN network (WLAN 12). (Ex. 1002 (Bims Decl.) at ¶¶187-90; Ex. 1003 (Jawanda) at 3:43-45, 4:67-5:9, 5:27-32).

Although Jawanda does not refer specifically to the IEEE 802.11 Standard, one of ordinary skill in the art would have understood that the IEEE 802.11 Standard defined the leading WLAN protocol available at that time Jawanda was filed and at the time the 244 patent was filed. (Ex. 1002 (Bims Decl.) at ¶¶ 138-150, 167). Because Jawanda discloses the use of any WLAN network, it would be obvious to connect the Jawanda dual-mode device to the popular and commonly used IEEE 802.11 network. Even had the IEEE 802.11 network not been in existence at the time of Jawanda, the direction to use a WLAN network necessarily encourages one skilled in the art to use any known WLAN network in the

disclosed invention, regardless of when such WLAN network becomes available. *SuperGuide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 876-81 (Fed. Cir. 2004) (construing claims to cover digital television signals even though only analog signals were available at the time the patent was filed).

To the extent it would not be obvious based on Jawanda alone, a person of ordinary skill in the art determining what type of WLAN network to use would have considered the IEEE 802.11 Standards, which describes a type of WLAN Network (Ex. 1002 (Bims Decl.) at ¶¶189-90). For example, Patent Owner's expert, Dr. Stark, in the International Trade Commission testified during the hearing regarding the validity of the 970 parent patent that a person of ordinary skill would have known that 802.11 Standard was one of the options that could be used with Jawanda, and that a person of ordinary skill in the art with knowledge of 802.11 Standard, would have considered it obvious to use that standard (Ex. 1033 (Stark Testimony) at 2125:7-2126:17).

- (4) **“a processor configured to maintain a communication session with the cellular wireless network in an absence of the plurality of assigned physical channels while the IEEE 802.11 transceiver communicates packet data with the IEEE 802.11 wireless local area network”**

Jawanda discloses and renders obvious “a processor configured to *maintain a communication session* with the cellular wireless network in an absence of the

plurality of assigned physical channels while the IEEE 802.11 transceiver communicates packet data with the IEEE 802.11 wireless local area network.”

Like the subsequent 244 patent, Jawanda teaches that a communication session can be established between two devices over a network using either a cellular or WLAN communication path. (Ex. 1002 (Bims Decl.) at ¶192). For example, Figure 3 of Jawanda shows an application 90, running on mobile terminal 14, and communicating with application 91 running on a remote terminal 24. (Ex. 1003 (Jawanda) at FIG. 3, 3:66-4:19). Network access arbitrator 92, also running on terminal 14, chooses between two physical communication paths—the cellular access interface (CAI 94), or the wireless local area network interface (WLAN interface 96)—to transmit and receive datagrams during the communication session. (*Id.*; Ex. 1002 (Bims Decl.) at ¶193 (citing Ex. 1003 (Jawanda) at 3:66-4:19, 4:31-44, 5:20-32)).

Jawanda further teaches that the mobile terminal 14, and the transfer of datagrams from a cellular network to a WLAN “while maintaining the session between applications 90 and 91.” (Ex. 1003 (Jawanda) at 5:34–39, Fig. 4; Ex. 1002 (Bims Decl.) at ¶194). Jawanda teaches that the WLAN path can be substituted for the cellular path, thereby preserving the communication session because the application session is not disturbed—the applications can continue to send or receive datagrams without interruption. (Ex. 1003 (Jawanda) at 5:39-42;

Ex. 1002 (Bims Decl.) at ¶195). Jawanda further teaches that after the handoff to the higher bandwidth WLAN connection, the WWAN connection (cellular connection) may optionally be maintained or terminated. (Ex. 1003 (Jawanda) at Fig. 4 at box 122 (“Seamlessly handoff transfer of datagrams from WWAN connection to WLAN connection while optionally maintaining WWAN connection”); *id.* at 5:64–6:1; Ex. 1002 (Bims Decl.) at ¶195). So after moving the session to transfer datagrams using the WLAN instead of the WWAN, the cellular connection can be maintained even when it is not used to transfer datagrams. (Ex. 1003 (Jawanda) at 5:32-34; Ex. 1002 (Bims Decl.) at ¶195). Maintaining this connection would thus preserve the state of the WWAN connection (Ex. 1003 (Jawanda) at 5:32-34; Ex. 1002 (Bims Decl.) at ¶195); the only difference is that data is not transmitted over the assigned physical channels. (Ex. 1003 (Jawanda) at 5:34-42; Ex. 1002 (Bims Decl.) at ¶195). Only when the connection is terminated are all active data connections closed. (Ex. 1003 (Jawanda) at 5:52-58; Ex. 1002 (Bims Decl.) at ¶195). Therefore, Jawanda discloses the “maintaining communication session” limitation.

To the extent Jawanda does not alone disclose this limitation, it would be obvious in light of Jawanda in combination with the GPRS Standards under InterDigital’s interpretation of the scope of the claims. In prior Nokia and ZTE proceedings, InterDigital has accused certain products of infringing the 244 patent

and satisfying the “maintaining communication session” limitation under their interpretation of the claims through the use of a PDP Context defined in the WCDMA Standards (*See, e.g.*, Ex. 1032 (IDC Infringement Chart) at 3-4). The PDP Context of the WCDMA standards is the same as the PDP Context disclosed in the prior art GPRS Standards, and thus the GPRS Standard disclose the functionality InterDigital now alleges satisfies the “maintaining a communication session” limitation of the 244 patent under the construction proposed by InterDigital. (*See* Ex. 1002 (Bims. Decl.) at ¶ 134-35).

The GPRS Standards explain that a feature called a Packet Data Protocol Context (“PDP Context”) must be activated before a mobile device may transmit data. (Ex. 1005.05 (GSM 04.07), at § 6.5; Ex. 1002 (Bims Decl.) at ¶¶ 200-201). The GPRS Standards teach that PDP Contexts include a number of session management parameters, including, for example, PDP type, PDP address type, and Quality of Service (QOS) parameters. (Ex. 1005.03 (GSM 03.6), at § 13.4; Ex. 1002 (Bims Decl.) at ¶¶ 201-202). PDP Contexts are used by the Session Management Layer. (Ex. 1005.03 (GSM 03.60), at § 6.1 *et seq.*; Ex. 1002 (Bims Decl.) at ¶ 203).

The GPRS Standards describe that an active PDP Context may be maintained even when data is not being transmitted on the physical channels assigned to the handset, or even when the physical channels have been released.

(Ex. 1002 (Bims Decl.) at ¶ 203). For example, a PDP context may be active when a handset is in the READY or STANDBY state but not using the physical channels to transmit data. (*Id.*; Ex. 1005.03 (GSM 03.60), at § 13.4 (“Each GPRS MS maintains MM and PDP context information in IDLE, STANDBY and READY states”); *see also id.* at § 6.1.2 (“The MS may initiate activation or deactivation of PDP contexts while in STANDBY state ” and stating that certain packets can be “received by the SGSN in the MM STANDBY state if a PDP context is activated”), § 6.1.3 (“The MS may activate and deactivate PDP contexts while in READY state”)).

Maintaining a PDP Context even when a mobile device is not transmitting data makes it easier and faster for the mobile device to resume cellular communications the next time it needs to transmit data. (Ex. 1002 (Bims Decl.) at ¶ 203). Thus, under InterDigital’s broad interpretation of the claims that encompasses a PDP context as a logical connection that is maintained, the GPRS Standards similarly disclose the “maintain a communication session” limitation by disclosing the very same PDP context that InterDigital has accused of infringement.<sup>3</sup>

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<sup>3</sup> Petitioner disagrees that maintaining a PDP Context satisfies this limitation, but InterDigital should not be permitted to argue that maintaining a PDP Context



**b. Jawanda and the GPRS and IEEE 802.11 Standards  
render obvious the limitations of independent Claim 23**

The elements of claim 23 are rendered obvious by Jawanda and the GPRS and IEEE 802.11 Standards for the same reasons stated above with respect to similar limitations in claim 1. For example, the preamble of claim 23, to the extent limiting, is disclosed for the same reasons discussed above with respect to claim 1's preamble because Jawanda discloses a dual mode device. Claim 23's first element (the "establishing" step) is also disclosed for the same reasons discussed above regarding claim 1's requirement that the cellular transceiver be configured to communicate with a cellular wireless network and maintain a communication session with the cellular wireless network is disclosed. Claim 23's second element (the "maintaining" step) is disclosed for the same reasons discussed above with regard to claim 1's requirement of "maintain[ing] a communication session with the cellular wireless network in an absence of the plurality of assigned physical channels." Finally, claim 23's third requirement (the "communicating" step) is disclosed for the same reasons discussed above regarding claim 1's requirement of "maintain[ing] a communication session with the cellular wireless network . . .

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infringes the claims in district court under a broad interpretation of the claims and then argue that prior art that discloses the exact same functionality does not invalidate the claims under a narrower interpretation here.

while the IEEE 802.11 transceiver communicates packet data with the IEEE 802.11 wireless local area network.”

### **3. The Dependent Challenged Claims**

#### **a. Jawanda and the GPRS and IEEE 802.11 Standards render obvious the limitations of Claims 2, 3, 22, 24, 25, and 44**

Jawanda alone or in combination with the GPRS and IEEE 802.11 Standards render obvious claims 2, 3, 22, 24, 25, and 44, which add the requirement that (i) the packet data is TCP/IP packet data (claims 2, 22, 23, 44) or (ii) the communication session is a TCP layer session, IP layer session, or network layer session (claims 3, 25) (Ex. 1001 (244 patent); Ex. 1002 (Bims Decl.) at ¶¶ 205-06). Jawanda discloses the use of the internet mobility protocol for communications with the WWAN and WLAN, which necessarily implies the use of a TCP/IP packet data (Ex. 1002 (Bims Decl) at ¶¶ 207-10; Ex. 1003 (Jawanda) at 2:56-62). Jawanda thus also discloses that the communication session could be an IP layer, TCP layer, or network layer session (*id.*). Further, Jawanda in combination with GPRS and IEEE 802.11 Standards render the additional requirements of these claims obvious because GPRS and a IEEE 802.11 network use TCIP/IP packet data. (Ex. 1002 (Bims Decl) at ¶¶ 209-10).

**b. Jawanda and the GPRS and IEEE 802.11 Standards render obvious the limitations of Claims 4, 6, 16, 26, 28, and 38**

Jawanda alone and in combination with the IEEE 802.11 Standards render obvious claims 4, 6, 16, 26, 26, 28, and 38, which each add requirements that are directed towards detecting the availability of and connecting to an IEE 802.11 WLAN and, in some instances, automatically communicating packet data over the IEEE 802.11 WLAN when available. (Ex. 1002 (Bims Decl.) at ¶¶ 211-12).

Jawanda discloses a WLAN interface, which is a detector configured to detect a WLAN network, such as an IEEE 802.11 network (Ex. 1002 (Bims Decl.) at ¶¶ 213, 216; Ex. 1003 (Jawanda) at 4:20-5:32). Specifically, the WLAN is detected according to Jawanda in response to an “advertisement” message from the WLAN network, and the device in Jawanda is configured to connect to and communicate with the WLAN upon detection (*id.*). Thus, the requirements of claims 4, 16, 26, and 38 of a detector detecting the IEEE 802.11 network and communicating and/or automatically communicating via that network in response to that detection are rendered obvious by Jawanda.

Claims 6 and 28 add the requirement that the detector detect a beacon frame or a probe response. This additional requirement is rendered obvious by Jawanda alone because a person of ordinary skill in the art would have known that a beacon frame or a probe response could be used (Ex. 1002 (Bims Decl.) at ¶¶213-215).

To the extent not rendered obvious by Jawanda alone, Jawanda in combination with the IEEE 802.11 standards render obvious the additional requirements of claims 4, 6, 16, 26, 26, 28, and 38 because the IEE 802.11 Standards disclose a detector detecting the IEEE 802.11 network and communicating and/or automatically communicating via that network in response to that detection, including detection through the use of a beacon frame and probe response frame. (Ex. 1002 (Bims Decl.) at ¶¶215; Ex. 1019 (IEEE 802.11 Standard) at §§ 11.1.2.2, 11.1.3, 11.1.3.2).

**c. Jawanda and the GPRS and IEEE 802.11 Standards render obvious the limitations of Claims 5, 21, 27, and 43**

Jawanda alone or in combination with the and the GPRS and IEEE 802.11 Standards render obvious claims 5, 21, 27, and 43, which add the requirement that (i) the processor is configured to release and/or releasing the assigned physical channels or (ii) the processor is configured to release and/or releasing the assigned physical channels in response to low utilization of the assigned physical channels or in response to detection of the IEEE 802.11 WLAN (Ex. 1002 (Bims Decl.) at ¶¶217-218). Specifically, Jawanda discloses that, when a WLAN connection is detected, the WWAN connection is optionally maintained (Ex. 1002 (Bims Decl.) at ¶¶219-20; Ex. 1003 (Jawanda) at FIG. 4, 5:11-19). If the WWAN connection is not maintained, the physical channels are released. (*Id.*). Thus, Jawanda renders

obvious releasing the assigned physical channels in response to a detection of the WLAN connection, such as an IEEE 802.11 connection. (*Id.*).

**d. Jawanda and the GPRS and IEEE 802.11 Standards render obvious the limitations of Claims 7, 8, and 29**

Claims 7 and 29 add that the at least one of the physical channels is a data channel. Jawanda discloses a physical channel that is a data channel because it discloses a cellular access interface that transmits packet data over a cellular data channel (Ex. 1002 (Bims Decl.) at ¶¶ 221, 223-24; Ex. 1003 (Jawanda) at 3:1-9, 3:66-4:19). Further, Jawanda discloses transmissions via a CDMA and/or GPRS protocol, which would include transmission over data channels. (*Id.*).

Jawanda also discloses the additional limitation of claim 8, which requires that “the cellular wireless network is a code division multiple access (CDMA) wireless network, and the cellular transceiver is a cellular code division multiple access (CDMA) transceiver.” (Ex. 1003 (Jawanda) at 3:1–9, 4:31-34, Fig. 1 (emphasis added); Ex. 1002 (Bims Decl.) at ¶¶ 181-82, 224). Jawanda explicitly states that the mobile terminal 14 and mobile phone 16 shown in Figure 1 can communicate with the WWAN “according to any currently available or future wireless data protocol such as *code division multiple access (CDMA)*, CDPD, or GPRS.” (Ex. 1003 (Jawanda) at 3:1–9, 4:31-34, Fig. 1 (emphasis added); Ex. 1002 (Bims Decl.) at ¶¶ 181-82, 224).

**e. Jawanda and the GPRS and IEEE 802.11 Standards render obvious the limitations of Claims 14 and 36**

Jawanda also renders obvious the additional requirement of claims 14 and 36, which states that the “packet data is communicated to the Internet via the IEEE 802.11 wireless local area network, and not via the cellular wireless network.” (Ex. 1002 (Bims Decl.) at ¶¶ 225-26). Jawanda discloses that communication is handed off from a cellular network (WWAN) to a WLAN, and thus datagrams or packet data would be communicated to the Internet via the WLAN, such as an IEEE 802.11 WLAN, and not the cellular wireless network. (*id.* at ¶ 227; Ex. 1003 (Jawanda) at 4:20-30, 5:20-42).

**f. Jawanda and the GPRS and IEEE 802.11 Standards render obvious the limitations of Claims 15 and 37**

Jawanda also renders obvious the additional requirements of claims 15 and 37, which require a processor configure to allocate and deallocate or allocating and deallocating at least one of the assigned physical channels (Ex. 1002 (Bims Decl.) at ¶¶ 228-229). Jawanda teaches that the application or the user may decide when to start using or stop using the cellular connection by monitoring the activity of the session (Ex. 1002 (Bims Decl.) at ¶¶ 230-31; Ex. 1003 (Jawanda) at 5:56-6:1). Based on this monitoring, the network access arbitrator will select to use (allocate) or stop using (deallocate) the cellular connection and thus the assigned physical channels (*id.*). To the extent Jawanda does not render this requirement obvious

alone, Jawanda in combination with the GPRS Standards would render this element obvious because GPRS provides that the mobile can select when to stop using and when to use the available channels based on the “capacity on demand” principle implemented in those standards. (Ex. 1002 (Bims Decl.) at ¶¶232-33; Ex. 1005.10 (GSM 03.64) at §§ 6.1.2, 6.2.2).

**g. Jawanda and the GPRS and IEEE 802.11 Standards render obvious the limitations of Claims 19, 20, 41, and 42**

Jawanda alone or in combination with the GPRS and IEEE 802.11 Standards renders obvious claims 19, 20, 41, and 42, which add the requirement that the processor be configured to automatically communicate with the cellular network (i) on a condition that the IEEE 802.11 network is unavailable or (ii) by utilizing the communication session with the cellular network. (Ex. 1002 (Bims Decl.) at ¶¶234-35).

Jawanda discloses a terminal capable of communicating with a cellular network by utilizing the communication session with that network. (Ex. 1002 (Bims Decl.) at ¶236; Ex. 1003 (Jawanda) at 3:66-4:19). Jawanda further discloses automatically using the WLAN when available and thus discloses only communicating with the cellular network when a WLAN, such as an IEEE 802.11 network, is not available. (Ex. 1002 (Bims Decl.) at ¶¶ 236-37; Ex. 1003 (Jawanda) at 4:20-30, 5:43-52, 5:62-6:10). To the extent not rendered obvious by

Jawanda alone, communication with an IEEE 802.11 network would be rendered obvious by Jawanda in combination with the IEEE 802.11 Standard.

**4. There is a strong motivation to combine Jawanda with the IEEE 802.11 Standard and the GPRS Standards.**

Microsoft submits that Jawanda by itself discloses or renders obvious every limitation of the challenged claims. However, to the extent Jawanda alone is found not to disclose (either expressly or inherently) or render obvious, any necessary detail for implementing the required cellular or WLAN capabilities, those details are disclosed in the GPRS and IEEE 802.11 Standards.

Jawanda provides an express motivation to combine its teachings with the GPRS and IEEE 802.11 Standards. Jawanda explicitly teaches both a WWAN and a WLAN for use with a mobile terminal. (Ex. 1003 (Jawanda) at 2:38-47, Fig. 1; (Ex. 1002 (Bims Decl.) at ¶¶ 181, 188). Jawanda explicitly states that the mobile terminal 14 and mobile phone 16 shown in Figure 1 can communicate with the WWAN “according to any currently available or future wireless data protocol such as code division multiple access (CDMA), CDPD, *or GPRS*.” (Ex. 1003 (Jawanda) at 3:1–9, 4:31-35, Fig. 1 (emphasis added); Ex. 1002 (Bims Decl.) at ¶¶ 181-82). In addition, Jawanda states that the same mobile terminal 14 can communicate with a WLAN. (Ex. 1003 (Jawanda) at 2:48-67, 4:20-30, Figs. 1, 4; Ex. 1002 (Bims Decl.) at ¶ 188). Although Jawanda does not refer specifically to the IEEE 802.11 Standard, one of ordinary skill in the art would have understood that the



IEEE 802.11 Standard defined one of the leading WLAN protocols available at that time. (Ex. 1002 (Bims Decl.) at ¶¶ 138-150, 167).

In addition to the express mention of GPRS in Jawanda, it would have been an obvious design choice to a person of ordinary skill in the art that the mobile phone in Jawanda be selected to comply with the then-existing, well-known GPRS Standards. (Ex. 1002 (Bims Decl.) at ¶ 166). *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (“When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp.”). Naturally, a person of ordinary skill would have found it obvious to reference the GPRS Standards for details about how to implement the cellular features taught in Jawanda. (Ex. 1002 (Bims Decl.) at ¶ 122).

This same motivation and reasoning also applies to the WLAN disclosed in Jawanda. It would have been obvious to implement the WLAN using the IEEE 802.11 Standard because it was the first publicly available and internationally accepted wireless data protocol for WLANs, and it was one of the few WLAN options available at the time. (Ex. 1002 (Bims Decl.) at ¶¶ 138-150, 167). As with the GPRS Standards, one of ordinary skill seeking to implement the WLAN disclosed in Jawanda would naturally consider the WLAN standards available at the time of implementation, such as the IEEE 802.11 Standard, for details on how

to realize the WLAN implementation described in Jawanda. (*Id.*). Indeed, the Examiner articulated precisely this obvious motivation during the prosecution of the great-grandparent application to the 244 patent (U.S. Application Serial No. 10/341,528). The examiner rejected a claim requiring an IEEE 802.11 transceiver as obvious over U.S. Patent No. 5,406,643 to Burke [Ex. 1022], which disclosed a WLAN transceiver, finding that the disclosure of a WLAN transceiver rendered obvious the selection of the IEEE 802.11 protocol for implementing the WLAN. (Ex. 1024 [10/341,528 Application, May 5, 2005 Office Action]; Ex. 1002 (Bims Decl.) at ¶ 144).

Finally, Part III.C above addresses the specific obviousness of and motivation for combining the constituent sections of the GPRS Standards.

## **VI. SECONDARY CONSIDERATIONS SUPPORT OBVIOUSNESS**

The volume of similar prior art published or otherwise disclosed around the same time as the purported invention, including the art discussed here, evidences simultaneous development by others of the specific features of the alleged invention (*e.g.*, dual-mode devices that maintain communication sessions) and is a secondary consideration that weighs in favor of obviousness. (Ex. 1002 (Bims Decl.) at ¶¶ 304-306; *see, e.g.*, Ex. 1002 (Bims Decl.) at ¶¶ 45, 107, 110-11, 115-18; Ex. 1003 (Jawanda) at Abstract, 1:9-14, Fig. 4, 2:22-24, 2:31-34, 2:62-67, 3:1-9, 6:11-15, 4:61-5:9, 5:20-42; Ex. 1004 (Lemilainen) at 2:66-3:4, 3:19-30, FIG. 2,

3:49-50, 4:19-32, 10:31-51). *See Geo M. Martin Co. v. Alliance Mach. Sys.*, 618 F.3d 1294, 1305-06 (Fed. Cir. 2010) (“Independently made, simultaneous inventions, made ‘within a comparatively short space of time,’ are persuasive evidence that the claimed apparatus ‘was the product only of ordinary mechanical or engineering skill.’”)

## VII. CLAIM CHARTS

The following claim chart identifies the specific location in Jawanda, the GPRS Standard, and IEEE 802.11 Standard where the evidence cited above is disclosed.

### A. Jawanda and the GPRS and IEEE 802.11 Standards

Claims 1 and 23	Disclosure of Jawanda
1. A subscriber unit comprising:	<p>“A mobile computer system capable of seamless roaming between wireless communication networks includes data processing resources for executing software, a plurality of wireless interfaces that supports simultaneous wireless connections with first and second wireless communication networks, and a network access arbitrator that routes data communicated between the software executed by the data processing resources and the first and second wireless communication networks.”</p> <p>(Ex. 1003 (Jawanda) at Abstract.)</p>
23. A method for use in a dual mode subscriber unit, the method comprising:	
Claims 1 and 23	Disclosure of Jawanda and GPRS
(1a) a cellular transceiver configured to communicate with a cellular wireless network via a plurality of assigned physical channels;	<p>“For data connections, such wireless signals can be transmitted according to any currently available or future wireless data protocol such as code division multiple access (CDMA), CDPD, or GPRS.”</p>

<p>(23a) establishing a communication session with a cellular wireless network;</p>	<p>(Ex. 1003 (Jawanda) at 3:6-9.)</p> <p>“In any event, a signal is transmitted via I/O adapter 78 to mobile phone 16, which responds to the signal by establishing the wireless data connection utilizing a conventional technique, for example, by requesting a connection from the MSC within NSS 32 using a message transmitted to base station 30 via control channel.”</p> <p>(Ex. 1003 (Jawanda) at 4:38-44.)</p> <p>“Multislot configurations for packet switched connections are defined as multiple (1 up to 8) PDTCH/Us and one PACCH for one mobile originated communication, or multiple (1 up to 8) PDTCH/Ds and one PACCH for one mobile terminated communication respectively, allocated to the same MS. In this context allocation refers to the list of PDCH that may dynamically carry the PDTCHs for that specific MS. The PACCH shall be mapped onto one PDCH carrying one PDTCH/U or PDTCH/D. That PDCH shall be indicated in the resource allocation message (see GSM 04.60).”</p> <p>(Ex. 1005.09 (GPRS Standard, 3GPP TS 05.01 V6.1.1 R97), at § 2 Set of channels.)</p> <p>“The access schemes is Time Division Multiple Access (TDMA) with eight basic physical channels per carrier. The carrier separation is 200 kHz. A physical channel is therefore defined as a sequence of TDMA frames, a time slot number (modulo 8) and a frequency hopping sequence.”</p> <p>(Ex. 1005.09 (GPRS Standard, 3GPP TS 05.01 V6.1.1 R97), at § 5 Set of channels.)</p>
<p><b>Claim 1</b></p>	<p><b>Disclosure of Jawanda and IEEE 802.11</b></p>
<p>(1b) an IEEE 802.11 transceiver configured to communicate with an IEEE 802.11 wireless local area</p>	<p>“WLAN 12, which may form, for example, the intranet of a business, has at least one wireless network adapter 20, a wireless LAN gateway (WLAN-G) 22, and one or more fixed terminals</p>

network; and	<p>24 that are all interconnected by a conventional (e.g., Ethernet) network. Wireless LAN gateway 22 forms the demarcation point of WLAN 12 and performs all necessary protocol conversions so that entities within WLAN 12 can communicate with entities coupled to external network 13. As discussed further herein below, datagrams are preferably communicated between WWAN 10 and WLAN 12 across external network 13 utilizing the mobile internet protocol (IP) described in detail in Perkins, C., “IP Mobility Standard,” RFC 2002, October 1996 available from the Internet Engineering Task Force (IETF) and incorporated herein by reference. Wireless network adapter 20 is in all respects like the conventional network adapter cards utilized to interface fixed terminals 24 to WLAN 12, except that one or more mobile terminals 14 can obtain a high bandwidth wireless connection to WLAN 12 via wireless network adapter 20.”</p> <p>(Ex. 1003 (Jawanda) at 2:48-67.)</p>
<b>Claims 1 and 23</b>	<b>Disclosure of Jawanda and GPRS</b>
(1c) a processor configured to maintain a communication session with the cellular wireless network in an absence of the plurality of assigned physical channels while the IEEE 802.11 transceiver communicates packet data with the IEEE 802.11 wireless local area network.	<p>“Then, as depicted at block 122, network access arbitrator 92 causes the transfer of datagrams to be seamlessly handed off from the wireless connection with WWAN 10 to the wireless connection with WLAN 12 while maintaining the session between applications 90 and 91. Thus, following block 122, datagrams are routed between application 90 and application 91 utilizing the higher bandwidth data path between WLAN interfaces 96 rather than between CAIs 94, as shown at block 124.”</p>

<p>(23b/c) maintaining the communication session in an absence of any physical channels associated with the cellular wireless network; and</p> <p>communicating packet data with an IEEE 802.11 wireless local area network while maintaining the communication session with the cellular wireless network.</p>	<p>(Ex. 1003 (Jawanda) at 5:34-42.)</p> <p>“Seamlessly handoff transfer of datagrams from WWAN connection to WLAN connection while optionally maintaining WWAN connection”</p> <p>(Ex. 1003 (Jawanda) at Fig. 4, label 122.)</p> <p>“Regardless if a radio resource is allocated to the subscriber or not, the MM context remains in the READY state even when there is no data being communicated.”</p> <p>(Ex. 1005.03 (GSM 03.60) at § 6.1.3).</p> <p>“Session Management services are provided at the SMREG-SAP and the SNSM-SAP for anonymous and non-anonymous access. The non-anonymous and anonymous access procedures for PDP context activation and PDP context deactivation are available at the SMREG-SAP. In addition there exists a PDP context modification for non-anonymous PDP contexts.”</p> <p>(Ex. 1005.04 (GSM 04.07) at § 6.5 Session Management Services for GPRS-Services.)</p> <p>“In the non-anonymous access case, the MM state relates only to GPRS MM activities of a subscriber. The MM state is independent of the number and state of PDP contexts for that subscriber.”</p> <p>(Ex. 1005.03 (GSM 03.60) at § 6.1 Definition of Mobility Management States.)</p> <p>“Each GPRS MS maintains MM and PDP context information in IDLE, STANDBY, and READY states.”</p> <p>(Ex. 1005.03 (GSM 03.60) at § 13.4 MS)</p> <p>“The MS may initiate activation or deactivation of PDP contexts while in STANDBY state. A PDP context shall be activated before data is transmitted or received. A MT PTP or PTM-G</p>
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	<p>packet can be received by the SGSN in the MM STANDBY state if a PDP context is activated. . . ”</p> <p>(Ex. 1005.03 (GSM 03.60) at §6.1.2 STANDBY State)</p> <p>“The MS may activate and deactivate PDP contexts while in READY state”</p> <p>(Ex. 1005.03 (GSM 03.60) at § 6.1.3 READY State)</p>
<b>Claims 2, 3, 22, 24, 25, 44</b>	<b>Disclosure of Jawanda</b>
<p><b>2.</b> The subscriber unit of claim 1, wherein the packet data is transmission control protocol and Internet protocol (TCP/IP) packet data.</p>	<p>“As discussed further herein below, datagrams are preferably communicated between WWAN 10 and WLAN 12 across external network 13 utilizing the mobile internet protocol (IP) described in detail in Perkins, C., “IP Mobility Standard,” RFC 2002, October 1996 available from the Internet Engineering Task Force (IETF) and incorporated herein by reference.”</p> <p>(Ex. 1003 (Jawanda) at 2:56-62.)</p>
<p><b>3.</b> The subscriber unit of claim 1, wherein the communication session is a transmission control protocol (TCP) layer session, an Internet protocol (IP) layer session, or a network layer session.</p>	
<p><b>22.</b> The subscriber unit of claim 1, wherein the packet data is transmission control protocol and Internet protocol (TCP/IP) data.</p>	
<p><b>24.</b> The method of claim 23, wherein the packet data is transmission control protocol and Internet protocol (TCP/IP) packet data.</p>	

<p><b>25.</b> The method of claim 23, wherein the communication session is a transmission control protocol (TCP) layer session, an Internet protocol (IP) layer session, or a network layer session.</p>	
<p><b>44.</b> The method of claim 23, wherein the packet data is transmission control protocol and Internet protocol (TCP/IP) data.</p>	
<p><b>Claims 4, 6, 16, 26, 28, 38</b></p>	<p><b>Disclosure of Jawanda and IEEE 802.11</b></p>
<p><b>4.</b> The subscriber unit of claim 1, further comprising:</p> <p style="padding-left: 40px;">a detector configured to detect the IEEE 802.11 wireless local area network;</p> <p style="padding-left: 40px;">a circuit configured to select the IEEE 802.11 transceiver in response to the detector detecting the IEEE 802.11 wireless local area network.</p>	<p>“As depicted at block 106, a determination can be made at any time following block 102 whether or not a higher bandwidth data connection is available. The determination illustrated at block 106 can be made by WLAN interface 96, for example, which may periodically poll to determine whether a connection can be obtained directly with WLAN 12 via wireless network adapter 20. This polling behavior may entail WLAN interface 96 periodically determining whether an “advertisement” message has been received by wireless LAN adapter 64 from wireless network adapter 20. Alternatively, and less preferably since mobile terminal 14 is typically powered by a limited life battery, the determination illustrated at block 106 can represent WLAN interface 96 detecting whether an “advertisement” message transmitted by wireless LAN adapter 64 has received a response from WLAN interface 96.”</p> <p style="text-align: right;">(Ex. 1003 (Jawanda) at 4:61-5:9; fig. 4 at label 106.)</p> <p>“11.1.3.2 Active scanning. Active scanning</p>
<p><b>6.</b> The subscriber unit of claim 4, wherein the detector is configured to detect a beacon frame or a probe response frame received by the IEEE 802.11 transceiver from the IEEE 802.11 wireless local area network.</p>	



<p><b>16.</b> The subscriber unit of claim 1, further comprising: a detector configured to detect whether the IEEE 802.11 wireless local area network is available, wherein packet data is automatically communicated to the IEEE 802.11 wireless local area network when the IEEE 802.11 wireless local area network is available.</p>	<p>involves the generation of Probe frames and the subsequent processing of received Probe Response frames. The details of the active scanning procedures are as specified in the following subclauses.</p> <p><i>11.1.3.2.1 Sending a probe response.</i> STAs, subject to criteria below, receiving Probe Request frames shall respond with a probe response only if the SSID in the probe request is the broadcast SSID or matches the specific SSID of the STA. Probe Response frames shall be sent as directed frames to the address of the STA that generated the probe request. The probe response shall be sent using normal frame transmission rules.”</p>
<p><b>26.</b> The method of claim 23, further comprising: detecting the IEEE 802.11 wireless local area network; and communicating with the IEEE 802.11 wireless local area network in response to detecting the IEEE 802.11 wireless local area network.</p>	<p>(Ex. 1019 (IEEE 802.11 Standard) at § 11.1.3.2.</p>
<p><b>28.</b> The method of claim 26, wherein detecting the IEEE 802.11 wireless local area network comprises receiving a beacon frame or a probe response frame from the IEEE 802.11 wireless local area network.</p>	
<p><b>38.</b> The method of claim 23, further comprising: detecting whether the IEEE 802.11 wireless local</p>	

<p>area network is available; and</p> <p>automatically communicating packet data with the IEEE 802.11 wireless local area network upon detection of the IEEE 802.11 wireless local area network being available.</p>	
<b>Claims 5, 21, 27, 43</b>	<b>Disclosure of Jawanda</b>
<p><b>5.</b> The subscriber unit of claim 4, wherein the processor is further configured to release the plurality of assigned physical channels.</p>	<p>“Seamlessly handoff transfer of datagrams from WWAN connection to WLAN connection while optionally maintaining WWAN connection” (Ex. 1003 (Jawanda) at Fig. 4, label 122.)</p> <p>“[T]he process passes to block 108, which illustrates a determination of whether or not the session has been terminated by the user or by application 90. If not, the process simply returns to block 104, which has been described. If, however, a determination is made at block 108 that the session has been terminated, the process passes to block 110, which illustrates network access arbitrator 92 terminating all active wireless data connections. The process then ends at block 150.” (Ex. 1003 (Jawanda) at 5:11-19.)</p>
<p><b>21.</b> The subscriber unit of claim 1, wherein the processor is configured to release the plurality of assigned physical channels in response to a low utilization of the plurality of assigned physical channels or in response to a detection of the IEEE 802.11 wireless local area network.</p>	
<p><b>27.</b> The method of claim 26, further comprising: releasing all assigned physical channels associated with the first cellular wireless network.</p>	
<p><b>43.</b> The method of claim 23, further comprising: releasing all assigned physical channels in</p>	

response to a low utilization of the assigned physical channels or in response to a detection of the IEEE 802.11 wireless local area network.	
<b>Claims 7, 8, 29</b>	<b>Disclosure of Jawanda</b>
<b>7.</b> The subscriber unit of claim 1, wherein at least one of the plurality of assigned physical channels is a data channel.	<p>“For data connections, such wireless signals can be transmitted according to any currently available or future wireless data protocol such as code division multiple access (CDMA), CDPD, or GPRS.”</p> <p>(Ex. 1003 (Jawanda) at 3:6-9.)</p>
<b>8.</b> The subscriber unit of claim 1, wherein the cellular wireless network is a code division multiple access (CDMA) wireless network, and the cellular transceiver is a cellular code division multiple access (CDMA) transceiver.	
<b>29.</b> The method of claim 23, wherein at least one of the physical channels is a data channel.	
<b>Claims 14, 36</b>	<b>Disclosure of Jawanda</b>
<b>14.</b> The subscriber unit of claim 1, wherein the packet data is communicated to the Internet via the IEEE 802.11 wireless local area network, and not via the cellular wireless network.	<p>“Thus, following block 122, datagrams are routed between application 90 and application 91 utilizing the higher bandwidth data path between WLAN interfaces 96 rather than between CAIs 94, as shown at block 124.”</p> <p>(Ex. 1003 (Jawanda) at 5:39-42.)</p>

<p><b>36.</b> The method of claim 23, wherein the packet data is communicated to the Internet via the IEEE 802.11 wireless local area network, and not via the cellular wireless network.</p>	<p>“As discussed further herein below, datagrams are preferably communicated between WWAN 10 and WLAN 12 across external network 13 utilizing the mobile internet protocol (IP) described in detail in Perkins, C., “IP Mobility Standard,” RFC 2002, October 1996 available from the Internet Engineering Task Force (IETF) and incorporated herein by reference.”</p> <p>(Ex. 1003 (Jawanda) at 2:56-62.)</p>
<p><b>Claims 15, 37</b></p>	<p><b>Disclosure of Jawanda and GPRS</b></p>
<p><b>15.</b> The subscriber unit of claim 1, wherein the processor is further configured to allocate and deallocate at least one of the plurality of assigned physical channels.</p>	<p>“If so, network access arbitrator 94 closes all active wireless data connections at block 110, and the process ends at block 150. If, on the other hand, a determination is made at block 128 that the session has not been terminated, the process returns to block 124, which has been described. Returning to block 126, in response to a</p>
<p><b>37.</b> The method of claim 23, further comprising: allocating and deallocating at least one physical channel associated with the cellular wireless network.</p>	<p>determination by network access arbitrator 92 that the transfer of datagrams should be handed off, the process passes to block 130. Block 130 illustrates network access arbitrator 92 causing a wireless data connection to be reestablished with WWAN 10 in the manner described above with respect to block 102, if such a connection is not already active.”</p> <p>(Ex. 1003 (Jawanda) at 5:56-6:1.)</p> <p>“For data connections, such wireless signals can be transmitted according to any currently available or future wireless data protocol, such as code division multiple access (CDMA), CDPD, or GPRS.”</p> <p>(Ex. 1003 (Jawanda) at 3:6-9.)</p> <p>“Multislot configurations for packet switched connections are defined as multiple (1 up to 8) PDTCH/Us and one PACCH for one mobile originated communication, or multiple (1 up to 8) PDTCH/Ds and one PACCH for one mobile terminated communication respectively, allocated</p>

	<p>to the same MS. In this context allocation refers to the list of PDCH that may dynamically carry the PDTCHs for that specific MS. The PACCH shall be mapped onto one PDCH carrying one PDTCH/U or PDTCH/D. That PDCH shall be indicated in the resource allocation message (see GSM 04.60).”</p> <p>(Ex. 1005.09 (GPRS Standard, 3GPP TS 05.01 V6.1.1 R97), at § 2 Set of channels.)</p> <p>“The GPRS does not require permanently allocated PDCHs. The allocation of capacity for GPRS can be based on the needs for actual packet transfers which is here referred to as the “capacity on demand” principle.”</p> <p>(Ex. 1005.10 [(GSM 03.64 v. 6.1.0] at §6.1.1.2.)</p> <p>“When selecting a new cell, mobile station leaves the packet transfer mode, enters the packet idle mode where it switches to the new cell, read the system information and may then resume to packet transfer mode in the new cell.”</p> <p>(Ex. 1005.10 [(GSM 03.64 v. 6.1.0] at §6.2.2.)</p>
<b>Claims 19, 20, 41, 42</b>	<b>Disclosure of Jawanda</b>
<p><b>19.</b> The subscriber unit of claim 1, wherein the processor is further configured to automatically communicate with the cellular wireless network on a condition that the IEEE 802.11 wireless local area network is unavailable.</p>	<p>“Next, as illustrated at block 126, network access arbitrator 92 determines whether or not the transfer of datagrams should be handed off to the connection with WWAN 10, for example, in response to mobile terminal14 being moved out of range of WLAN 12 due to the user leaving the business premises housing WLAN 12. The determination made at block 126 can be based on one or more factors, including the number of transmission errors detected by WLAN interface 96 and the received signal strength (RSS) of signals received by wireless LAN adapter 64. In response to a determination</p> <p>at block 126 that the transfer of datagrams should not be handed off, the process passes to block 128, which illustrates a determination of whether or not</p>
<p><b>20.</b> The subscriber unit of claim 19, wherein the processor is configured to automatically communicate with the cellular wireless network by utilizing the</p>	

communication session with the cellular wireless network.	<p>the user or application 90 has terminated the session with application 91. If so, network access arbitrator 94 closes all active wireless data connections at block 110, and the process ends at block 150. If, on the other hand, a determination is made at block 128 that the session has not been terminated, the process returns to block 124, which has been described.”</p> <p>(Ex. 1003 (Jawanda) at 5:43-61.)</p>
<p><b>41.</b> The method of claim 23, further comprising:  automatically communicating with the cellular wireless network on a condition that the IEEE 802.11 wireless local area network is unavailable.</p>	
<p><b>42.</b> The method of claim 41, wherein automatically communicating with the cellular wireless network includes utilizing the communication session with the cellular wireless network.</p>	

## VIII. CONCLUSION

*Inter Partes* review should be granted and claims 1-8, 14-16, 19-29, 36-38, and 41-44 of the 244 patent found unpatentable.

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Respectfully submitted,

/John D. Haynes/

John D. Haynes (Reg. No. 44,926)

E-mail: john.haynes@alston.com

David S. Frist (Reg. No. 60,511)

E-mail: david.frist@alston.com

Alston & Bird LLP

1201 West Peachtree Street

Atlanta, GA 30309-3424

Telephone: (404) 881-7000

Fax: (404) 253-8292

*Attorneys for Microsoft Corporation*

**CERTIFICATE OF SERVICE**

I hereby certify that a true copy of the foregoing **Petition for *Inter Partes* Review of U.S. Patent No. 8,380,244** and supporting materials have been served in their entirety on October 16, 2014, by UPS Overnight delivery on:

<b>Patent Owner</b>	<b>Counsel for Patent Owner</b>
Lawrence F. Shay President IPR Licensing, Inc. 200 Bellevue Parkway, Suite 300 Wilmington, DE 19809 Telephone: (302) 281-3600	Jonathan D. Link Reg. No. 41,548 Latham & Watkins LLP 555 11th Street, NW Suite 1000 Washington, D.C. 20004-1304 Telephone: (202) 637-2200 Facsimile: (202) 637-2201 E-mail: jonathan.link@lw.com
<b>Patent Owner's Correspondence Address of Record</b>	
VOLPE AND KOENIG, P.C. DEPT. ICC United Plaza 30 South 17th Street Philadelphia, PA 19103	Julie M. Holloway Reg. No. 44,769 Latham & Watkins LLP 505 Montgomery Street Suite 2000 San Francisco, CA 94111-6538 Telephone: (415) 391-0600 Facsimile: (415) 395-8095 E-mail: julie.holloway@lw.com

/s/ John D. Haynes  
John D. Haynes