

Petitioner's Demonstratives

Google LLC
v.
DH International LTD.

IPR2024-01322
U.S. Patent No. 9,022,294

December 18, 2025

Overview – '294 Patent

US009022294B2

(12) **United States Patent**
Gaillard

(10) **Patent No.:** **US 9,022,294 B2**
(45) **Date of Patent:** **May 5, 2015**

(54) **PORTABLE ELECTRONIC DEVICE AND METHOD FOR ALTERNATE DATA CONVEYANCE OPERATIONS RESPONSIVE TO AN INVARIABLE ACTIVATION COMMAND**

(75) Inventor: **Joel Gaillard, Nassau (BS)**

(73) Assignee: **G. Holdings Ltd., Nassau NP (BS)**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 768 days.

(21) Appl. No.: **12/603,085**

(22) Filed: **Oct. 21, 2009**

(65) **Prior Publication Data**
US 2010/0038436 A1 Feb. 18, 2010

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/552,912, filed as application No. PCT/IB03/01523 on Apr. 14, 2003, now Pat. No. 7,628,333.

(51) **Int. Cl.**
H04M 1/00 (2006.01)
G06K 19/073 (2006.01)
G06K 17/00 (2006.01)
G06K 19/07 (2006.01)
G06K 19/077 (2006.01)

(52) **U.S. Cl.**
CPC **G06K 19/07345** (2013.01); **G06K 17/0022** (2013.01); **G06K 19/0723** (2013.01); **G06K 19/07354** (2013.01); **G06K 19/07703** (2013.01); **G06K 19/07769** (2013.01)

(58) **Field of Classification Search**
USPC 235/492, 487; 455/550.1, 557
See application file for complete search history.

(56) **References Cited**

4,746,787 A
4,800,255 A
(Continued)

FOREIGN PATENT DOCUMENTS

DE 4203748 8/1993
DE 4205556 8/1993
(Continued)

Primary Examiner — Daniel Hess
(74) *Attorney, Agent, or Firm — Fraser Clemens Martin & Miller LLC; James D. Miller*

(57) **ABSTRACT**
The portable electronic device includes an electronic circuit, a control device operatively linked to the electronic circuit, first and second data transceivers operatively linked to the electronic circuit, a cue receiver operatively linked to the electronic circuit, a data conveyance switching element operatively linked to the electronic circuit and capable of being in either one of a first and a second state, and power means for providing power to the portable electronic device. The method of data conveyance includes awaiting for an activation cue to be received at the cue receiver; if an activation cue is received at the cue receiver, assigning its first state to the switching element, while if no activation cue is received at the cue receiver, assigning its second state to the switching element; and selectively triggering the control device to issue an invariable activation command. Upon the control device being triggered, if the switching element is in its first state, first data will be forwarded to the first data transceiver for initiating a data exchange operation with a first external data exchange device; while if the switching element is in its second state, second data will be forwarded to the second data transceiver for initiating a data exchange operation with a second external data exchange device.

20 Claims, 4 Drawing Sheets

Ex. 1001, Cover

PORTABLE ELECTRONIC DEVICE AND METHOD FOR ALTERNATE DATA CONVEYANCE OPERATIONS RESPONSIVE TO AN INVARIABLE ACTIVATION COMMAND

Earliest priority claim: April 14, 2003
20 Claims
(1, 10-12, and 19 independent)

Ex. 1001, Cover, 18:63-23:23.

Grounds of Obviousness – All Claims Challenged

Ground	Claims Challenged	Basis	References
1	1-20	103	<i>Mooney</i> (U.S. 6,941,156)
2	1-20	103	<i>Mooney and Lee</i> (U.S. 6,909,705)

Representative Independent Claim 1	Shorthand
A cellular phone, comprising:	[1.pre] Cell Phone
an electronic circuit capable of storing data therein, capable of processing data, and capable of data input and output;	[1.a] Electronic circuit
a user-triggered control device operatively linked to said electronic circuit, said user-triggered control device configured to be operated by a user via one of a button, a keypad, a tactile screen, and a biometric parameter detector, and after being operated issue an invariable activation command, with said invariable activation command being issued when said control device is selectively triggered by the user;	[1.b] Control device
a first data transceiver operatively linked to said electronic circuit, said first data transceiver being for exchanging data between said electronic circuit and a first external data exchange device over a first communication link;	[1.c] First transceiver
a second data transceiver operatively linked to said electronic circuit, said second data transceiver being for exchanging data between said electronic circuit and a second external data exchange device over a second communication link that is distinct from said first communication link;	[1.d] Second transceiver
a cue receiver operatively linked to said electronic circuit for receiving an activation cue from a source external to said cellular phone;	[1.e] Cue receiver
a data conveyance switching element operatively linked to said electronic circuit, said switching element being assigned a first state upon an activation cue having been received by said cue receiver, and being assigned a second state when no activation cue was received by said cue receiver; and	[1.f] Data conveyance switching element
power means for providing power to said portable electronic device cellular phone;	[1.g] Power means
wherein upon said control device being selectively triggered by the user to issue said invariable activation command: if said switching element is in said first state, a first data conveyance operation will be initiated through the instrumentality of said first data transceiver for sending data from said electronic circuit to the first external data exchange device over said first communication link; and	[1.h] First state
if said switching element is in said second state, a second data conveyance operation will be initiated through the instrumentality of said second data transceiver for sending data from said electronic circuit to the second external data exchange device over said second communication link.	[1.i] Second state

Overview of Claim 1

Claim 1

[1.pre] Cell Phone

[1.a] Electronic circuit

[1.b] Control device

[1.c] First transceiver

[1.d] Second transceiver

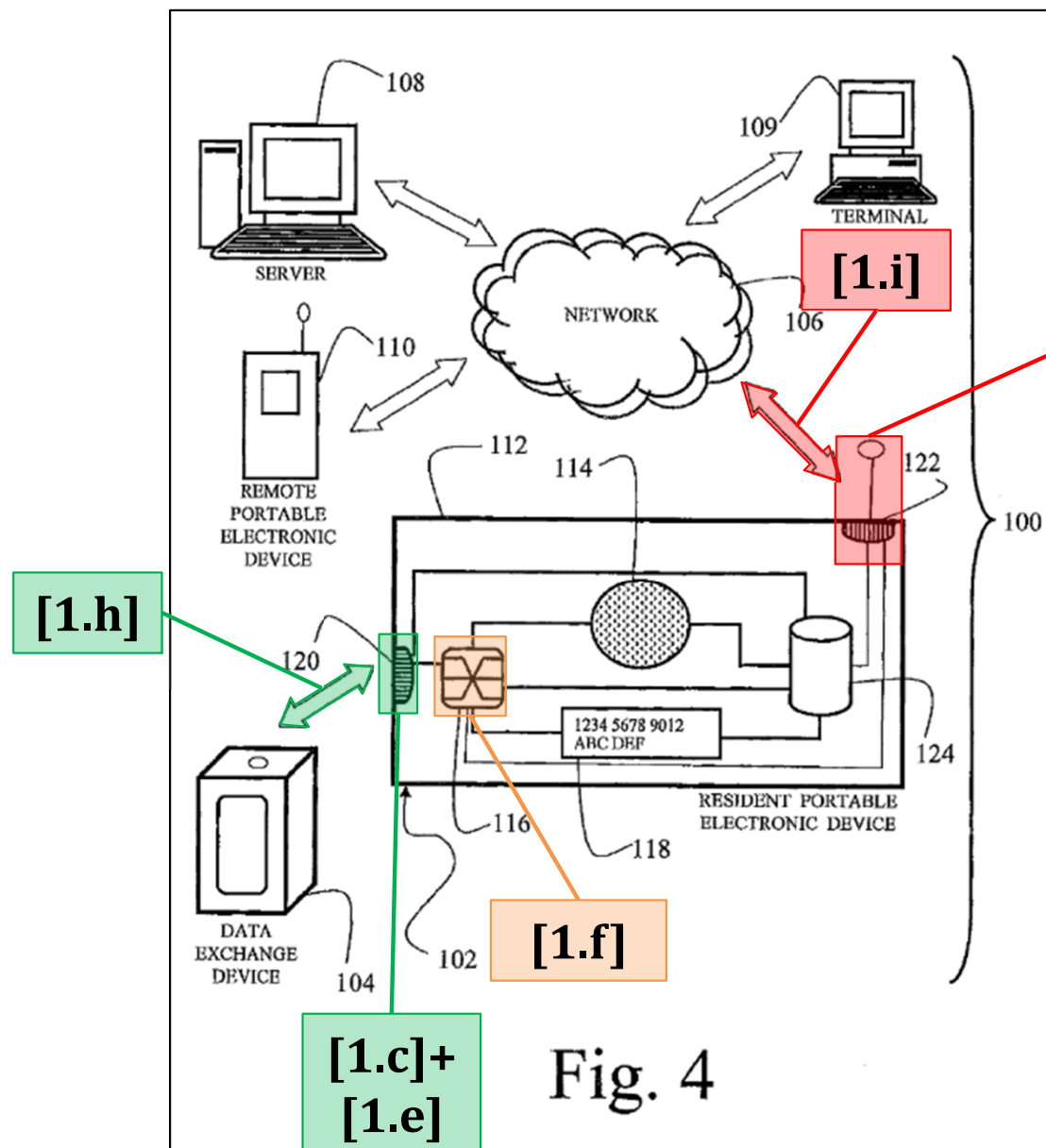
[1.e] Cue receiver

[1.f] Data conveyance
switching element

[1.g] Power means

[1.h] First state

[1.i] Second state



Pet., 2-5; Ex. 1001, 1:16-18, 13:26-60, 14:53-59, Fig. 4.

Summary of *Mooney*

Claim 1

[1.pre] Cell Phone

[1.a] Electronic circuit

[1.b] Control device

[1.c] First transceiver

[1.d] Second transceiver

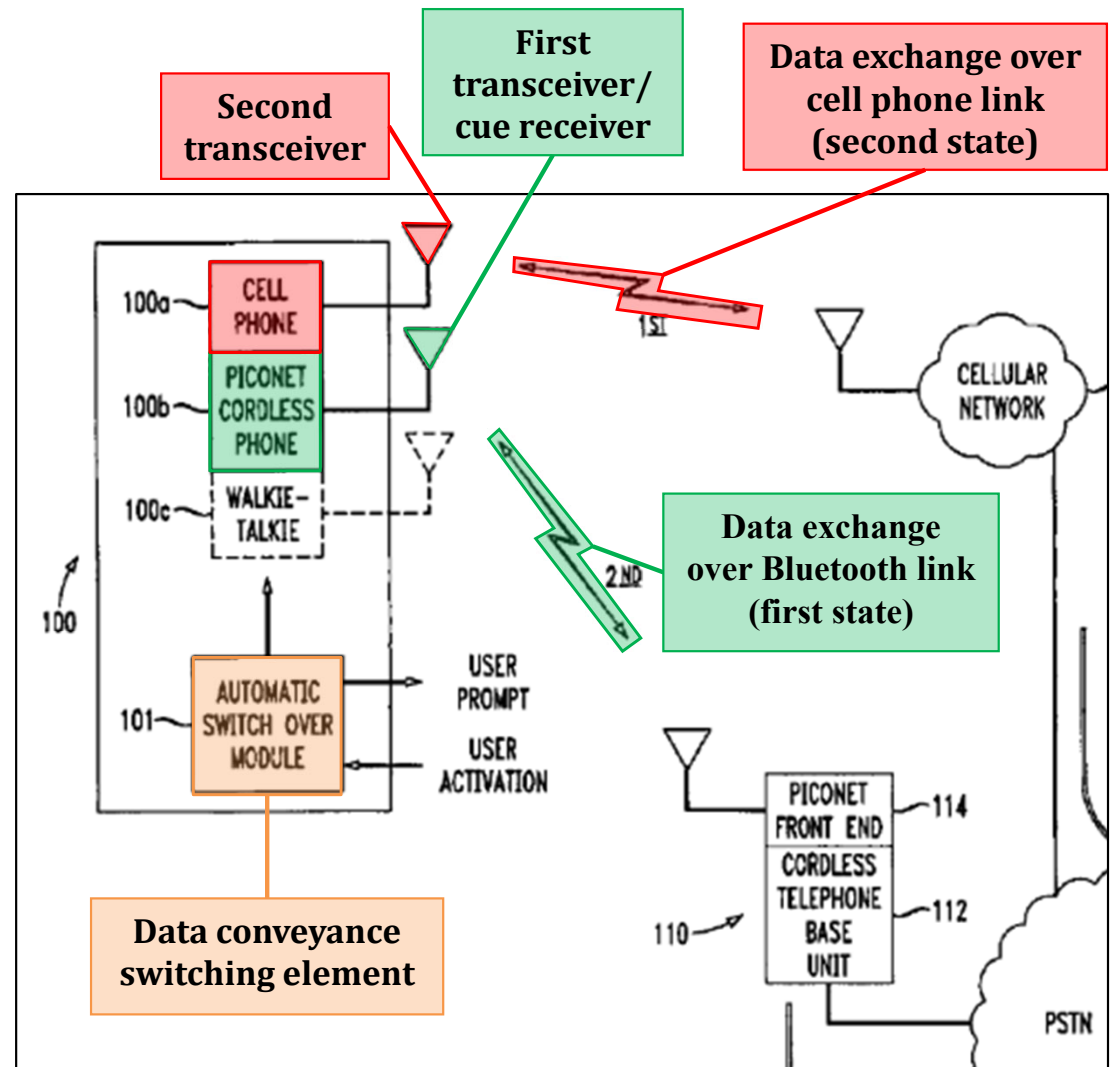
[1.e] Cue receiver

[1.f] Data conveyance
switching element

[1.g] Power means

[1.h] First state

[1.i] Second state



Mooney, Fig. 4 (excerpted and annotated).

Pet., 8-13; *Mooney*, 1:31-34, 1:56-61, 3:52-63, 4:28-37, 5:7-15, 6:14-25, 6:45-51, Fig. 1.

Claim Construction

Activation Cue [1.e] – Patent Owner Reads Limitations into the Claim

Petitioner	Patent Owner
“data communication of a specific type that will be recognized by the cellular phone as an activation cue received from a source external to the cellular phone” (Pet. Reply, 3-4)	“ predetermined indicator , such as ‘a predetermined bit sequence’ ... that is ‘recognized by the electronic device as an activation cue’ ” (POR, 5-6)

'294 Patent

Transceiver 18 is also a cue receiver, whereby an activation cue can be received by electronic device 10 from data exchange device transceiver 9a. This activation cue is in the form of a data communication of a specific type which will be recognized by electronic device 10 as an activation cue, for example a predetermined bit sequence.

EX. 1001, 9:22-27

Pet. Reply, 2, 7-23; DI, 12-14; POR, 16-37; POPR, 9-10; Pet. Prelim. Reply, 1-2.

Data Conveyance Switching Element [1.f] – Requires Switching Between Conveyance States Not “Switching Data”

Petitioner	Patent Owner
Corresponding structure: physical structure, a virtual program, or both Corresponding function: switching between inactive and activated states based on the receipt of an activation cue (Pet., 6; Pet. Reply, 4-5)	“plain meaning, which is the switching of the data.” (POR, 7)

'294 Patent

Switching element **44b** can be any type of device allowing data to be conveyed according to alternate data conveyance operations in response to an activation cue being received by transceiver 18 or not, as described hereinafter. According to

EX. 1001, 9:28-31

*Requires switching
between data conveyance
operations (states)*

Pet., 6; POR, 7; Pet. Reply, 5-56; DI, 14-16; POPR, 10-11; Pet. Prelim. Reply, 2-4.

[External] Data Exchange Device [1.h] – No True Dispute Between Parties

Petitioner	Patent Owner
Corresponding structure: data transceiver coupled to a circuit	Plain and ordinary meaning
Corresponding function: exchanging data (Pet., 7-8; Pet. Reply, 5)	“An external data exchange device not a transceiver but a device with a transceiver” (POR, 7-8)

Ground 1 – Disputed Limitations

***Mooney* Renders Obvious Representative Claim 1**

Disputed Limitations – Representative Claim 1

Claim 1	Disputed?
[1.pre] Cell phone	NO
[1.a] Electronic circuit	YES
[1.b] Control device	NO
[1.c] First transceiver	NO
[1.d] Second transceiver	NO
[1.e] Cue receiver	YES
[1.f] Data conveyance switching element	YES
[1.g] Power means	NO
[1.h] First state	YES
[1.i] Second state	NO

Pet., 15-47; POR, 16-37; Pet. Reply, 2, 7-23; Sur-Reply, 2-7.

Mooney Discloses [1.a]

*"an **electronic circuit capable of storing data** therein, capable of processing data, and capable of data input and output;"*

Mooney

another similarly capable handset. This provides a cell phone that has advantages over competitors' cell phones which are not similarly capable, including the ability and convenience of storing all phone book data, calling history and user preferences.

Mooney, 1:18-22

In particular, as shown in FIG. 1, a multimode cell phone **100** includes multiple functional modes, e.g., a cell phone mode **100a**, a piconet cordless telephone **100b**, and a walkie-talkie mode **100c**.

Mooney, 3:52-63

In step **404**, the need to initiate, establish and switch over to another mode (e.g., to a cellular phone call) is determined, either automatically or manually, by an appropriate processor in the multimode cell phone **100**.

Mooney, 7:9-12

Capable of storing and processing data

Capable of data input and output

In the claim, data stored, data processed, and data input and output need not all be the same data.

Pet. 16-18; Pet. Reply, 9-11.

Mooney Discloses [1.e]

*"a **cue receiver** operatively linked to said electronic circuit for receiving an **activation cue** from a source external to said cellular phone;"*

Mooney

A person on their way home is talking to a co-worker on their multimode cell phone **100** (in cell phone mode). That person then arrives home and sits down near their cordless base station **110**. Preferably, the multimode cell phone **100** maintains a configuration such that when a cordless telephone link (e.g., a piconet **BLUETOOTH™** link of good quality) has been established with the cordless base for a given length of time (e.g., for at least two minutes), then the multimode cell phone handset **100** will allow switch over to the cordless telephone call and ultimately drop or terminate the original cell phone call.

Mooney, 6:14-25

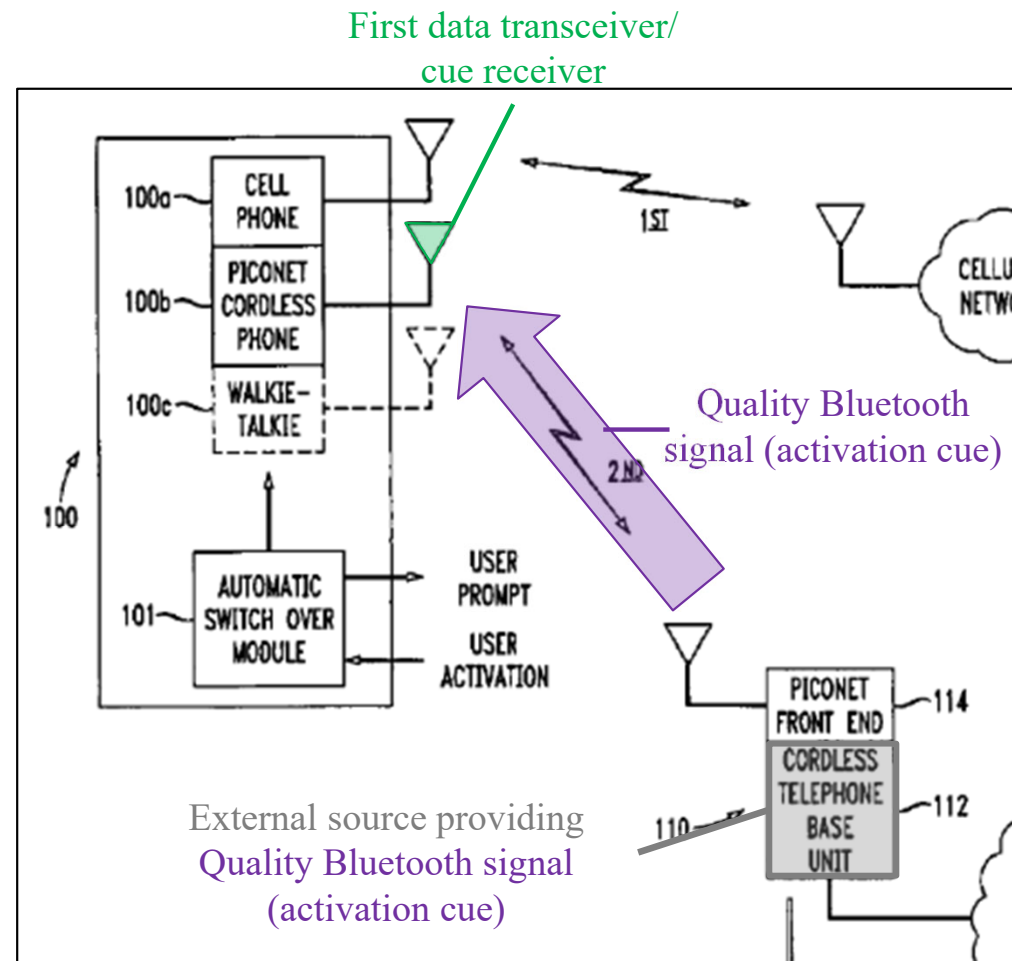
'294 Patent

Transceiver **18** is also a cue receiver, whereby an activation cue can be received by electronic device **10** from data exchange device transceiver **9a**. This activation cue is in the form of a data communication of a specific type which will be recognized by electronic device **10** as an activation cue, for example a predetermined bit sequence.

Ex. 1001, 9:22-27

3. A cellular phone as defined in claim 1, wherein said first data transceiver includes said cue receiver.

Ex. 1001, claim 3



Mooney, Fig. 1 (excerpted, annotated)

Pet., 26-28; Pet. Reply, 11-19.

[1.e] – Mooney’s Quality Bluetooth Signal Is Recognized as an Activation Cue

Petitioner	Patent Owner
“data communication of a specific type that will be recognized by the cellular phone as an activation cue received from a source external to the cellular phone” (Pet. Reply, 3-4)	“predetermined indicator, such as ‘a predetermined bit sequence’ ... that is ‘recognized by the electronic device as an activation cue’” (POR, 5-6)

Mooney

A person on their way home is talking to a co-worker on their multimode cell phone **100** (in cell phone mode). That person then arrives home and sits down near their cordless base station **110**. Preferably, the multimode cell phone **100** maintains a configuration such that when a cordless telephone link (e.g., a piconet BLUETOOTH™ link of good quality) has been established with the cordless base for a given length of time (e.g., for at least two minutes), then the multimode cell phone handset **100** will allow switch over to the cordless telephone call and ultimately drop or terminate the original cell phone call.

Mooney, 6:14-25

In step **404**, the need to initiate, establish and switch over to another mode (e.g., to a cellular phone call) is determined, either automatically or manually, by an appropriate processor in the multimode cell phone **100**.

Mooney, 7:9-12

Recognizing that the quality Bluetooth signal is an indication to switch

Switch is then made automatically

[1.e] – Patent Owner’s Response Is Wrong—A Bluetooth “Link” Is Not A Phone Call

Mooney

Link



A person on their way home is talking to a co-worker on their multimode cell phone **100** (in cell phone mode). That person then arrives home and sits down near their cordless base station **110**. Preferably, the multimode cell phone **100** maintains a configuration such that when a cordless telephone link (e.g., a piconet BLUETOOTH™ link of good quality) has been established with the cordless base for a given length of time (e.g., for at least two minutes), then the multimode cell phone handset **100** will allow switch over to the cordless telephone call and ultimately drop or terminate the original cell phone call.

Call



Mooney, 6:14-25

Link



Similar to the above examples, the multimode cell phone **100** may switch from cordless mode to cell phone mode when the user wishes to leave the proximity of the cordless telephone base unit **110**. For instance, manual activation of a suitable button, or automatic detection of the quality of the RF link (e.g., the BLUETOOTH™ piconet link) below a preset level may initiate this feature.

Mooney, 6:45-51

Mooney Discloses [1.f]

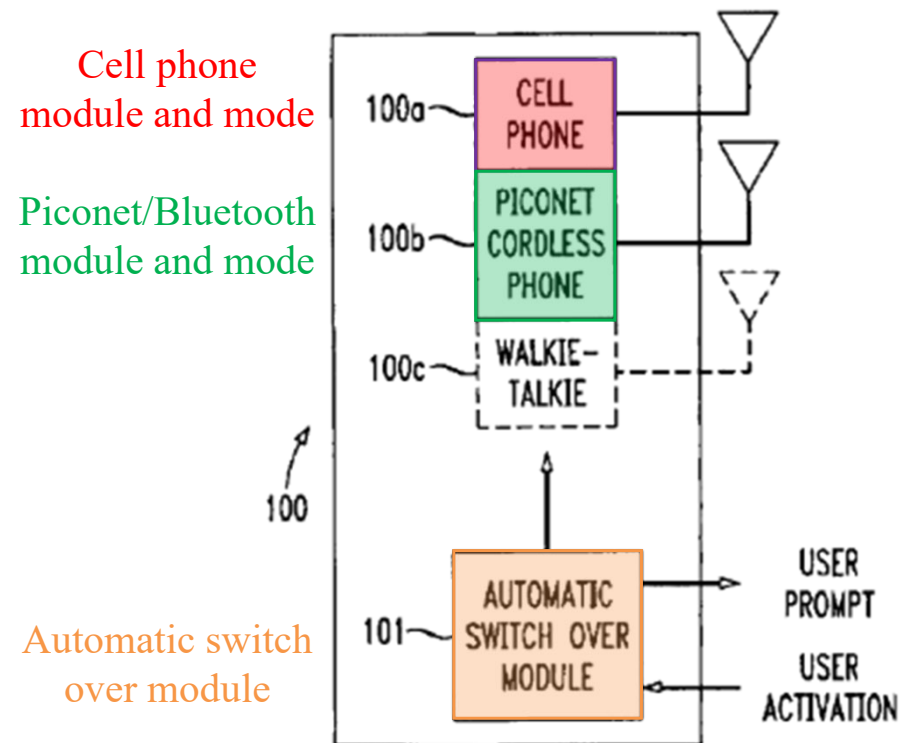
"a **data conveyance switching element** operatively linked to said electronic circuit, said switching element being assigned a **first state** upon an **activation cue** having been received by said cue receiver, and being assigned a **second state** when no **activation cue** was received ..."

Mooney

In particular, as shown in FIG. 1, a multimode cell phone **100** includes multiple functional modes, e.g., a cell phone mode **100a**, a piconet cordless telephone **100b**, and a walkie-talkie mode **100c**.

Importantly, an **automatic switch over module 101** is in communication with each communication path functionality, e.g., with the **cell phone functionality 100a**, the **piconet cordless telephone functionality 100b**, and the walkie-talkie functionality **100c**. The desired mode of the multimode cell phone **100** may be controlled through suitable communications with each communication path functionality **100a-100c**.

Mooney, 3:52-6.



Mooney, Fig. 1 (excerpted, annotated).

Mooney Discloses [1.f]

"a **data conveyance switching element** operatively linked to said electronic circuit, said switching element being assigned a **first state** upon an **activation cue** having been received by said cue receiver, and being assigned a **second state** when no **activation cue** was received ..."

Mooney

The converse of the example of FIGS. 1 and 2 is also possible. For instance, the multimode cell phone 150 may move **from a cell phone call** to **a cordless telephone call**, e.g., once the multimode cell phone 100 becomes within range of its matching base unit 110. In this case, the multimode cell phone 100 automatically establishes a wireless connection with the cordless telephone base station 110 using, e.g., a wireless piconet protocol conforming to the BLUETOOTH™ standard. Using the wireless cordless telephone communication path established between the multimode cell phone 150 and its base unit 110, a suitable telephone number relating to the far end party may be determined and passed to the cordless telephone functionality of the multimode cell phone 100.

Mooney, 5:7-20

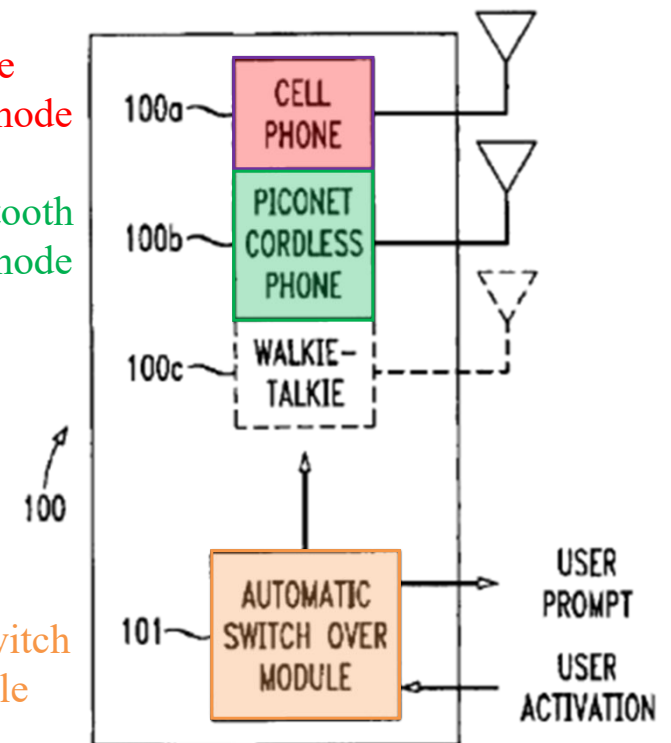
A person on their way home is talking to a co-worker on their multimode cell phone 100 (in cell phone mode). That person then arrives home and sits down near their cordless base station 110. Preferably, the multimode cell phone 100 maintains a configuration such that when a cordless telephone link (e.g., a piconet BLUETOOTH™ link of good quality) has been established with the cordless base for a given length of time (e.g., for at least two minutes), then the **multimode cell phone handset 100 will allow switch over to the cordless telephone call and ultimately drop or terminate the original cell phone call.**

Mooney, 6:14-25

Cell phone
module and mode

Piconet/Bluetooth
module and mode

Automatic switch
over module



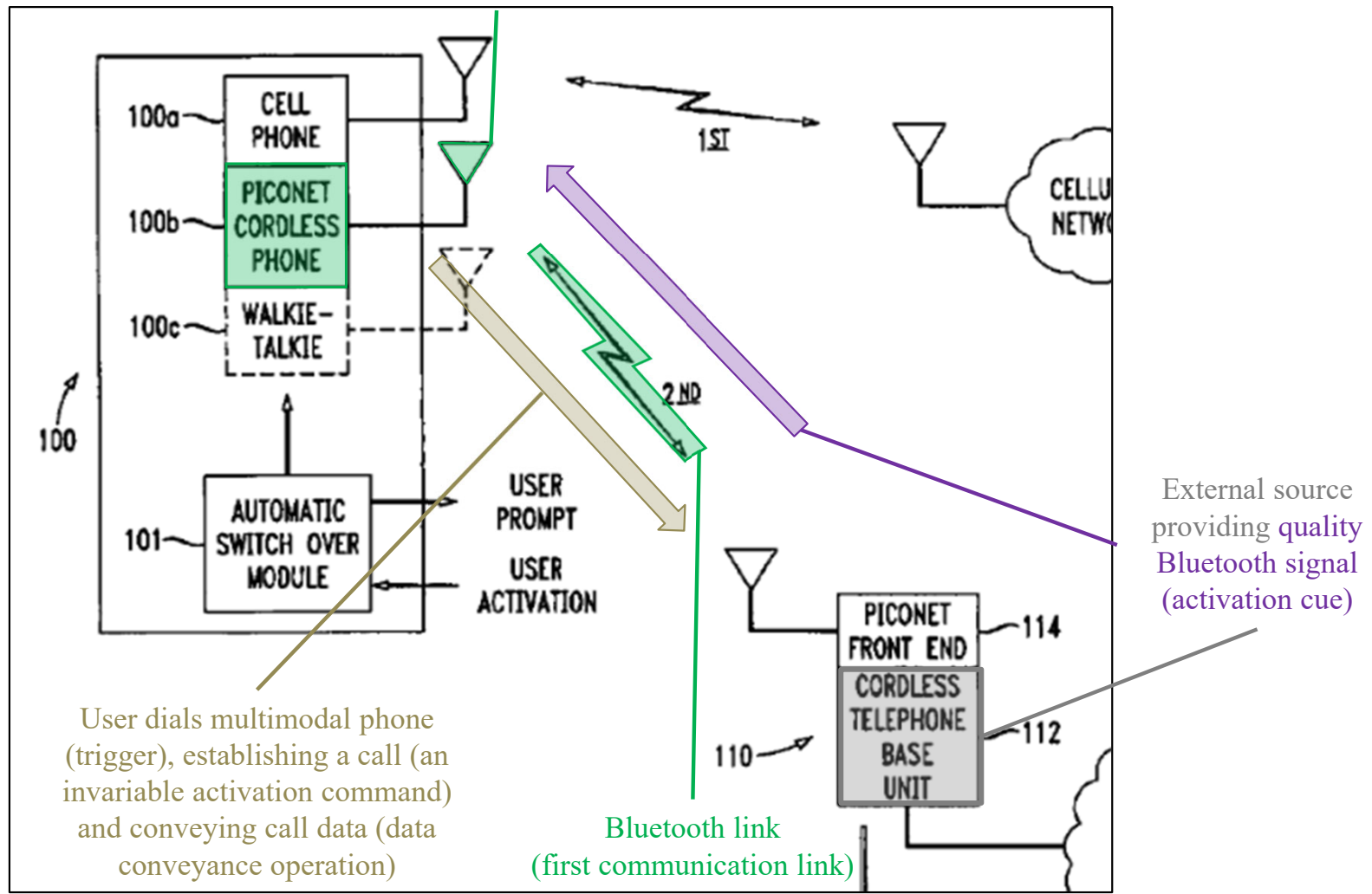
Mooney, Fig. 1 (excerpted, annotated).

Pet., 28-34; Pet. Reply, 19-21.

Mooney Alone Renders Obvious [1.h]

"wherein upon said control device being selectively triggered by the user to issue said invariable activation command: if said switching element is in said first state, a first data conveyance operation will be initiated through the instrumentality of said first data transceiver..."

First data transceiver/
cue receiver in first state



Mooney, Fig. 1 (excerpted, annotated)

Pet., 36-42; Pet. Reply, 21-22.

[1.h] – Patent Owner Misunderstands Petitioner’s Mapping for “Invariable Activation Command”

Petitioner’s Reply

What Petitioner did not argue—and what Patent Owner incorrectly suggests—is that simply connecting to the base unit or dialing numbers somehow triggers the state change or the activation cue itself. POR, 36.

As explained for *undisputed* claim element [1.b], and reiterated in [1.h], calls are “initiated” or “established” (an invariable activation command) by a user operating *Mooney’s* multimode cell phone when the user dials a telephone number on a keypad thereof (a user-triggered control device is operated by a user to issue the command). Pet., 19-20, 38-39. Thus, contrary to Patent Owner’s characterization of the Petition, dialing the phone number corresponds to the claimed “trigger[.],” and the call that ensues corresponds to the claimed “invariable action command.” *Id.*

Pet. Reply, 22

Pet., 36-42; Pet. Reply, 21-22; POR, 35-38; PO Sur-Reply, 5-6.

[1.h] – *Mooney* Discloses Switching States Before Conveying Data Over Appropriate Network

Mooney

A person on their way home is talking to a co-worker on their multimode cell phone **100** (in cell phone mode). That person then arrives home and sits down near their cordless base station **110**. Preferably, the multimode cell phone **100** maintains a configuration such that when a cordless telephone link (e.g., a piconet BLUETOOTH™ link of good quality) has been established with the cordless base for a given length of time (e.g., for at least two minutes), then the multimode cell phone handset **100** will allow switch over to the cordless telephone call and ultimately drop or terminate the original cell phone call.

Mooney, 6:14-25

Mooney

In accordance with the principles of the present invention, a multimode cell phone comprises a cell phone functionality, and an RF communication functionality separate from the cell phone functionality. An automatic switch over module is in communication with both the cell phone functionality and the RF communication functionality. The automatic switch over module operates to switch a communication path established on either the cell phone functionality or the RF communication functionality, with another communication path established on the other of the cell phone functionality and the RF communication functionality.

Mooney, 1:56-61

Ground 2 – Disputed Limitation *Mooney and Lee* Render Obvious [1.h]

Summary of *Lee*

Claim 1

[1.pre] Cell Phone

[1.a] Electronic circuit

[1.b] Control device

[1.c] First transceiver

[1.d] Second transceiver

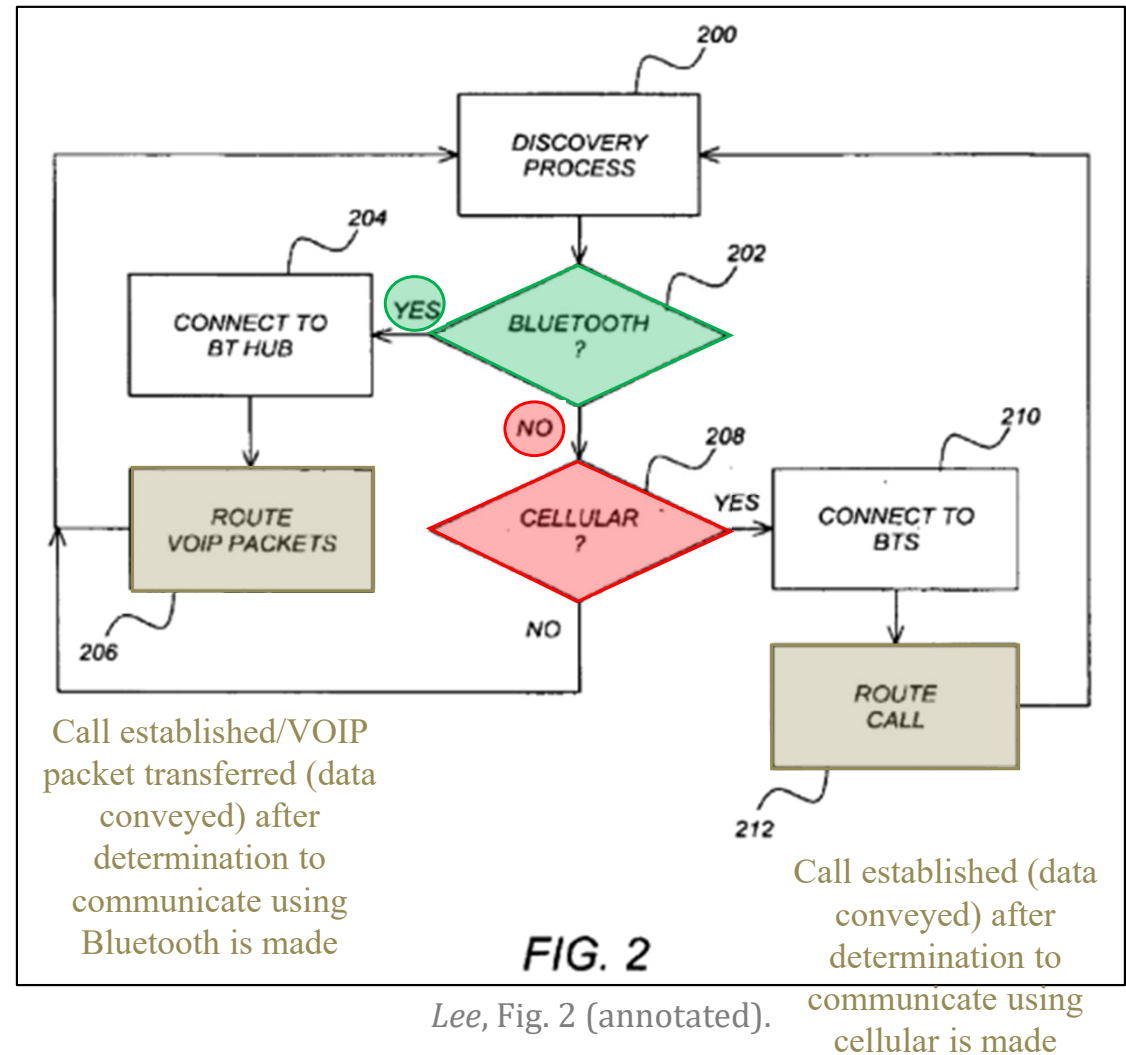
[1.e] Cue receiver

[1.f] Data conveyance
switching element

[1.g] Power means

[1.h] First state

[1.i] Second state



Lee, Fig. 2 (annotated).

Mooney Modified by Lee Renders Obvious [1.h]

If *Mooney* does not suggest switching states before initiating a call, *Lee* does by disclosing a preliminary “discovery process” that would have been obvious to implement in *Mooney*.

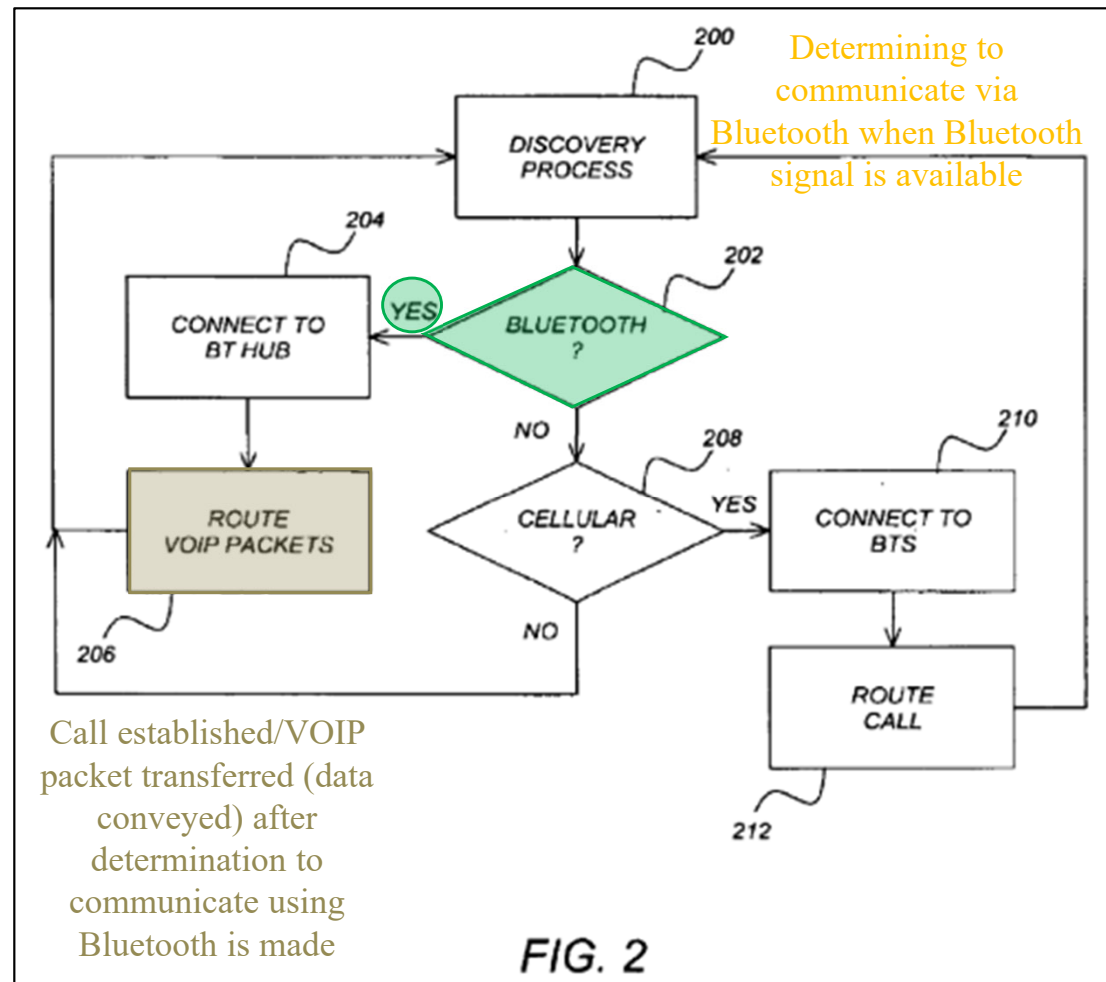
Lee

FIG. 2 is a flowchart that illustrates the logic performed during handoffs of dual-enabled BTEDs 120A according to the preferred embodiment of the present invention.

Block 200 represents a dual-enabled BTED 120A performing a discovery and/or registration process. Generally, the BTED 120A conducts a discovery process at regular intervals to identify the closest BT Hub 118 or BTS 106. Usually, the closest BT Hub 118 or BTS 106 is identified by signal strength, but it can be identified by other methods as well.

Block 202 is a decision block that determines whether the dual-enabled BTED 120A has identified a BT Hub 118 for use in communications, as well as discovery and registration. If so, control transfers to Blocks 204 and 206; otherwise, control transfers to Block 208. As noted, the dual-enabled BTED 120A first tries to connect to the Bluetooth network 116, before trying to connect to the cellular network 100.

Lee, 4:56-5:6



Lee, Fig. 2 (annotated).

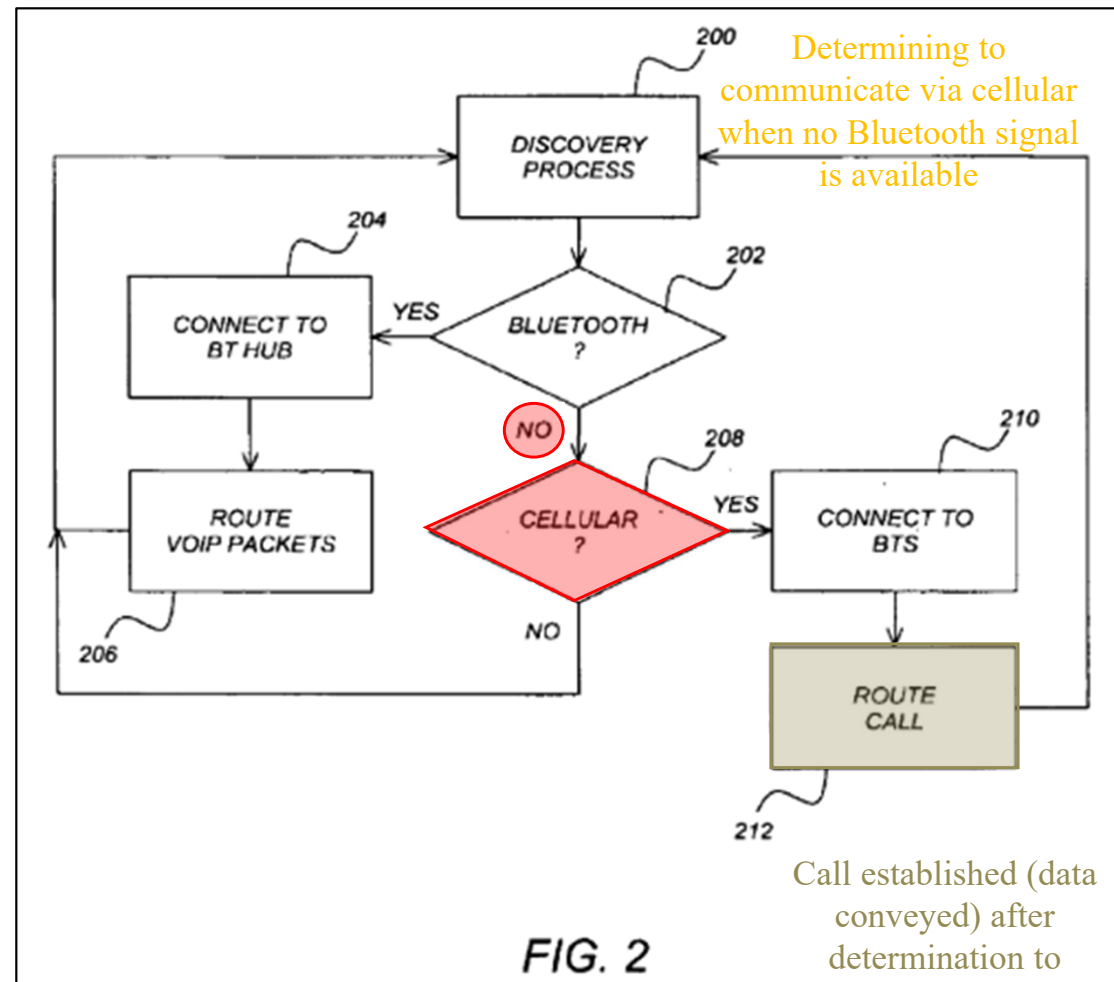
Mooney Modified by Lee Renders Obvious [1.h]

Lee

Block 208 is a decision block that determines whether the dual-enabled BTED 120A has identified a BTS 106 for use in communications, as well as discovery and registration. If so, control transfers to Blocks 210 and 212; otherwise, control transfers to Block 200.

Lee, 5:27-31

Lee's discovery process = a device logic that determines which network to use and is **not** about updating the location of the device (Pet. Reply, 26-27; POR, 57-58)



Lee, Fig. 2 (annotated).

Determining to communicate via cellular when no Bluetooth signal is available

Call established (data conveyed) after determination to communicate using cellular is made

Pet., 46-48; Pet. Reply, 26-28.

[1.h] – Patent Owner Does Not Address Petitioner’s Combination

Petitioner’s Combination	Patent Owner’s Flawed Interpretation
<i>Lee’s</i> discovery process/logic is implemented in <i>Mooney’s</i> multimodal phone (Pet., 46; Pet. Reply, 29)	Suggests that the combination would require the integration of <i>Lee’s</i> networks, VoIP functionality, or other features (POR, 54-55)



“The question in an obviousness inquiry is whether it would have been obvious to a [POSITA] to combine the relevant disclosures of the two references, not whether each individual reference discloses all of the necessary elements.”

Palo Alto Networks, Inc. v. Centripetal Networks, LLC, 122 F.4th 1378, 1386 (Fed. Cir. 2024) (citation omitted)

Pet., 42-46; Pet. Reply, 28-30.

[1.h] – Advantage of Reducing Interference by Implementing *Lee*'s Discovery Process into *Mooney* Is Undisputed

Lipoff Declaration

130. For example, communication may be directed to “the Bluetooth network 116 exclusively when the cellular network 100 is unavailable or subject to interference, such as within a building or vehicle,” or the cellular network when, e.g., “the Bluetooth network 100 is unavailable or subject to interference, such as outside a building or vehicle.” *Lee*, 4:17-31, Fig. 2.

133. *Lee* describes numerous “advantages” of its disclosed methods, including “increased capacity” over the cellular and Bluetooth networks and “reduced congestion and interference” over both networks. *Lee*, 4:6-16. A POSITA would have recognized that assessing signal (communication link) availability prior to sending data over that communication link, as taught by *Lee*, would have

Ex. 1003, ¶¶130, 133

Pet. 46-47; Pet. Reply, 30; POR, 53-57.

Ground 1 – Remaining Disputed Claims

Mooney Renders Obvious Claims 8, 13, 16, and [19.i]

Claims 8 & 16 – Close Proximity

Claims 8/16: “wherein said first data transceiver comprises a proximity transceiver for accomplishing a wireless data exchange with a first external data exchange device through a direct link representing said first communication link where the cellular phone is conveyed toward a close proximity of the first external data exchange device and within a range to receive the activation cue to initiate the wireless data exchange.”

Petitioner & Institution Decision	Patent Owner
No construction required (Pet. Reply, 6-7; DI, 16)	“several-meter range,” “10 meters or less,” and “at least less than 30 meters” (POR, 8-9)

Mooney

The wireless frequency of piconets may be 2.4 GHz as per BLUETOOTH™ standards, and/or typically have a 20 to 100 foot range. The piconet RF transmitter may operate in common frequencies that do not necessarily require a license from the regulating government authorities, e.g., the Federal Communications Commission (FCC) in the United States.

Mooney, 2:43-45

The converse of the example of FIGS. 1 and 2 is also possible. For instance, the multimode cell phone 150 may move from a cell phone call to a cordless telephone call, e.g., once the multimode cell phone 100 becomes within range of its matching base unit 110. In this case, the multimode cell phone 100 automatically establishes a wireless connection with the cordless telephone base station 110 using, e.g., a wireless piconet protocol conforming to the BLUETOOTH™ standard. Using the wireless cordless telephone communication path established between the multimode cell phone 150 and its base unit 110, a suitable telephone number relating to the far end party may be determined and passed to the cordless telephone functionality of the multimode cell phone 100.

Mooney, 5:7-20

Pet., 50-51, 70; Pet. Reply, 6-7; DI, 16; POR, 8-9, 41, 49, PO Sur-Reply, 1-2.

Claim 13 – Patent Owner Misunderstands Petitioner’s Mapping

Claim 13: “further comprising the following step before the step of forwarding first data to said first data transceiver for initiating a data exchange operation with a first external data exchange device: ***forwarding third data to and displaying said third data*** on a display screen provided on said cellular phone, wherein said third data is representative of the content of said first data.”

Petition

Mooney discloses forwarding audio tones (third data representative of the content of the first data) to the user of the multimode phone to notify the user when the multimode cell phone is about to use piconet/bluetooth mode. The “multimode cell phone 100 may send, e.g., a quick DTMF’7’ followed by a DTMF’9’ (i.e., representing the characters ‘SW’) notifying the near end user ... that a switch is about to happen,” i.e., what mode the call is to be placed in. *Mooney*, 6:26-29; Lipoff, ¶185. Because the audio tone represents that the call (first data) will occur over a particular communication pathway (Bluetooth), a POSITA would have understood that the audio tone is also representative of the content of first data because it informs the user which pathway will be used to place the call. Lipoff, ¶185. This is consistent

Pet., 66

notifications (third data) to ensure the user is properly notified. Lipoff, ¶186. A POSITA would have been motivated and found it obvious to display, e.g., the word *Bluetooth*, on a screen⁸ of the multimode phone (in addition to or instead of forwarding audio tones), to ensure the user is notified of the impending use of Bluetooth mode. Such a configuration would have been particularly useful to notify hearing-impaired users or users holding the phone away from their ear. Lipoff, ¶186.

Pet., 67

[19.i] – Patent Owner Misunderstands Petitioner’s Mapping

“forwarding fourth data to and displaying said fourth data on said display screen, wherein said fourth data is representative of the content of said second data; and”

Petition

Mooney discloses forwarding audio tones (third data representative of the content of the first data) to the user of the multimode phone to notify the user when the multimode cell phone is about to use **piconet/bluetooth mode**. The “multimode

Pet. , 72 (Relying on claim 13 for [19.e & 19.f]), 66-68

Mooney renders obvious the additional limitation of claim [19.i]. Lipoff, ¶¶204-206.

Mooney discloses forwarding **audio tones** (fourth data representative of the content of the second data) to the user of the multimode phone to notify the user when the multimode cell phone is about to use **cellular mode**. The multimode cell

Pet. , 73

*DTMF Signals for
different notifications*