PTO/AIA/80 (07-12)
Approved for use through 11/30/2014. OMB 0651-0035
U.S. Patent and Trademark Office; U.S DEPARTMENT OF COMMERCE
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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

[■] Practitioners associated with Customer Number: 24374

OR

[ ] Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

[■] The address associated with Customer Number: 24374

OR

[ ]	Firm or Individual Name			
	Address			
	City		State	Zip
	Country			
	Telephone		Email	

Assignee Name and Address: InterDigital Technology Corporation
200 Bellevue Parkway
Suite 300
Wilmington, DE 19809

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	[signature]	Date	17-JAN-2013
Name	Bradley N. Ditty	Telephone	
Title	Senior Patent Executive		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

MICROSOFT CORP.
EXHIBIT 1002

PTO/AIA/96 (08-12)
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U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Alan G. Carlton et al.

Application No./Patent No.: _____ Filed/Issue Date: June 28, 2013

Titled: DATA TRANSFER BETWEEN WIRELESS DEVICES

InterDigital Patent Holdings, Inc., a corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☐ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☑ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 024071, Frame 0233, or for which a copy thereof is attached.

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____

   The document was recorded in the United States Patent and Trademark Office at

   Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____

   The document was recorded in the United States Patent and Trademark Office at

   Reel _____, Frame _____, or for which a copy thereof is attached.

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/John Porrazza/	June 28, 2013
Signature	Date
John Porrazza	68,126
Printed or Typed Name	Title or Registration Number

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Filer:	John Porrazza/Janice Nightlinger
Attorney Docket Number:	IPH-2-2235US04

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility application filing	1011	1	280	280
Utility Search Fee	1111	1	600	600
Utility Examination Fee	1311	1	720	720
Pages:				
Claims:				
Miscellaneous-Filing:				
Late Filing Fee for Oath or Declaration	1051	1	140	140
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**1740**

Electronic Acknowledgement Receipt

EFS ID:	16190473
Application Number:	13930743
International Application Number:	
Confirmation Number:	1304
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Customer Number:	24374
Filer:	John Porrazza/Janice Nightlinger
Filer Authorized By:	John Porrazza
Attorney Docket Number:	IPH-2-2235US04
Receipt Date:	28-JUN-2013
Filing Date:	
Time Stamp:	15:52:08
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1740
RAM confirmation Number	3387
Deposit Account	090435
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	IPH-2-2235US04_ADS.PDF	1255983 62716200833c7204715e86142b329aeb61b38d18	no	7
Warnings:					
Information:					
2		IPH_2_2235US04_Application_EFS.PDF	104362 8c0a564f9e33de279ac103f9521b45767cd95ded	yes	23
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	18	
	Claims		19	22	
	Abstract		23	23	
Warnings:					
Information:					
3	Drawings-only black and white line drawings	IPH_2_2235US04_Drawings_EFS.PDF	3784424 f16a2141fead459b9e6863bcde3858fdad8416e2	no	9
Warnings:					
Information:					
4	Power of Attorney	IPH_2_2235US04_PowerOfAttorney.PDF	83896 6fcd8a445944b6e2502372c386c12ef87865f856	no	1
Warnings:					
Information:					
5	Assignee showing of ownership per 37 CFR 3.73.	IPH_2_2235US04_Statement_373c_EFS.PDF	73357 1d669ea2dabf8e5ea895c402c2e740d5a53263eb	no	2
Warnings:					
Information:					
6	Fee Worksheet (SB06)	fee-info.pdf	36573 a7a8fc14f6d0e609b236b1b99e1ad8058e75ed11	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	5338595		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	IPH-2-2235US04
	Application Number	
Title of Invention	DATA TRANSFER BETWEEN WIRELESS DEVICES	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Alan	G.	Carlton	

Residence Information (Select One) ◉ US Residency ◯ Non US Residency ◯ Active US Military Service

City	Mineola	State/Province	NY	Country of Residence i	US

Mailing Address of Inventor:

Address 1	12 Wisteria Avenue		
Address 2			
City	Mineola	State/Province	NY
Postal Code	11501	Country i	US

Inventor 2 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Alexander		Reznik	

Residence Information (Select One) ◉ US Residency ◯ Non US Residency ◯ Active US Military Service

City	Titusville	State/Province	NJ	Country of Residence i	US

Mailing Address of Inventor:

Address 1	1212 River Road		
Address 2			
City	Titusville	State/Province	NJ
Postal Code	08560	Country i	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	IPH-2-2235US04
	Application Number	
Title of Invention	DATA TRANSFER BETWEEN WIRELESS DEVICES	

☐ **An Address is being provided for the correspondence Information of this application.**			
Customer Number	24374		
Email Address	eoffice@vklaw.com	Add Email	Remove Email

Application Information:

Title of the Invention	DATA TRANSFER BETWEEN WIRELESS DEVICES		
Attorney Docket Number	IPH-2-2235US04	**Small Entity Status Claimed** ☐	
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	9	**Suggested Figure for Publication (if any)**	4

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	24374		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	Continuation of	13493650	2012-06-11
Prior Application Status	Patented		Remove

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	IPH-2-2235US04
	Application Number	
Title of Invention	DATA TRANSFER BETWEEN WIRELESS DEVICES	

Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13493650	Continuation of	12644948	2009-12-22	8200265	2012-06-12

Prior Application Status	Expired	Remove

Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
12644948	non provisional of	61140126	2008-12-23

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(d). When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) [i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(h)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove

Application Number	Country [i]	Filing Date (YYYY-MM-DD)	Access Code [i] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Authorization to Permit Access:

☒ Authorization to Permit Access to the Instant Application by the Participating Offices

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	IPH-2-2235US04
	Application Number	
Title of Invention	DATA TRANSFER BETWEEN WIRELESS DEVICES	

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◉ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
○ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor :

If the Applicant is an Organization check here. ☒

Organization Name	InterDigital Patent Holdings, Inc.		
Mailing Address Information:			
Address 1	200 Bellevue Parkway		
Address 2	Suite 300		
City	Wilmington	**State/Province**	DE
Country i	US	Postal Code	19809
Phone Number		Fax Number	

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	IPH-2-2235US04
	Application Number	
Title of Invention	DATA TRANSFER BETWEEN WIRELESS DEVICES	

Email Address	

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Non-Applicant Assignee Information:

Providing assignment information in this section does not subsitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Assignee 1

Complete this section only if non-applicant assignee information is desired to be included on the patent application publication in accordance with 37 CFR 1.215(b). Do not include in this section an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest), as the patent application publication will include the name of the applicant(s).

Remove

If the Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information:

Address 1	
Address 2	

City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee Data may be generated within this form by selecting the Add button. Add

Signature:

Remove

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications

Signature	/John Porrazza/			Date (YYYY-MM-DD)	2013-06-28
First Name	John	Last Name	Porrazza	Registration Number	68126

Additional Signature may be generated within this form by selecting the Add button. Add

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	IPH-2-2235US04
	Application Number	
Title of Invention	DATA TRANSFER BETWEEN WIRELESS DEVICES	

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

DATA TRANSFER BETWEEN WIRELESS DEVICES

CROSS REFERENCE TO RELATED APPLICATION(S)

[0001] This application is a continuation of U.S. Patent Application Serial No. 13/493,650, filed June 11, 2012, which is a continuation of U.S. Patent Application Serial No. 12/644,948, filed December 22, 2009, which claims the benefit of U.S. Provisional Application Serial No. 61/140,126, filed December 23, 2008. The contents of the above-referenced applications are hereby incorporated by reference herein.

FIELD OF INVENTION

[0002] This application is related to wireless communications.

BACKGROUND

[0003] In current communications, functionality that allows the transfer of data (such as files or digital media) between devices in both fixed and wireless environments is commonplace. Currently, data transfers may be performed using applications such as electronic mail, or multimedia message services (MMS) with the data being transmitted from one device to another through suitable technologies, for example, General Packet Radio Service (GPRS) or Wireless Local Area Network (WLAN). As the sophistication of user interfaces supporting data transfers has developed (for example, the emergence of touch screen and multi-touch technology), the user experience has been simplified considerably. These advances in user interface technology may be seen in devices such as the Apple® iPhone® and iPod Touch®.

[0004] Despite these advances, however, file transfers may still be a cumbersome, multi-step task requiring adaptation between multiple implementations. For example, many technologies involve a fragmented approach to access and manipulation of files such as attachments. These hurdles inhibit the more regular use

of file transfer schemes in spontaneous situations. A simplified and more intuitive approach to data transfer between devices is therefore required.

SUMMARY

[0005] A method for controlling communication of data in wireless communications, implemented in a wireless transmit/receive unit (WTRU) detects environment information relating to at least one candidate WTRU operating in a local area associated with the WTRU. A user input is received via a user interface, wherein the user input relates to a selection of data for transfer between the WTRU and at least one of the candidate WTRUs an to an identified target WTRU. The user input is processed as well as the information relating to the at least one candidate WTRU. At least one target WTRU is identified from the at least one candidate WTRU based in part on the user input. Information relating to candidate WTRUs is solicited through a lower layer. Environment information is used to identify the target WTRU and transmission instructions are generated to enable transmission of data to the target WTRU.

BRIEF DESCRIPTION OF THE DRAWING(S)

[0006] A more detailed understanding may be had from the following description, given by way of example in conjunction with the accompanying drawings wherein:

[0007] Figure 1 shows a sending and receiving wireless transmit/receive unit (WTRU) that may be used for data transfer between devices;

[0008] Figure 2 shows a wireless communication environment for data communication between devices;

[0009] Figure 3 shows a target discrimination algorithm for identifying a target WTRU;

[0010] Figure 4 is a block diagram of a method of communicating data between wireless devices;

[0011] Figure 5 is a block diagram of physical layer security for data communication between devices;

[0012] Figure 6 shows a user input for transferring a data file between devices;

[0013] Figures 7A and 7B show a user experience during a data communication between devices at a sending device and a receiving device;

[0014] Figure 8 shows a user input for transferring a data file to a target device, where the user input includes a directional indication of the location of the target device; and

[0015] Figure 9 shows a user input for transferring a data file from a sending device to multiple receiving devices.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

[0016] When referred to hereafter, the terminology "wireless transmit/receive unit (WTRU)" includes but is not limited to a user equipment (UE), a communications device, a mobile station, a fixed or mobile subscriber unit, a pager, a cellular telephone, a personal digital assistant (PDA), a computer, or any other type of device capable of operating in a wireless environment. When referred to hereafter, the terminology "base station" includes but is not limited to a Node-B, a site controller, an access point (AP), or any other type of interfacing device capable of operating in a wireless environment.

[0017] Figure 1 is an illustration of a sending WTRU 101 and a receiving WTRU 103 whereby data is transferred between the WTRUs. The sending WTRU 101 and the receiving WTRU 103 are similarly equipped. The sending WTRU 101 and receiving WTRU 103 are separated by a communications environment 115 that may include other similarly equipped WTRUs which are not shown for simplicity. In general, WTRU 101, and WTRU 103 are each minimally comprised of an application processor

105, a communication peripheral 107, and a touchscreen/display peripheral 109. The communication peripheral 107 may be implemented as a wireless personal area network (WPAN) device, for example Bluetooth®, Wireless Universal Serial Bus (W-USB) or WiFi® in ad-hoc mode. The application processor 105 may be equipped with software such as an operating system (O/S)/ kernel 117 (for example, Linux® or Windows®), middleware 119, and applications 113. The O/S may include necessary drivers to provide support for the touchscreen 109 and the communication peripheral 107 in addition to a file system 121 for storing media. An application 123 (hereinafter referred to as "TapAPP") may include application software configured to implement a method of data transfer between WTRU 101 and WTRU 103. TapAPP 123 may run on the application processor 105 running a high-end O/S such as Linux ® or Windows®, for example. The communication peripherals 107 may include technologies such as a third generation partnership (3GPP) second or third generation standards (2G/3G) modem, Bluetooth® or WiFi®. Any combination or all of these communication technologies may be implemented in a single component design. Other peripherals such as a touchscreen/display 109, may also be supported. Peripherals 107, 109 may be operationally coupled to the application processor 105 through a physical interface 125 which, by way of example, may be a serial peripheral interface (SPI) or shared memory. The application processor 105 may provide support for the peripherals 107, 109 through drivers or general application software.

[0018] TapAPP 123 may run on either or both of the sending 101 and receiving 103 WTRUs. TapAPP 123 may run on any communications device, and may be run in a send or receive mode. TapAPP 123 runs on the embedded O/S 117 and may be implemented as a native application, a Java® application or any other suitable type of application on the WTRUs 101, 103. TapAPP 123 may be a stand alone application 113 or may be tightly bound to middleware 119 thereby providing a background process, giving the user an "always on" usage experience. Additionally or alternatively, TapAPP 123 may be implemented as a plug-in application that may be launched by a

user as needed in a manner known in the art. TapAPP 123 may provide display features to indicate a current state of the application (i.e. send or receive mode). For example, while in send mode, TapAPP 123 may allow the user to access and display a media file, such as a digital photograph for transfer, on the touchscreen/display 109. In one representation of receive mode, TapAPP 123 may provide a touch point on the screen 109 or illuminate a touch point upon the user touching the touchscreen 109, thereby enabling the user to access the underlying functionality of TapAPP 123 and receive the data transfer from the sending WTRU 101. The underlying mechanics and technologies of touchscreens and displays are beyond the scope of this disclosure and are therefore omitted for the sake of clarity.

[0019] Referring to Figure 2, a WTRU 101 configured for communicating data to target WTRU ¬101c,t is shown. The WTRU 101 comprises a user interface (UI) 109, a processor 105, a communication peripheral 107, and an antenna 209. Other components located within the WTRU 101, for example, are a transmitter and receiver, but are not shown to avoid obfuscating the data communication illustration of Figure 2. The communication peripheral 107 operates in the lower layers, for example, the physical (PHY) communication layer. The communication peripheral 107 receives and processes information relating to the electromagnetic environment in which the WTRU 101 is operating. The electromagnetic environment (hereafter referred to as local areas 211, 213) contains information being provided by the energy emanating from other WTRUs 101c operating within the local areas 211, 213 of the WTRU 101.

[0020] The local area in which WTRU 101 is operating may be configured to be a smaller radius of communication as identified by 213, or the local area may be configured to be a larger radius as identified by 211. The radius that defines the local areas 211, 213 may be configured at the WTRU 101 by a user-defined variable that defines a search radius with respect to the WTRU 101. Additionally, the local area in which the WTRU 101 is operating may be defined by any other appropriate manner.

The communication peripheral 107 receives and maintains the environment information relating to the WTRUs 101c operating within the local areas 211, 213.

[0021] WTRUs 101c operating within the local areas 211, 213 of WTRU 101 are referred to as candidate WTRUs 101c because they are potential recipients of data to be communicated by WTRU 101. As shown in Figure 2, there may be more than one candidate WTRU 101c as indicated by the WTRUs denoted with a "c". Candidate WTRUs 101c may be WTRUs similarly equipped like WTRU 101. From the candidate WTRUs 101c, at least one target WTRU 101c,t will be selected. Figure 2 shows only one target WTRU 101c,t, but there may be more than one target WTRU 101c,t selected from the candidate WTRUs 101c. For example, one WTRU 101 configured to communicate data to another WTRU, may communicate data to one or a multitude of other WTRUs selected from a set of candidate WTRUs 101c.

[0022] WTRU 101 comprises a UI 109 which may allow a user to provide user input to the WTRU 101. Through the UI 109, the user may provide user preferences relating to the communication of data from the WTRU 101. The UI 109, may be implemented, for example, in a touchscreen/display. Using a touchscreen display, the user may provide gestural actions to indicate user preferences. The user's gestures may be directed to some visual depiction displayed on the touchscreen/display. The user may manipulate the visual depiction through a pre-defined gesture that is indicative of the user's preferences regarding the data communication. For example, the visual depiction may identify a selected media element stored in the WTRU 101. The user may manipulate the visual depiction of the media element to indicate the movement of the media element through the local areas 211, 213, in which the WTRU 101 is operating. Such movement, for example, may include distance denoted by the speed at which the visual depiction is moved across the UI 109, or alternatively by the pressure exerted on the surface of the UI 109 by the user. Other gestural inputs may be defined to indicate user preferences. Direction of a data communication within the local areas 211, 213 where the WTRU 101 is operating may be indicated by a

movement of the visual depiction in the direction to indicate the direction of the data communication. Thus, for example, if the user wishes a data communication to occur between the user's WTRU 101 and another WTRU operating in local areas 211, 213 (i.e. the user has identified a desired target WTRU 101c,t), the user may provide a gesture via the UI 109 that is representative of the distance and direction of the selected target WTRU 101c,t with respect to the sending WTRU 101.

[0023] WTRU 101 includes a processor 105 that is configurable to process information from the UI 109 and the communication peripheral 107. Electromechanical signals from the UI 109 are provided as inputs to the processor 105. Processor 105 may be configurable to execute machine readable instructions stored in any type of memory. Processor 105 is also configured to receive environment information stored by the communication peripheral 107. The environment information and the user input are then used as inputs to the processor 105 and are processed to identify a target WTRU 101c,t. The electromechanical inputs from the UI 109, which may include for example, an indication of direction and distance, are then correlated to the environment information stored at the lower layers by the communication peripheral 107. Based on the correlation, a identification of at least one target WTRU 101c,t is determined and a data communication from the WTRU 101 may be transmitted to the identified target WTRU 101c.t.

[0024] The lower level information is provided to the application processor 105 according to the communication technology being used. For example, the information available to the application processor 205 may vary based on an implementation using a Third Generation Partnership Project (3GPP) technology, an Institute of Electronic and Electrical Engineers (IEEE) standard such as WiFi, or some other communication technology. For example IEEE 802.21 standard may be used where the TapAPP may register with an 802.21 client or other proprietary client to access and process lower layer information. Specific information relevant to the TapAPP's identification of a target WTRU 101c,t may be provided from the communications peripheral 107.

[0025] Figure 3 shows inputs that may be used to drive a target discrimination algorithm 313 that uniquely identifies a target WTRU for transfer of data. Possible inputs include environment information 301, receiver information 303, touchscreen information 305 and other information 307, such as WTRU 101 orientation for example where the WTRU 101 includes an accelerometer and supporting drivers. After processing the available inputs 301, 303, 305, and 307 by the application processor 105 through a target discrimination algorithm 313, configuration information 309 and transmission instructions 311 are generated as outputs.

[0026] The environment information 301 may, for example, be generated as follows. The application processor 105 may process instructions to periodically solicit information from the communication peripheral 107 relating to candidate WTRUs 101c operating in the local areas 211, 213 of a communicating WTRU 101. A configuration variable may be provided that allows the end user to define a search radius (e.g. 2-3m) in which to solicit information. Devices outside the configured search radius will be excluded from received environment information. Throughout the timeframe that the application processor 105 is running a data communication application, the solicited information will be regenerated or updated. Upon receiving a user input indicating a data communication is desired, the solicited environment information 301 may be refreshed. The information collected regarding the candidate WTRUs 101c is included in the environment information 301 and may be used as an input to the target discrimination algorithm 313. In an embodiment, environment information 301 may be solicited by a localization method. For example, in a mesh network or a sensor network, the solicitation may include both the neighboring devices as well as independent device elements that enable the location and identity of each candidate WTRU to be determined accurately. Such a network may be comprised of independent sensors that respond to the communication peripheral 107 of the communicating WTRU 101, or may include the candidate WTRUs 101c, operating in the local areas 211, 213 of the communicating WTRU 101.

[0027] The environment information 301 may be gathered via a service discovery protocol (SDP) such as currently available in protocols such as Bluetooth®, for example. This protocol allows the WTRU 101 to discover the services (e.g. TapAPP as described herein) that are supported by other WTRUs operating in the local environment. An application such as TapAPP described above may invoke SDP functionality to discover all of the TapAPP enabled WTRUs operating in a particular location. For example, a Bluetooth® connection may be used to implement a SDP for this purpose. A radio dialog between the WTRU 101 and one or more candidate WTRUs 101c is established according to the defined SDP. Information received in the radio dialog may be analyzed and filtered (e.g. power level, or quality of a received signal) to determine the individual candidate WTRUs 101c or set of candidate WTRUs 101c in a local proximity. When a set of candidate WTRUs 101c is determined, a second level of search radius granularity may be applied by further defined radio dialogs between the WTRU 101 and a subset of candidate WTRUs 101c. In addition to the SDP information directly discoverable by the WTRU 101, each candidate WTRU 101c may exchange additional locally gathered information (e.g. GPS, or other location information gathered via a localization scheme) with other candidate WTRUs 101c. On a condition that a sufficient number of candidate WTRUs 101c are identified by the SDP, triangulation mechanisms may be implemented to establish a view of relative locations between a set of identified candidate WTRUs 101c. The entire environment discovery procedure may be implemented continuously and in real-time while the TapAPP is running on all the candidate WTRUs 101c with the TapAPP capabilities to update and maintain a real-time local map that is preserved in each instance of the TapAPP.

[0028] The receiver information 303, may be generated according to the following example. During data communication, send and receive operations are initiated between a sending WTRU 101 and a target WTRU 101c,t. The user of the sending WTRU 101 initiates, through a user input, a send operation for a selected media

element. On the receiving side, the target WTRU 101c,t user may touch and hold the touchscreen of the target WTRU 101c,t for all or part of the transfer process. The user input of the target WTRU 101c,t may result in the target WTRU 101c,t transmitting a radio signal to the sending WTRU 101, for example, an acknowledgement signal, the radio signal may be reported to the application processor 105. This receiver information 303 may serve as an input to the target discrimination algorithm 313.

[0029] A user input received from the UI 109, for example a touchscreen/display, may be translated into application signals by the touchscreen/display 109 or processor 105. This touchscreen information 305 is input to the target discrimination algorithm 313 to identify a target WTRU 101c,t. Touchscreen information 305 may include a file reference, speed, pressure, acceleration, timing information, direction, etc. File reference information may be used to identify a selected media element stored in the file system of the sending WTRU 101 that is the object of the data communication.

[0030] Directional inputs provided by the user via the touchscreen/display 109 may be synthesized to establish relative orientation to the real-time local map and select a target WTRU 101c,t from the identified group of candidate WTRUs 101c to establish a one-to-one communication between the transmitting WTRU 101 and the target WTRU 101c,t or a selected one-to-many communication to a plurality of target WTRUs 101c,t. In an example of a user input, an accelerometer associated with the WTRU 101 may provide input regarding the orientation of the WTRU 101 with respect to the real-time local map. For example, if the WTRU 101 was held upside-down, the real-time local map would be referenced and applied upside-down as dictated by the orientation of the sending WTRU 101.

[0031] Other information 307 may be used as an input to the target discrimination algorithm 313. For example, if the sending WTRU 101 device is equipped with an accelerometer and supporting drivers, the orientation of the sending WTRU 101 may be used as input information 307. Any type of other information 307

germane to the selection of a target WTRU 101c,t may be used as an input to the target discrimination algorithm 313.

[0032] Configuration information 309 may include settings for attributes such as power level, antenna orientation, security parameters and the like. Transmission instructions 311 may include information regarding the data to be communicated and the identity of the target WTRU 101c,t as well as instructions for implementing the transfer through specific components in the communication peripheral. The configuration information 309 and transmission instructions 311 may be delivered to the communication peripheral 107. The configuration information 309 and transmission instructions 311 may impact the configuration of the Layer 2/3 baseband components, (e.g., the power settings), and/or the analog and radio frequency components, (e.g., antenna orientation of the communication peripheral 107). The application processor 105 in the sending WTRU 101 may control the manner in which the data is transferred to the target WTRU 101c,t, for example, by breaking the data into blocks corresponding to the manner in which the visual depiction of the data should appear at the target WTRU 101c,t. This control may involve the appending of some segmentation/display guidance information to the file blocks that may be used at the target WTRU 101c,t receiver to help render the visual depiction in a synergistic manner which is described in more detail hereinafter with respect to Figure 7.

[0033] Figure 4 shows a method of identifying a target WTRU 101c,t for a data communication with multiple WTRUs. Environment information 301 is solicited and information related to at least one candidate WTRU 101c operating in the local area of the sending WTRU 101 is detected 401. A user input is received 403, for example, through a touchscreen/display UI 109, wherein the user input is related to the communication of data from the sending WTRU 101 to at least one candidate WTRU 101c. The user input and the environment information relating to the candidate WTRUs 101c is processed simultaneously 405. For example, in a target discrimination algorithm 313 as described in Figure 3. At least one target WTRU 101c,t is identified

from the set of candidate WTRUs 407. The target WTRU 101c,t is identified at least in part on the user input received and the environment information 301 detected.

[0034] Physical layer security mechanisms may be applied to establish the environment information 301 as well as securing the data for short range data communication between WTRUs 101. The data may be transferred only as far as is necessary to reach a minimal set of users in the local environment of the sending WTRU 101. The target discrimination algorithm 313 may be configured to secure the file from beyond a local group (i.e. the local environment of the sending WTRU 101) and excluding others. One example of achieving this is a secure data transfer based on the reciprocity of the wireless channels between the sending WTRU 101 and the target WTRU 101c,t. The uniqueness and reciprocity of the wireless channel may be utilized to accomplish this in two steps. First, the location information for a particular WTRU 101 is associated with a channel impulse response (CIR) from that WTRU 101, which is unique, albeit variable. The CIR may be used to generate a secret key stream for that location. A more detailed description of such a secret key encryption may be found in U.S. Patent Application No. 11/339,958 which is herein incorporated by reference. A common cipher source, for example, Advanced Encryption Standard (AES), may be seeded with the key, and the information for the target WTRU 101c,t is encrypted with it. Alternatively or in addition, the CIR based information may be used to authenticate the message. The result is that only the selected target WTRU 101c,t may receive the data, because only the target WTRU 101c,t has the required channel-based key.

[0035] Figure 5 shows an implementation of physical layer security for data communication between multiple WTRUs 101. The static (or slowly changing) physical location ¬501 of WTRUs 101 operating in the local areas 211, 213 and their respective radio channels 503 are input to a locations and channels association unit 505 that associates the locations 501 and the channels 503 of each WTRU 101 operating in the local areas 211, 213. Dynamic receiver information 507 relating to the CIR of each communicating WTRU 101 is used by channel-based key distillation unit 509, which

continuously generates channel-based encryption keys for each WTRU 101 in the local environment. When required by a user, as indicated by touchscreen information 513, a target WTRU 101c,t may be identified from an available listing of candidate WTRUs 101c by the dynamic target matching algorithm 515. The dynamic target matching algorithm 515, receives input from the locations and channels association unit 505, the channel-based encryption keys 509, and the touchscreen information 513, and the directional information 511 of the sending WTRU as inputs to identify one or more target WTRUs 101c,t as the recipient(s) of the data communication. Transmission instructions 517 are generated to facilitate the data transfer to the target WTRUs 101c,t.

[0036] Referring now to Figure 6, a user input action for sending a file to another device is shown. The data transfer may take place from a sending WTRU 101 as shown in Figure 1. The sending WTRU 101 may use an application such as TapAPP 123 to facilitate the data transfer. The sending WTRU 101 may have a touchscreen/display device 109 through which an end user may provide input information to the sending WTRU 101. The transfer application (TapAPP 123) may be running on the sending WTRU 101. As an example, TapAPP 123 may be configured to receive a simple three step hand (or finger) motion to enable the data transfer. The three steps include a tap 6A, a push action 6B, and a release action 6C. Referring to 6A, the user taps 605 the touchscreen 109 at a location on the touchscreen 109 where a visual depiction 603 of a media element to be transferred is displayed. Without lifting the finger used to tap 605 the visual depiction 603, the user then pushes the visual depiction 603 of the media element across the touchscreen 109 as shown by the directional arrow 607 in Figure 6B. In an embodiment, the direction in which the user pushes the visual depiction 603 may simulate the direction of a target receiving WTRU 101c,t which is the intended recipient of the media element to be transferred. The media element may be any type of data file capable of being stored on the WTRU 101, for example, the media element may be a digital photograph, a video file, a word

processing document or the like. When the user has pushed the visual depiction 603 of the media element in the direction the user would like the media element to be transferred, the user then releases 609 contact with the visual depiction 603 to initiate the data transfer. The three user actions 6A, 6B, and 6C, provide inputs to the touchscreen 109, which may be converted to electromechanical signals through mechanisms known in the art. The electromechanical signals may serve as input to the TapAPP 123 application, which may generate environmental information and transmission instructions relating to a target WTRU 101c,t selected by TapAPP in a manner explained above with respect to Figure 3. The environmental information 301 and transmission instructions 311 are then processed by the WTRU 101 and the media element is transmitted 611.

[0037] Figures 7A and 7B are an illustration of a data transfer depicted from the perspective of both a sending WTRU 101 and a receiving WTRU 103. The data transfer is a process between two or more WTRUs. For example, the data transfer may originate from one sending WTRU 101 and be directed toward one or more receiving WTRUs 103. As seen in Figure 7A, the media element being transferred in this example is a digital photograph. A visual depiction 603 may be displayed on the touchscreen/display 109. The sender may touch the touchscreen 109 and push 707 the visual depiction 603 of the digital photograph in the direction of the intended receiving WTRU 103. A receiving WTRU 103 may run TapAPP 123 to enable the receiving WTRU 103 to receive the transferred data. The receiving WTRU 103, for example, may be running TapAPP 123 in a receive mode. The TapAPP 123 provides an indication 603b or a prompt that a data transfer is ready for receiving. To receive a file, the user may touch 701 the touchscreen 109 to initiate reception of the data transfer. The user may touch 701 the touchscreen 109 for the entire time the data transfer is taking place, or the user may touch 701 the touchscreen 109 for some portion of the time the data transfer is occurring.

[0038] During the transfer, the visual depiction 603 may be configured to display the progress of the data transfer to the user at one or both of the sending WTRU 101 and the receiving WTRU 103. As shown in Figure 7A on the sending WTRU 101 as visual depiction 603a, the portion of the data transfer remaining to be sent may be displayed on the touchscreen/display 109 of the sending WTRU 101 as a partial visual depiction 603a of the digital photograph. As the data transfer progresses, the visual depiction 603a is updated to indicate the remaining amount of data to be transferred. Similarly, at the receiving WTRU 103, a visual depiction 603b may be displayed on the touchscreen/display 109 of the receiving WTRU 103 to indicate to a user the amount of the data transfer that has been transmitted to the receiving WTRU 103. As shown in Figure 7B, when the data transfer is complete, the visual depiction 603 is displayed in its entirety at the receiving WTRU 103. Upon receipt of the file, the user of the receiving WTRU 103 may release the touchscreen 109 and the receiving WTRU 103 may send an application level acknowledgment to the sending WTRU 101. Thus, as shown in Figures 7A and 7B, the user may observe the visual depiction 603a disappearing from the sending WTRU 101 while the visual depiction 603b is emerging on the receiving WTRU103 in such manner that the overall visual depiction 603 is preserved for the duration of the data transfer. The underlying data transfer mechanism may prioritize the transfer of data file elements to enable this user experience. In an alternate embodiment, this user experience may be provided at the application level. The file may be transferred as a whole, but the rendering aspect of the application on both the send and receive sides of the data transfer creates the appearance of a progressive and contiguous data transfer.

[0039] Figure 8 is an illustration of the user experience while sending a data transfer in a direction of a targeted recipient. The same three step process described in Figure 6 is utilized where the sender taps 605 a visual depiction 603 of the selected media element. As shown in Figure 8B, the sender then pushes the visual depiction 603 of the media element to the right 801 which may simulate the physical direction

with relation to the sending WTRU 101 where an intended receiving WTRU 103 (not shown) is operating. Based on the input information of the user, including the direction 801 in which the sender pushed the visual depiction 603 of the media element, the sending WTRU 101 may be configured to transmit the data transfer in a direction 803 matching the direction of the user action direction 801. The visual depiction 603 may be configured to indicate the progress of the data transfer and may accomplish this by causing the visual depiction 603 to disappear from the touchscreen/display 109 in the same direction as the user action direction 801. Antenna orientation may be utilized to control the transmission direction 803.

[0040] Figure 9 shows an illustration of a UI 109 being used to perform a data communication to multiple receiving WTRUs. The user may tap on a visual depiction 903 of a media element selected for communication to a receiving WTRU as shown in Figure 9A. As shown, the user may tap on the visual depiction 903 multiple times 905. While in the example of Figure 9A, the user taps the visual depiction 903 twice, the user may tap the visual depiction 903 any number of times corresponding to the intended number of receiving WTRUs. Upon performing a multiple tap 905, the master visual depiction 903 will be split into a number of secondary visual depictions 907, 909 equal to the number of taps 905 of the user. This action by the user will lock the master visual depiction 903 while allowing the secondary visual depictions 907, 909 to be manipulated by the user via the UI 109. For example, with respect to Figure 9B, a user may use a two-hand, two finger motion to move secondary visual depiction 907 in the direction of a first target WTRU, while simultaneously moving secondary visual depiction 909 in the direction of a second target WTRU. The user may also use a single-hand, single finger motion to move each secondary visual depiction 907, 909 sequentially. Upon release of the secondary visual depiction 907, 909, the data is communicated to a target WTRU identified by the process described herein regarding Figure 2. The secondary visual depictions 907, 909 may be smaller than the master visual depiction 903, or the secondary depictions may be the same size as the master

depiction. Alternatively, the secondary depictions 907, 909 may have a visually distinguishing feature that distinguishes them from the master depiction 903 to the user.

[0041] Although features and elements are described above in particular combinations, each feature or element can be used alone without the other features and elements or in various combinations with or without other features and elements. The methods or flow charts provided herein may be implemented in a computer program, software, or firmware incorporated in a computer-readable storage medium for execution by a general purpose computer or a processor. Examples of computer-readable storage mediums include a read only memory (ROM), a random access memory (RAM), a register, cache memory, semiconductor memory devices, magnetic media such as internal hard disks and removable disks, magneto-optical media, and optical media such as CD-ROM disks, and digital versatile disks (DVDs).

[0042] Suitable processors include, by way of example, a general purpose processor, a special purpose processor, a conventional processor, a digital signal processor (DSP), a plurality of microprocessors, one or more microprocessors in association with a DSP core, a controller, a microcontroller, Application Specific Integrated Circuits (ASICs), Field Programmable Gate Arrays (FPGAs) circuits, any other type of integrated circuit (IC), and/or a state machine.

[0043] A processor in association with software may be used to implement a radio frequency transceiver for use in a wireless transmit receive unit (WTRU), user equipment (UE), terminal, base station, radio network controller (RNC), or any host computer. The WTRU may be used in conjunction with modules, implemented in hardware and/or software, such as a camera, a video camera module, a videophone, a speakerphone, a vibration device, a speaker, a microphone, a television transceiver, a hands free headset, a keyboard, a Bluetooth® module, a frequency modulated (FM) radio unit, a liquid crystal display (LCD) display unit, an organic light-emitting diode (OLED) display unit, a digital music player, a media player, a video game player

module, an Internet browser, and/or any wireless local area network (WLAN) or Ultra Wide Band (UWB) module.

* * *

CLAIMS

What is claimed is:

1. A method for use in a wireless transmit/receive unit (WTRU), the method comprising:

detecting, at the WTRU, information relating to at least one candidate WTRU in a geographic area associated with the WTRU;

receiving, at the WTRU, user input that includes a gestural input and a selection of data for transfer between the WTRU and a target WTRU;

processing, at the WTRU, the user input and the information;

identifying, at the WTRU, the target WTRU from the at least one candidate WTRU based at least in part on the user input; and

transmitting the selected data to the target WTRU.

2. The method of claim 1, wherein the gestural input identifies the target WTRU.

3. The method of claim 1, wherein the user input is received via a touchscreen display.

4. The method of claim 1, further comprising receiving data from the target WTRU.

5. The method of claim 1, wherein the detecting information further includes detecting a location of the at least one candidate WTRU.

6. The method of claim 5, wherein the gestural input is directed towards the target WTRU.

7. A wireless transmit/receive unit (WTRU) comprising:

a processor configured to detect information relating to at least one candidate WTRU in a geographic area associated with the WTRU;

a display configured to receive user input that includes a gestural input and a selection of data for transfer between the WTRU and a target WTRU;

the processor configured to:

process the user input and the information; and

identify the target WTRU from the at least one candidate WTRU based at least in part on the user input; and

a transmitter configured to transmit the selected data to the target WTRU.

8. The WTRU of claim 7, wherein the gestural input identifies the target WTRU.

9. The WTRU of claim 7, wherein the display receives user input via a touchscreen display.

10. The WTRU of claim 7, further comprising a receiver configured to receive data from the target WTRU.

11. The WTRU of claim 7, wherein the processor is further configured to detect information by detecting a location of the at least one candidate WTRU.

12. The WTRU of claim 11, wherein the gestural input is directed towards the target WTRU.

13. A method for use in a wireless transmit/receive unit (WTRU), the method comprising:

determining, at the WTRU, location information relating to at least one candidate WTRU;

receiving input, at the WTRU, that includes a selection of a target WTRU of the at least one candidate WTRU and a selected action;

associating, at the WTRU, the target WTRU with one of the at least one candidate WTRUs based at least in part on the input and the location information;

generating, at the WTRU, data to be transmitted to the target WTRU based at least in part on the input; and

transmitting the data to the target WTRU.

14. The method of claim 13, wherein the selected action indicates a selected file to be transferred to the target WTRU and the data includes the selected file.

15. The method of claim 13, wherein the input that includes a selection of a target WTRU is a gestural user input.

16. The method of claim 15, wherein the gestural user input is directed towards a physical location of the target WTRU.

17. The method of claim 15, wherein the gestural user input is directed towards a graphical representation of the target WTRU.

18. The method of claim 13, wherein the determining location information includes identifying the at least one candidate WTRU based on physical location.

19. The method of claim 13, wherein the determining location information includes identifying the at least one candidate WTRU based on an ability to communicate with a same network as the WTRU.

20. The method of claim 13, further comprising receiving data from the target WTRU.

ABSTRACT

A method of data transfer between wireless transmit/receive units (WTRUs) is described. The WTRUs may be within a given geographic area of each other or in communication with the same network. Location information relating to the WTRUs may be determined. The location information may be presented to a user of the WTRU. Data may be transferred from one WTRU to a target WTRU based on user input. The WTRU may determine the target WTRU based on user input and/or location information. The user input may be a gestural input. The gestural input may be received via a display or touchscreen. The user input may identify a given action or identify a particular file for transfer. The WTRU may receive data from the target WTRU.

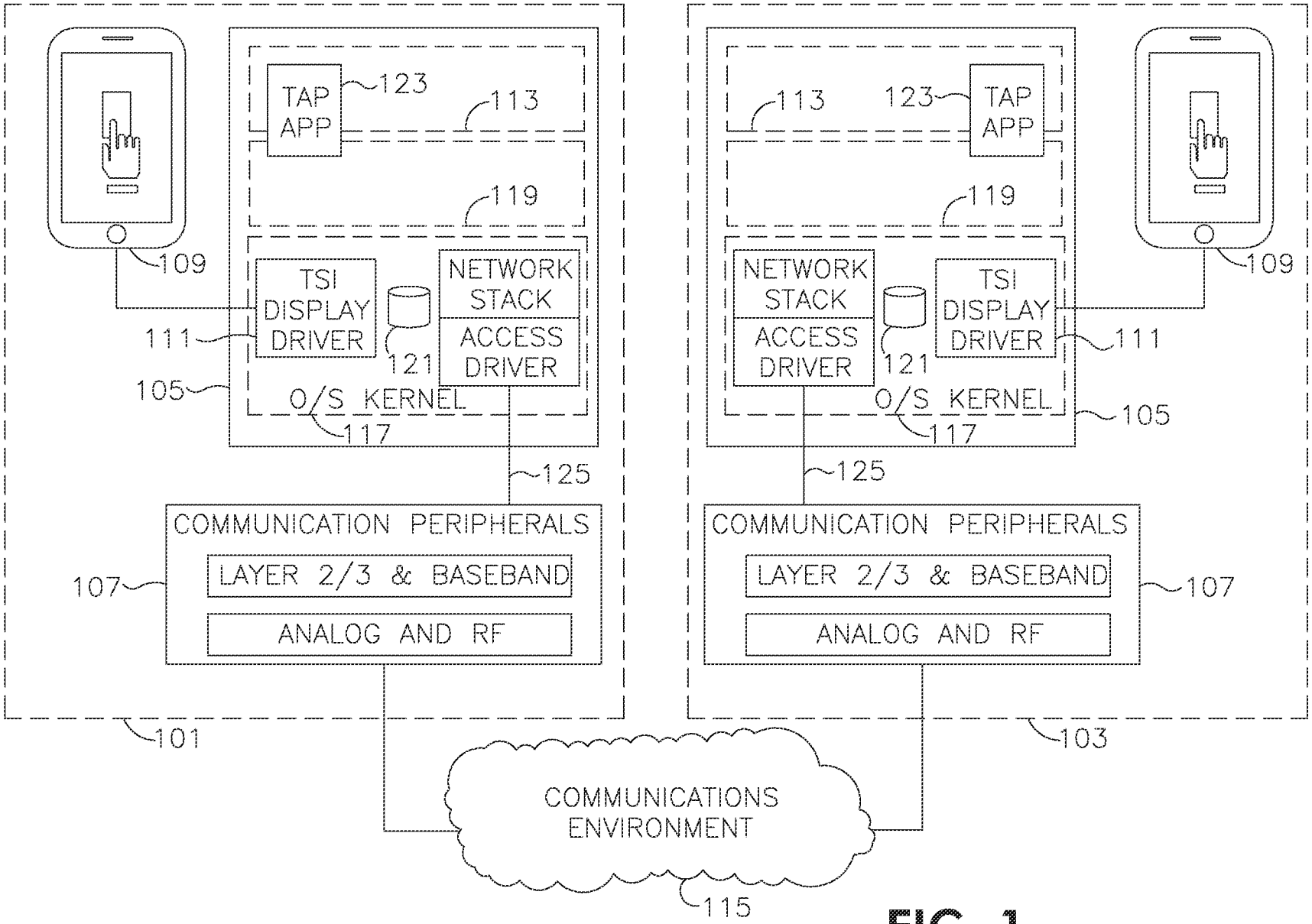

TAP APP
123
113
119
109
TSI DISPLAY DRIVER
NETWORK STACK
ACCESS DRIVER
111
121
105
O/S KERNEL
117
125
COMMUNICATION PERIPHERALS
LAYER 2/3 & BASEBAND
ANALOG AND RF
107
101
103
COMMUNICATIONS ENVIRONMENT
115

FIG. 1

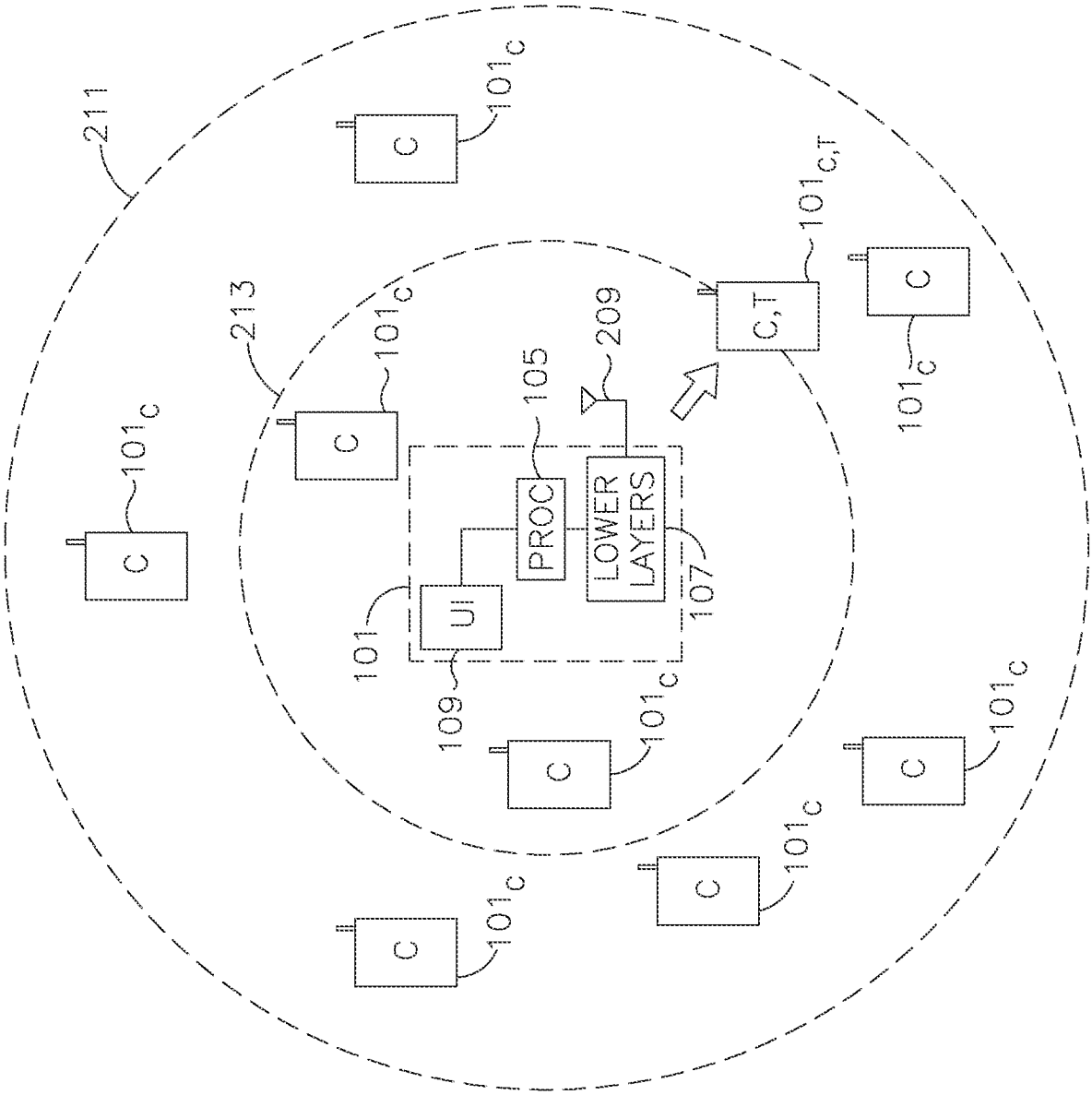

211
213
C
101_c
$101_{c,T}$
C,T
209
105
PROC
LOWER LAYERS
107
UI
101
109

FIG. 2

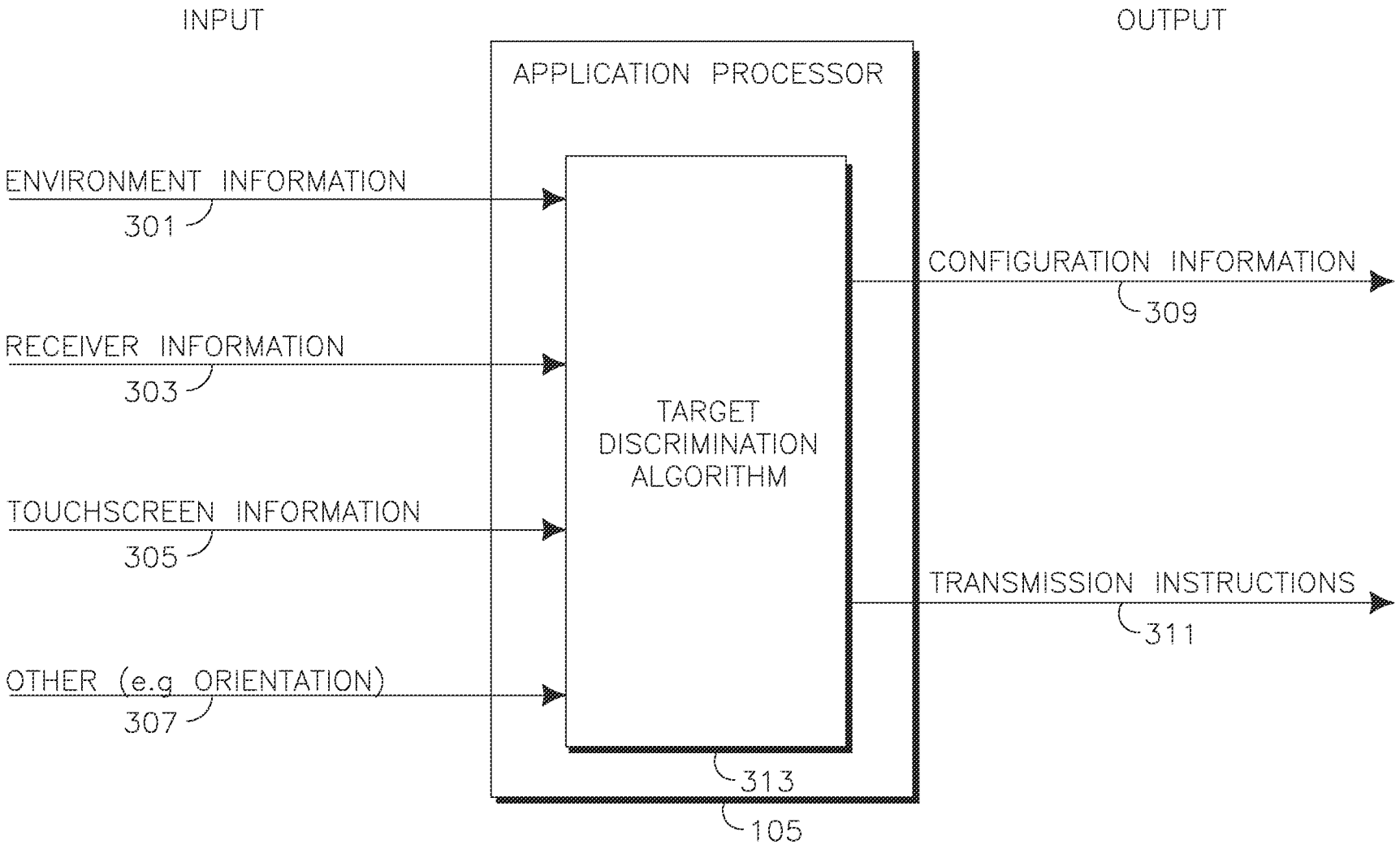

INPUT
OUTPUT
APPLICATION PROCESSOR
ENVIRONMENT INFORMATION
301
RECEIVER INFORMATION
303
TOUCHSCREEN INFORMATION
305
OTHER (e.g ORIENTATION)
307
TARGET DISCRIMINATION ALGORITHM
313
105
CONFIGURATION INFORMATION
309
TRANSMISSION INSTRUCTIONS
311

FIG. 3

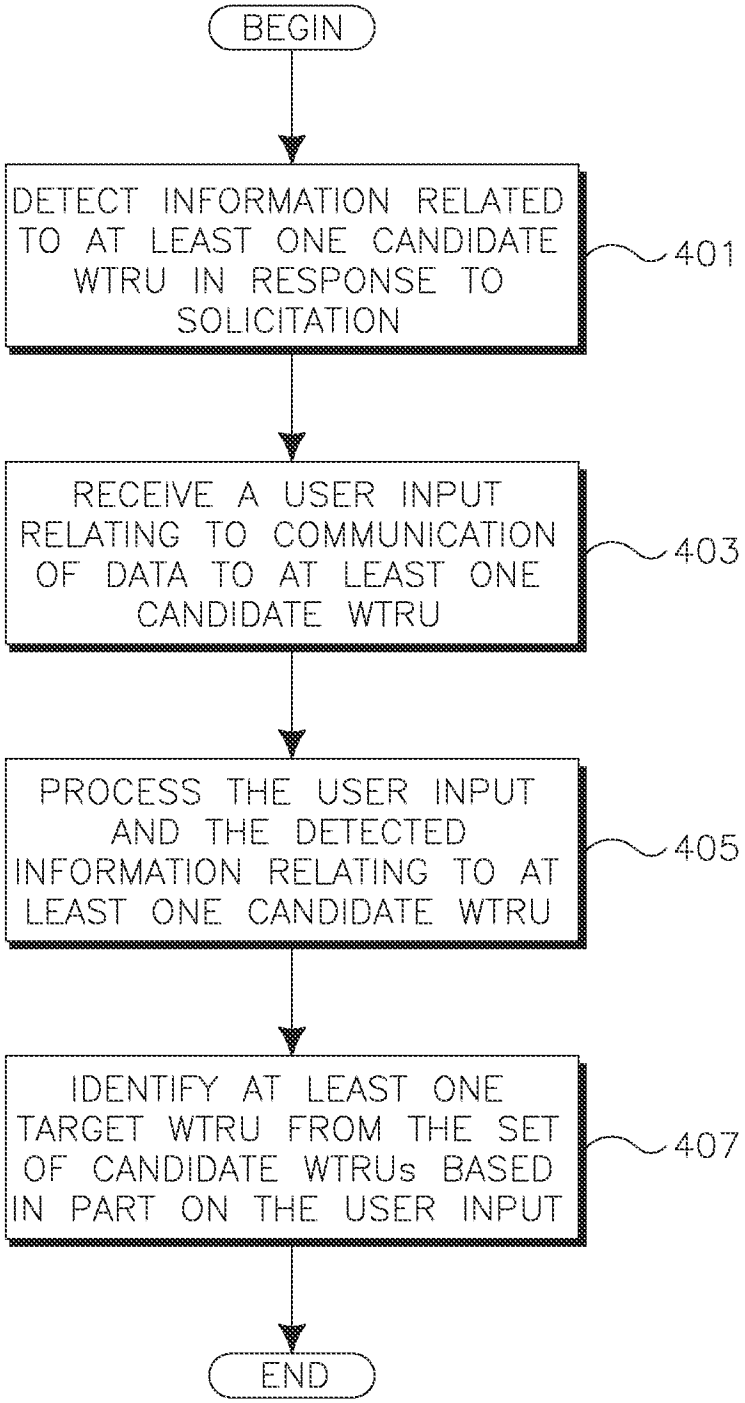

BEGIN
DETECT INFORMATION RELATED TO AT LEAST ONE CANDIDATE WTRU IN RESPONSE TO SOLICITATION
401
RECEIVE A USER INPUT RELATING TO COMMUNICATION OF DATA TO AT LEAST ONE CANDIDATE WTRU
403
PROCESS THE USER INPUT AND THE DETECTED INFORMATION RELATING TO AT LEAST ONE CANDIDATE WTRU
405
IDENTIFY AT LEAST ONE TARGET WTRU FROM THE SET OF CANDIDATE WTRUs BASED IN PART ON THE USER INPUT
407
END

FIG. 4

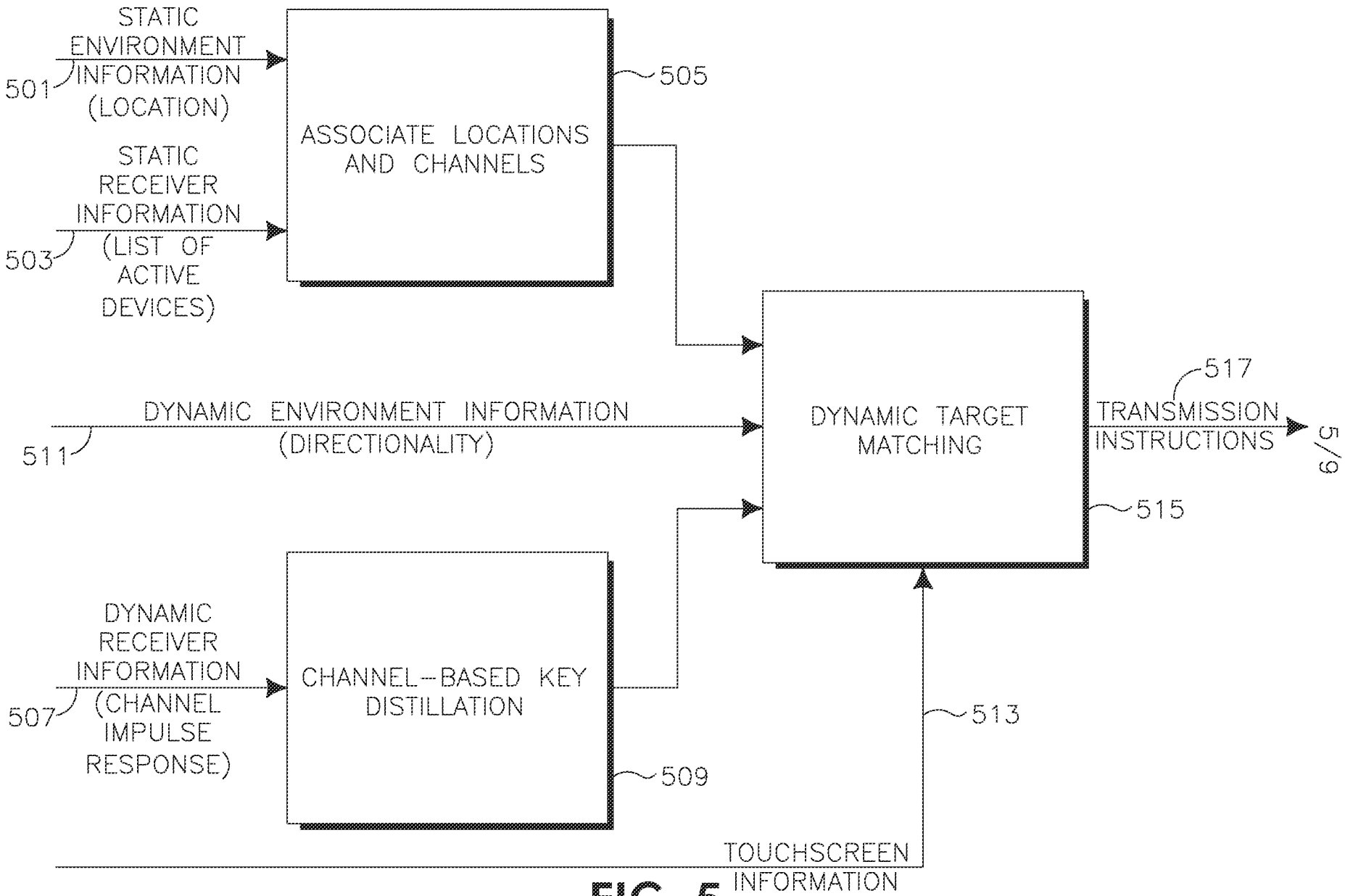
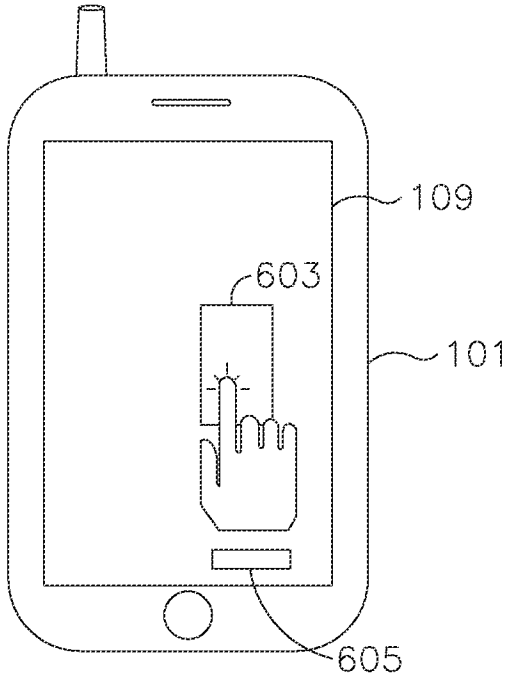
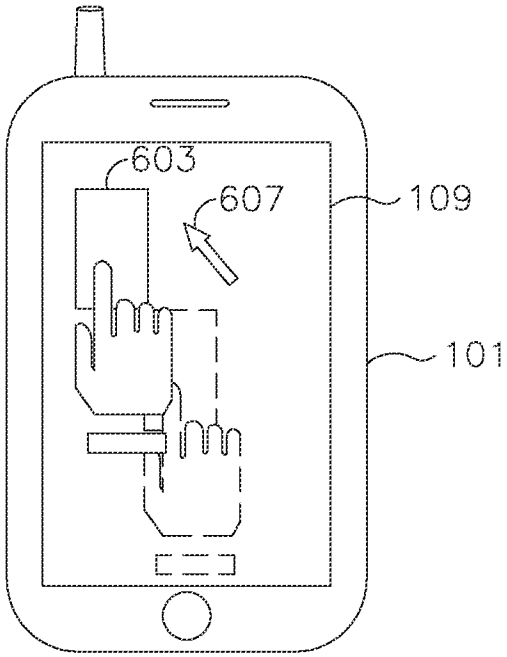

STATIC ENVIRONMENT INFORMATION (LOCATION)
501
STATIC RECEIVER INFORMATION (LIST OF ACTIVE DEVICES)
503
ASSOCIATE LOCATIONS AND CHANNELS
505
DYNAMIC ENVIRONMENT INFORMATION (DIRECTIONALITY)
511
DYNAMIC TARGET MATCHING
517
TRANSMISSION INSTRUCTIONS
515
DYNAMIC RECEIVER INFORMATION (CHANNEL IMPULSE RESPONSE)
507
CHANNEL-BASED KEY DISTILLATION
509
513
TOUCHSCREEN INFORMATION

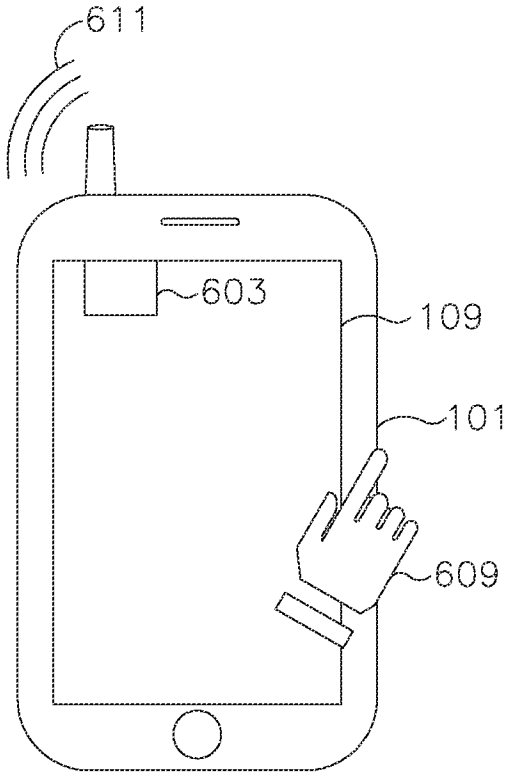
FIG. 5



6A

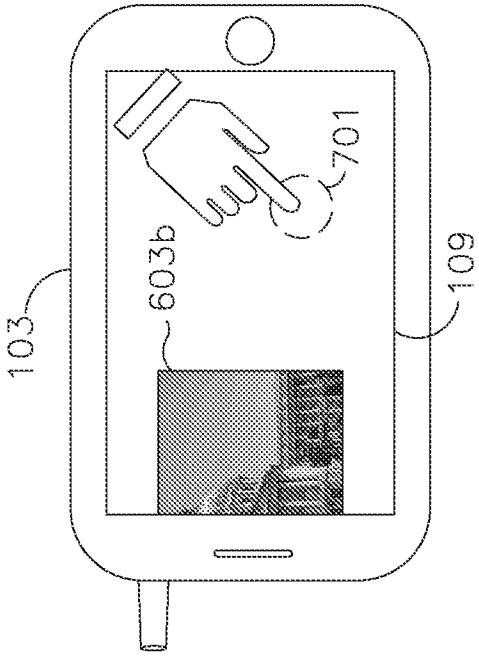


6B



6C

FIG. 6



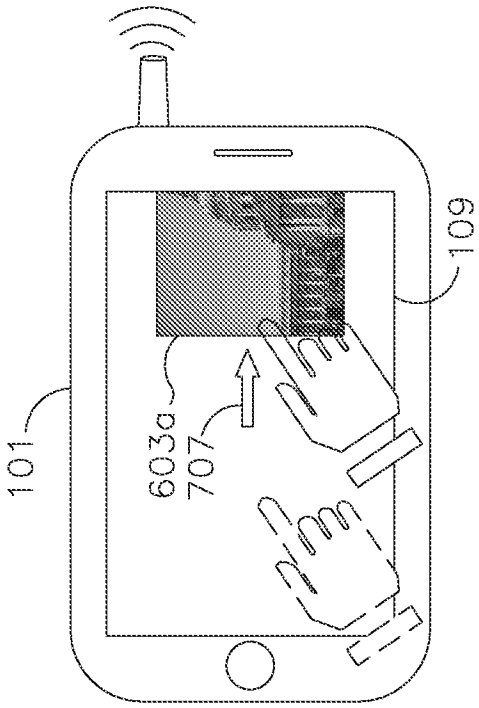
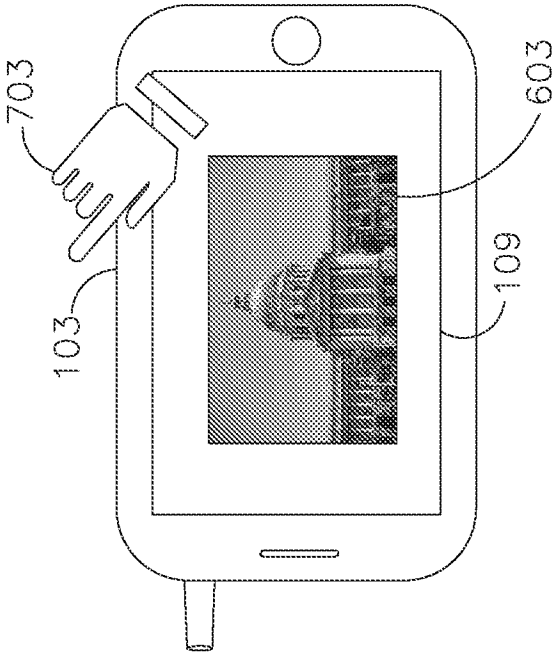


FIG. 7A



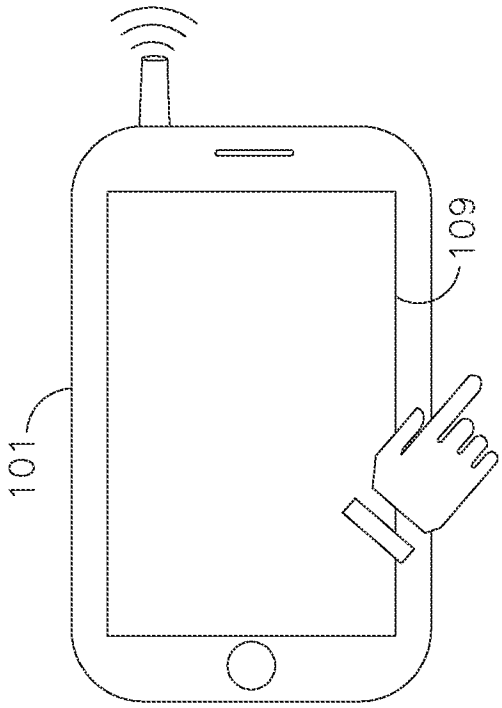
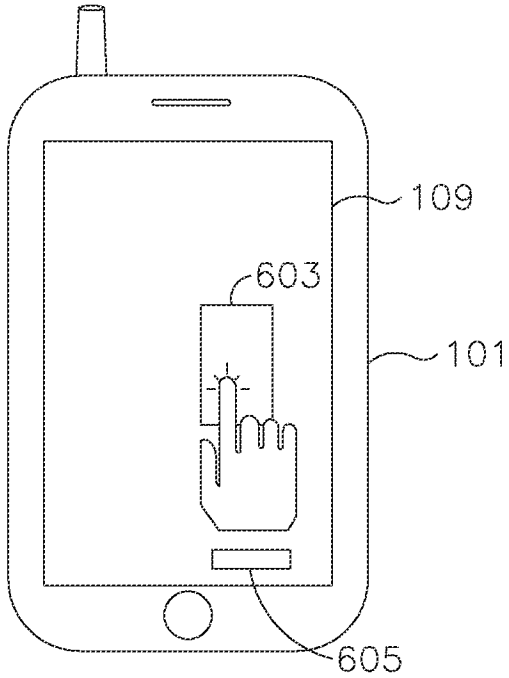
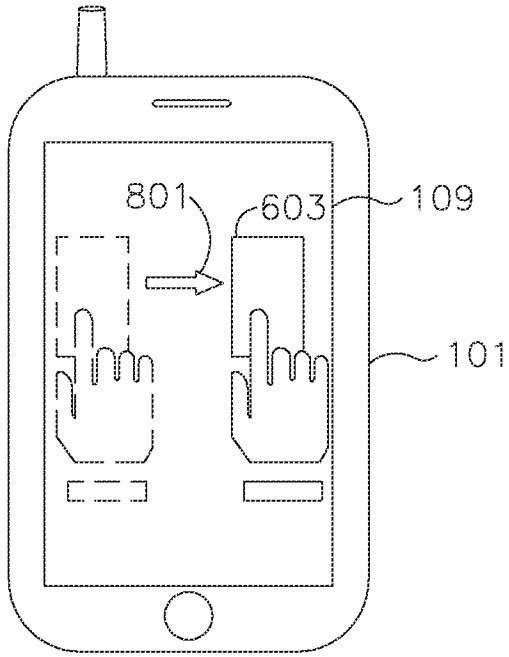


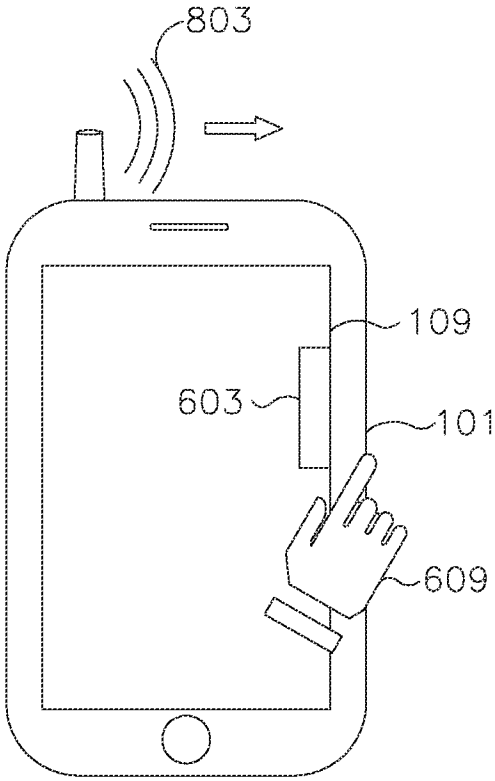
FIG. 7B



8A

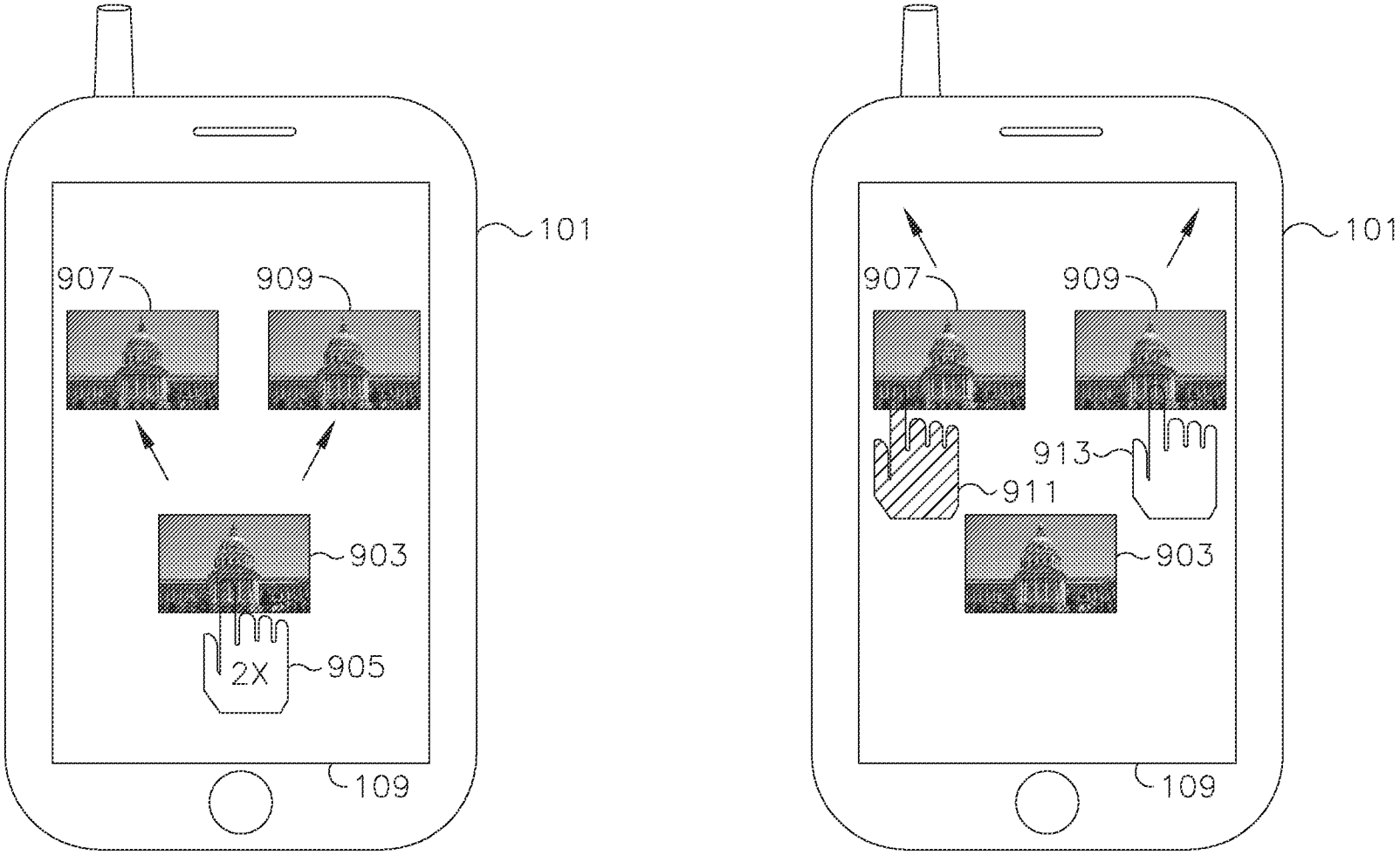


8B



8C

FIG. 8



9A 9B

FIG. 9

Electronic Acknowledgement Receipt

EFS ID:	16190473
Application Number:	13930743
International Application Number:	
Confirmation Number:	1304
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Customer Number:	24374
Filer:	John Porrazza/Janice Nightlinger
Filer Authorized By:	John Porrazza
Attorney Docket Number:	IPH-2-2235US04
Receipt Date:	28-JUN-2013
Filing Date:	
Time Stamp:	15:52:08
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1740
RAM confirmation Number	3387
Deposit Account	090435
Authorized User	

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Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	IPH-2-2235US04_ADS.PDF	1255983 62716200833c7204715e86142b329aeb61b38d18	no	7
Warnings:					
Information:					
2		IPH_2_2235US04_Application_EFS.PDF	104362 8c0a564f9e33de279ac103f9521b45767cd95ded	yes	23
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	18	
	Claims		19	22	
	Abstract		23	23	
Warnings:					
Information:					
3	Drawings-only black and white line drawings	IPH_2_2235US04_Drawings_EFS.PDF	3784424 f16a2141fead459b9e6863bcde3858fdad8416e2	no	9
Warnings:					
Information:					
4	Power of Attorney	IPH_2_2235US04_PowerOfAttorney.PDF	83896 6fcd8a445944b6e2502372c386c12ef87865f856	no	1
Warnings:					
Information:					
5	Assignee showing of ownership per 37 CFR 3.73.	IPH_2_2235US04_Statement_373c_EFS.PDF	73357 1d669ea2dabf8e5ea895c402c2e740d5a53263eb	no	2
Warnings:					
Information:					
6	Fee Worksheet (SB06)	fee-info.pdf	36573 a7a8fc14f6d0e609b236b1b99e1ad8058e75ed11	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	5338595		

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New International Application Filed with the USPTO as a Receiving Office
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/930,743

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	280
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	600
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	720
TOTAL CLAIMS (37 CFR 1.16(i))	20 minus 20 =	*			OR	x 80 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*				x 420 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1600

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
AMENDMENT A	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AMENDMENT A	Application Size Fee (37 CFR 1.16(s))									
AMENDMENT A	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)	OR	RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
AMENDMENT B	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AMENDMENT B	Application Size Fee (37 CFR 1.16(s))									
AMENDMENT B	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
13/930,743	06/28/2013	2473	1740	IPH-2-2235US04	20	3

CONFIRMATION NO. 1304

24374
VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

FILING RECEIPT

OC000000062803342

Date Mailed: 08/01/2013

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Alan G. Carlton, Mineola, NY;
Alexander Reznik, Titusville, NJ;

Applicant(s)

InterDigital Patent Holdings, Inc., Wilmington, DE

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 13/493,650 06/11/2012 PAT 8478207
which is a CON of 12/644,948 12/22/2009 PAT 8200265
which claims benefit of 61/140,126 12/23/2008

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

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The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/930,743**
Projected Publication Date: 11/07/2013
Non-Publication Request: No

Early Publication Request: No
Title

DATA TRANSFER BETWEEN WIRELESS DEVICES

Preliminary Class

370

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04

CONFIRMATION NO. 1304

24374
VOLPE AND KOENIG, P.C.
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30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

NOTICE

OC000000062803343

Date Mailed: 08/01/2013

INFORMATIONAL NOTICE TO APPLICANT

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):
  Alan G. Carlton
  Alexander Reznik

  Applicant may submit the inventor's oath or declaration at any time before the Notice of Allowance and Fee(s) Due, PTOL-85, is mailed.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04

CONFIRMATION NO. 1304

IMPROPER CPOA LETTER

24374
VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

OC000000062803265

Date Mailed: 08/01/2013

NOTICE REGARDING POWER OF ATTORNEY

This is in response to the power of attorney filed 06/28/2013. The power of attorney in this application is not accepted for the reason(s) listed below:

- The power of attorney has not been accepted because the party who is giving power of attorney has not been identified. Power of attorney may only be signed by the applicant for patent (37 CFR 1.42) or the patent owner. A patent owner who was not the applicant must appoint any power of attorney in compliance with 37 CFR 3.71 and 3.73. See 37 CFR 1.32(b)(4).

/sfu/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. IPH-2-2235US04	SERIAL NO. 13/930,743
	APPLICANT Carlton et al.	
	FILING DATE June 28, 2013	GROUP 2649

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,544,321	08/1996	Theimer et al.			
		7,877,494	01/2011	Carlton et al.			
		2006/0234762	10/2006	Ozluturk			
		2006/0293063	12/2006	Corrion			
		2007/0146347	06/2007	Rosenberg			
		2007/0177729	08/2007	Reznik et al.			
		2007/0271379	11/2007	Carlton et al.			
		2011/0119702	05/2011	Jang et al.			
		2011/0119710	05/2011	Jang et al.			
		2011/0126237	05/2011	Lee et al.			
		2011/0138334	06/2011	Jung			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
		1 513 262	03/2005	EP				
		03/081373	10/2003	WO				

OTHER DOCUMENTS

EXAMINER INITIAL		DESCRIPTION (Including Author, Title, Date, Pertinent Pages, Etc.)
		HAZAS ET AL., "A Relative Positioning System for Co-located Mobile Devices," International Conference on Mobile Systems, Proceedings of the 3rd International Conference on Mobile Systems, Applications and Services, Seattle, Washington, 2005, pages 177-190

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1990066-1

Electronic Acknowledgement Receipt

EFS ID:	16660377
Application Number:	13930743
International Application Number:	
Confirmation Number:	1304
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Customer Number:	24374
Filer:	Robert D. Leonard/Carey Kulp
Filer Authorized By:	Robert D. Leonard
Attorney Docket Number:	IPH-2-2235US04
Receipt Date:	22-AUG-2013
Filing Date:	28-JUN-2013
Time Stamp:	15:24:01
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	IDS.pdf	45140 a9f92b51846d836f589f22778ee689f005498bb3	no	2

Warnings:

Information:

2	Information Disclosure Statement (IDS) Form (SB08)	PTO1449.pdf	40393 378afbfc864a770f8af0b49bead324d9daf4add1	no	1

Warnings:

Information:

This is not an USPTO supplied IDS fillable form

Total Files Size (in bytes):	85533

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:	
Carlton et al.	
Application No.: 13/930,743	Our File: IPH-2-2235US04
Confirmation No.: 1304	Date: August 22, 2013
Filed: June 28, 2013	
For: DATA TRANSFER BETWEEN WIRELESS DEVICES	
Group: 2649	
Examiner: Not Yet Known	

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment (via EFS)
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Madam:

Further to Applicants' Duty of Disclosure pursuant to 37 C.F.R. §1.56, Applicants wish to bring to the Examiner's attention the material cited on the enclosed Form PTO-1449.

This Application is a continuation of Non-Provisional Application No. 13/493,650, filed on June 11, 2012, which issued on July 2, 2013 as U.S. Patent No. 8,478,207, which is a continuation of Non-Provisional Application No. 12/644,948, filed on December 22, 2009, which issued on June 12, 2012 as U.S. Patent No. 8,200,265,

which claims priority from Provisional Application No. 61/140,126, which was filed on December 23, 2008.

Pursuant to 37 C.F.R. §1.98(d) copies of documents cited in the parent application are not enclosed, but copies will be provided upon request.

It is respectfully requested that the Examiner consider these documents and return an initialed copy of the Form PTO-1449 indicating consideration of the cited materials.

Respectfully submitted,

Carlton et al.

By /Harry Vartanian/
Harry Vartanian
Registration No. 56,787
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103

HV/PCK
Enclosure

PTO/AIA/80 (07-12)
Approved for use through 11/30/2014. OMB 0651-0035
U.S. Patent and Trademark Office; U.S DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

[■] Practitioners associated with Customer Number: 24374

OR

[ ] Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

[■] The address associated with Customer Number: 24374

OR

[ ] Firm or Individual Name			
Address			
City		State	Zip
Country			
Telephone		Email	

Assignee Name and Address: InterDigital Patent Holdings, Inc.
200 Bellevue Parkway
Suite 300
Wilmington, DE 19809

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	17-JAN-2013
Name	Bradley N. Ditty	Telephone	
Title	Senior Patent Executive		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of1995, no persons arerequired to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: INTERDIGITAL PATENT HOLDINGS, INC.

Application No./Patent No.: 13/930,743 Filed/Issue Date: June 28, 2013

Titled: DATA TRANSFER BETWEEN WIRELESS DEVICES

INTERDIGITAL PATENT HOLDINGS, INC., a CORPORATION

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☑ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 024071, Frame 0233, or for which a copy thereof is attached.

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

This collection of information is required by37 CFR3.73(b). The information is required toobtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentialityis governed by35 U.S.C. 122and 37 CFR1.11 and1.14. Thiscollection is estimated to take 12 minutes to complete, including gathering, preparing, and submittingthe completed application form to the USPTO.Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent tothe Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.**SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Harry Vartanian/	September 4, 2013
Signature	Date
Harry Vartanian	56787
Printed or Typed Name	Title or Registration Number

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that yoube given certain informationin connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, pleasebe advised that: (1) the general authority forthe collection of thisinformation is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and(3) the principal purpose forwhich the information isused by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent applicationor patent. If you do not furnish the requested information,the U.S. Patent and Trademark Office may not be able to process and/or examineyour submission,which may result in termination of proceedings or abandonment of the applicationor expiration of the patent.

The informationprovided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the informationin order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an InternationalApplication filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, arecord may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from thissystem of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	16757447
Application Number:	13930743
International Application Number:	
Confirmation Number:	1304
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Customer Number:	24374
Filer:	Harry Vartanian/Elizabeth McGinty
Filer Authorized By:	Harry Vartanian
Attorney Docket Number:	IPH-2-2235US04
Receipt Date:	04-SEP-2013
Filing Date:	28-JUN-2013
Time Stamp:	14:40:53
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Oath or Declaration filed	20130819-IPH-2-2235US04-ExecutedDeclaration.PDF	259449 3b4509a87361a9984e66e62b42b3d834ef441f46	no	2

Warnings:

Information:

2	Power of Attorney	IPH-2-2235US04_POA.PDF	89199 6945c79e46acc4d3b9fbd08beb48661f0945f50b	no	1
Warnings:					
Information:					
3	Assignee showing of ownership per 37 CFR 3.73.	IPH-2-2235US04_373cStatement.PDF	118438 d8a2d90b03f9997c63e17cfc3cf2ecee723dbf58	no	3
Warnings:					
Information:					
		Total Files Size (in bytes):	467086		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IPH-2235US04

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	DATA TRANSFER BETWEEN WIRELESS DEVICES

As the below named inventor, I hereby declare that:

This declaration is directed to: ☐ The attached application, or

☒ United States application or PCT international application number 13/930,743

filed on June 28, 2013.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Alexander Reznik Date: 30 July 2013

Signature:

Note: An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14.

2566002-1

IPH-2235US04

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	DATA TRANSFER BETWEEN WIRELESS DEVICES

As the below named inventor, I hereby declare that:

This declaration is directed to: ☐ The attached application, or

☑ United States application or PCT international application number 13/930,743

filed on June 28, 2013.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I have reviewed and understand the contents of the above-identified application, including the claims.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 CFR 1.56.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

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LEGAL NAME OF INVENTOR

Inventor: Alan G. Carlton Date: 8-14-13

Signature:

Note: An application data sheet (PTO/AIA/14 or equivalent), including naming the entire inventive entity, must accompany this form. Use an additional form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14.

2566182-1

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04	1304

24374 7590 09/09/2013
VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER
MIZRAHI, DIANE D

ART UNIT	PAPER NUMBER
2645	

NOTIFICATION DATE	DELIVERY MODE
09/09/2013	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

Office Action Summary	Application No. 13/930,743	Applicant(s) CARLTON ET AL.	
	Examiner DIANE MIZRAHI	Art Unit 2645	AIA (First Inventor to File) Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ 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.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) 1-20 is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on 6-28-2013 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

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

Certified copies:

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)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

DETAILED ACTION

Art Unit – Location

The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2645.

The present application is being examined under the pre-AIA first to invent provisions.

Claims 1-20 are pending.

Information Disclosure Statement

As required by M.P.E.P. 609(c), the Applicant's submissions of the Information Disclosure Statement is acknowledged by the examiner and the cited references have been considered in the examination of the claims now pending. As required by M.P.E.P. 609 C(2), a copy of the PTOL-1449 initialed and dated by the examiner is attached to the instant office action.

Applicant’s Information Disclosure Statement has been received, entered into the record, and considered. See attached form PTO-1449.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process... may obtain a patent therefor..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the claims that are directed to the same invention so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 1-20 rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1-20 of prior U.S. Patent No. 8,478,207. This is a statutory double patenting rejection.

The independent claims 1, 7 and 13, of current application and U.S. Patent No. 13/930,743 , and US Patent No. 8,478,207 are compared as follows, showing the same invention of the teachings of the patent to the claimed invention:

Current Application	US Patent No. 8,478,207
Claim 1 (for example) :	**Claims 1 (for example):**
1. A method for use in a wireless transmit/receive unit (WTRU), the method comprising: detecting, at the WTRU, information relating to at least one candidate WTRU in a geographic area associated with the WTRU; receiving, at the WTRU, user input that includes a gestural input and a selection of data for transfer between the WTRU and a target WTRU; processing, at the WTRU, the user input and the information; identifying, at the WTRU, the target WTRU from the at least one candidate WTRU based at least in part on the user input; and transmitting the selected data to the target WTRU .	1. A method for use in a wireless transmit/receive unit (WTRU), the method comprising: detecting, at the WTRU, information relating to at least one candidate WTRU in a geographic area associated with the WTRU; receiving, at the WTRU, user input that includes a gestural input and a selection of data for transfer between the WTRU and a target WTRU; processing, at the WTRU, the user input and the information; identifying, at the WTRU, the target WTRU from the at least one candidate WTRU based at least in part on the user input; and transmitting the selected data to the target WTRU.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diane D. Mizrahi whose telephone number is 571-272-4079. The examiner can normally be reached on Monday-Thursday (8:30 - 4:30 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng, can be reached on **(571) 272-7495.** The fax phone numbers for the organization where this application or proceeding is assigned are (**703) 872-9306** for regular communications and (703) 305-3900 for After Final communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose 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 more information about the PAIR system, see http://pair-direct.uspto.qov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/Diane Mizrahi/

Diane.Mizrahi@USPTO.gov
Primary Patent Examiner

September 1, 2013

Notice of References Cited	Application/Control No. 13/930,743	Applicant(s)/Patent Under Reexamination CARLTON ET AL.	
	Examiner DIANE MIZRAHI	Art Unit 2645	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2012/0252512	10-2012	Carlton et al.	455/509
*	B	US-2010/0165965 A	07-2010	Carlton et al.	370/338
*	C	US-8,478,207	07-2013	Carlton et al.	455/73
*	D	US-8,200,265	06-2012	Carlton et al.	455/509
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

WEST Search History for Application 13930743

Creation Date: 2013090312:40

Prior Art Searches

Query	DB	Op.	Plur.	Thes.	Date
(wireless near5 transmit near5 receive near5 unit or (WTRU))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near same (touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near same (touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near near 10(touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near near 15 (touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near5 near15 (touch near5 screen))	PGPB, USPT, USOC,	ADJ	YES		09-03-2013

	EPAB, JPAB, DWPI, TDBD, FPRS				
(user near5 input) and (visual near5 and (touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
455/73, 75, 436, 509, 522.ccls. or 370/311, 328, 330, 331, 335, 338, 350.ccls. or 375/146.ccls.	PGPB, USPT, USOC	ADJ	YES		09-03-2013
(user near5 input) and (visual) near5 (touch near5 screen or display)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
user near5 input$6	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
gestural near5 input$6	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(geographic near5 location or position)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(finger near5 drag$6)	PGPB, USPT, USOC, EPAB,	ADJ	YES		09-03-2013

	JPAB, DWPI, TDBD, FPRS				
(finger near5 slid$6)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU))) and ((user near5 input) and (visual) near5 (touch near5 screen or display))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display)) and (user near5 input$6)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display) and user near5 input$6) and (gestural near5 input$6)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display) and user near5 input$6 and gestural near5 input$6) and ((geographic near5 location or position))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display) and user near5 input$6) and (455/73, 75, 436, 509, 522.ccls. or 370/311, 328, 330, 331, 335, 338, 350.ccls. or 375/146.ccls.)	PGPB, USPT, USOC	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual)	PGPB, USPT,	ADJ	YES		09-03-2013

near5 (touch near5 screen or display) and user near5 input$6) and ((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display) and user near5 input$6 and gestural near5 input$6)	USOC, EPAB, JPAB, DWPI, TDBD, FPRS				

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13930743	CARLTON ET AL.
	Examiner	**Art Unit**
	DIANE MIZRAHI	2645

CPC- SEARCHED

Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED

Symbol	Date	Examiner

US CLASSIFICATION SEARCHED

Class	Subclass	Date	Examiner
455	73, 75, 436, 509, 522	9-1-13	
370	311,328,330,331,335,338,350	9-1-13	
375	145	9-1-13	

SEARCH NOTES

Search Notes	Date	Examiner
Searched the Manual of Patent Classification	9-1-13	dm
Databases searched WEST: US Patents; US Publications; European and Japanese Patent Office (Abstracts); Derwent; IBM Technical Disclosures; OCR, Foreign Patent Retrieval. Performed text search using US Publications and US Patents. (See attached search history strategy report).	9-1-13	dm
Examined claims and the disclosure for possible 35 USC 101 and 112 issues. Searched for double patenting using inventors names listed in the instant application.	9-1-13	dm

INTERFERENCE SEARCH

US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

	/DIANE MIZRAHI/ Primary Examiner.Art Unit 2645

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 1304

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/930,743	06/28/2013 **RULE**	455	2645	IPH-2-2235US04

APPLICANTS

InterDigital Patent Holdings, Inc., Wilmington, DE, Assignee (with 37 CFR 1.172 Interest);
Alan G. Carlton, Mineola, NY;
Alexander Reznik, Titusville, NJ;

**** CONTINUING DATA ***************************

This application is a CON of 13/493,650 06/11/2012 PAT 8478207
which is a CON of 12/644,948 12/22/2009 PAT 8200265
which claims benefit of 61/140,126 12/23/2008

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****

07/24/2013

Foreign Priority claimed	☐ Yes ☑ No		STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119(a-d) conditions met	☐ Yes ☑ No	☐ Met after Allowance				
Verified and Acknowledged	/DIANE D MIZRAHI/ Examiner's Signature	Initials	NY	9	20	3

ADDRESS

VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103
UNITED STATES

TITLE

DATA TRANSFER BETWEEN WIRELESS DEVICES

FILING FEE RECEIVED		
1740	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13930743	CARLTON ET AL.
	Examiner	**Art Unit**
	DIANE MIZRAHI	2645

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/01/2013								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								
	10	✓								
	11	✓								
	12	✓								
	13	✓								
	14	✓								
	15	✓								
	16	✓								
	17	✓								
	18	✓								
	19	✓								
	20	✓								

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. IPH-2-2235US04	SERIAL NO. 13/930,743
	APPLICANT Carlton et al.	
	FILING DATE June 28, 2013	GROUP 2649

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
/D.M./		5,544,321	08/1996	Theimer et al.			
		7,877,494	01/2011	Carlton et al.			
		2006/0234762	10/2006	Ozluturk			
		2006/0293063	12/2006	Corrion			
		2007/0146347	06/2007	Rosenberg			
		2007/0177729	08/2007	Reznik et al.			
		2007/0271379	11/2007	Carlton et al.			
		2011/0119702	05/2011	Jang et al.			
		2011/0119710	05/2011	Jang et al.			
		2011/0126237	05/2011	Lee et al.			
		2011/0138334	06/2011	Jung			

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	TRANSLATION NO
/D.M./		1 513 262	03/2005	EP				
/D.M./		03/081373	10/2003	WO				

OTHER DOCUMENTS

EXAMINER INITIAL		DESCRIPTION (Including Author, Title, Date, Pertinent Pages, Etc.)
/D.M./		HAZAS ET AL., "A Relative Positioning System for Co-located Mobile Devices," International Conference on Mobile Systems, Proceedings of the 3rd International Conference on Mobile Systems, Applications and Services, Seattle, Washington, 2005, pages 177-190

EXAMINER	DATE CONSIDERED
/Diane Mizrahi/	08/30/2013

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

19900661 ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /D.M./

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Alexandria, Virginia 22313-1450
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04

CONFIRMATION NO. 1304

POA ACCEPTANCE LETTER

24374
VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

OC000000063719444

Date Mailed: 09/13/2013

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 09/04/2013.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/qtran/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04

CONFIRMATION NO. 1304

PUBLICATION NOTICE

OC000000064871740

24374
VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

Title:DATA TRANSFER BETWEEN WIRELESS DEVICES

Publication No.US-2013-0295849-A1
Publication Date:11/07/2013

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of: Carlton et al. **Application No.:** 13/930,743 **Confirmation No.: 1304** **Filed:** June 28, 2013 For: DATA TRANSFER BETWEEN WIRELESS DEVICES Group: 2645 Examiner: Diane D. Mizrahi	Our File: IPH-2-2235US04 Date: November 19, 2013

REPLY PURSUANT TO 37 C.F.R. §1.111

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

This Reply is being timely filed in response to the Non-final Office Action dated September 9, 2013.

Please amend the application without prejudice or disclaimer as follows:

2707265-1

Amendments to the Claims:

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

1.-20. (CANCELED)

21. (NEW) A method performed by a wireless transmit/receive unit (WTRU), the method comprising:

processing, by the WTRU, a touchscreen input to select a media element;

detecting, by the WTRU using Bluetooth, a plurality of WTRUs in proximity to the WTRU;

processing, by the WTRU, another touchscreen input to select a WTRU of the plurality of WTRUs;

sending, by the WTRU, a message to transfer the selected media element to the selected WTRU;

receiving, by the WTRU, an acceptance to transfer the selected media element to the selected WTRU; and

transferring, by the WTRU using a WiFi communication, the selected media element to the selected WTRU.

22. (NEW) The method of claim 21 further comprising:

displaying, by the WTRU, a progress of the transfer to the selected WTRU.

23. (NEW) The method of claim 21 wherein the media element is any one of a photograph, video, or a document.

24. (NEW) The method of claim 21 wherein the touchscreen input or the another touchscreen input is a tap.

25. (NEW) The method of claim 21 wherein the message to transfer is a request.

26. (NEW) The method of claim 21 wherein the WiFi communication is a WiFi link.

27. (NEW) The method of claim 21 wherein the WiFi communication or Bluetooth is provided by a communication peripheral.

28. (NEW) The method of claim 21 wherein Bluetooth discovery is used to detect the plurality of WTRUs in proximity to the WTRU.

29. (NEW) The method of claim 28 wherein the Bluetooth discovery is

provided using a service discovery protocol.

30. (NEW) The method of claim 21 further comprising:

processing, by the WTRU, release of a touch contact to initiate transfer of the selected media element to the selected WTRU.

31. (NEW) The method of claim 21 further comprising:

determining, by the WTRU, that the selected WTRU is compatible to transfer the selected media element.

32. (NEW) The method of claim 21 wherein a real time map is maintained of the plurality of WTRUs in proximity to the WTRU.

33. (NEW) The method of claim 21 further comprising:

determining, by the WTRU, environment information that lists the plurality of WTRUs in proximity to the WTRU.

34. (NEW) The method of claim 21 wherein the WTRU processes the touchscreen input based on information from a touchscreen.

35. (NEW) The method of claim 21 further comprising:

initiating, by the WTRU, transfer of media based on a gesture on a visual representation, displayed on a touchscreen of the WTRU, of the media; and

wherein the gesture is in a direction of an intended receiving WTRU.

36. (NEW) The method of claim 21 wherein the WTRU processes the touchscreen input based on information from a multi-touch touchscreen.

37. (NEW) The method of claim 21 wherein the WTRU processes the touchscreen input based on information from a touchscreen capable of detecting multi-finger inputs or gestures.

38. (NEW) The method of claim 21 wherein the WTRU processes the touchscreen input based on information from a peripheral touchscreen or a peripheral touchscreen capable of detecting multi-finger inputs or gestures.

39. (NEW) The method of claim 21 further comprising:

transferring, by the WTRU to the selected WTRU, additional display information; and

wherein the additional display information is displayed before the selected

media element is entirely transferred.

40. (NEW) The method of claim 21 further comprising:

displaying, by the WTRU, a subset of the detected plurality of WTRUs in proximity to the WTRU; and

wherein the subset is not all of the detected plurality of WTRUs.

41. (NEW) The method of claim 21 further comprising:

processing, by the WTRU, a user input selecting criteria; and

wherein the subset of the detected plurality of WTRUs is displayed in response to the selected criteria.

42. (NEW) The method of claim 21 further comprising:

receiving, by the WTRU from another WTRU, a request to transfer other media;

receiving, in response to accepting the request by the WTRU, the other media; and

displaying, by the WTRU, the other media in its entirety to a user of the WTRU.

43. (NEW) A wireless transmit/receive unit (WTRU) comprising:

a processor configured to process a touchscreen input to select a media element;

circuitry configured to detect, using Bluetooth, a plurality of WTRUs in proximity to the WTRU;

the processor is further configured to process another touchscreen input to select a WTRU of the plurality of WTRUs;

circuitry configured to send a message to transfer the selected media element to the selected WTRU;

circuitry configured to receive an acceptance to transfer the selected media element to the selected WTRU; and

circuitry configured to transfer, using a WiFi communication, the selected media element to the selected WTRU.

44. (NEW) The WTRU of claim 43 further comprising:

circuitry configured to display a progress of the transfer to the selected WTRU.

45. (NEW) The WTRU of claim 43 wherein the media element is any one of a photograph, video, or a document.

46. (NEW) The WTRU of claim 43 wherein the touchscreen input or the another touchscreen input is a tap.

47. (NEW) The WTRU of claim 43 wherein the message to transfer is a request.

48. (NEW) The WTRU of claim 43 wherein the WiFi communication is a WiFi link.

49. (NEW) The WTRU of claim 43 wherein the WiFi communication or Bluetooth is provided by a communication peripheral.

50. (NEW) The WTRU of claim 43 wherein Bluetooth discovery is used to detect the plurality of WTRUs in proximity to the WTRU.

51. (NEW) The WTRU of claim 50 wherein the Bluetooth discovery is provided using a service discovery protocol.

52. (NEW) The WTRU of claim 43 further comprising:

the processor is further configured to process release of a touch contact to

initiate transfer of the selected media element to the selected WTRU.

53. (NEW) The WTRU of claim 43 further comprising:

circuitry configured to determine that the selected WTRU is compatible to transfer the selected media element.

54. (NEW) The WTRU of claim 43 wherein a real time map is maintained of the plurality of WTRUs in proximity to the WTRU.

55. (NEW) The WTRU of claim 43 wherein the WTRU determines environment information that lists the plurality of WTRUs in proximity to the WTRU.

56. (NEW) The WTRU of claim 43 wherein the WTRU processes the touchscreen input based on information from a touchscreen.

57. (NEW) The WTRU of claim 43 further comprising:

circuitry configured to initiate transfer of media based on a gesture on a visual representation, displayed on a touchscreen of the WTRU, of the media; and

wherein the gesture is in a direction of an intended receiving WTRU.

58. (NEW) The WTRU of claim 43 wherein the WTRU processes the touchscreen input based on information from a multi-touch touchscreen.

59. (NEW) The WTRU of claim 43 wherein the WTRU processes the touchscreen input based on information from a touchscreen capable of detecting multi-finger inputs or gestures.

60. (NEW) The WTRU of claim 43 wherein the WTRU processes the touchscreen input based on information from a peripheral touchscreen or a peripheral touchscreen capable of detecting multi-finger inputs or gestures.

61. (NEW) The WTRU of claim 43 further comprising:

the circuitry is further configured to transfer to the selected WTRU, additional display information; and

wherein the additional display information is displayed before the selected media element is entirely transferred.

62. (NEW) The WTRU of claim 43 further comprising:

circuitry configured to display a subset of the detected plurality of WTRUs in proximity to the WTRU; and

wherein the subset is not all of the detected plurality of WTRUs.

63. (NEW) The WTRU of claim 43 further comprising:

the processor is further configured to process a user input selecting criteria; and

wherein the subset of the detected plurality of WTRUs is displayed in response to the selected criteria.

64. (NEW) The WTRU of claim 43 further comprising:

the circuitry is further configured to receive, from another WTRU, a request to transfer other media;

the circuitry is further configured to receive, in response to accepting the request by the WTRU, the other media; and

circuitry configured to display the other media in its entirety to a user of the WTRU.

Amendments to the Specification:

Please substitute the Abstract with the following new Abstract:

ABSTRACT

Detecting, with Bluetooth, wireless transmit/receive units (WTRUs) in proximity to a WTRU is disclosed. The WTRU may send a message to transfer of a selected media to a selected WTRU. The WTRU may receive an acceptance to transfer the selected media to the selected WTRU. The selected media is transferred to the selected WTRU.

REMARKS

After the foregoing Amendment, claims 21-64 are currently pending in this application. Claims 1-20 have been canceled without prejudice. New claims 21-64 have been added. In the specification, a new abstract is submitted herewith.

Statutory Double Patenting Rejection

Claims 1-20 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-20 of prior U.S. Patent No. 8,478,207. This is a statutory double patenting rejection. To overcome the rejection, claims 1-20 are canceled and new claims 21-64 are added. Withdrawal of the 35 U.S.C. 101 rejection of claims 1-20 is respectfully requested.

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 telephone 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, Applicants respectfully submit that the present application is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

Carlton et al.

By /Harry Vartanian/
Harry Vartanian
Registration No. 56,787

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HV/eam

Electronic Patent Application Fee Transmittal

Application Number:	13930743
Filing Date:	28-Jun-2013
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Filer:	Harry Vartanian/Elizabeth McGinty
Attorney Docket Number:	IPH-2-2235US04

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Claims in Excess of 20	1202	24	80	1920
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
			Total in USD ($)	**1920**

Electronic Acknowledgement Receipt

EFS ID:	17442699
Application Number:	13930743
International Application Number:	
Confirmation Number:	1304
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Customer Number:	24374
Filer:	Harry Vartanian/Elizabeth McGinty
Filer Authorized By:	Harry Vartanian
Attorney Docket Number:	IPH-2-2235US04
Receipt Date:	19-NOV-2013
Filing Date:	28-JUN-2013
Time Stamp:	16:37:11
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1920
RAM confirmation Number	3879
Deposit Account	090435
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		IPH-2-2235US04_reply.PDF	107591 df21bb5420a119b09c3d8fbee83f326e7fde5779	yes	15

Multipart Description/PDF files in .zip description

Document Description	Start	End
Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Claims	2	11
Specification	12	12
Abstract	13	13
Applicant Arguments/Remarks Made in an Amendment	14	15

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	30594 dd2dab4a543771f72460977aa2b1ebe2b4e70ea8	no	2

Warnings:

Information:

Total Files Size (in bytes):	138185

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	
13/930,743	06/28/2013	☐ To be Mailed

ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	x $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	x $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT

11/19/2013	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 44	Minus	** 20	= 24	x $80 =	1920
Independent (37 CFR 1.16(h))	* 2	Minus	***3	= 0	x $420 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	**1920**

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	x $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	x $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/DORRETTA BROOKS/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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NOTICE OF ALLOWANCE AND FEE(S) DUE

24374 7590 01/13/2014
VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER
MIZRAHI, DIANE D

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 01/13/2014

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04	1304

TITLE OF INVENTION: DATA TRANSFER BETWEEN WIRELESS DEVICES

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	04/14/2014

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE 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.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

24374 7590 01/13/2014
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30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04	1304

TITLE OF INVENTION: DATA TRANSFER BETWEEN WIRELESS DEVICES

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	04/14/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
MIZRAHI, DIANE D	2645	455-073000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1_____
2_____
3_____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)
PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.
(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:
❑ Issue Fee
❑ Publication Fee (No small entity discount permitted)
❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
❑ A check is enclosed.
❑ Payment by credit card. Form PTO-2038 is attached.
❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
❑ Applicant certifying micro entity status. See 37 CFR 1.29
NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
❑ Applicant asserting small entity status. See 37 CFR 1.27
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
❑ Applicant changing to regular undiscounted fee status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

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UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04	1304

24374 7590 01/13/2014
VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103

EXAMINER
MIZRAHI, DIANE D

ART UNIT	PAPER NUMBER
2645	

DATE MAILED: 01/13/2014

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice Requiring Inventor's Oath or Declaration	Application No. 13/930,743	Applicant(s) Alan G. Carlton	
	Examiner MIZRAHI, DIANE D	Art Unit 2645	

This notice is an attachment to the Notice of Allowability (PTOL-37), or the Notice of Allowability For A Design Application (PTOL-37D).

An inventor's oath or declaration in compliance with 37 CFR 1.63 or 1.64 executed by or with respect to each inventor has not yet been submitted.

An oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each inventor (for any inventor for which a compliant oath, declaration, or substitute statement has not yet been submitted) MUST be filed no later than the date on which the issue fee is paid. See 35 U.S.C. 115(f). Failure to timely comply will result in ABANDONMENT of this application.

A properly executed inventor's oath to declaration has not been received for the following inventor(s):

If applicant previously filed one or more oaths, declarations, or substitute statements, applicant may have received an informational notice regarding deficiencies therein.

The following deficiencies are noted:

INFORMAL ACTION PROBLEMS

- A properly executed inventor's oath or declaration has not been received for the following inventor(s): **Alan G. Carlton** and **Alexander Reznik**.
  Applicant may submit the inventor's oath or declaration at any time before the Notice of Allowance and Fee(s) Due, PTOL-85, is mailed.

Questions relating to this Notice should be directed to the Application Assistance Unit at 571-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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Notice of Allowability	Application No. 13/930,743	Applicant(s) CARLTON ET AL.	
	Examiner DIANE MIZRAHI	Art Unit 2645	AIA (First Inventor to File) Status No

-- 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 *11-19-2013*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
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 *21-64*. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov .
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

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   1. ☐ Certified copies of the priority documents have been received.
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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.
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5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/DIANE MIZRAHI/
Primary Examiner, Art Unit 2645

WEST Search History for Application 13930743

Creation Date: 2013122715:51

Prior Art Searches

Query	DB	Op.	Plur.	Thes.	Date
(wireless near5 transmit near5 receive near5 unit or (WTRU))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near same (touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near same (touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near near 10(touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near near 15 (touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI,	ADJ	YES		09-03-2013

	TDBD, FPRS				
(user near5 input) and (visual near5 near15 (touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(user near5 input) and (visual near5 and (touch near5 screen))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
455/73, 75, 436, 509, 522.ccls. or 370/311, 328, 330, 331, 335, 338, 350.ccls. or 375/146.ccls.	PGPB, USPT, USOC	ADJ	YES		09-03-2013
(user near5 input) and (visual) near5 (touch near5 screen or display)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
user near5 input$6	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
gestural near5 input$6	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(geographic near5 location or position)		ADJ	YES		09-03-2013

	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS				
(finger near5 drag$6)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
(finger near5 slid$6)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU))) and ((user near5 input) and (visual) near5 (touch near5 screen or display))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display)) and (user near5 input$6)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display) and user near5 input$6) and (gestural near5 input$6)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD,	ADJ	YES		09-03-2013

	FPRS				
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display) and user near5 input$6 and gestural near5 input$6) and ((geographic near5 location or position))	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display) and user near5 input$6) and (455/73, 75, 436, 509, 522.ccls. or 370/311, 328, 330, 331, 335, 338, 350.ccls. or 375/146.ccls.)	PGPB, USPT, USOC	ADJ	YES		09-03-2013
((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display) and user near5 input$6) and ((wireless near5 transmit near5 receive near5 unit or (WTRU)) and (user near5 input) and (visual) near5 (touch near5 screen or display) and user near5 input$6 and gestural near5 input$6)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		09-03-2013
touchscreen	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		12-27-2013
((touchscreen) and (wirelesss near5 transmit/receive near5 unit$3 or WTRU) and (media near5 element$3) and (detect$6 near6 Bluetooth) and (proximit$6) and (messag$6 near6 transmission or transmit$6 or transfer$9) and (WiFi near6 connect$6)).clms.	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD, FPRS	ADJ	YES		12-27-2013
((touchscreen) and (wirelesss near5 transmit/receive near5 unit$3 or WTRU) and (media near5 element$3) and (detect$6 near6 Bluetooth) and (proximit$6) and (messag$6 near6 transmission or transmit$6 or transfer$9) and (WiFi near6 connect$6)).clms.	PGPB, USPT, USOC	ADJ	YES		12-27-2013

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- Try more general keywords.
- Try fewer keywords.

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Prior Art Database (5 of 2557) focus

Results below this message are usually suppressed due to the relevancy cut-off.

Method of Message Transport Reduction
Sending data over a wireless connection can be both time consuming and expensive. This invention operates at the transport level, not the protocol or application level, to reduce the amount... 21-Jan-2004

Using Broadcast within a Publish/Subscribe Broker to Reduce the Number of Messages Uselessly Received
Reducing the overall traffic carried across a wireless network across which a publish/subscribe middleware system is running through combining knowledge about the distribution nature of... 20-Jun-2006

Reliable voice message transmission
This paper deals with the improvement of voice transmission in analogue radio systems. It will help to improve the reliability of the transmission of spo- ken words and provide an... 01-Sep-1998

Wireless Transport Switcher Based on Connectivity State
Today, a GPRS device that can send and receive data cannot transmit emails and other data if it has only GSM level coverage. This means that currently, while the user is in GSM-only... 21-Nov-2005

Sending SMS messages on PACCH for DTM MS
A method of sending SMS (Short Message Service) for a DTM (Dual Transfer Mode) using PACCH (Packet Associate Control Channel) channel during the packet transfer mode is proposed. For a DTM... 10-Nov-2008

Non-Patent Literature (5 of 437) focus

Results below this message are usually suppressed due to the relevancy cut-off.

Mobile Messaging Services-Based Personal Electrocardiogram Monitoring System
A mobile monitoring system utilizing Bluetooth and mobile messaging services (MMS/SMSs) with low-cost hardware equipment is proposed. A proof of concept prototype has been developed and... 01-Jan-2009

Overview and Evaluation of Bluetooth Low Energy: An Emerging Low-Power Wireless Technology
Bluetooth Low Energy (BLE) is an emerging low-power wireless technology developed for short-range control and monitoring applications that is expected to be incorporated into billions of... 29-Aug-2012

Wireless Health Data Exchange for Home Healthcare Monitoring Systems
Ubiquitous home healthcare systems have been playing an increasingly significant role in the treatment and management of chronic diseases, such as diabetes and hypertension, but progress has... 01-Apr-2010

Coexistence of WiFi and WiMAX Systems Based on PS-Request Protocols †
We introduce both the coexistence zone within the WiMAX frame structure and a PS-Request protocol for the coexistence of WiFi and WiMAX systems sharing a frequency band. Because we know that... 13-Oct-2011

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An Overview on Wireless Sensor Networks Technology and Evolution
Wireless sensor networks (WSNs) enable new applications and require non-conventional paradigms for protocol design due to several constraints. Owing to the requirement for low device... 31-Aug-2009

Patents and Applications (5 of 437692) issue

is used for passing through the internet media independent information transmission method and apparatus for
A in a wireless network exchange media independent handover mih message method and... 14-Nov-2012

Wireless communication method and system for managing the association and deassociation of a wireless transmit/receive unit
A method and system for managing association and disassociation of a wireless transmit/receive unit (WTRU) to an access point (AP) in a wireless communication system is disclosed. Once the... 27-Mar-2007

Wireless communication method and system for managing the association and deassociation of a wireless transmit/receive unit
A method and system for managing association and disassociation of a wireless transmit/receive unit (WTRU) to an access point (AP) in a wireless communication system is disclosed. Once the... 09-Jun-2005

Data transfer between wireless devices
A method of data transfer between wireless transmit/receive units (WTRUs) is performed by a sending communication device soliciting environment information relating to active communication... 12-Jun-2012

Radio transmit/receive unit used in radio communication system
A method and system for conveying media independent handover (MIH) capability... 07-Nov-2007

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13930743	CARLTON ET AL.
	Examiner	**Art Unit**
	DIANE MIZRAHI	2645

CPC- SEARCHED

Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED

Symbol	Date	Examiner

US CLASSIFICATION SEARCHED

Class	Subclass	Date	Examiner
455	73, 75, 436, 509, 522	9-1-13	dm
370	311,328,330,331,335,338,350	9-1-13	dm
375	145	9-1-13	dm
updated search		12-26-13	dm

SEARCH NOTES

Search Notes	Date	Examiner
Searched the Manual of Patent Classification	9-1-13	dm
Databases searched WEST: US Patents; US Publications; European and Japanese Patent Office (Abstracts); Derwent; IBM Technical Disclosures; OCR, Foreign Patent Retrieval. Performed text search using US Publications and US Patents. (See attached search history strategy report).	9-1-13	dm
Examined claims and the disclosure for possible 35 USC 101 and 112 issues. Searched for double patenting using inventors names listed in the instant application.	9-1-13	dm
Updated WEST database search	12-26-13	dm
Performed text search using US Publications and US Patents. (See attached search history strategy report).	12-26-13	dm

	/DIANE MIZRAHI/ Primary Examiner.Art Unit 2645

SEARCH NOTES		
Search Notes	**Date**	**Examiner**
Performed NPL Google Search (see attached search strategy report attached.Performed NPL IEEE Search (see attached search strategy report attached.Performed Google Patents Search (see attached search strategy report attached).Performed IP Search (see attached search strategy report attached.	12-26-13	dm

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**
455	73	12-26-13	dm
Performed text search using US Publications and US Patents. (See attached search history strategy report).		12-26-13	dm

	/DIANE MIZRAHI/ Primary Examiner.Art Unit 2645

Issue Classification	Application/Control No. 13930743	Applicant(s)/Patent Under Reexamination CARLTON ET AL.
	Examiner DIANE MIZRAHI	**Art Unit** 2645

CPC

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CPC Combination Sets

Symbol				Type	Set	Ranking	Version
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NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 44	
/DIANE MIZRAHI/ Primary Examiner.Art Unit 2645 (Primary Examiner)	12-26-13 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 5

U.S. Patent and Trademark Office

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Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13930743	CARLTON ET AL.
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	DIANE MIZRAHI	2645

US ORIGINAL CLASSIFICATION		INTERNATIONAL CLASSIFICATION	
CLASS	SUBCLASS	CLAIMED	NON-CLAIMED
455	73	H 0 4 W 88 / 02 (2009.01.01)	

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	44	
/DIANE MIZRAHI/ Primary Examiner.Art Unit 2645	12-26-13	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13930743	CARLTON ET AL.
	Examiner	**Art Unit**
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☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	21	17	37	33	53										
2	22	18	38	34	54										
3	23	19	39	35	55										
4	24	20	40	36	56										
5	25	21	41	37	57										
6	26	22	42	38	58										
7	27	23	43	39	59										
8	28	24	44	40	60										
9	29	25	45	41	61										
10	30	26	46	42	62										
11	31	27	47	43	63										
12	32	28	48	44	64										
13	33	29	49												
14	34	30	50												
15	35	31	51												
16	36	32	52												

NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 44	
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detecting with Bluetooth wireless transmit/receive units or WTRU, and sending and anceptance message for WTRU media transfer

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No results found for **detecting with Bluetooth wireless transmit/receive units or WTRU, and sending and anceptance message for WTRU media transfer**

Patent US8478207 - Data **transfer** between **wireless** devices - Go...
www.google.nl/patents/US8478207
A method of data **transfer** between **wireless transmit/receive units** (**WTRUs**) is ... **detecting**, at the **WTRU**, information relating to at least one candidate **WTRU** in a ... or **multimedia message** services (MMS) with the data being transmitted from one ... 1 shows a **sending** and receiving **wireless transmit/receive unit** (**WTRU**) that ...

DATA **TRANSFER** BETWEEN **WIRELESS** DEVICES - Patent ...
www.faqs.org/patents/app/20130295849
Nov 7, 2013 - A method for use in a **wireless transmit/receive unit** (**WTRU**), the method ... The method of claim 1, wherein the **detecting** information further includes ... or **multimedia message** services (MMS) with the data being transmitted from one device ... 6 shows a user input for **transferring** a data file between devices;

Patente US8072936 - Method and apparatus for supporting ...
www.google.es/patents/US8072936
A dual mode **wireless transmit/receive unit** (**WTRU**) comprising: ... a transmitter configured to **send** a measurement report of the measurements on the GERAN ... a transmitter, configured to communicate a handover request **message** to a source Mobility .... The Operator IP Servers 110 may include an IP **Multimedia** Service ...

apparatus and methods for group **wireless transmit/receive uni**...
www.freepatentsonline.com/y2012/0302240.html
Nov 29, 2012 - A method of handing over a **wireless transmit/receive unit** (**WTRU**) from an ..... a frequency modulated (FM) radio **unit**, a digital music player, a **media** .... including, for example, **sending** an SN status **transfer message** 240 to the ..... group of **WTRUs** is **accepted** wholly and/or an indication of partial success ...

method and apparatus for coexistence among **wireless transmit** ...
www.freepatentsonline.com/y2013/0201884.html
Aug 8, 2013 - A **WTRU** includes a memory, a **receive unit**, a **transmit unit** and a contr. ... load (e.g., based on a predicted consumer **acceptance** of the technology). ..... nodes may **detect** the available channel and start **transmitting** packets. .... The eNB/ HeNB may **send** a **message** changing the coexistence gap to the other ...

Method And Apparatus For Coexistence Among **Wireless Transmi**...
www.freshpatents.com/-dt20130808ptan20130201884.php
Aug 8, 2013 - A **WTRU** includes a memory, a **receive unit**, a **transmit unit** and a ... (e.g., based on a predicted consumer **acceptance** of the technology). .... data, video, **messaging**, broadcast, etc., to multiple **wireless** users. ..... in an embodiment, this may be part of the capability **transfer** of the **WTRU** 502 or may be **sent** via ...

Patent US7599515 - **Wireless** communication method and ... - Google
www.google.ca/patents/US7599515
The **WTRU** includes a content generation **unit**, a watermark incorporation **unit**, and ... content based on a **wireless transfer** mode which is applied for **wireless** transmission of the content. ... A **wireless transmit/receive unit** (**WTRU**)

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comprising: ... content generation **unit** comprises a user interface and a **multimedia** subsystem.

Patente WO2009052494A2 - **Wireless transmit/receive unit** ...
www.google.com.br/patents/WO2009052494A2?cl=en
A **wireless transmit/receive unit (WTRU)**, the **WTRU** comprising, a plurality of hardware ... voice calls, but **multimedia messaging**, and broadband **wireless** data , all in a mobile environment. .... Data is **sent** to the Tx Chip HW module 325 via the SMA 320. ... The ICS procedure includes **detecting** the strongest cell when no cell ...

Патент US7944884 - Voice and data communication services using ...
www.google.ru/patents/US7944884
receiving capability information from a **wireless transmit/receive unit (WTRU)** that indicates ... a transmitter configured to **send** an assignment **message** to the **WTRU** in response to ... The BS typically employs interference cancellation or joint **detection** type of ... The latter case specifically addresses dual **transfer** mode (DTM).

[PDF] Apparatus and methods for group **wireless transmit/receiv**...
patentimages.storage.googleapis.com/pdfs/US20120302240.pdf
by CR Cave - 2012
Nov 29, 2012 - **transmit/receive units (WTRUs)** Within a **Wireless** netWork ..... set, a **Bluetooth®** moduie, a frequency modulated (FM) radio **unit**, a digital music player, a **media** player, a video game .... handover of the **WTRU** 202 by **transferring** information ... **transfer message** 240 to the target eNB 206 and data forWard.

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BIB DATA SHEET

CONFIRMATION NO. 1304

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/930,743	06/28/2013 **RULE**	455	2645	IPH-2-2235US04

APPLICANTS
InterDigital Patent Holdings, Inc., Wilmington, DE, Assignee (with 37 CFR 1.172 Interest);

INVENTORS
Alan G. Carlton, Mineola, NY;
Alexander Reznik, Titusville, NJ;

**** CONTINUING DATA ***************************
This application is a CON of 13/493,650 06/11/2012 PAT 8478207
which is a CON of 12/644,948 12/22/2009 PAT 8200265
which claims benefit of 61/140,126 12/23/2008

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
07/24/2013

Foreign Priority claimed	☐ Yes ☑ No		STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119(a-d) conditions met	☐ Yes ☑ No	☑ Met after Allowance				
Verified and Acknowledged	/DIANE D MIZRAHI/ Examiner's Signature	/dm/ Initials	NY	9	20	3

ADDRESS
VOLPE AND KOENIG, P.C.
DEPT. ICC
UNITED PLAZA
30 SOUTH 17TH STREET
PHILADELPHIA, PA 19103
UNITED STATES

TITLE
DATA TRANSFER BETWEEN WIRELESS DEVICES

FILING FEE RECEIVED		
3660	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

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Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
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P.O. Box 1450
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or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

24374 7590 01/13/2014
VOLPE AND KOENIG, P.C.
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UNITED PLAZA
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(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04	1304

TITLE OF INVENTION: DATA TRANSFER BETWEEN WIRELESS DEVICES

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$960	$0	$0	$960	04/14/2014

EXAMINER	ART UNIT	CLASS-SUBCLASS
MIZRAHI, DIANE D	2645	455-073000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
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- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
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1 Volpe and Koenig, P.C.
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: InterDigital Patent Holdings, Inc.
(B) RESIDENCE: (CITY and STATE OR COUNTRY): Wilmington, DE

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☑ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:
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- ☐ Applicant changing to regular undiscounted fee status. — NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Harry Vartanian/ Date April 11, 2014
Typed or printed name Harry Vartanian Registration No. 56,787

Electronic Patent Application Fee Transmittal

Application Number:	13930743
Filing Date:	28-Jun-2013
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Filer:	Harry Vartanian/Elizabeth McGinty
Attorney Docket Number:	IPH-2-2235US04

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl Issue Fee	1501	1	960	960
Publ. Fee- Early, Voluntary, or Normal	1504	1	0	0

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**960**

Electronic Acknowledgement Receipt

EFS ID:	18743068
Application Number:	13930743
International Application Number:	
Confirmation Number:	1304
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Customer Number:	24374
Filer:	Harry Vartanian/Elizabeth McGinty
Filer Authorized By:	Harry Vartanian
Attorney Docket Number:	IPH-2-2235US04
Receipt Date:	11-APR-2014
Filing Date:	28-JUN-2013
Time Stamp:	16:41:58
Application Type:	Utility under 35 USC 111(a)

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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	IPH-2-2235US04_IssueFeePayment.PDF	320570 1e6e3ddb989f64d937365342ac9dd8b248a513b2	no	1
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/930,743	06/28/2013	Alan G. Carlton	IPH-2-2235US04	1304

7590 05/05/2014
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EXAMINER
MIZRAHI, DIANE D

ART UNIT	PAPER NUMBER
2645	

NOTIFICATION DATE	DELIVERY MODE
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Letter Withdrawing a Notice Requiring Inventor's Oath or Declaration

The Notice Requiring Inventor's Oath or Declaration mailed on 1/13/14 was sent in error, and is hereby withdrawn. The time period set forth in the Notice of Allowance and Fee(s) Due to file a reply and pay the required fees continues to run from the mailing date of the Notice of Allowance and Fee(s) Due. Any time period set forth in the Notice of Allowability continues to run from the mailing date of the Notice of Allowability.

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/930,743	05/27/2014	8737933	IPH-2-2235US04	1304

24374 7590 05/07/2014
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ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

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APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

InterDigital Patent Holdings, Inc., Wilmington, DE, Assignee (with 37 CFR 1.172 Interest);
Alan G. Carlton, Mineola, NY;
Alexander Reznik, Titusville, NJ;

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT** of:	
Carlton et al.	
Patent No.: 8,737,933	Our File: IPH-2-2235US04
Issued: May 27, 2014	Date: September 30, 2016
Appln. No.: 13/930,743	
Filed: June 28, 2013	
For: DATA TRANSFER BETWEEN WIRELESS DEVICES	

REQUEST FOR CERTIFICATE OF CORRECTION

Commissioner for Patents
P.O. Box 1450
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A Certificate of Correction under 35 U.S.C. § 255 and 37 C.F.R. § 1.323 is requested for U.S. Patent No. 8,737,933. Correction of the following typographical errors is requested.

4381425-1

IN THE CLAIMS

In claim 21, at column 11, line 63, after the word "claim", delete "1" and insert therefor --20--.

In claim 43, at column 13, line 15, after the word "claim", delete "23" and insert therefor --42--.

REMARKS

Patentee believes that the above errors are of such a nature as to justify the issuance of a Certificate of Correction. Patentee has enclosed a completed Certificate of Correction Form PTO/SB/44.

Since at least one of the errors was caused by Patentees, please charge the surcharge fee pursuant to C.F.R. §1.20(a) of $100.00 to the credit card identified at the time of filing.

Patentee respectfully requests that the Certificate of Correction be issued.

Respectfully submitted,

InterDigital Patent Holdings, Inc.

By /Harry Vartanian/
Harry Vartanian
Registration No. 56,787
(215) 568-6400

Volpe and Koenig, P.C.
United Plaza
30 South 17th Street
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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 8,737,933

APPLICATION NO.: 13/930,743

ISSUE DATE : May 27, 2014

INVENTOR(S) : Carlton et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

IN THE CLAIMS

In claim 21, at column 11, line 63, after the word "claim", delete "1" and insert therefor --20--.

In claim 43, at column 13, line 15, after the word "claim", delete "23" and insert therefor --42--.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

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Philadelphia, PA 19103

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Electronic Patent Application Fee Transmittal

Application Number:	13930743
Filing Date:	28-Jun-2013
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Filer:	Harry Vartanian/Elizabeth McGinty
Attorney Docket Number:	IPH-2-2235US04

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Certificate of correction	1811	1	100	100

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**100**

Electronic Acknowledgement Receipt

EFS ID:	27085309
Application Number:	13930743
International Application Number:	
Confirmation Number:	1304
Title of Invention:	DATA TRANSFER BETWEEN WIRELESS DEVICES
First Named Inventor/Applicant Name:	Alan G. Carlton
Customer Number:	24374
Filer:	Harry Vartanian/Elizabeth McGinty
Filer Authorized By:	Harry Vartanian
Attorney Docket Number:	IPH-2-2235US04
Receipt Date:	30-SEP-2016
Filing Date:	28-JUN-2013
Time Stamp:	14:42:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$100
RAM confirmation Number	100316INTEFSW14452500
Deposit Account	220493
Authorized User	Elizabeth McGinty

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37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Certificate of Correction	IPH-2-2235US04-Request_for_Certificate_of_Correction-20160930.PDF	73881 4c550473ff216e5f1ba9f4981789ad81415e838a	no	3
Warnings:					
Information:					
2	Request for Certificate of Correction	IPH-2-2235US04-Request_for_Certificate_of_Correction_SB44-20160930.PDF	164677 9788bb1210c6e734c19bd4cbc8011f31100b10f1	no	2
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30475 1d205a9064f8b57992f72b31daba1fcd70d6df08	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	269033		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 8,737,933 B2
APPLICATION NO. : 13/930743
DATED : May 27, 2014
INVENTOR(S) : Carlton et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In the Claims

In Claim 21, at Column 11, Line 63, after the word "claim", delete "1" and insert therefor --20--.

In Claim 43, at Column 13, Line 15, after the word "claim", delete "23" and insert therefor --42--.

Signed and Sealed this
Twenty-first Day of March, 2017

Michelle K. Lee

Michelle K. Lee
Director of the United States Patent and Trademark Office