

<i>Applicant-Initiated Interview Summary</i>	Application No.		Applicant(s)	
	12/615,098		GORSUCH, THOMAS E.	
	Examiner		Art Unit	
		BARRY TAYLOR	2617	

All participants (applicant, applicant's representative, PTO personnel):

(1) BARRY TAYLOR. (3) ____.

(2) Robert Leonard. (4) ____.

Date of Interview: 11 April 2012.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: ____.

Issues Discussed ☐ 101 ☐ 112 ☐ 102 ☒ 103 ☐ Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1.

Identification of prior art discussed: Lemilainen 6,243,581 and Jawanda 6,243,581.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Discussed prior art applied to independent claim 1. Applicants will propose an amendment in response to the interview on 4/11/2012. The Examiner requested a Terminal Disclaimer to overcome parent patent 6,526,034.

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/Barry W Taylor/ Primary Examiner, Art Unit 2617	
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Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/615,098	11/09/2009	Thomas E. Gorsuch	TAN-2-1493US05	9856
24374 7590 10/20/2011 VOLPE AND KOENIG, P.C. DEPT. ICC UNITED PLAZA 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			EXAMINER TAYLOR, BARRY W	
			ART UNIT	PAPER NUMBER
			2617	
			NOTIFICATION DATE	DELIVERY MODE
			10/20/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eoffice@volpe-koenig.com

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2, 4-12, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton et al (2008/0274767 hereinafter Sainton) in view of Lemilainen (7,502,626) further in view of Jawanda (6,243,581).

Regarding claim 1. Sainton teaches a subscriber unit comprising:

a first transceiver configured to communicate with a first wireless network via a plurality of assigned physical layer channels (abstract, paragraphs 0027-0028, see paragraphs 0039-0040 and 0083 wherein first transceiver can be CDMA and second transceiver can be wireless LAN (i.e. 802.11 as defined in Applicants specification), paragraphs 0081-0082);

a second transceiver configured to communicate with a second wireless network (abstract, paragraphs 0027-0028, see paragraphs 0039-0040 and 0083 wherein first transceiver can be CDMA and second transceiver can be wireless LAN (i.e. 802.11 as defined in Applicants specification), paragraphs 0081-0082); and

a processor coupled to the first transceiver and the second transceiver (abstract, paragraphs 0027-0028, see paragraphs 0039-0040 and 0083 wherein first transceiver can be CDMA and second transceiver can be wireless LAN (i.e. 802.11 as defined in

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Applicants specification), paragraphs 0081-0082), and configured to maintain a communication session, above a physical layer, with the first wireless network in the absence of the plurality of assigned physical layer channels.

Sainton does not explicitly show the processor configured to maintain a communication session, above a physical layer, with the first wireless network in the absence of the plurality of assigned physical layer channels.

The Examiner notes that Applicants have defined “a processor configured to maintain a communication session, with the first wireless network in the absence of the plurality of assigned physical layer channels while communicating packet data with the IEEE 802.11 wireless local area network via the second transceiver”. For example, Applicants generally point to paragraphs 0023 and 0078 (see paper dated 1/28/2011 at page 9 which basically indicates some sort of spoofing (i.e. spoof the terminal into believing that a sufficient wide wireless communication link is continuously available). Furthermore, the Examiner notes that during the interview 10/27/2010, Applicants generally pointed to items 25 and 46 of figure 1 for support wherein items 25 and 46 are basic protocol converters. Applicants indicated that paragraphs 0045 and 0046 describe the protocol converters are nothing more than a middle layer (i.e. intermediate layer) within the context of the OSI model.

Lemilainen teaches a system wherein a mobile station can switch to an IP access protocol (abstract, col. 2 lines 24-50). Lemilainen teaches the mobile can communicate with the system using short range communication, instead of the cellular network (col. 3 lines 3-7) wherein an **interworking unit** is provided in the mobile station

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(col. 3 lines 8-15, **figure 11**, col. 12 line 65 - col. 13 line 50) which provides the subscriber the opportunity to utilize the services of one's own mobile communication system anywhere, where an Internet connection is possible, independent of the available access technique (col. 12 line 65 – col. 13 line 50). Lemilainen teaches cellular network and wireless LAN (i.e. 802 compliant) may be used (col. 7 lines 1-19). Lemilainen teaches the mobile represented with layers 1 to 3 (see **figure 11**, col. 14 lines 13-51) wherein the network layer provides call control management and radio resource management and further comprises a **MUX** (see 536 figure 11) which "switches" to a second branch or layer 2 (i.e. data layer which is also above the PHY layer) to demand services of the data link and PHY layer which ultimately allows the mobile subscriber to utilize communication networks, such as private intranets to carry services of cellular network when it is within coverage area.

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the dual mode phone as taught by Sainton to incorporate the interworking unit as taught by Lemilainen in order to provide seamless handovers between different radio communication networks as disclosed by Lemilainen.

According to Applicants, Sainton in view of Lemilainen do not show maintaining a communication session with the first wireless network while communicating packet data with the 802.11 wireless Local Area Network via the second transceiver (paper dated 8/23/2011, page 14).

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)..

It would have been obvious for anyone of ordinary skill in the art at the time of invention to modify the dual mode phone as taught by Sainton in view of Lemilainen to 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.

Regarding claim 11. Method claim 11 is rejected for the same reasons as apparatus claim 1 since the recited apparatus would perform the claimed method.

Regarding claims 2 and 12. Sainton teaches wherein the first wireless network is a cellular wireless (abstract, paragraphs 0027-0028, see paragraphs 0039-0040 and

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0083 wherein first transceiver can be CDMA and second transceiver can be wireless LAN (i.e. 802.11 as defined in Applicants specification), paragraphs 0081-0082).

Jawanda also teaches the first wireless network can be a cellular wireless network (col. 3 lines 1-27).

Regarding claims 4 and 14. Sainton does not explicitly show wherein the packet data is transmission control protocol and Internet protocol (TCP/IP) packet data.

Lemilainen teaches a system wherein a mobile station can switch to an IP access protocol (abstract, col. 2 lines 24-50). Lemilainen teaches the mobile can communicate with the system using short range communication, instead of the cellular network (col. 3 lines 3-7) wherein an interworking unit is provided in the mobile station (col. 3 lines 8-15) which provides the subscriber the opportunity to utilize the services of one's own mobile communication system anywhere, where an Internet connection is possible, independent of the available access technique (col. 12 line 65 – col. 13 line 50). Lemilainen teaches cellular network and wireless LAN (i.e. 802 compliant) may be used (col. 7 lines 1-19). Lemilainen teaches the mobile represented with layers 1 to 3 (see figure 11, col. 14 lines 13-51) wherein the network layer provides call control management and radio resource management and further comprises a **MUX** (see 536 figure 11) which "switches" to a second branch or layer 2 (i.e. data layer which is also above the PHY layer) to demand services of the data link and PHY layer which ultimately allows the mobile subscriber to utilize communication networks, such as private intranets to carry services of cellular network when it is within coverage area.

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the dual mode phone as taught by Sinton to use the MUX as taught by Lemilainen in order to provide the mobile subscriber a means to **switch** to an IP access protocol when it is within coverage area.

Regarding claims 5 and 15. Sinton does not explicitly show wherein the communication session is a transmission control protocol (TCP) layer session, an Internet protocol (IP) layer session, or a network layer session.

The Examiner notes that Applicants admit that newly accepted standard, IEEE 802.11, specifies a protocol for the MAC and PHY layers of a wireless LAN (see Applicants specification page 3).

Lemilainen teaches a system wherein a mobile station can switch to an IP access protocol (abstract, col. 2 lines 24-50). Lemilainen teaches the mobile can communicate with the system using short range communication, instead of the cellular network (col. 3 lines 3-7) wherein an interworking unit is provided in the mobile station (col. 3 lines 8-15) which provides the subscriber the opportunity to utilize the services of one's own mobile communication system anywhere, where an Internet connection is possible, independent of the available access technique (col. 12 line 65 – col. 13 line 50). Lemilainen teaches cellular network and wireless LAN (i.e. 802 compliant) may be used (col. 7 lines 1-19). Lemilainen teaches the mobile represented with layers 1 to 3 (see figure 11, col. 14 lines 13-51) wherein the network layer provides call control management and radio resource management and further comprises a **MUX** (see 536 figure 11) which "switches" to a second branch or layer 2 (i.e. data layer which is also

above the PHY layer) to demand services of the data link and PHY layer which ultimately allows the mobile subscriber to utilize communication networks, such as private intranets to carry services of cellular network when it is within coverage area.

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the dual mode phone as taught by Sainton to use the **MUX located in the Network layer (see figure 11 wherein MUX is clearly above the PHY layer and within the network layer)** as taught by Lemilainen in order to provide the mobile subscriber a means to **switch** to an IP access protocol when it is within coverage area.

Regarding claims 6 and 16. Sainton teaches a detector configured to detect the IEEE 802 compliant wireless network; and a circuit configured to select the second transceiver in response to the detector detecting the IEEE 802 compliant wireless network (abstract, paragraphs 0027-0028, see paragraphs 0039-0040 and 0083 wherein first transceiver can be CDMA and second transceiver can be wireless LAN (i.e. 802.11 as defined in Applicants specification), paragraphs 0081-0082).

Jawanda also teaches detecting WLAN and circuit configured to select the second transceiver (see col. 3 line 65 - col. 6 line 20 wherein cellular access interface used for transmitting and receiving via cellular network and WLAN interface is used for transmitting and receiving via WLAN).

Regarding claims 7 and 17. Sainton does not explicitly show wherein the processor is further configured to release the plurality of assigned physical channels.

The Examiner notes that Applicants admit that newly accepted standard, IEEE 802.11, specifies a protocol for the MAC and PHY layers of a wireless LAN (see

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Applicants specification page 3). Furthermore, it is noted that the MAC layer takes charge of **selecting a physical channel and set or release connection of a call on the selected physical channel.**

In order to advance prosecution, Lemilainen teaches a system wherein a mobile station can switch to an IP access protocol (abstract, col. 2 lines 24-50). Lemilainen teaches the mobile can communicate with the system using short range communication, instead of the cellular network (col. 3 lines 3-7) wherein an interworking unit is provided in the mobile station (col. 3 lines 8-15) which provides the subscriber the opportunity to utilize the services of one's own mobile communication system anywhere, where an Internet connection is possible, independent of the available access technique (col. 12 line 65 – col. 13 line 50). Lemilainen teaches cellular network and wireless LAN (i.e. 802 compliant) may be used (col. 7 lines 1-19). Lemilainen teaches the mobile represented with layers 1 to 3 (see figure 11, col. 14 lines 13-51) wherein the network layer provides call control management and radio resource management and further comprises a **MUX** (see 536 figure 11) which "**switches**" to a second branch or layer 2 (i.e. data layer which is also above the PHY layer) to demand services of the data link and PHY layer which ultimately allows the mobile subscriber to utilize communication networks, such as private intranets to carry services of cellular network when it is within coverage area.

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the dual mode phone as taught by Sainton to use the **MUX located in the Network layer** (see figure 11 wherein MUX is clearly above the PHY layer

and within the network layer) as taught by Lemilainen in order to provide the mobile subscriber a means to **switch** to an IP access protocol when it is within coverage area.

The Examiner notes that by switching to an IP connection frees up PHY layer channels.

Regarding claims 8 and 18. Sainton in view of Lemilainen do not explicitly show wherein the detector is configured to detect a beacon frame or a probe response frame received by the second transceiver from the IEEE 802.11 wireless local area network.

The Examiner notes that Applicants admit that newly accepted standard, IEEE 802.11, specifies a protocol for the MAC and PHY layers of a wireless LAN (see Applicants specification page 3). Applicants further admit that IEEE 802.11-compliant specifies that a beacon frame should be transmitted at regular intervals and the terminal can detect the beacon frame by waiting a minimum period of time equal to the beacon interval (see Applicants specification page 15).

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). Jawanda teaches detecting a beacon frame or a probe response (see col. 4 line 8 – col. 5 line 42 wherein detection of advertisement message from WLAN is disclosed).

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the teachings of Sainton in view of Lemilainen to monitor for advertisements from WLANs in order to provide a means for mobile stations to detect the presence of a nearby WLAN.

Regarding claims 9 and 19. Sainton does not explicitly show wherein at least one of the of physical channels is a data channel.

Lemilainen teaches a system wherein a mobile station can switch to an IP access protocol (abstract, col. 2 lines 24-50). Lemilainen teaches the mobile can communicate with the system using short range communication, instead of the cellular network (col. 3 lines 3-7) wherein an interworking unit is provided in the mobile station (col. 3 lines 8-15) which provides the subscriber the opportunity to utilize the services of one's own mobile communication system anywhere, where an Internet connection is possible, independent of the available access technique (col. 12 line 65 – col. 13 line 50). Lemilainen teaches cellular network and wireless LAN (i.e. 802 compliant) may be used (col. 7 lines 1-19). Lemilainen teaches the mobile represented with layers 1 to 3 (see figure 11, col. 14 lines 13-51) wherein the **network layer provides call control management and radio resource management and further comprises a MUX** (see 536 figure 11) which "**switches**" to a second branch or layer 2 (i.e. **data layer which is**

also above the PHY layer) to demand services of the **data link and PHY layer** which ultimately allows the mobile subscriber to utilize communication networks, such as private intranets to carry services of cellular network when it is within coverage area.

It would have been obvious for any one of ordinary skill in the art at the time of invention to modify the dual mode phone as taught by Sainton to use the MUX as taught by Lemilainen in order to provide the mobile subscriber a means to **switch** to an IP access protocol when it is within coverage area.

Regarding claims 10 and 20. Sainton teaches wherein the first wireless network is a code division multiple access (CDMA) wireless network, and the first transceiver is a cellular code division multiple access (CDMA) transceiver and the second transceiver is an IEEE 802.11 transceiver (abstract, paragraphs 0027-0028, see paragraphs 0039-0040 and 0083 wherein first transceiver can be CDMA and second transceiver can be wireless LAN (i.e. 802.11 as defined in Applicants specification), paragraphs 0081-0082).

Jawanda also teaches the first network is CDMA and second network is WLAN (col. 3 lines 1-27, col. 4 lines 1-67, col. 5 lines 19).

2. Claims 21-22 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton et al (2008/0274767 hereinafter Sainton) in view of Lemilainen (7,502,626) and Jawanda (6,243,581) further in view of Tiedemann, JR et al (2004/0029606 hereinafter Tiedemann).

Regarding claims 21 and 26. Sainton in view of Lemilainen and Jawanda do not explicitly show wherein the first transceiver is further configured to transmit traffic data

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using a first physical channel and a second physical channel, wherein transmission parameters associated with the first physical channel differ from transmission parameters associated with the second physical channel.

Tiedemann teaches CDMA standards are modified so communication can be transmitted or received over physical channels which each have different set of parameters (abstract, paragraph 0009, 0031-0032) which enables the mobile station and base station to transmit voice and video via two concurrent calls, as well as, to allow for concurrent transmission of voice and data (e.g. transfer of a file while carrying on a conversation).

It would have been obvious for anyone of ordinary skill in the art at the time of invention to modify the teachings of Sainton in view of Lemilainen and Jawanda to use the modified CDMA standards as taught by Tiedemann in order to allow for concurrent transmission of voice and data.

Regarding claims 22 and 27. Sainton in view of Lemilainen and Jawanda do not explicitly show wherein the first transceiver is further configured to receive traffic data using a first physical channel and a second physical channel, wherein transmission parameters associated with the first physical channel differ from transmission parameters associated with the second physical channel.

Tiedemann teaches CDMA standards are modified so communication can be transmitted or received over physical channels which each have different set of parameters (abstract, paragraph 0009, 0031-0032) which enables the mobile station and base station to transmit voice and video via two concurrent calls, as well as, to

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allow for concurrent transmission of voice and data (e.g. transfer of a file while carrying on a conversation).

It would have been obvious for anyone of ordinary skill in the art at the time of invention to modify the teachings of Sainton in view of Lemilainen and Jawanda to use the modified CDMA standards as taught by Tiedemann in order to allow for concurrent transmission of voice and data.

3. Claims 23-24 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton et al (2008/0274767 hereinafter Sainton) in view of Lemilainen (7,502,626) and Jawanda (6,243,581) further in view of Padovani et al (2009/0310588 hereinafter Padovani).

Regarding claims 23 and 28. Sainton in view of Lemilainen and Jawanda do not explicitly show wherein the first transceiver is further configured to communicate with the first wireless network via a sub-frame that includes a sequence number and a data portion.

Padovani teaches in a CDMA environment wherein data unit is associated with a sequence number and the mobiles can identify either missed or duplicate transmissions and inform base station wherein the base station then retransmits the data units (paragraphs 0041, 0049, 0050, 0067, 0074, 0109, 0111, 0112).

It would have been obvious for anyone of ordinary skill in the art at the time of invention to modify the teaching of Sainton in view of Lemilainen and Jawanda to associate data units with a sequence number as taught by Padovani in order to provide a means for mobile stations to identify data units as either missed or duplicated.

Regarding claims 24 and 29. Sainton in view of Lemilainen and Jawanda do not explicitly show wherein the first transceiver is further configured to receive an indication of a missing sub-frame and to retransmit the missing sub-frame.

Padovani teaches in a CDMA environment wherein data unit is associated with a sequence number and the mobiles can identify either missed or duplicate transmissions and inform base station wherein the base station then retransmits the data units (paragraphs 0041, 0049, 0050, 0067, 0074, 0109, 0111, 0112)

It would have been obvious for anyone of ordinary skill in the art at the time of invention to modify the teaching of Sainton in view of Lemilainen and Jawanda to associate data units with a sequence number as taught by Padovani in order to provide a means for mobile stations to identify data units as either missed or duplicated.

4. Claims 25 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton et al (2008/0274767 hereinafter Sainton) in view of Lemilainen (7,502,626), Jawanda (6,243,581) and Padovani et al (2009/0310588 hereinafter Padovani) further in view of Kapoor (5,818,852) or Amalfitano (6,236,647).

Regarding claims 25 and 30. Sainton in view of Lemilainen, Jawanda and Padovani do not explicitly show wherein the sub-frame further includes an indication of a position of the sub-frame within a frame.

Kapoor teaches data transmission between a transmitter and receiver (abstract, col. 1 lines 48-60) wherein the format of the data packet frame comprises header, **packet number** which uniquely identifies an individual data packet frame for

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Acknowledgment purpose and **may server other purposes such as enabling the receiver to reassemble received data packets** (col. 1 line 61 – col. 2 line 25).

Amalfitano also teaches subframes are each assigned a **position number** such that they may be **reassembled into proper order to reconstruct the network layer frame at the receiver side** (col. 2 lines 14-20).

It would have been obvious for anyone of ordinary skill in the art at the time of invention to modify the teachings of Sainton in view of Lemilainen, Jawanda and Padovani to use **packet number** as taught by Kapoor or **position number** as taught by Amalfitano in order to uniquely identify individual data packet frame for Acknowledgement purpose, as well as, enabling the receiver to reassemble received data packets.

Response to Arguments

5. Applicant's arguments with respect to claims 1-2, 4-12, and 14-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry W. Taylor, telephone number (571) 272-7509, who is available Monday-Thursday, 6:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kent Chang, can be reached at (571) 272-7667. The central facsimile phone number for this group is **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 2600 receptionist whose telephone number is (571) 272-2600, the 2600 Customer Service telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

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more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Centralized Delivery Policy: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the central fax number (571-273-8300).

/Barry W Taylor/

Primary Examiner, Art Unit 2617

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Thomas E. Gorsuch

Application No.: 12/615,098

Confirmation No.: 9856

Filed: November 9, 2009

For: DUAL MODE UNIT FOR SHORT
RANGE, HIGH RATE AND LONG RANGE,
LOWER RATE DATA COMMUNICATIONS

Group: 2617

Examiner: Barry W. Taylor

Our File: TAN-2-1493US05

Date: April 20, 2012

REPLY PURSUANT TO 37 C.F.R. §1.111

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply is being filed in response to the Non-Final Office Action dated October 20, 2011. An appropriate Petition for Extension of Time is also being filed.

Please amend the application without prejudice or disclaimer as follows:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A subscriber unit comprising:
a ~~first~~ cellular transceiver configured to communicate with a ~~first~~ cellular wireless network via a plurality of assigned physical channels;
an IEEE 802.11 ~~second~~ transceiver configured to communicate with an IEEE 802.11 wireless local area network; and
a processor configured to maintain a communication session with the ~~first~~ cellular wireless network in ~~the~~ an absence of the plurality of assigned physical channels while the IEEE 802.11 transceiver communicates ~~communicating~~ packet data with the IEEE 802.11 wireless local area network ~~via the second transceiver~~.
2. – 3. (Canceled)
4. (Previously Presented) The subscriber unit of claim 1, wherein the packet data is transmission control protocol and Internet protocol (TCP/IP) packet data.

5. (Previously Presented) 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.

6. (Currently Amended) The subscriber unit of claim 1, further comprising:

a detector configured to detect the IEEE 802.11 wireless local area network;
and

a circuit configured to select the ~~second~~ IEEE 802.11 transceiver in response to the detector detecting the IEEE 802.11 wireless local area network.

7. (Previously Presented) The subscriber unit of claim 6, wherein the processor is further configured to release the plurality of assigned physical channels.

8. (Currently Amended) The subscriber unit of claim 6, wherein the detector is configured to detect a beacon frame or a probe response frame received by the ~~second~~ IEEE 802.11 transceiver from the IEEE 802.11 wireless local area network.

9. (Currently Amended) The subscriber unit of claim 1, wherein at least one of the plurality of assigned physical channels is a data channel.

10. (Currently Amended) The subscriber unit of claim 1, wherein the ~~first~~ cellular wireless network is a code division multiple access (CDMA) wireless network, and the ~~first~~ cellular transceiver is a cellular code division multiple access (CDMA) transceiver ~~and the second transceiver is an IEEE 802.11 transceiver.~~

11. (Currently Amended) A method for use in a dual mode subscriber unit, the method comprising:

establishing a communication session ~~via a first~~ with a cellular wireless network;

maintaining the communication session in ~~the~~ an absence of any physical channels associated with the ~~first~~ cellular wireless network; and

communicating packet data with an IEEE 802.11 wireless local area network while maintaining the communication session with the ~~first~~ cellular wireless network.

12. – 13. (Canceled)

14. (Previously Presented) The method of claim 11, wherein the packet data is transmission control protocol and Internet protocol (TCP/IP) packet data.

15. (Previously Presented) The method of claim 11, wherein the communication session is a transmission control protocol (TCP) layer session, an Internet protocol (IP) layer session, or a network layer session.

16. (Currently Amended) The method of claim ~~12~~ 11, 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.

17. (Currently Amended) The method of claim 16, further comprising:
releasing all of the assigned physical channels associated with the ~~first~~
cellular wireless network.

18. (Previously Presented) The method of claim 16, 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.

19. (Previously Presented) The method of claim 11, wherein at least one of the physical channels is a data channel.

20. (Currently Amended) The method of claim ~~12~~ 11, wherein the ~~first~~ cellular wireless network is a code division multiple access (CDMA) wireless network.

21. (Currently Amended) The subscriber unit of claim 1, wherein the ~~first~~ cellular transceiver is further configured to transmit traffic data using a first physical channel and a second physical channel, wherein transmission parameters associated with the first physical channel differ from transmission parameters associated with the second physical channel.

22. (Currently Amended) The subscriber unit of claim 1, wherein the ~~first~~ cellular transceiver is further configured to receive traffic data using a first physical channel and a second physical channel, wherein transmission parameters associated with the first physical channel differ from transmission parameters associated with the second physical channel.

23. (Currently Amended) The subscriber unit of claim 1, wherein the ~~first~~ cellular transceiver is further configured to communicate with the ~~first~~ cellular wireless network via a sub-frame that includes a sequence number and a data portion.

24. (Currently Amended) The subscriber unit of claim 23, wherein the ~~first~~ cellular transceiver is further configured to receive an indication of a missing sub-frame and to retransmit the missing sub-frame.

25. (Previously Presented) The subscriber unit of claim 23, wherein the sub-frame further includes an indication of a position of the sub-frame within a frame.

26. (Currently Amended) The method of claim 11, further comprising:
transmitting traffic data to the ~~first~~ cellular wireless network using a first physical channel and a second physical channel, wherein transmission parameters associated with the first physical channel differ from transmission parameters associated with the second physical channel.

27. (Currently Amended) The method of claim 11, further comprising:
receiving traffic data from the ~~first~~ cellular wireless network using a first physical channel and a second physical channel, wherein transmission parameters associated with the first physical channel differ from transmission parameters associated with the second physical channel.

28. (Currently Amended) The method of claim 11, further comprising:
communicating with the ~~first~~ cellular wireless network via a sub-frame that includes a sequence number and a data portion.

29. (Currently Amended) The method of claim 28, further comprising:
receiving an indication of a missing sub-frame from the ~~first~~ cellular wireless network; and
retransmitting the missing sub-frame.

30. (Previously Presented) The method of claim 28, wherein the sub-frame further includes an indication of a position of the sub-frame within a frame.

31. (New) 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.

32. (New) 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.

33. (New) 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.

34. (New) The subscriber unit of claim 33, wherein the IEEE 802.11 transceiver is further configured to complete communicating packet data with the IEEE 802.11 wireless local area network.

35. (New) The subscriber unit of claim 1, wherein the processor is further configured to complete communicating packet data via the cellular wireless network

after the IEEE 802.11 transceiver fails to complete communicating packet data with the IEEE 802.11 wireless local area network.

36. (New) 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.

37. (New) The subscriber unit of claim 36, wherein the processor is configured to automatically communicate with the cellular wireless network by utilizing the communication session with the cellular wireless network.

38. (New) 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.

39. (New) The subscriber unit of claim 1, wherein the packet data is transmission control protocol and Internet protocol (TCP/IP) data.

40. (New) The method of claim 11, 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.

41. (New) The method of claim 11, further comprising:
allocating and deallocating at least one physical channel associated with the cellular wireless network.

42. (New) The method of claim 11, further comprising:
detecting whether the IEEE 802.11 wireless local area network is available;
and
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.

43. (New) The method of claim 42, wherein automatically communicating packet data includes completing communicating packet data via the IEEE 802.11 wireless local area network.

44. (New) The method of claim 11, further comprising:

completing communicating packet data via the cellular wireless network after failing to complete communicating packet data via the IEEE 802.11 wireless local area network.

45. (New) The method of claim 11, further comprising:

automatically communicating with the cellular wireless network on a condition that the IEEE 802.11 wireless local area network is unavailable.

46. (New) The method of claim 45, wherein automatically communicating with the cellular wireless network includes utilizing the communication session with the cellular wireless network.

47. (New) The method of claim 11, further comprising:

releasing all assigned physical channels in 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.

48. (New) The method of claim 11, wherein the packet data is transmission control protocol and Internet protocol (TCP/IP) data.

REMARKS/ARGUMENTS

After the foregoing Amendment, claims 1, 4-11, and 14-48 are currently pending in this application. Claims 2 and 12 are now canceled without prejudice. Claims 1, 6, 8-11, 16-17, 20-24, and 26-29 are amended. New claims 31-48 are added.

Examiner Interview

Applicant thanks the Examiner for granting a telephonic interview on April 11, 2012. During the interview, U.S. Patent No. 6,243,581 to Jawanda was discussed. The foregoing amendments to independent claims 1 and 11 were discussed. A Terminal Disclaimer over U.S. Patent No. 6,526,034 was suggested by the Examiner to advance prosecution.

Terminal Disclaimer

During the April 11, 2012 telephonic interview, the Examiner suggested a Terminal Disclaimer over U.S. Patent No. 6,526,034 be filed to advance prosecution of this application. An appropriate Terminal Disclaimer is submitted along with this Reply.

Claim Rejections - 35 USC §103

Claims 1-2, 4-12, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 2008/0274767 to Sinton et al. (hereinafter “Sinton”) in view of U.S. Patent No. 7,502,626 to Lemilainen (hereinafter “Lemilainen”) further in view of U.S. Patent No. 6,243,581 to Jawanda.

Claims 21-22 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinton in view of Lemilainen and Jawanda further in view of U.S. Publication No. 2004/0029606 to Tiedemann (hereinafter “Tiedemann”).

Claims 23-24 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinton in view of Lemilainen and Jawanda further in view of U.S. Publication No. 2009/0310588 to Padovani (hereinafter “Padovani”).

Claims 25 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sinton in view of Lemilainen, Jawanda and Padovani further in view of U.S. Patent No. 5,818,852 to Kapoor (hereinafter “Kapoor”) or U.S. Patent No. 6,236,647 to Amalfitano (hereinafter “Amalfitano”).

As discussed with the Examiner during the April 11, 2012 telephonic interview, Sinton, 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.

Claim 11, while not identical to claim 1, recites limitations that are similar to claim 1, and is also believed to be allowable over the combination of Sainton, Lemilainen, and Jawanda for at the least the reason presented above.

Claims 2 and 12 are canceled in the foregoing amendment. Claims 4-10 and 14-20 depend on independent claims 1 and 11, respectively, and are therefore believed to be patentable over the combination of Sainton, Lemilainen, and Jawanda at least by virtue of their dependencies.

Claims 21-22 and 26-27 depend on independent claims 1 and 11, respectively, and are therefore believed to be patentable over the combination of Sainton, Lemilainen, Jawanda, and Tiedemann at least by virtue of their dependencies.

Claims 23-24 and 28-29 depend on independent claims 1 and 11, respectively, and are therefore believed to be patentable over the combination of Sainton, Lemilainen, Jawanda, and Padovani at least by virtue of their dependencies.

Claims 25 and 30 depend on independent claims 1 and 11, respectively, and are therefore believed to be patentable over the combination of Sainton, Lemilainen, Jawanda, Kapoor, and Amalfitano at least by virtue of their dependencies.

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For the reasons presented above, withdrawal of the 35 U.S.C. 103(a) rejections is respectfully requested.

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Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephonic interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicant respectfully submits that the present application is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

Thomas E. Gorsuch

By: /Robert D. Leonard/
Robert D. Leonard
Registration No. 57,204

Volpe and Koenig, P.C.
United Plaza
30 South 17th Street
Philadelphia, PA 19103-4009
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

RDL/dmc