ZTE Corporation And ZTE (USA) Inc.
And
Microsoft Corporation, Petitioners

v.

IPR Licensing, Inc.
Patent Owner

Hearing Presentation By
Patent Owner IPR Licensing, Inc.

May 21, 2015

Case IPR2014-00525
Patent 8,380,244

Key Distinctions Over Prior Art

Jawanda says nothing about physical channels ... Jawanda teaches using a standard cellular connection

Response at 10

In the cellular standards at the time of the invention, the base station, not the subscriber unit, selected the channels

Response at 10

Furthermore, in the then-existing cellular standards, including GPRS, there was no notion of a separate logical connection that was maintained without the corresponding physical connection

Response at 11

Ex. 2024-0002

Prosecution History Key Events

Examiner Expressly Considered Jawanda and "Communication Session"

Office Action Summary

Jawanda teaches a dual mode phone that uses a network access arbitrator that provides seamlessly handoff transfer of datagrams from WWAN connection (i.e. cellular network) to WLAN connection, **WHILE maintaining WWAN connection** (see step 122 in figure 4, abstract, col. 3 lines 1-27, col. 3 line 66 – col. 4 line 19, col. 5 lines 20-42). Jawanda even teaches seamlessly handoff transfer of datagrams from WLAN connection to WWAN connection **WHILE maintaining WLAN connection** (see step 132 in figure 4, col. 5 line 62 – col. 6 line 20). Jawanda is extremely clear in that the present invention provides an improved method and system for wireless data communication in which transfer of datagrams may be seamlessly handed off between multiple concurrent wireless data connections **while maintaining an application-level session** (col. 6 lines 11-20)..

            *   *   *

incorporate the software network arbitrator as taught by Jawanda in order to maintain a communication session with the WWAN (i.e. first wireless network such as CDMA) WHILE communication datagrams (i.e. packet data) with the WLAN as disclosed by Jawanda which ultimately provides for seamless roaming between wireless communication networks.

Ex. 2001 at 8

Examiner Discussed Jawanda With Patentee

REPLY PURSUANT TO 37 C.F.R. §1.111

As discussed with the Examiner during the April 11, 2012 telephonic interview, Sainton, Lemilainen, and Jawanda, alone or in combination, fail to teach or suggest "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," as claimed in claim 1. For at least this reason, claim 1 is believed to be patentable over the combination of Sainton, Lemilainen, and Jawanda.

Ex. 2001 at 34-35

Examiner Allowed Claims Over Jawanda

	Application No.	Applicant(s)	
Notice of Allowability	12/615,098	GORSUCH, THOMAS E.	
	Examiner	Art Unit	
	BARRY TAYLOR	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *T.D. 4/20/2012*.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are *1,4-11 and 14-48*.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF

Agreed Construction of Assigned Physical Channels

Petitioner's Proposed Construction For "Assigned Physical Channels"

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

	ZTE
plurality of	**plurality of physical**
assigned	**channels available for the**
physical	**subscriber unit to select for**
channels	**use**

Petition at 10

¶¶98-99). 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

Petition at 11

Patent Owner Agrees With This Construction

PATENT OWNER'S RESPONSE TO PETITION FOR _INTER PARTES_ REVIEW OF U.S. PATENT NO. 8,380,244

Patent Owner agrees with ZTE that the relevant constructions from the Delaware Litigation are correct, and should be applied in this proceeding.

The term "assigned physical channels" was properly construed as "physical channels available for the subscriber unit to select for use." Ex. 2009 (Markman

Response at 13

Construction of "Assigned Physical Channels"

DECLARATION OF DR. WAYNE E. STARK

A District Court judge has concluded, and Dr. Bims and I both agree, that these "assigned physical channels" are cellular physical channels that are available for the subscriber unit to select for use. *See* ZTE Ex. 1002 (Bims Decl.) at ¶¶ 95-100; Pet. at 9-10.

Ex. 2005 (Stark Decl.) at ¶32

Construction of "Assigned Physical Channels"

DECLARATION OF DR. HARRY BIMS IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,380,244

Term	ZTE's Position Case No. 13-cv-00009-RGA
[a] plurality of assigned physical channels	[a] plurality of physical channels available for the subscriber unit to select for use

Ex. 1002 (Bims Decl.) at ¶96

"release," and "allocate" are unclear, and in my opinion, ZTE's proposed constructions for these terms properly capture the teaching of the 244 patent in light of the specification and of knowledge of a person having ordinary skill in the art at the time of the 244 patent. Further,

Ex. 1002 (Bims Decl.) at ¶97

Construction of "Assigned Physical Channels"

PETITIONERS' REPLY TO PATENT OWNER'S RESPONSE

The parties agree that the claims correspond to a two-step process in which channels are first made available (assigned) and then they are selected for use (allocated). Pet. 9-13; Ex. 1002 (Bims Decl.), ¶¶ 97-98; Ex. 2005 (Stark Decl.), ¶ 70; *see* Ex. 1025 (Stark Tr.), at 31:14-16. Claim 1 describes the result of the first

Reply at 3

In *InterDigital Communications, Inc. v. ZTE Corp.*, Civ. Action No. 1:13-cv-0009-RGA (the "District Court Case") the District Court judge found that the "assigned physical channels" are "physical channels available for the subscriber unit to select for use." Ex. 2009 (Markman Op.) at 14-15. As the District Court noted, the defendants, including ZTE, specifically argued that channels are made available for use, and "a subset of those available channels are selected for use" by the subscriber unit. *Id*. at 15. The District Court therefore construed the claims to

Ex. 2005 (Stark Decl.) at ¶33

Ex. 2024-0012

MEMORANDUM OPINION

points in the patent's specification and claims. (D.I. 140 at 83). The Defendants argue that the specification teaches that "a bandwidth management function that *makes channels available for use* [assigns channels], and that a <u>subset</u> of those available channels are <u>*selected for use*</u> [allocated] to send data." *Id.* at 84 (emphasis and brackets in original).

* * *

and do not appear to be used interchangeably. Therefore the Court finds that the Defendants' constructions accurately capture the proper scope of the various claim terms.

Ex. 2009 (Markman Op.) at 15-16

The "Subscriber Unit Of The Present Invention" Selects The Physical Channels

DECLARATION OF DR. WAYNE E. STARK

34. Notably, the specification teaches that a "subscriber unit 101 incorporating the features of the present invention" is shown in Figure 6. This subscriber unit of "the present invention" includes the "bandwidth management function 134 [that] is responsible for allocating [i.e., selecting] ... CDMA radio channels 160 as required." *See* ZTE Ex. 1001 ('244 Patent) at 9:64-66. In other words, the specification makes clear that the subscriber unit, through the bandwidth management function selects physical channels for use.

Ex. 2005 (Stark Decl.) at ¶34

The "Subscriber Unit Of The Present Invention" Mandates The Agreed-Upon Construction

FIG. **6** is a high-level block diagram of a subscriber unit of the present invention.

* * *

The bandwidth management function **134** is responsible for allocating and deallocating CDMA radio channels **160** as required. Bandwidth management **134** also includes the

* * *

continuously available. However, wireless bandwidth is allocated only when there is actual data present from the terminal equipment to the CDMA transceiver **140**. Therefore, the net-

Ex. 1001 ('244 Patent) at 4:59-60; 9:64-66; 10:33-36

> "When a patent thus describes the features of 'the present invention' as a whole, this description limits the scope of the invention."
>
> *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007)
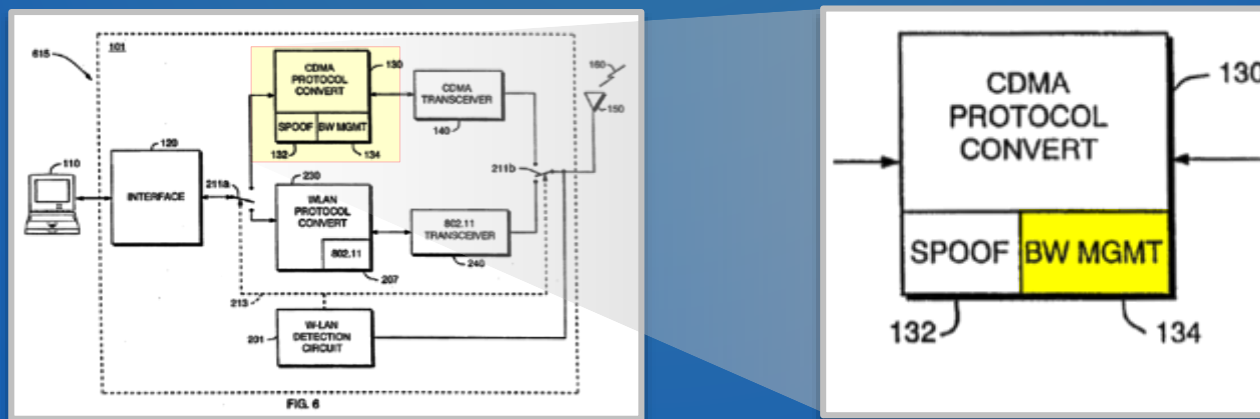
The "Subscriber Unit Of The Present Invention" Selects Physical Channels As Needed To Transfer Data

FIG. **6** is a high-level block diagram of a subscriber unit of the present invention.

*   *   *

The bandwidth management function **134** is responsible for allocating and deallocating CDMA radio channels **160** as required. Bandwidth management **134** also includes the

*   *   *

continuously available. However, wireless bandwidth is allocated only when there is actual data present from the terminal equipment to the CDMA transceiver **140**. Therefore, the net-

Ex. 1001 ('244 Patent) at 4:59-60; 9:64-66; 10:33-36; Figure 6

The "Subscriber Unit Of The Present Invention" Selects Channels For Use Only When It Has Data To Send

However, wireless bandwidth is allocated only when there is actual data present from the terminal equipment to the CDMA transceiver **140**. Therefore, the net-

Ex. 1001 ('244 Patent) at 10:33-36

DECLARATION OF DR. WAYNE E. STARK

9:64-66. The specification also notes that "wireless bandwidth is allocated only when there is actual data present." *Id*. at 10:33-36. Because only the subscriber unit knows when it has data to transmit, a person of skill would understand that the subscriber unit must select the radio or physical channels as needed to transfer that data.

Ex. 2005 (Stark Decl.) at ¶56

The "Subscriber Unit Of The Present Invention" Selects Physical Channels As Needed To Transfer Data

FIG. **6** is a high-level block diagram of a subscriber unit of the present invention.

* * *

The bandwidth management function **134** is responsible for allocating and deallocating CDMA radio channels **160** as required. Bandwidth management **134** also includes the

* * *

continuously available. However, wireless bandwidth is allocated only when there is actual data present from the terminal equipment to the CDMA transceiver **140**. Therefore, the net-

Ex. 1001 ('244 Patent) at 4:59-60; 9:64-66; 10:33-36

ZTE admits "[t]o 'allocate' an assigned channel means to 'select' that channel for use to send data."

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"In Every Single Embodiment, The Sender . . . Selects The Physical Channels For Use"

DECLARATION OF DR. WAYNE E. STARK

56.   I also understand that when a patent describes the features of the "present invention" as a whole, this description limits the scope of the invention, unless there is contradictory intrinsic evidence. Here, the specification not only describes a subscriber unit of "the present invention" as being responsible for selecting channels, but in every single embodiment the sender – here, the subscriber unit – selects the physical channels for use. For example, a "subscriber

Ex. 2005 (Stark Decl.) at ¶56

"A Subset Of The Available Channels Is Selected"

Turning attention now more particularly to FIG. 3, the operations of the ==protocol converter 25 or 46 <u>at the sender</u>== will be more particularly described. As shown, the input frame 50

*   *   *

available at any time ==A <u>subset</u> of the available channels 30 is selected,== and then the optimum number of bits for each sub-frame intended to be transmitted over respective one of the channels, is then chosen. Thus, as illustrated in the figure, a

Ex. 1001 ('244 Patent) at 7:16-18, 26-27
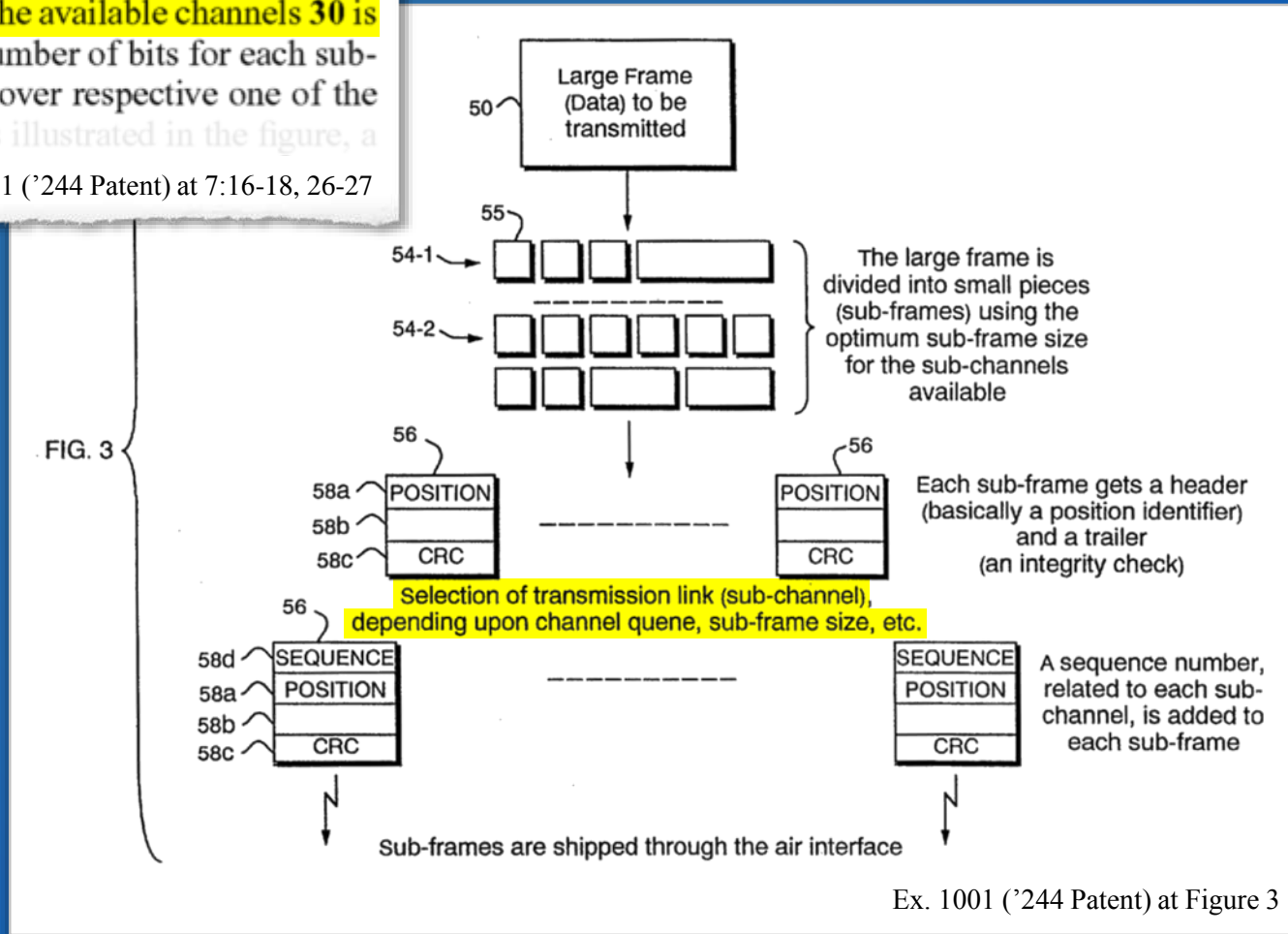
Ex. 1001 ('244 Patent) at Figure 3

"The Proposed Construction . . . Adopted By The District Court And By Both ZTE And InterDigital In This IPR, Recognizes That The Subscriber Unit, Not The Base Station, <u>Selects</u> The Physical Channels <u>To Be Used</u>"

Response at 3

Wayne E. Stark, Ph.D.
Patent Owner's IPR Expert

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5   A.  ... So when you allocate in the '970 or the '244
6       patent, when a channel -- when physical layer channels
7       are allocated, they're going to be used, and they've
8       been selected for use and they're going to be used.
9         So my opinion has not changed from the ITC.
10      The allocation is done at the subscriber unit. The
11      selection for use is done at the subscriber unit. The
12      use is done at the subscriber unit.
13        So when a subscriber unit allocates, it's going
14      to use because it's already selected those channels to
15      use.
```

Ex. 1025 (Stark Tr.) at 40:5-15

"The Proposed Construction . . . Adopted By The District Court And By Both ZTE And InterDigital In This IPR, Recognizes That The Subscriber Unit, Not The Base Station, <u>Selects</u> The Physical Channels <u>To Be Used</u>"

Wayne E. Stark, Ph.D.
Patent Owner's IPR Expert

```
15 Q. Within the context of the '244 patent
16    specification in the claims, your view is that selection
17    is different from use?
18 A. Selection is different from use because the --
19    you could use it without the subscriber unit selecting,
20    as in GPRS. In the patent, it requires the subscriber
21    unit to select for use. So just using it by itself is
22    different from selecting and then using.
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Ex. 1025 (Stark Tr.) at 54:15-22

In The Prior Art, The Base Station Selects The Channels And The Subscriber Unit Then Uses The Channels

DECLARATION OF DR. WAYNE E. STARK

68.   GPRS (along with IS-95, IS-657, and CDPD) uses the standard prior art approach to select physical channels. In this approach, when the subscriber unit has data to send, it requests channels from the base station. The base station then selects the cellular physical channels for the subscriber unit to use, and informs the subscriber unit of the selection. The subscriber unit then uses the channels selected by the base station to send data. Thus, the base station (or more precisely, the

Ex. 2005 (Stark Decl.) at ¶68

Assigned Physical Channels: Petition And Reply

Petition:

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

	ZTE
plurality of assigned physical channels	**plurality of physical** ==**channels available for the**== ==**subscriber unit to select for**== ==**use**==

Petition at 10

Assigned Physical Channels: Petition And Reply

Petition:

Reply:

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

	ZTE
plurality of assigned physical channels	**plurality of physical** <mark>**channels available for the**</mark> <mark>**subscriber unit to select for**</mark> <mark>**use**</mark>

Petition at 10

PETITIONERS' REPLY TO PATENT OWNER'S RESPONSE

However, <mark>any subscriber unit that *uses* a channel necessarily "selects," or</mark> "allocates," that channel for use, even if the base station *assigned* or chose the channel previously. Pet. at 11, 13; Ex. 1002 (Bims Decl.), ¶ 100.

Reply at 4

Ex. 2024-0025

Assigned Physical Channels: Petition And Reply

Petition:

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

¶¶98-99). 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

Petition at 11

Assigned Physical Channels: Petition And Reply

Petition:

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

(¶¶98-99). 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

Petition at 11

Reply:

PETITIONERS' REPLY TO PATENT OWNER'S RESPONSE

13-15, 26), the claim language does not dictate *which entity* must choose, or "assign," the channels (*e.g.*, base station or subscriber unit) or *how many* of those channels must be used (*e.g.*, all, some, or none). Indeed, claim 1 does not require

Reply at 3

Ex. 2024-0027

Prior Art:
Physical Channel Selection
By The Base Station/Network

The Experts Agree:
Jawanda Says Nothing About Physical Channels

DECLARATION OF DR. WAYNE E. STARK

67.   Jawanda itself says nothing about "assigned physical channels," let alone about which entity selects physical channels. *See* ZTE Ex. 1003 (Jawanda);

Ex. 2005 (Stark Decl.) at ¶67

Harry Bims, Ph.D.
Petitioner's IPR Expert

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21   BY MS. HOLLOWAY:
22   Q. Okay. And you're aware, then, that the term "physical
1       channel" does not appear in Jawanda?
2    A. Jawanda does not use that term, correct.
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Ex. 2006 (Bims Tr.) at 21:22-22:2

Petitioner Relies On Jawanda's Mention of GPRS Standards As Disclosing "Assigned Physical Channels"

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

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;	"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."
(21a) establishing a	(Ex. 1003 (Jawanda) at 3:6-9.)

Petition at 38

At the Time of the Invention, Cellular Standards Taught Channel Selection By The Base Station

DECLARATION OF DR. WAYNE E. STARK

68. **GPRS (along with IS-95, IS-657, and CDPD) uses the standard prior art approach to select physical channels.** In this approach, when the subscriber unit has data to send, it requests channels from the base station. **The base station then selects the cellular physical channels** for the subscriber unit to use, and informs the subscriber unit of the selection. **The subscriber unit then uses the channels selected by the base station to send data.** Thus, the base station (or more precisely, the cellular network, via the base station) selects the cellular physical channels for use – not the subscriber unit, as required by the agreed-upon construction.

Ex. 2005 (Stark Decl.) at ¶68

In GPRS, The Network Selects The Physical Channels For Use

DECLARATION OF DR. WAYNE E. STARK

73. In September 1999, GPRS allowed for three possible modes for allocating channels to the subscriber unit: ① dynamic allocation, ② extended dynamic allocation, and ③ fixed allocation. ZTE Ex. 1005.06 (GSM 4.60 v. 6.1.0) at § 5.2.4. While the details varied, in each mode, the base station selected the physical channel or channels for use by the subscriber unit. *See id.* at §§ 8.1.1.1, 8.1.1.2, 8.1.1.3.

Ex. 2005 (Stark Decl.) at ¶73

In GPRS, The Network Selects The Physical Channels For Use

DECLARATION OF DR. WAYNE E. STARK

74. Specifically, in Release 97 of GPRS, as it existed in September 1999, the subscriber unit "initiates the packet access procedure" for a Temporary Block Flow, or TBF, "by scheduling the sending of [a] PACKET CHANNEL REQUEST." ZTE Ex. 1005.06 (GSM 4.60 v. 6.1.0) at §§ 8.1.2.5 (describing Temporary Block Flow) and 7.1.2.1 (Initiation of the packet access procedure).

Ex. 2005 (Stark Decl.) at ¶74

GPRS Dynamic Allocation:
The Network Selects The Physical Channels

DECLARATION OF DR. WAYNE E. STARK

76. The PACKET UPLINK MESSAGE may also include an Uplink State Flag, or USF. *Id.* at § 3.1. "If the dynamic allocation medium access mode is used, the network shall include the USF values allocated for PDCHs in the PACKET UPLINK ASSIGNMENT message." *Id.* at § 7.1.2.2.1, ¶ 4. As

* * *

77. In dynamic allocation mode, "[w]henever the mobile station detects an assigned USF value on an assigned PDCH, the mobile station *shall* transmit one or four RLC/MAC blocks on the same PDCH in the next block period(s)." *Id.* at § 8.1.1.1, ¶ 3. Another value in the PACKET UPLINK MESSAGE determines

* * *

whether the mobile station transmits one or four RLC/MAC blocks. *Id.* Thus, in the dynamic allocation mode, the network, via the USF value, tells the mobile station which PDCH it "shall" use to transmit data, in either the next block or the next four blocks. Notably, Dr. Bims concedes that the term "shall" means that this

Ex. 2005 (Stark Decl.) at ¶¶76-77

GPRS Extended Dynamic Allocation:
The Network Selects The Physical Channels

DECLARATION OF DR. WAYNE E. STARK

78. Extended dynamic allocation mode is similar. "Whenever the mobile station detects an assigned USF value on an assigned PDCH, the mobile station *shall* transmit an RLC/MAC block on the same PDCH in the next block period," just as in dynamic allocation mode. ZTE Ex. 1005.06 (GSM 4.60 v. 6.1.0) at § 8.1.1.2.1, ¶ 2. In addition, "[t]he mobile station *shall* then transmit an RLC/MAC

*   *   *

unit transmits on multiple PDCHs in the next block period. In other words, in the extended dynamic allocation mode, the network, via the USF value, tells the mobile station which PDCHs it "shall" use to transmit data. Thus, in this mode,

Ex. 2005 (Stark Decl.) at ¶78

GPRS Fixed Allocation:
The Network Selects The Physical Channels

DECLARATION OF DR. WAYNE E. STARK

79. In the fixed allocation mode, the PACKET ALLOCATION ASSIGNMENT message identifies the PDCHs "assigned to the fixed allocation," and "an ALLOCATION_BITMAP indicating radio blocks assigned to the fixed allocation." *Id.* at § 8.1.1.3.1, ¶ 1. And, "[t]he mobile station *shall* transmit an RLC/MAC block in each radio block assigned by the ALLOCATION_BITMAP."

Ex. 2005 (Stark Decl.) at ¶79

Petitioner's Litigation Expert Admitted That In GPRS, The Network Selects The Physical Channels

Steven W. McLaughlin, Ph.D.
Petitioner's Litigation Expert

```
15  Q. Okay. So according to the GPRS standard,

16     the network uses the uplink state flag to tell the

17     mobile station to transmit data on the PDCH

18     corresponding to that uplink state flag. Right?

19  A. Yeah, that appears to be what's happening,

20     yes.
```

Ex. 2010 (McLaughlin Tr.) at 131:15-20

Petitioner's IPR Expert Admitted That In GPRS, The Network Selects The Physical Channels

Harry Bims, Ph.D.
Petitioner's IPR Expert

Q. So in GPRS the cell allocates resources on one or several physical channels; right?

A. **That's correct.**

Q. Okay. And those physical channels, according to this paragraph, are taken from the common pool of channels available in the cell; right?

A. **Yes.**

Q. So these physical channels are already available or, in the terms of the '244 patent, assigned; right?

MR. JONES: Objection; form, foundation.

A. **So these channels are assigned to individual mobile stations in GPRS.**

                    *   *   *

Q. Okay. So what the capacity on demand in 6.1.1.2 is talking about is the allocation of physical channels by the cell; right?

A. **Yes, that's correct.**

Ex. 2006 (Bims Tr.) at 39:19-40:8, 42:3-6

Petitioners and Their Expert Have No Evidence of Channel Selection By The Subscriber Unit

6.1.1 Allocation of resources for the GPRS

A cell supporting GPRS may allocate resources on one or several physical channels in order to support the GPRS traffic. Those physical channels (i.e. PDCHs), shared by the GPRS MSs, are taken from the common pool of physical channels available in the cell. The allocation of physical channels to circuit switched services and GPRS is done dynamically according to the "capacity on demand" principles described below.

Ex. 1005.10 (GSM 03.64 v.6.1.0) at 6.1.1

A physical channel is therefore defined as a sequence of TDMA frames, a time slot number (modulo 8) and a frequency hopping sequence.

Ex. 1005.09 [GPRS Standards, GSM 05.01 v. 6.1.1] at §5 Multiple access and timeslot structure.

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).

Ex. 1005.09 [GPRS Standards, GSM 05.01 v. 6.1.1] at §2 Set of channels.

Ex. 1002 (Bims Decl.) at ¶184

GPRS 5.01, Section 5 Merely Discloses Multiple Time Slots

DECLARATION OF DR. HARRY BIMS IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,380,244

A physical channel is therefore defined as a sequence of TDMA frames, a time slot number (modulo 8) and a frequency hopping sequence.

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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).

Ex. 1005.09 [GPRS Standards, GSM 05.01 v. 6.1.1] at §2 Set of channels.

Ex. 1002 (Bims Decl.) at ¶184

GPRS 5.01, Section 2 Describes Channels "Allocated To The Same MS," by "Resource Allocation Message"

DECLARATION OF DR. HARRY BIMS IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,380,244

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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).

Ex. 1005.09 [GPRS Standards, GSM 05.01 v. 6.1.1] at §2 Set of channels.

Ex. 1002 (Bims Decl.) at ¶184

GPRS "Capacity On Demand"

Digital cellular telecommunications system (Phase 2+);
General Packet Radio Service (GPRS);
Overall description of the GPRS radio interface;
Stage 2
(GSM 03.64 version 6.1.0 Release 1997)

6.1.1 Allocation of resources for the GPRS

A cell supporting GPRS may allocate resources on one or several physical channels in order to support the GPRS traffic. Those physical channels (i.e. PDCHs), shared by the GPRS MSs, are taken from the common pool of physical channels available in the cell. The allocation of physical channels to circuit switched services and GPRS is done dynamically according to the "capacity on demand" principles described below.

Ex. 1005.10 at 6.1.1

Ex. 2024-0042

GPRS "Capacity On Demand"

3   Q. Okay. So what the capacity on demand in 6.1.1.2 is

4   talking about is the allocation of physical channels by

5   the cell; right?

6   A. **Yes, that's correct.**

Ex. 2006 (Bims Tr.) at 42:3-6

Text Shows That In GPRS, The Network Selects The Physical Channels
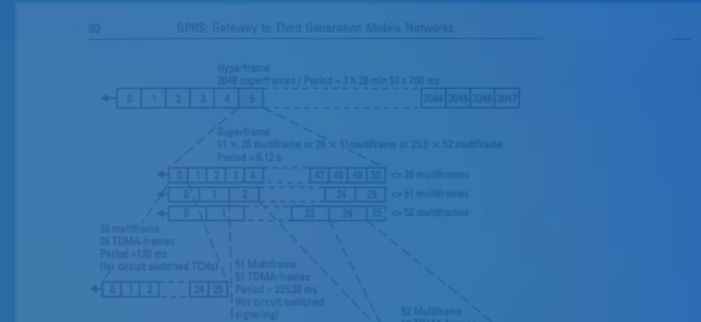
In other words, a <u>subscriber</u> only <u>receives</u> the resources that are <u>actually needed</u> at any given time in accordance with the <u>resource on demand</u> concept

Ex. 2011 (Heine Excerpt) at 90-92
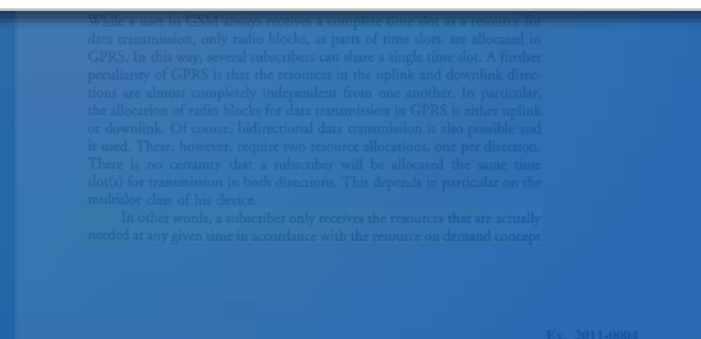
GPRS Is Incompatible With Channel Selection By The Subscriber Unit

DECLARATION OF DR. WAYNE E. STARK

95. For TDMA to allow for subscriber units to select physical channels for use, there would need to be a mechanism to allow subscriber units to know when a time slot is not being used. There would also need to be a mechanism for a subscriber unit to inform all other subscriber units that it intends to use such a slot. In particular, it would require full knowledge of all the use of all time slots of all users to know which time slots were available for use. There are no such mechanisms in GPRS or any other TDMA system that I am aware of. Furthermore, such a system would be cumbersome and impractical to operate, due to the nature of TDMA.

Ex. 2005 (Stark Decl.) at ¶95

Petitioners' "Select <u>To</u> Use" Theory

"If A Subscriber Unit Merely Chooses To Use, Or Not Use, The Available Channels, This Is Not Selecting For Use"

DECLARATION OF DR. WAYNE E. STARK

84. First, the claims, under the agreed-upon construction, require cellular physical channels that the subscriber unit can "select for use." In other words, the subscriber unit has to be able to make a selection from the available physical channels. Using, or not using, all the channels assigned by the network is not making a selection. As discussed in the District Court's *Markman* opinion, the rationale for this construction is that in the '244 Patent, a bandwidth management function "*makes channels available* for use [assigns channels]." Ex. 2009 (Markman Op.) at 15 (emphasis in original). Then "a subset of those available channels are *selected for use* [allocated] to send data." *Id.* (emphasis in original). The claim construction contemplates that the subscriber unit can select a *subset* of the available channels – consistent with the ordinary meaning of "select." Ex. 2012 (American Heritage Dictionary, 3d ed.) at 741.

Ex. 2005 (Stark Decl.) at ¶84

"It Is Simply Not True That In GPRS, A Subscriber Unit Can Choose to Use, Or Not Use, Its Assigned Channels"

Response at 26

DECLARATION OF DR. WAYNE E. STARK

uplink transfer." *Id.* at § 8.1.1. Note that according to the standard, these channels are "*to be used*" – they are not merely "available" to the subscriber unit. That is because, again, in the prior art cellular standards, assignment and selection mean the same thing: the channels that are assigned are the channels that are to be used.

Ex. 2005 (Stark Decl.) at ¶75

"It Is Simply Not True That In GPRS, A Subscriber Unit Can Choose to Use, Or Not Use, Its Assigned Channels"

DECLARATION OF DR. WAYNE E. STARK

77. In dynamic allocation mode, "[w]henever the mobile station detects an assigned USF value on an assigned PDCH, the mobile station *shall* transmit one or four RLC/MAC blocks on the same PDCH in the next block period(s)." *Id.* at § 8.1.1.1, ¶ 3. Another value in the PACKET UPLINK MESSAGE determines

Ex. 2005 (Stark Decl.) at ¶77

"It Is Simply Not True That In GPRS, A Subscriber Unit Can Choose to Use, Or Not Use, Its Assigned Channels"

DECLARATION OF DR. WAYNE E. STARK

78. <u>Extended dynamic allocation mode</u> is similar. "Whenever the mobile station detects an assigned USF value on an assigned PDCH, the mobile station <u>***shall***</u> transmit an RLC/MAC block on the same PDCH in the next block period," just as in dynamic allocation mode. ZTE Ex. 1005.06 (GSM 4.60 v. 6.1.0) at § 8.1.1.2.1, ¶ 2. In addition, "[t]he mobile station *shall* then transmit an RLC/MAC

Ex. 2005 (Stark Decl.) at ¶78

"It Is Simply Not True That In GPRS, A Subscriber Unit Can Choose to Use, Or Not Use, Its Assigned Channels"

DECLARATION OF DR. WAYNE E. STARK

79. In the <u>fixed allocation mode</u>, the PACKET ALLOCATION ASSIGNMENT message identifies the PDCHs "assigned to the fixed allocation," and "an ALLOCATION_BITMAP indicating radio blocks assigned to the fixed allocation." *Id.* at § 8.1.1.3.1, ¶ 1. And, "[t]he mobile station ***shall*** transmit an RLC/MAC block in each radio block assigned by the ALLOCATION_BITMAP."

Ex. 2005 (Stark Decl.) at ¶79

"In The GPRS Standards. . . The Subscriber Unit Is Required To Use The Channels Selected By The Base Station"

DECLARATION OF DR. WAYNE E. STARK

whether the mobile station transmits one or four RLC/MAC blocks. *Id.* **Thus, in the dynamic allocation mode, the network, via the USF value, tells the mobile station which PDCH it "shall" use to transmit data, in either the next block or the next four blocks.** Notably, Dr. Bims concedes that the term "shall" means that this

Ex. 2005 (Stark Decl.) at ¶77

Harry Bims, Ph.D.
Petitioner's IPR Expert

```
10 Q. Okay. You mentioned mandatory features.
11    What language is used to identify a mandatory
12    feature in a standard?
13 A. So typically the sentence would include the word "shall"
14    in reference to a mandatory functionality.
```

Ex. 2006 (Bims Tr.) at 155:10-14

DECLARATION OF DR. WAYNE E. STARK

90. The requirement that the selected channels "shall" be used is not only explicit in the GPRS documents – it is common sense for TDMA-based systems. Cellular providers pay a high price for bandwidth. It makes no sense for them to allow physical channels, i.e., one or more time slots, to be assigned to a subscriber unit and not available for other subscribers, and then have that subscriber unit choose not to use those channels.

Ex. 2005 (Stark Decl.) at ¶90

Claims 8 and 30 Not Disclosed

"Claims 8 and 30 Are Not Disclosed By Jawanda With A GPRS Cellular Connection"

"Jawanda With GPRS Does Not Include A Cellular Network That Is A CDMA Network"

GPRS

a cellular transceiver configured to communicate with a cellular wireless network via a plurality of assigned physical channels;

*   *   *

GPRS

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

Ex. 1001 ('244 Patent) at Claim 1

GPRS

8. 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.

Ex. 1001 ('244 Patent) at Claim 8

Harry Bims, Ph.D.
Petitioner's IPR Expert

Q. Okay. Now, GPRS uses time division multiple access or TDMA; right?
MR. JONES: Objection; form.
A. Yes, that's true.

Ex. 2006 (Bims Tr.) at 32:22-33:3

"Claims 8 and 30 Are Not Disclosed By Jawanda With A GPRS Cellular Connection"

"Jawanda With **GPRS** Does Not Include A Cellular Network That Is A **CDMA** Network"

GPRS

a cellular transceiver configured to communicate with a cellular wireless network via a plurality of assigned physical channels;

* * *

GPRS

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

Ex. 1001 ('244 Patent) at Claim 1

Jawanda – CDMA

8. 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.

Ex. 1001 ('244 Patent) at Claim 8

Petitioner Cannot Rely On A Completely Different Type of Cellular Network Using Different Types of Physical Channels For Claims 8 and 30

Other Prior Art Standards

"[I]n IS-95 and IS-657, The Base Station Selects The Physical Channel"

68.   GPRS (along with IS-95, IS-657, and CDPD) uses the standard prior art approach to select physical channels. In this approach, when the subscriber unit has data to send, it requests channels from the base station. The base station then selects the cellular physical channels for the subscriber unit to use, and informs the subscriber unit of the selection.

*   *   *

102.   Moreover, in IS-95 and IS-657, the base station selects the physical channel for use by the subscriber unit. Indeed, ZTE's expert in the District Court Case testified that "[t]he base station in IS-95, IS-657 ... tells the mobile station [subscriber unit] which traffic channels to use." *See* Ex. 2015 (Delaware Trial Tr.)

Ex. 2005 (Stark Decl.) at ¶¶68, 102

Steven W. McLaughlin, Ph.D.
Petitioner's Litigation Expert

Q. Sure. The base station in IS-95, IS-657, the base station tells the mobile station which traffic channels to use; right?
A. Yes.
Q. And specifically the base station tells the mobile station which traffic channel to use by sending it a channel assignment message; right?
A. Yes.
Q. And that message direct the mobile station to the traffic channel; right?
A. Yes.

Ex. 2015 (Delaware Trial Tr.) at 1108:3-14

"In CDPD . . . The Base Station Selects The Channel"

DECLARATION OF DR. WAYNE E. STARK

105. Moreover, in CDPD, the base station selects the physical channel for use by the subscriber unit. Indeed, Dr. McLaughlin, ZTE's expert in the District Court Case, testified that "the base station selects the channel to be used for CDPD." *See* Ex. 2008 (McLaughlin ITC 868 Inv. Dep. Tr.) at 304:5-20; *see also*

Ex. 2005 (Stark Decl.) at ¶105

Steven W. McLaughlin, Ph.D.
Petitioner's Litigation Expert

```
Q. According to WDN '96, in CDPD, in each cell, the base station is responsible
   for channel usage, correct?
MR. BROOKS: Objection, the document speaks for itself.
A. Yes, that's what the document says. Yes.
BY MS. HOLLOWAY:
Q. And that as far as you know is an accurate description of CDPD? 09:27:16
A. Yes.
Q. Okay. And according to WDN '96, the base station selects the channel to be
   used for CDPD within the cell, correct?
MR. BROOKS: Objection, the document speaks for itself.
A. Yes, that's what the document says.
```

Ex. 2008 (868 Dep. Tr.) at 304:5-20

Petitioners' Reply Claim Construction

Assigned Physical Channels: Petition And Reply

Petition:

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

	ZTE
plurality of assigned physical channels	plurality of physical ==channels available for the== ==subscriber unit to select for== ==use==

Petition at 10

Assigned Physical Channels: Petition And Reply

Petition:

	ZTE
plurality of assigned physical channels	plurality of physical ==channels available for the== ==subscriber unit to== ~~select for~~ ==use==

Petition at 10

Reply:

However, ==any subscriber unit that *uses* a channel necessarily "selects," or== "allocates," that channel for use, even if the base station *assigned* or chose the channel previously. Pet. at 11, 13; Ex. 1002 (Bims Decl.), ¶ 100.

Reply at 4

Ex. 2024-0062

Assigned Physical Channels: Petition And Reply

Petition:

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

(¶¶98-99). 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

Petition at 11

Assigned Physical Channels: Petition And Reply

Petition:

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

(¶¶98-99). 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

Petition at 11

Reply:

PETITIONERS' REPLY TO PATENT OWNER'S RESPONSE

13-15, 26), the claim language does not dictate *which entity* must choose, or "assign," the channels (*e.g.*, base station or subscriber unit) or *how many* of those channels must be used (*e.g.*, all, some, or none). Indeed, claim 1 does not require

Reply at 3

Ex. 2024-0064

Subscriber Unit Of The Present Invention

FIG. **6** is a high-level block diagram of a subscriber unit of the present invention.

* * *

The bandwidth management function **134** is responsible for allocating and deallocating CDMA radio channels **160** as required. Bandwidth management **134** also includes the

* * *

continuously available. However, wireless bandwidth is allocated only when there is actual data present from the terminal equipment to the CDMA transceiver **140**. Therefore, the net-

Ex. 1001 ('244 Patent) at 4:59-60; 9:64-66; 10:33-36
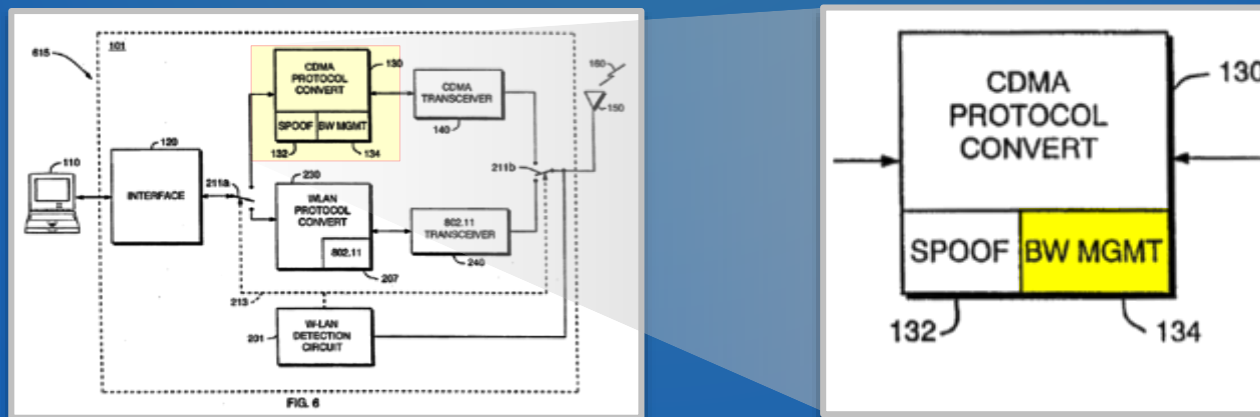
Petitioner's Expert

DECLARATION OF DR. HARRY BIMS IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,380,244

a physical channel becomes an "assigned physical channel." Rather, the specification describes what actions to perform on those assigned channels that have been made available to the subscriber unit. "For example a bandwidth management function may make only a certain number of channels available at any time" (Ex. 1001 (244 patent) at 7:24-26). "A *subset* of the available channels 30 is selected, and then the optimum number of bits for each subframe intended to be transmitted over respective one of the channels, is then chosen" (Ex. 1001 (244 patent) at 7:26-29).

Ex. 1002 (Bims Decl.) at ¶98

DECLARATION OF DR. WAYNE E. STARK

68. GPRS (along with IS-95, IS-657, and CDPD) uses the ==standard prior art approach to select physical channels.== In this approach, when the subscriber unit has data to send, it requests channels from the base station. ==The base station then selects the cellular physical channels for the subscriber unit to use,== and informs the subscriber unit of the selection. ==The subscriber unit then uses the channels selected by the base station to send data.== Thus, the base station (or more precisely, the cellular network, via the base station) selects the cellular physical channels for use – not the subscriber unit, as required by the agreed-upon construction.

Ex. 2005 (Stark Decl.) at ¶68

transfer data, it would request physical channels from the base station. ==The base station would select the physical channels== and tell the subscriber unit to use those selected channels. ==The subscriber unit would then use those channels to transfer data.== Ex. 2005 (Stark Decl.) at ¶ 28. This time-consuming process made the

Response at 2-3

"The Proposed Construction . . . Adopted By The District Court And By Both ZTE And InterDigital In This IPR, Recognizes That The Subscriber Unit, Not The Base Station, <u>Selects</u> The Physical Channels <u>To Be Used</u>"

Wayne E. Stark, Ph.D.
Patent Owner's IPR Expert

```
 5    A.  ... So when you allocate in the '970 or the '244
 6        patent, when a channel -- when physical layer channels
 7        are allocated, they're going to be used, and they've
 8        been selected for use and they're going to be used.
 9          So my opinion has not changed from the ITC.
10        The allocation is done at the subscriber unit. The
11        selection for use is done at the subscriber unit. The
12        use is done at the subscriber unit.
13          So when a subscriber unit allocates, it's going
14        to use because it's already selected those channels to
15        use.
```

Ex. 1025 (Stark Tr.) at 40:5-15

"The Proposed Construction . . . Adopted By The District Court And By Both ZTE And InterDigital In This IPR, Recognizes That The Subscriber Unit, Not The Base Station, <u>Selects</u> The Physical Channels <u>To Be Used</u>"

Wayne E. Stark, Ph.D.
Patent Owner's IPR Expert

```
15  Q. Within the context of the '244 patent
16     specification in the claims, your view is that selection
17     is different from use?
18  A. Selection is different from use because the --
19     you could use it without the subscriber unit selecting,
20     as in GPRS. In the patent, it requires the subscriber
21     unit to select for use. So just using it by itself is
22     different from selecting and then using.
```

Ex. 1025 (Stark Tr.) at 54:15-22

"Assigned Physical Channels" Means "Physical Channels Available For The Subscriber To Select For Use"

Petitioner Proposed This Construction, And Their Expert Supported It

Petition at 10, Bims Dec. at ¶96

Patent Owner And Their Expert Agreed

Resp. at 13, Stark Dec. at ¶55

Description of The Present Invention Requires Physical Channel Selection By Subscriber Unit, As Needed To Transfer Data

Ex. 2005 (Stark Decl.) at ¶56, Ex. 1001 ('244 Patent) at 9:27-28, 9:64-66, 10:33-36, Figure 6; see also Ex. 1002 (Bims Decl.) at ¶99

GPRS: "The Base Station, Not The Subscriber Unit, Selects The Physical Channels"

DECLARATION OF DR. WAYNE E. STARK

68.   GPRS (along with IS-95, IS-657, and CDPD) uses the standard prior art approach to select physical channels. In this approach, when the subscriber unit has data to send, it requests channels from the base station. The base station then selects the cellular physical channels for the subscriber unit to use, and informs the subscriber unit of the selection. The subscriber unit then uses the channels selected by the base station to send data. Thus, the base station (or more precisely, the cellular network, via the base station) selects the cellular physical channels for use – not the subscriber unit, as required by the agreed-upon construction.

Ex. 2005 (Stark Decl.) at ¶68

GPRS: "The Base Station, Not The Subscriber Unit, Selects The Physical Channels"

Harry Bims, Ph.D.
Petitioner's IPR Expert

```
19  Q. So in GPRS the cell allocates resources on one or
20     several physical channels; right?
21  A. That's correct.
                *              *              *
4   Q. So these physical channels are already available or, in
5      the terms of the '244 patent, assigned; right?
6   MR. JONES: Objection; form, foundation.
7   A. So these channels are assigned to individual mobile
8      stations in GPRS.
```

Ex. 2006 (Bims Tr.) at 39:19-21, 40:4-8

GPRS: "The Base Station, Not The Subscriber Unit, Selects The Physical Channels"

Steven W. McLaughlin, Ph.D.
Petitioner's Litigation Expert

```
15  Q. Okay. So according to the GPRS standard,

16     the network uses the uplink state flag to tell the

17     mobile station to transmit data on the PDCH

18     corresponding to that uplink state flag. Right?

19  A. Yeah, that appears to be what's happening,

20     yes.
```

Ex. 2010 (McLaughlin Tr.) at 131:15-20

Agreed Construction Of "Communication Session"

The Parties Agree A "Communication Session" Is A "Logical Connection" For This IPR

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

this term. For purposes of this petition only, and for the reasons explained below,

ZTE submits that InterDigital's proposed construction of this term (shown in bold

text below) should be adopted.

InterDigital
maintain a logical connection with the cellular wireless network when none of the plurality of physical channels are in use by the subscriber unit

Petition at 14

The invention claimed is:

1. A subscriber unit comprising:

a cellular transceiver configured to communicate with a cellular wireless network via a plurality of assigned physical channels;

an IEEE 802.11 transceiver configured to communicate with an IEEE 802.11 wireless local area network; and

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.

Ex. 1001 ('244 Patent) at Claim 1

A "Logical Connection" "Confirmed By The Specification"

In one preferred embodiment, the second wireless digital communication path is provided by establishing a logical connection using a higher layer protocol, such as a network layer protocol, from a subscriber unit, such as may be connected to a portable computer node, to an intended peer node, such as another computer. The network layer logical connection is made through a wireless channel which provides a physical layer connection between the portable computer node, through a base station, and the intended peer node. In response to relatively low utilization of the wireless channel, the physical layer channel is released while maintaining the appearance of a network layer connection to the higher level protocols.

This has two consequences. First, it frees wireless channel bandwidth for use by other subscriber units, without the overhead associated with having to set up an end to end connection each time that data needs to be transferred. In addition, and perhaps more importantly, by allocating wireless channels only when needed, the bandwidth necessary to provide a

Ex. 1001 ('244 Patent) at 4:5-26

Jawanda:
No Logical Connection With The Cellular Wireless Network, While Using The WLAN

Jawanda's "Optionally Maintain[ed]" WWAN Connection

The "communication session with the cellular wireless network" is a "logical connection with the cellular wireless network"

Petition at 15, Response at 15

"Nothing in Jawanda Suggests That the Cellular Connection That is Optionally "Maintained" Is Anything But A Standard End-to-End Connection Using Physical Channels"

Response at 29

Ex. 2024-0079

Petitioner's IPR Expert Admits Optionally Maintaining The Cellular Connection Means It Continues to Exist or is Active
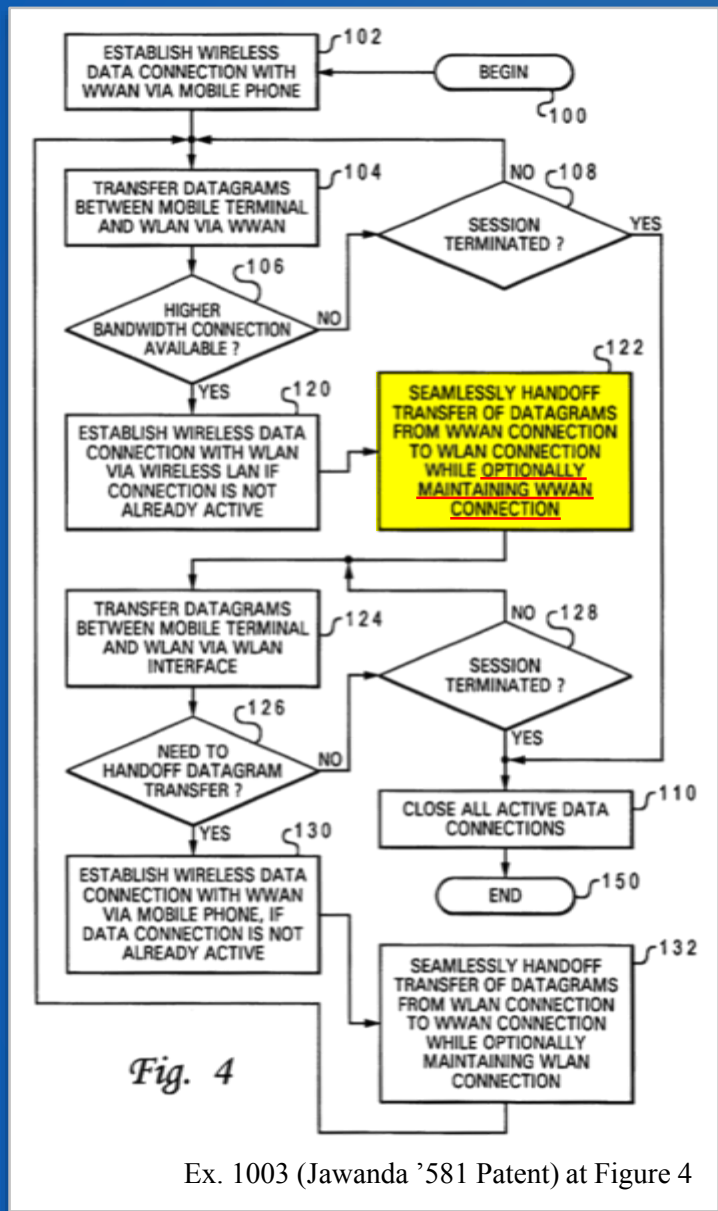
Ex. 1003 (Jawanda '581 Patent) at Figure 4

Harry Bims, Ph.D.
Petitioner's IPR Expert

```
22  Q. Right. And what you are referring to, as I understand
1      it, is the discussion of optionally maintaining the WWAN
2      connection in Box 122 of Figure 4.
3      Is that right?
4   MR. JONES: Objection; foundation, form.
5   A. So in Block 122 it talks about the seamless handoff of
6      datagrams from the WWAN connection to the WLAN
7      connection, and there's an option in this block to
8      maintain the WWAN connection when that rerouting of
9      datagrams through a seamless handoff has occurred.
                    *        *        *
19  Q. Just so we're clear here, "maintain" means "continues to
20     exist after it's been established"; right?
21  A. Right.
22     Continues to exist or is active as is called
1      for, yes.
```

Ex. 2006 (Bims Tr.) at 52:22-53:9, 12:19-13:1

Petitioner's Litigation Expert Admits The "Optionally Maintained" Cellular Connection Is "Active"

Steven W. McLaughlin, Ph.D.
Petitioner's Litigation Expert

```
23   MS. HOLLOWAY: Can we see Dr.
24     McLaughlin's deposition at 65, lines 15 through
 1     19?
 2   BY MS. HOLLOWAY:
 3   Q. Okay. So talking about this figure in
 4     Jawanda, I said:
 5     "If the wireless data connection
 6     with the cellular WWAN is already active in box
 7     130, that's because it was maintained and
 8     therefore remained active in box 122. Right?
 9     "Answer: Yes."
10     Did you give that testimony?
11   A. I gave that testimony, but I think you are
12     talking here about box 130. The question is
13     about box 130, not about --
14   Q. And about box 122.
15   A. Yes.
16   Q. But the point is if the cellular WWAN is
17     maintained, it is active.
18   MS. HOLLOWAY: Can we have that back
19     up, please?
20   BY MS. HOLLOWAY:
21   Q. If the cellular connection is maintained,
22     it is active. That's what you said?
23   A. Yes. Yes.
```

Ex. 2015 (Delaware Trial Tr.) at 1118:23-1119:23

Petitioner's Litigation Expert Admits An Active Connection Is "In Use"

Steven W. McLaughlin, Ph.D.
Petitioner's Litigation Expert

```
11  MS. HOLLOWAY: Can we have Dr.

12     McLaughlin's 2013 deposition, page 189, line 22

13     to 190, line 4.

14     BY MS. HOLLOWAY:

15     Q. "First of all, in general, what is an

16        active connection in the context of wireless

17        communications?

18     "Answer: Again, broad strokes, it

19        would be a connection that's active, i.e. being

20        used or -- I think of a connection that's being

21        used, a wireless link that's being used."

22     Did you give that testimony under

23     oath, Doctor?

24  A. Yes.
```

Ex. 2015 (Delaware Trial Tr.) at 1120:11-24

Jawanda Teaches Concurrent Connections, Optionally Maintained

Ex. 1003 (Jawanda '581 Patent) at Figure 4

adapter **64** by wireless communication. Thus, following block **120**, the user has concurrent wireless data connections with both WWAN **10** and WLAN **12**. Then, as depicted at

Ex. 1003 (Jawanda '581 Patent) at 5:32-34

WHILE OPTIONALLY MAINTAINING WWAN CONNECTION
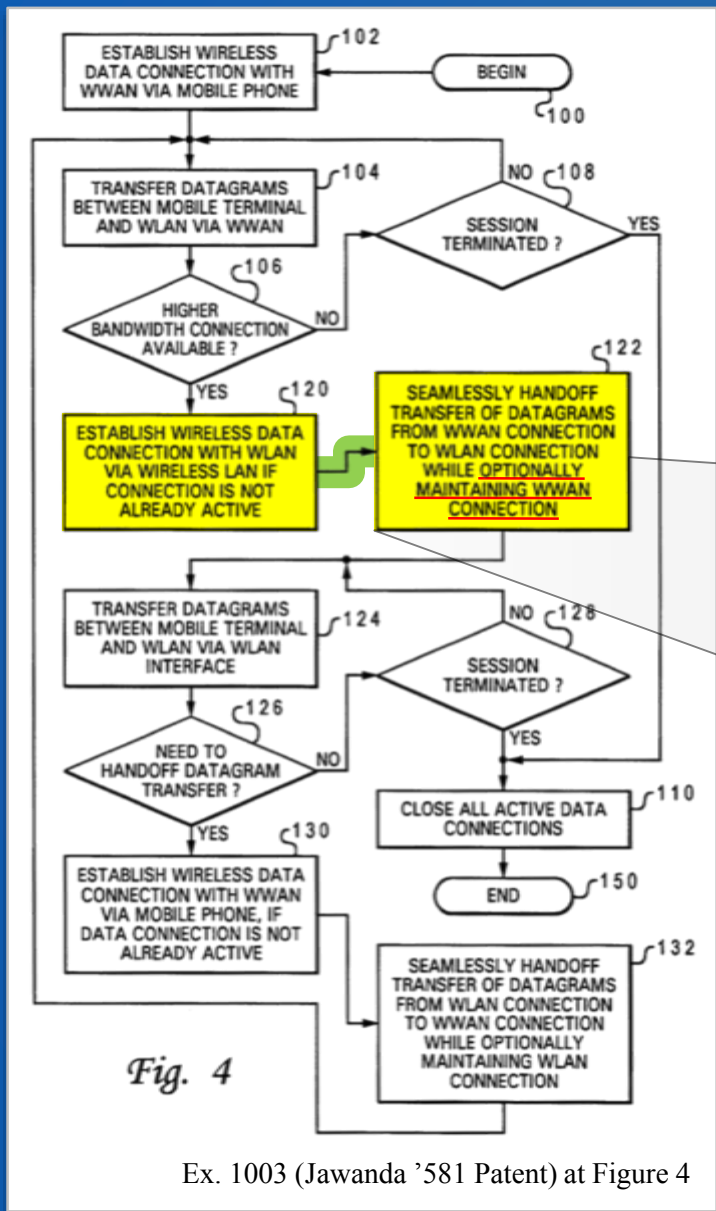
Jawanda: Wireless Cellular Connection Established
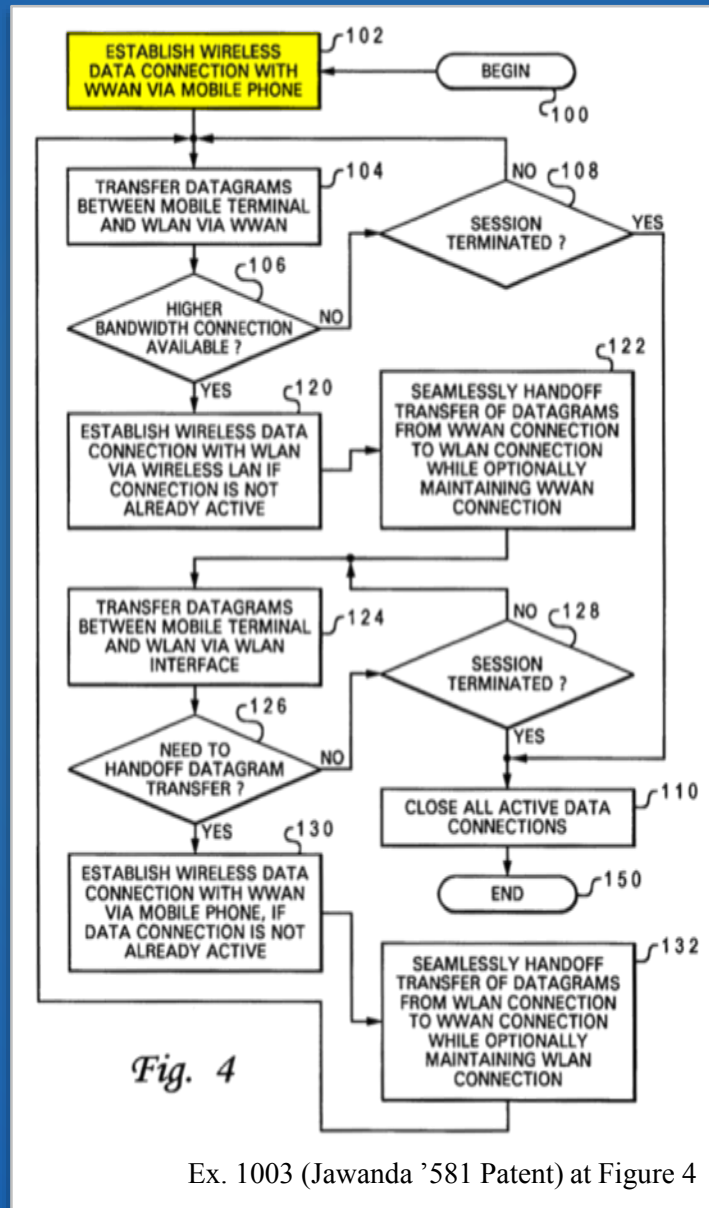
Fig. 4

Ex. 1003 (Jawanda '581 Patent) at Figure 4

Jawanda: Established Cellular Connection Used
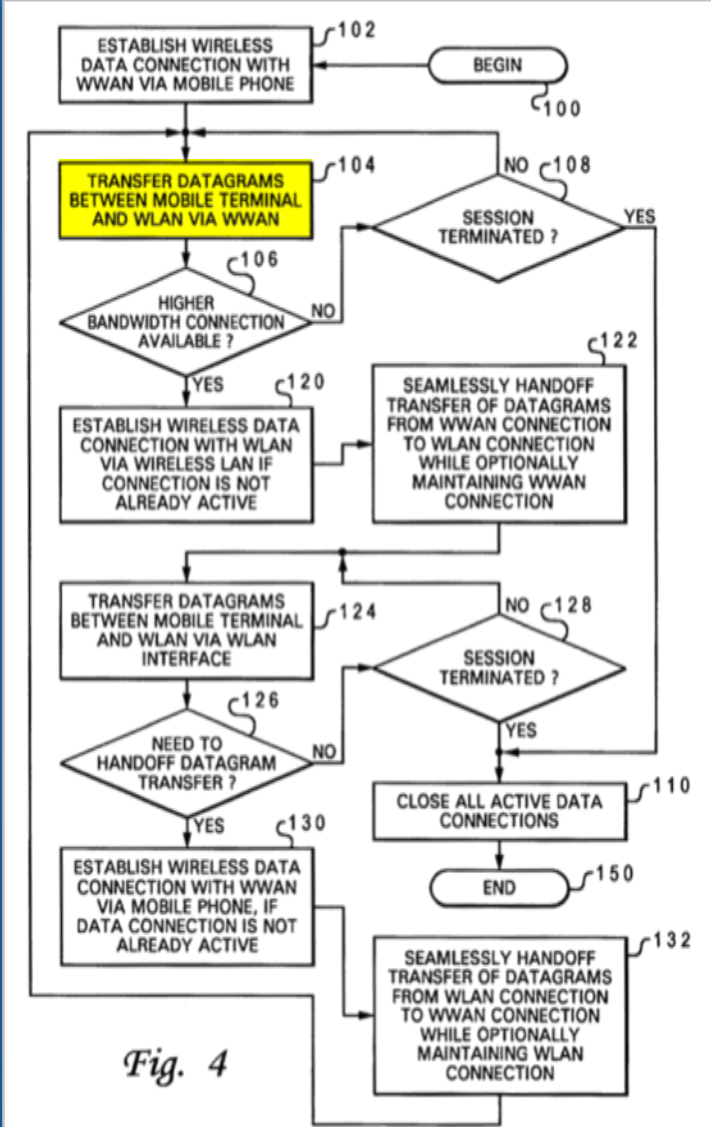
Fig. 4

Ex. 1003 (Jawanda '581 Patent) at Figure 4
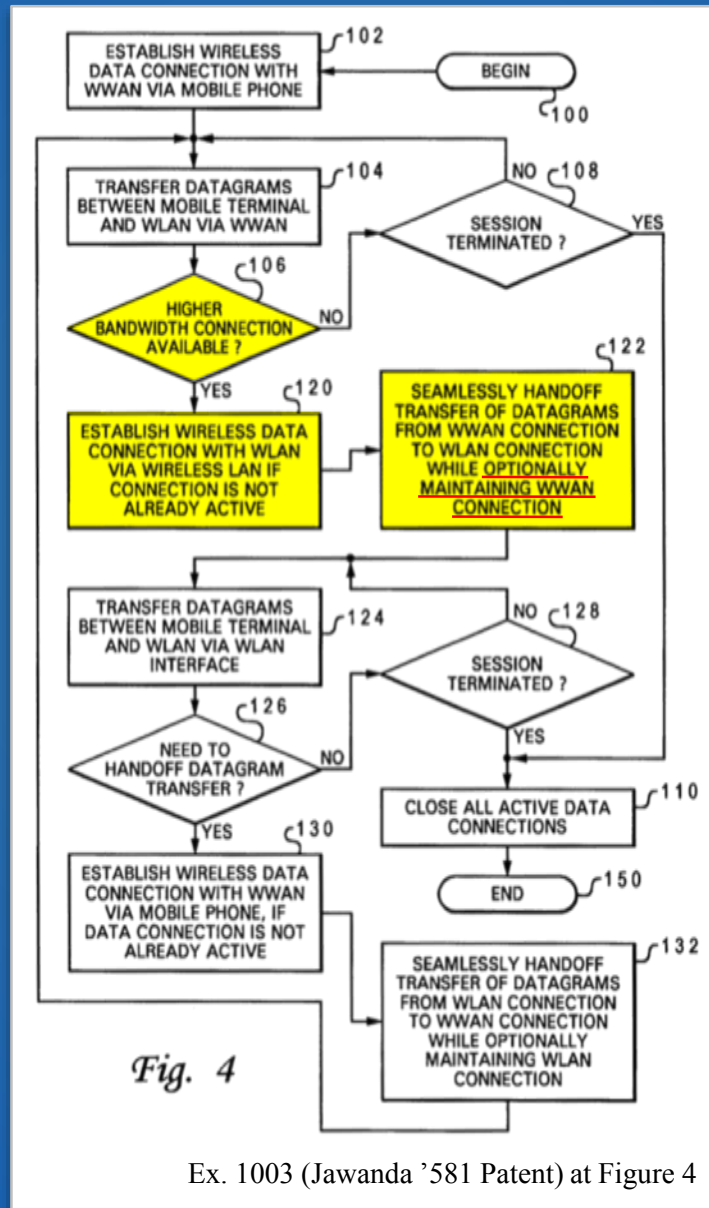
Ex. 1003 (Jawanda '581 Patent) at Figure 4

Jawanda: Establish Cellular Connection If "Not Already Active"
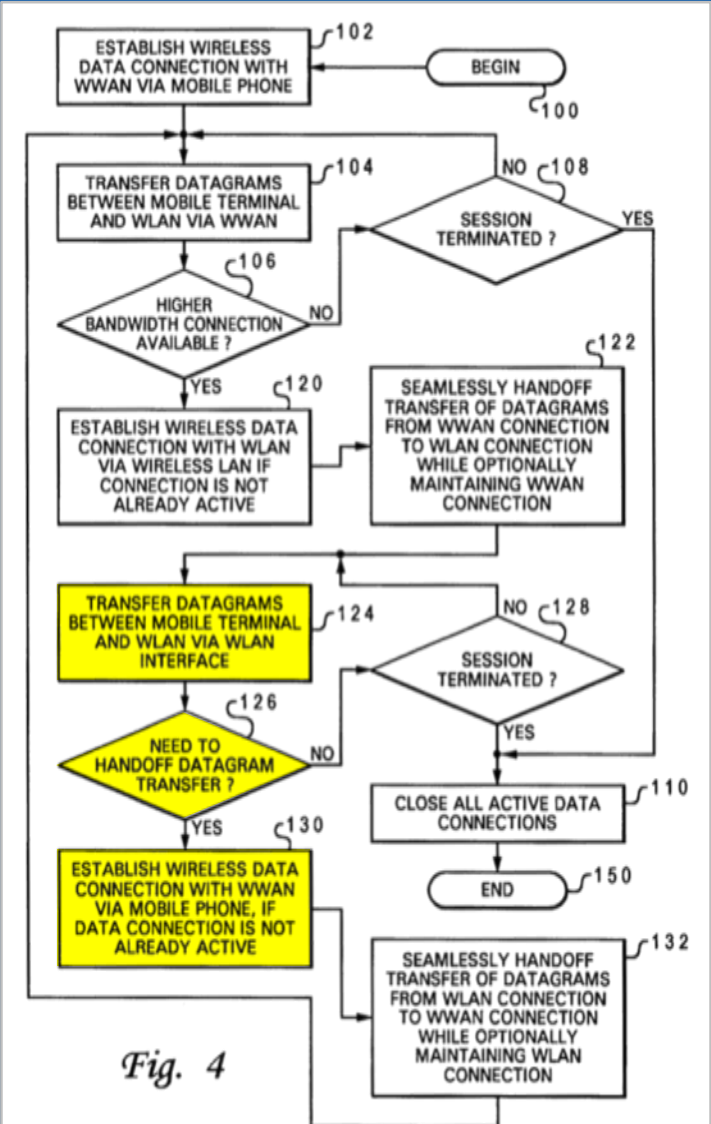
Ex. 1003 (Jawanda '581 Patent) at Figure 4

Jawanda: "If The Cellular Connection Is 'Maintained,' It Is 'Active'"
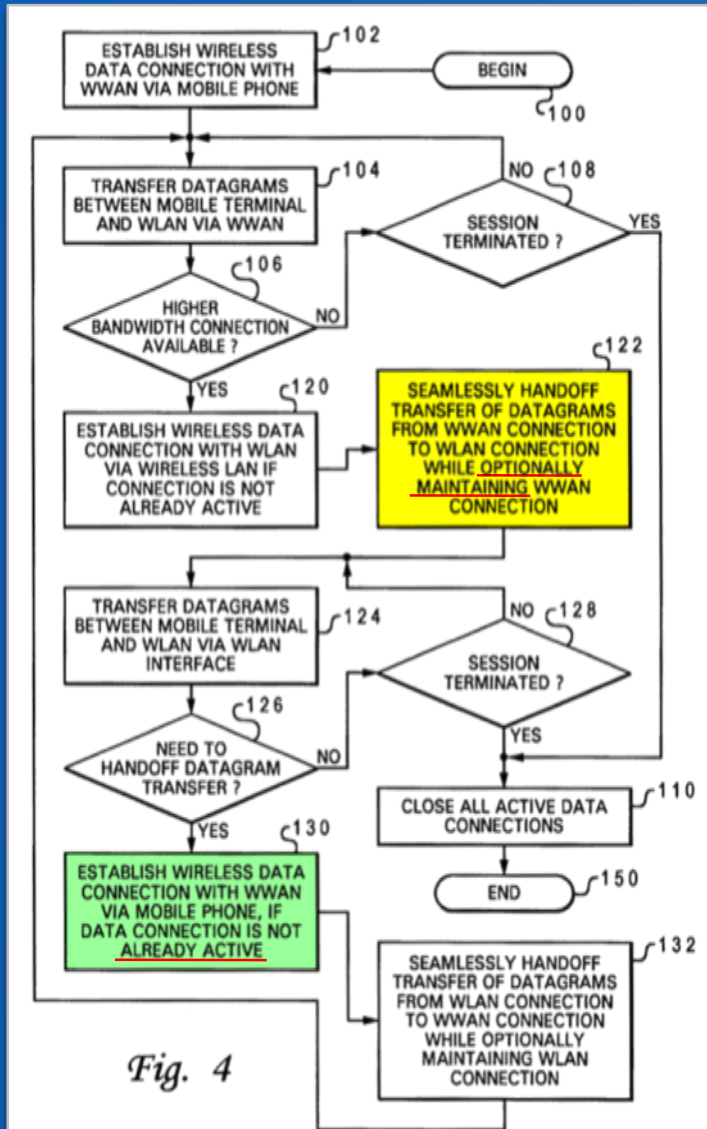
Ex. 1003 (Jawanda '581 Patent) at Figure 4

"The WWAN connection will only be active . . . if it was maintained in block 122"

Jawanda: "Close **All** Active Data Connections"
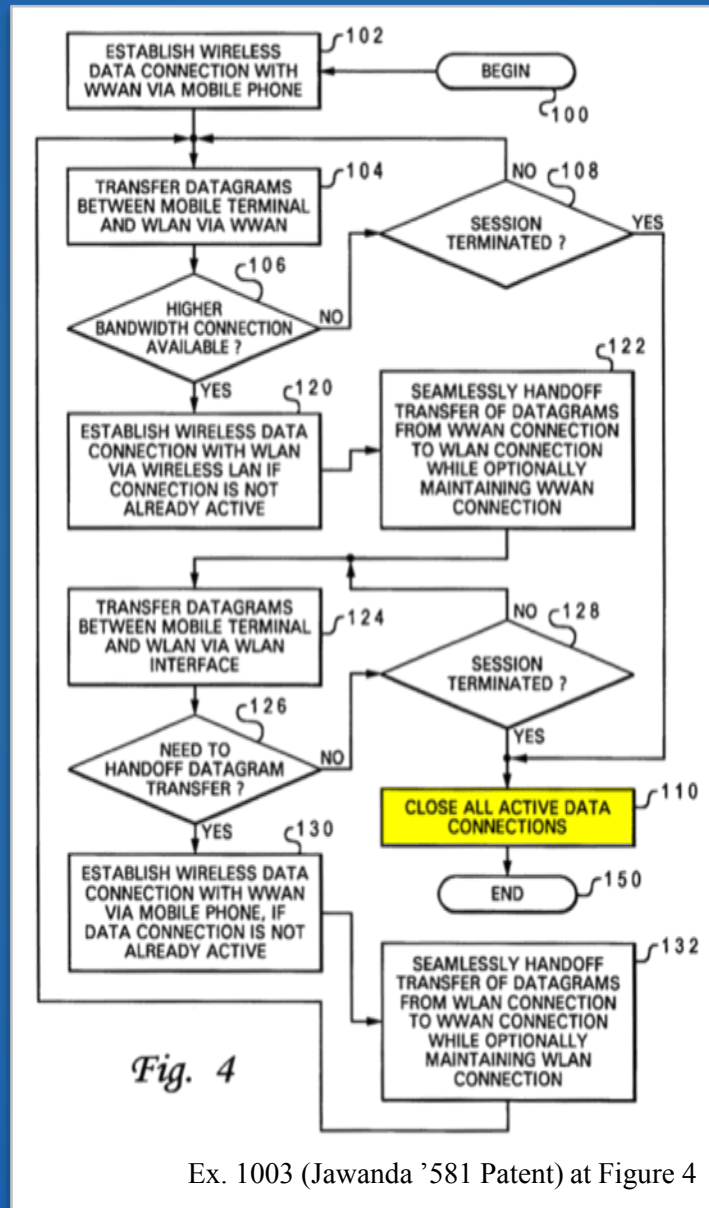
Ex. 1003 (Jawanda '581 Patent) at Figure 4

The Cellular Connection in Jawanda is Established, Used, and Either Maintained or Terminated

Ex. 1003 (Jawanda '581 Patent) at Figure 4

DECLARATION OF DR. WAYNE E. STARK

117. Even under ZTE's new interpretation of "active," it is my opinion that Jawanda does not disclose maintaining a logical connection, as required by the claims. Figure 4 in block 102 describes "establish[ing] [the] wireless data connection with [the] WWAN." *See* ZTE Ex. 1003 (Jawanda) at Fig. 4. This connection, at the next block 104, is used to "transfer datagrams," and therefore, necessarily includes physical channels. *See id.*; *see also* Ex. 2006 (Bims Tr.) at 76:8-22. This is the same "WWAN connection" "optionally maintain[ed]" at block 122. *See* ZTE Ex. 1003 (Jawanda) at Fig. 4. In other words, the "wireless data connection" "optionally maintain[ed]" at block 122 includes physical channels, and therefore includes a physical connection with the cellular network.

Ex. 2005 (Stark Decl.) at ¶117
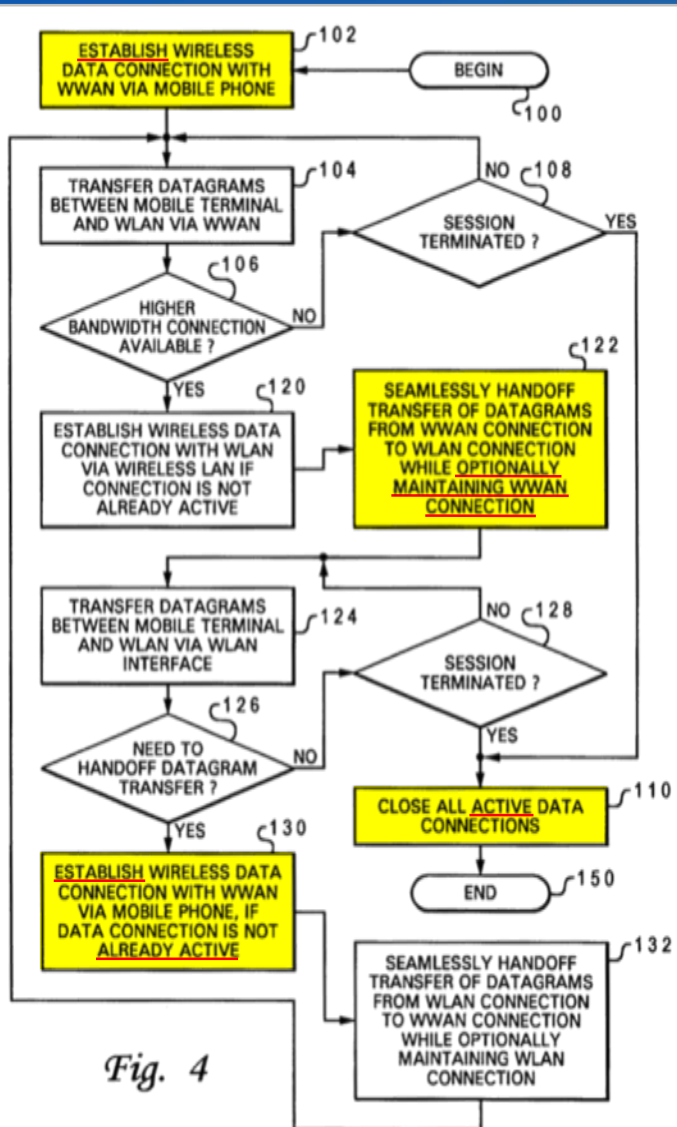
Petition And Expert Assert
Several Different Theories For Logical Connection

Maintaining the "Application Session"

Mobile IP (Not Briefed by Petitioner)

The Experts Agree: The "Application Session" Is Not The Claimed "Logical Connection"
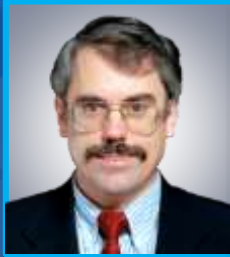
112. The "application-level session" is not maintained "with the cellular wireless network," as required by claim 1, but instead it is maintained between "applications 90 and 91," running on "mobile terminal 14" and fixed terminal 24." ZTE Ex. 1003 (Jawanda) at 5:20-42, 6:11-15; Fig. 1. When the mobile terminal transmits datagrams over the WLAN, the "application-level session" is maintained over the WLAN. *See id.* at 5:34-39. In other words, the "application-level session" is not a "communication session [i.e., logical connection] with a cellular wireless network," as required by claim 1. Notably, Dr. Bims conceded at his

Ex. 2005 (Stark Decl.) at ¶112

Harry Bims, Ph.D.
Petitioner's IPR Expert

Q. Okay. And are you saying that this application session that you say would have to exist is a communication session that is maintained with the cellular network, as required by the claims?

MR. JONES: Objection; foundation, form.

A. **The communication session that is maintained as required by the claims is a communication session between the subscriber unit and either the WLAN or the WWAN, which is different from an application session between two end points.**

Ex. 2006 (Bims Tr.) at 121:8-17

Dr Bims' Change In Position On Application Session

Harry Bims, Ph.D.
Petitioner's IPR Expert

8   Q. Okay. And are you saying that this application session
9   that you say would have to exist is a communication
10   session that is maintained with the cellular network, as
11   required by the claims?
12   MR. JONES: Objection; foundation, form.
13   **A. The communication session that is maintained as required**
14   **by the claims is a communication session between the**
15   **subscriber unit and either the WLAN or the WWAN, which**
16   **is different from an application session between**
17   **two end points.**

Ex. 2006 (Bims Tr.) at 121:8-17

Dr Bims' Change In Position On Application Session

Harry Bims, Ph.D.
Petitioner's IPR Expert

18   Now, you testified for ZTE and Nokia in an ITC

19   investigation; right?

20 **A. Yes.**

21 Q. Okay. And in that case, you took the position that the

22   application session in Jawanda is a communication

1   session that is maintained with the cellular network

2   when the physical channels are released; right?

3 MR. JONES: Objection; scope, form,

4   foundation.

5 **A. Yes.**

Ex. 2006 (Bims Tr.) at 123:18-124:5

Mobile IP "Connection" Is With the WLAN, Not the Cellular Network

120. Notably, the "home agent" is independent of the cellular network. In other words, when the mobile station in Jawanda transfers data over the WLAN, as required by the last element of claim 1, the Mobile IP connection is with the WLAN and **not** with the cellular wireless network. Dr. Bims conceded this at his

Ex. 2005 (Stark Decl.) at ¶120

Harry Bims, Ph.D.
Petitioner's IPR Expert

```
20 Q. Okay. So if that point of attachment is the WLAN, then
21 the logical connection you're pointing to is between the
22 mobile node and the WLAN; right?
1 MR. JONES: Objection; foundation.
2 A. The logical connection would be between those two, yeah.
```

Ex. 2006 (Bims Tr.) at 117:20-118:2

PDP Context In GPRS

"Jawanda Teaches Only To Use GPRS 'Data Connections' In Order To Transmit 'Wireless Signals'"

16. For <u>data connections,</u> 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 <u>GPRS.</u> Base station **30** is further

Ex. 1003 (Jawanda '581 Patent) at 3:6-9

DECLARATION OF DR. WAYNE E. STARK

1003 (Jawanda) at 3:6-8. In other words, <u>Jawanda teaches using GPRS for "data connection[s]"</u> to transmit "wireless signals," i.e., <u>physical connections.</u> It does <u>not teach</u> or suggest using the <u>other features of GPRS</u> that Dr. Bims relies on, such as <u>PDP context</u> and <u>Mobility Management.</u>

Ex. 2005 (Stark Decl.) at ¶130

Nothing in Jawanda Suggests Maintaining a Logical Connection With The Cellular Network

Jawanda teaches using "data connections . . . according to any currently available or future wireless data protocol such as . . . CDPD or GPRS"

Jawanda teaches "optionally maintaining" an "active" cellular connection

Ex. 2024-0098

Petitioner's Expert Dr. Bims Fails To Show That GPRS Included Maintaining PDP Context When Physical Channels Are Not In Use

DECLARATION OF DR. HARRY BIMS IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,380,244

These procedures are used to establish, maintain and release a MM connection between the mobile station and the network, over which an entity of the upper CM layer can exchange information with its peer. A MM connection establishment can only be performed if no MM specific procedure is running. More than one MM connection may be active at the same time.

Ex. 1005.05 [GPRS Standards, GSM 04.08 v. 6.1.1] at §4.1.1 Type of MM procedures.

Ex. 1002 (Bims Decl.) at ¶200

"Says Nothing About PDP Context"

Response at 35

Petitioner's Expert Dr. Bims Fails To Show That GPRS Included Maintaining PDP Context When Physical Channels Are Not In Use

DECLARATION OF DR. HARRY BIMS IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,380,244

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.

Ex. 1005.04 [GPRS Standards, GSM 04.07 v. 6.1.0] at §6.5 Session Management Services for

GPRS-Services.

Ex. 1002 (Bims Decl.) at ¶201

"Says Nothing About The Physical Radio Link, Or Physical Channels"

Response at 35-36

Petitioner's Expert Dr. Bims Fails To Show That GPRS Included Maintaining PDP Context When Physical Channels Are Not In Use

DECLARATION OF DR. HARRY BIMS IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,380,244

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.

Ex. 1005.03 [GPRS Standards, GSM 03.60 v. 6.1.1] at §6.1 Definition of Mobility Management

Ex. 1002 (Bims Decl.) at ¶203

"Says Nothing About The Physical Radio Link, Or Physical Channels"

Response at 36

Dr. Bims Admits Mobility Management Relates to Tracking Movement

Harry Bims, Ph.D.
Petitioner's IPR Expert

21 Q. So returning to my question, mobility management states,
22   do they at all relate to physical channels or physical
1   links, as you discussed with Ms. Holloway during your
2   cross-examination?
3   A. **So mobility management states relate to the tracking of**
4   **the movement of the subscriber unit, which is different**
5   **from the transmission of datagrams** through these
6   PDCH channels, as I described in my declaration.

Ex. 2006 (Bims Tr.) at 174:21-175:6

Dr. Bims' Prior Position

REBUTTAL WITNESS STATEMENT OF

DR. HARRY BIMS

JANUARY 18, 2013

Q275) **Is maintaining a PDP Context the same thing as maintaining a communication session?**

A)   It follows from the analysis I just testified about, that a collection of information that merely describes a communication path (a PDP Context) is not a "connection" within the meaning of the 970 Patent, and thus not a communication session even under InterDigital's construction. Thus, after the release of all physical layer channels, the mere existence of a PDP Context establishes neither "the appearance to higher layers in the cellular layered communications protocol of an active physical layer connection is maintained" (Respondents' construction of this limitation), nor is "a connection above the physical layer maintained" (InterDigital's construction).

Ex. 2017 at Q275

Petitioners' Litigation Expert On PDP Context

Steven W. McLaughlin, Ph.D.
Petitioner's Litigation Expert

8	Q. ... Okay. And it's your opinion,
9	Doctor, that <u>PDP context</u> and CDMA session are <u>not</u>
10	<u>logical connections</u>; right?
11	**A. That's right.**

Draft GPRS Documents

"The Various GPRS Documents Cannot Be Considered A Single Reference"

"Indeed, the GSM standard includes hundreds of individual specifications . . . each with its own title and separate page numbering. Each specification, though part of the greater GSM standard, stands as a separate document in its own right . . . Under these circumstances, the GSM standard is actually several prior art references with separate dates of creation, rather than a single prior art reference."

Kyocera Wireless Corp. v. Int'l Trade Comm'n, 545 F.3d 1340, 1351 (Fed. Cir. 2008)

GSM 3.60 Underwent At Least 10 Revisions

DECLARATION OF DR. WAYNE E. STARK

132. Moreover, a person of ordinary skill in the art would not have been motivated to implement a system using draft documents. If a person of ordinary skill were to implement a draft standard they would likely end up with a non-compliant product. Indeed, as noted above, GSM 3.60 underwent at least ten additional revisions after version 6.1.1. *See id.* Had persons of skill attempted to build a system using version 6.1.1, they likely would have ended up with a product that did not work.

Ex. 2005 (Stark Decl.) at ¶132

In Reply, Petitioner Relies On Draft Document, GSM 3.60, That Was Not Part of The Standard

Draft EN 301 344 V6.1.1 (1998-08)

European Standard (Telecommunications series)

* * *

Digital cellular telecommunications system (Phase 2+);
General Packet Radio Service (GPRS);
Service description;
Stage 2
(GSM 03.60 version 6.1.1 Release 1997)

Ex. 1005.03

1002 (Bims Decl.) at ¶¶ 202-203. A person of skill in the art in 1999 would have understood Jawanda's reference to "any currently available or future wireless data protocol" to refer to actual standards, as opposed to drafts. Moreover, a person of ordinary skill in the art would have understood that in order to build devices that are interoperable with cellular networks you have to rely on the specifications that are in the actual approved final standard. Indeed, Dr. McLaughlin, ZTE's expert in

Ex. 2005 (Stark Decl.) at ¶131

In Reply, Petitioner Relies On Draft Document, GSM 3.60, That Was Not Part of The Standard

Draft EN 301 344 V6.1.1 (1998-08)

European Standard (Telecommunications series)

* * *

Digital cellular telecommunications system (Phase 2+);
General Packet Radio Service (GPRS);
Service description;
Stage 2
(GSM 03.60 version 6.1.1 Release 1997)

Ex. 1005.03

Wayne E. Stark, Ph.D.
Patent Owner's IPR Expert

Q. And the document that Dr. Bims relied on, this Exhibit 1005.03, was just a draft version of that GPRS wireless data protocol?

A. It was a draft that was modified many times until it got to 6.11. There was 6.1, 6.-- This is 6.1.1, and there was 6.2, 6.3, 4, 5, 6, 7, 8, 9, 10, and then 11. So there was, you know, I guess 10 different versions that were -- existed until it got to the release 97 version.

Ex. 1025 (Stark Tr.) at 93:19-94:3

Jawanda Teaches Relying On An Actual Cellular Standard

16. 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. Base station 30 is further

Ex. 1003 (Jawanda '581 Patent) at 3:6-9

DECLARATION OF DR. WAYNE E. STARK

1002 (Bims Decl.) at ¶¶ 202-203. A person of skill in the art in 1999 would have understood Jawanda's reference to "any currently available or future wireless data protocol" to refer to actual standards, as opposed to drafts. Moreover, a person of ordinary skill in the art would have understood that in order to build devices that are interoperable with cellular networks you have to rely on the specifications that are in the actual approved final standard. Indeed, Dr. McLaughlin, ZTE's expert in

Ex. 2005 (Stark Decl.) at ¶131

Jawanda Teaches Conforming To A Standard

16. 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. Base station 30 is further

Steven W. McLaughlin, Ph.D.
Petitioner's Litigation Expert

```
1  Q. ... Now, you told the jury yesterday
2     that Jawanda describes conforming to a
3     standard; right?
4  A. That makes sense. I can't -- yes,
5     probably.
```

Jawanda Teaches Using A Standard

16. 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. Base station 30 is further

Ex. 1003 (Jawanda '581 Patent) at 3:6-9

DECLARATION OF DR. HARRY BIMS IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,380,244

In order to implement the GPRS protocol suggested by Jawanda, a person having ordinary skill in the art would use the GPRS standards available at the time of the Jawanda patent. The GPRS

Ex. 1002 (Bims Decl.) at ¶166

Dr. Bims' Unsupported New Theory That A Developer Would Look To Drafts

Harry Bims, Ph.D.
Petitioner's IPR Expert

```
16  BY MS. HOLLOWAY:
17  Q. But you did not participate in the ETSI standards
18     development during the relevant time period. You've
19     already testified to that.
20  A. That's correct. That's correct.
21  Q. Okay. So you don't have any personal knowledge of what
22     people within ETSI did with respect to drafts?
1   A. None other than what I've read from their rules.
2   Q. Right. And the rules indicate that documents are
3      published but don't say anything about vendors using
4      them to make products when they're not final; right?
5   MR. JONES: Objection; foundation, form.
6   A. The rules themselves do not instruct vendors on when to
7      begin development.
```

Ex. 2006 (Bims Tr.) at 27:16-28:7

A Developer Would Not Look To Draft Standards

DECLARATION OF DR. WAYNE E. STARK

protocol" to refer to actual standards, as opposed to drafts. Moreover, a person of ordinary skill in the art would have understood that in order to build devices that are interoperable with cellular networks you have to rely on the specifications that are in the actual approved final standard. Indeed, Dr. McLaughlin, ZTE's expert in

*   *   *

motivated to implement a system using draft documents. If a person of ordinary skill were to implement a draft standard they would likely end up with a non-compliant product. Indeed, as noted above, GSM 3.60 underwent at least ten additional revisions after version 6.1.1. See id. Had persons of skill attempted to build a system using version 6.1.1, they likely would have ended up with a product that did not work.

Ex. 2005 (Stark Decl.) at ¶¶131-132

Jawanda Refers To Actual Standards, Not Drafts

DECLARATION OF DR. WAYNE E. STARK

1002 (Bims Decl.) at ¶¶ 202-203. A person of skill in the art in 1999 would have understood Jawanda's reference to "any currently available or future wireless data protocol" to refer to actual standards, as opposed to drafts. Moreover, a person of

* * *

"conforming to a standard." *See* Ex. 2015 (Delaware Trial Tr.) at 1109:1-5. The draft documents Dr. Bims cites are not part of Release 97, or a final standard. For example, GSM 3.60 v. 6.1.1 was not part of Release 97, but instead underwent at least ten subsequent revisions before being finalized in the standard. *See* Ex. 2019 (Release Version Matrix) at 8; Ex. 2020 (GSM 3.60 v. 6.11.0) at 1.

Ex. 2005 (Stark Decl.) at ¶131

Petitioners' New "Idle State" Theory

Petitioner's New Draft-Based "Idle State" Theory

Claim requires "a processor configured to maintain a communication session . . . *while* the IEEE 802.11 transceiver communicates packet data."

Wayne E. Stark, Ph.D.
Patent Owner's IPR Expert

```
22  Q. And then in this version of 03.60, the PDP
23     context can remain in the active state even after the
24     subscriber unit finishes transmitting data, correct?
1   A. Yes, until the timer expires or something like
2      that.
```

Ex. 1025 (Stark Tr.) at 87:22-88:2

Ex. 2024-0117

The Experts Agree: Jawanda Says Nothing About Any "Idle State" or "Timer" – The Cellular Connection Remains "Active"

timer. *See* Ex. 2006 (Bims Tr.) at 161:5-163:2. But Jawanda, as Dr. Bims conceded, does not describe entering into an "idle" state or use of a timer. *See id.* Moreover, Jawanda explicitly notes that the "optionally" maintained WWAN connection is an "active," as opposed to an "idle," connection.

Ex. 2005 (Stark Decl.) at ¶116

Harry Bims, Ph.D.
Petitioner's IPR Expert

```
21  Q.  Uh-huh. So Jawanda does not use the term "idle" in
22      connection with the WWAN cellular connection?
 1  A.  It doesn't expressly use that word.
                 *         *         *
22  Q.  ... There is no mention of this timer you've talked
 1      about in Jawanda; right?
 2  A.  That's correct.
```

Ex. 2006 (Bims Tr.) at 161:21-162:1, 162:22-163:2

The Optionally Maintained Connection In Jawanda Is "Active," Not "Idle"

timer. *See* Ex. 2006 (Bims Tr.) at 161:5-163:2. But Jawanda, as Dr. Bims conceded, does not describe entering into an "idle" state or use of a timer. *See id.* Moreover, Jawanda explicitly notes that the "optionally" maintained WWAN connection is an "active," as opposed to an "idle," connection.

Ex. 2005 (Stark Decl.) at ¶116

115. In 1999, a person of ordinary skill in the art would have understood that an "active" connection means that the physical channels are being used, i.e., the physical channels would not be absent as required by the claim. Indeed, Dr. McLaughlin, ZTE's expert in the District Court Case, conceded that an "active" connection is "a connection that's being used, a wireless link that's being used." Ex. 2015 (Delaware Trial Tr.) at 1120:11-24. Such an "active" connection could

Ex. 2005 (Stark Decl.) at ¶115

Inherency

Inherency: Jawanda Does Not Require GPRS

16. 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. Base station 30 is further

Ex. 1003 (Jawanda '581 Patent) at 3:6-9

Harry Bims, Ph.D.
Petitioner's IPR Expert

```
3   Q. Okay. Now, the dual-mode device described in Jawanda
4      does not necessarily use GPRS; right?
5   A. The dual-mode device in Jawanda can use any cellular
6      protocol available at the time or future that fits
7      within the three categories we mentioned.
8   Q. Exactly. So it doesn't have to use GPRS; right?
9   A. It doesn't have to be, yes, that's correct.
10  Q. Okay. It could use, for example, CDPD instead?
11  A. That's possible, yes.
```

Ex. 2006 (Bims Tr.) at 22:3-11

Inherency: Jawanda Does Not Require GPRS Release 97

16. 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. Base station 30 is further

Ex. 1003 (Jawanda '581 Patent) at 3:6-9

Harry Bims, Ph.D.
Petitioner's IPR Expert

```
22 Q. ... Okay. And, also, if the dual-mode device
1      described in Jawanda did use GPRS, it could use a
2      release that was earlier than Release 97; correct?
3  MR. JONES: Objection; form, foundation.
4   A. It could use any version of GPRS available at the time
5      or future version, yes.
```

Ex. 2006 (Bims Tr.) at 22:22-23:5

Inherency: Jawanda Does Not Require Multiple GPRS Channels

Harry Bims, Ph.D.
Petitioner's IPR Expert

15 Q. ... If the dual-mode device described in Jawanda did

16 use GPRS Release 97, it could use only one physical

17 channel; right?

18 MR. JONES: Objection; form, foundation.

19 **A. It's possible in GPRS to use one physical channel, yes.**

Ex. 2006 (Bims Tr.) at 22:15-19

No Motivation To Combine Jawanda With Draft GPRS Documents

Jawanda Teaches Using An Actual Final Standard

16. 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. Base station 30 is further

Ex. 1003 (Jawanda '581 Patent) at 3:6-9

DECLARATION OF DR. WAYNE E. STARK

1002 (Bims Decl.) at ¶¶ 202-203. A person of skill in the art in 1999 would have understood Jawanda's reference to "any currently available or future wireless data protocol" to refer to actual standards, as opposed to drafts. Moreover, a person of ordinary skill in the art would have understood that in order to build devices that are interoperable with cellular networks you have to rely on the specifications that are in the actual approved final standard. Indeed, Dr. McLaughlin, ZTE's expert in

Ex. 2005 (Stark Decl.) at ¶131

Jawanda Teaches Conforming To A Standard

16. 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. Base station **30** is further

Ex. 1003 (Jawanda '581 Patent) at 3:6-9

Steven W. McLaughlin, Ph.D.
Petitioner's Litigation Expert

```
1   Q. ... Now, you told the jury yesterday
2      that Jawanda describes conforming to a
3      standard; right?
4   A. That makes sense. I can't -- yes,
5      probably.
```

Ex. 2015 (Delaware Trial Tr.) at 1109:1-5

Ex. 2024-0126

Jawanda Teaches Conforming To A Standard

16. 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. Base station 30 is further

Ex. 1003 (Jawanda '581 Patent) at 3:6-9

DECLARATION OF DR. HARRY BIMS IN SUPPORT OF THE PETITION FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,380,244

In order to implement the GPRS protocol suggested by Jawanda, a person having ordinary skill in the art would use the GPRS standards available at the time of the Jawanda patent. The GPRS

Ex. 1002 (Bims Decl.) at ¶166

GSM 3.60 Version 6.2.1 Was Not Part Of Release 97

DECLARATION OF DR. WAYNE E. STARK

The document that ZTE and Dr. Bims rely on is marked "Draft," confirming that it is not part of a final approved specification. *See* ZTE Ex. 1005.03 (GSM 3.60 v. 6.1.1) at 1. Indeed, this document, GSM 3.60 v. 6.1.1, was not part of Release 97, but instead underwent multiple subsequent revisions before being finalized in the standard. *See* Ex. 2019 (Release Version Matrix) at 8; Ex. 2020 (GSM 3.60 v. 6.11.0) at 1. Thus, there would be no motivation to combine it with Jawanda

Ex. 2005 (Stark Decl.) at ¶40

GSM 3.60 Version 6.2.1 Was Not Part Of Release 97

DECLARATION OF DR. WAYNE E. STARK

"conforming to a **standard**." *See* Ex. 2015 (Delaware Trial Tr.) at 1109:1-5. **The** draft documents Dr. Bims cites are not part of Release 97, or a final standard. For example, GSM 3.60 v. 6.1.1 was not part of Release 97, but instead underwent at least ten subsequent revisions before being finalized in the standard. *See* Ex. 2019 (Release Version Matrix) at 8; Ex. 2020 (GSM 3.60 v. 6.11.0) at 1.

Ex. 2005 (Stark Decl.) at ¶131