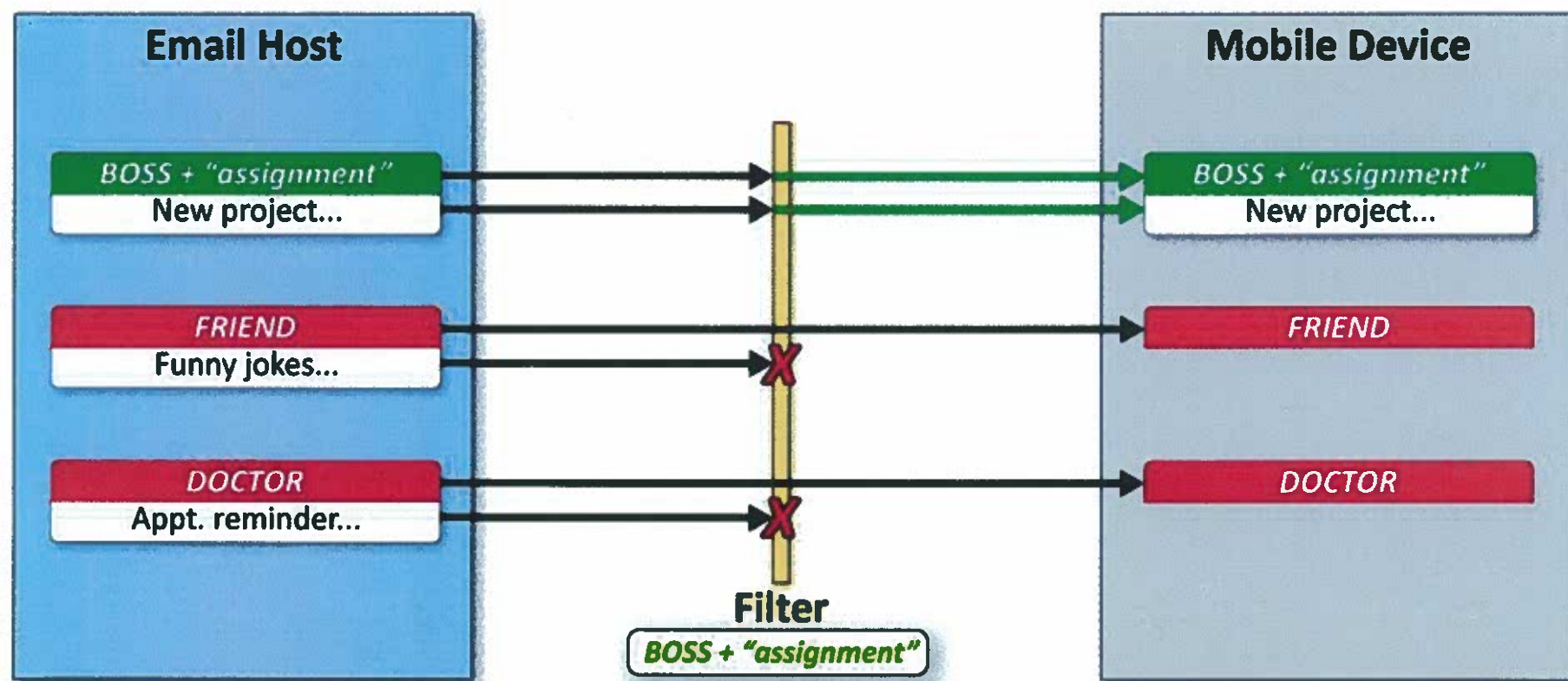


# Select and Summary Index

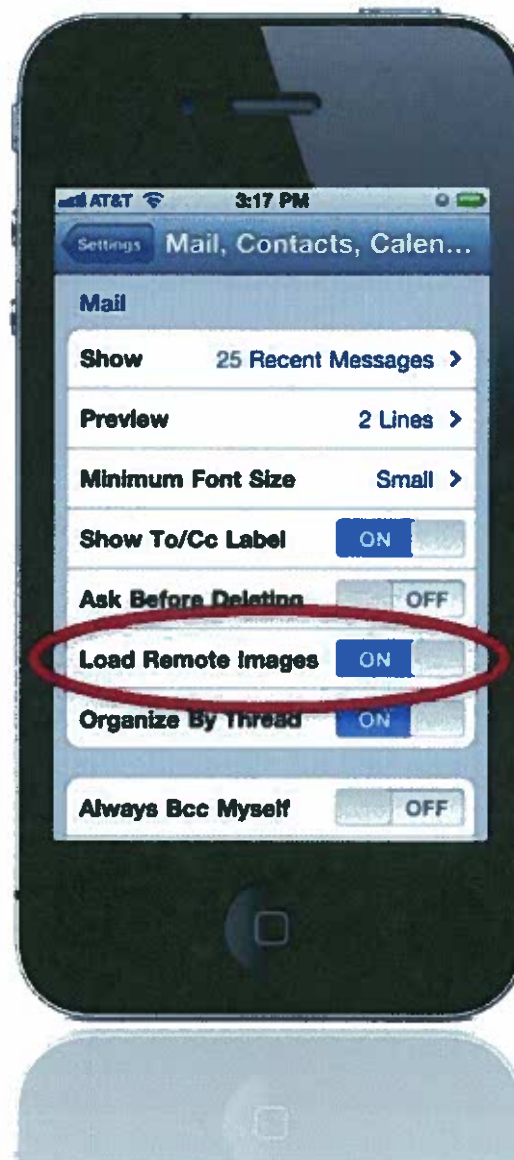
'006 + '531 Patents

- The identifying information about the data units not sent from the host device to the user is stored in a Select and Summary Index for the user to view.



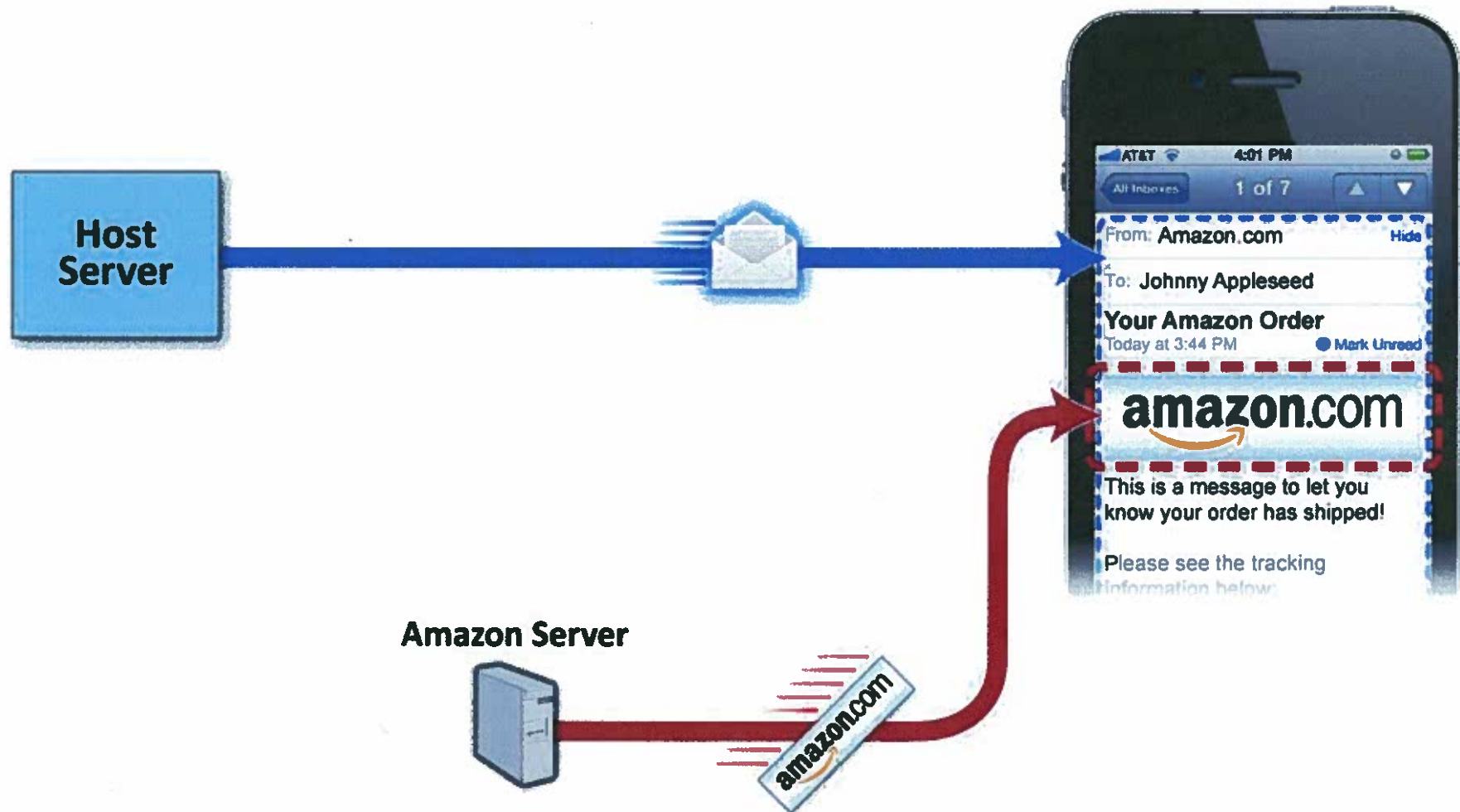
# Accused Products and Remote Images

'006 + '531 Patents



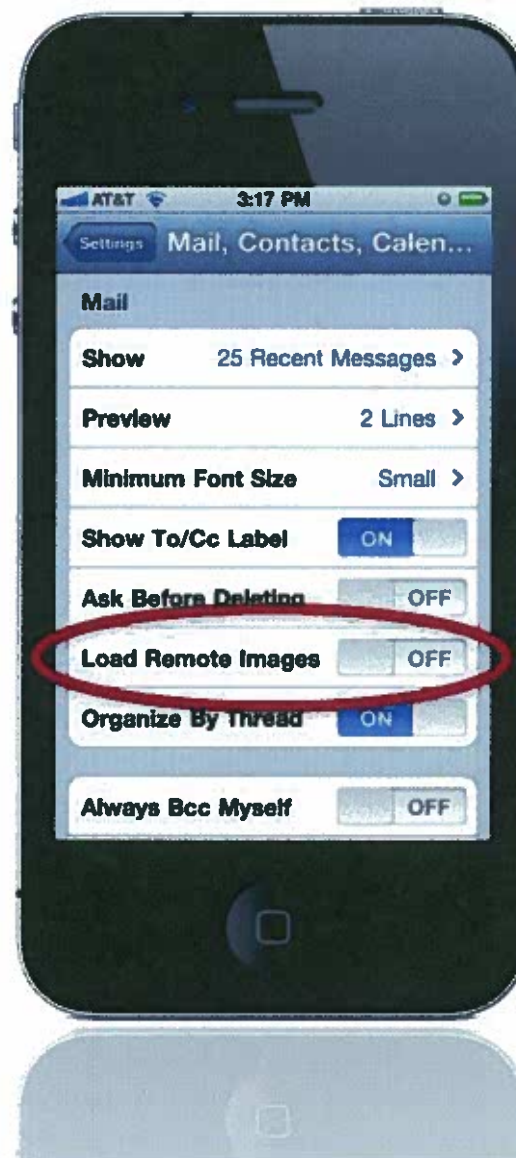
# Accused Products and Remote Images

'006 + '531 Patents



# Accused Products and Remote Images

'006 + '531 Patents





# Accused Products and Remote Images

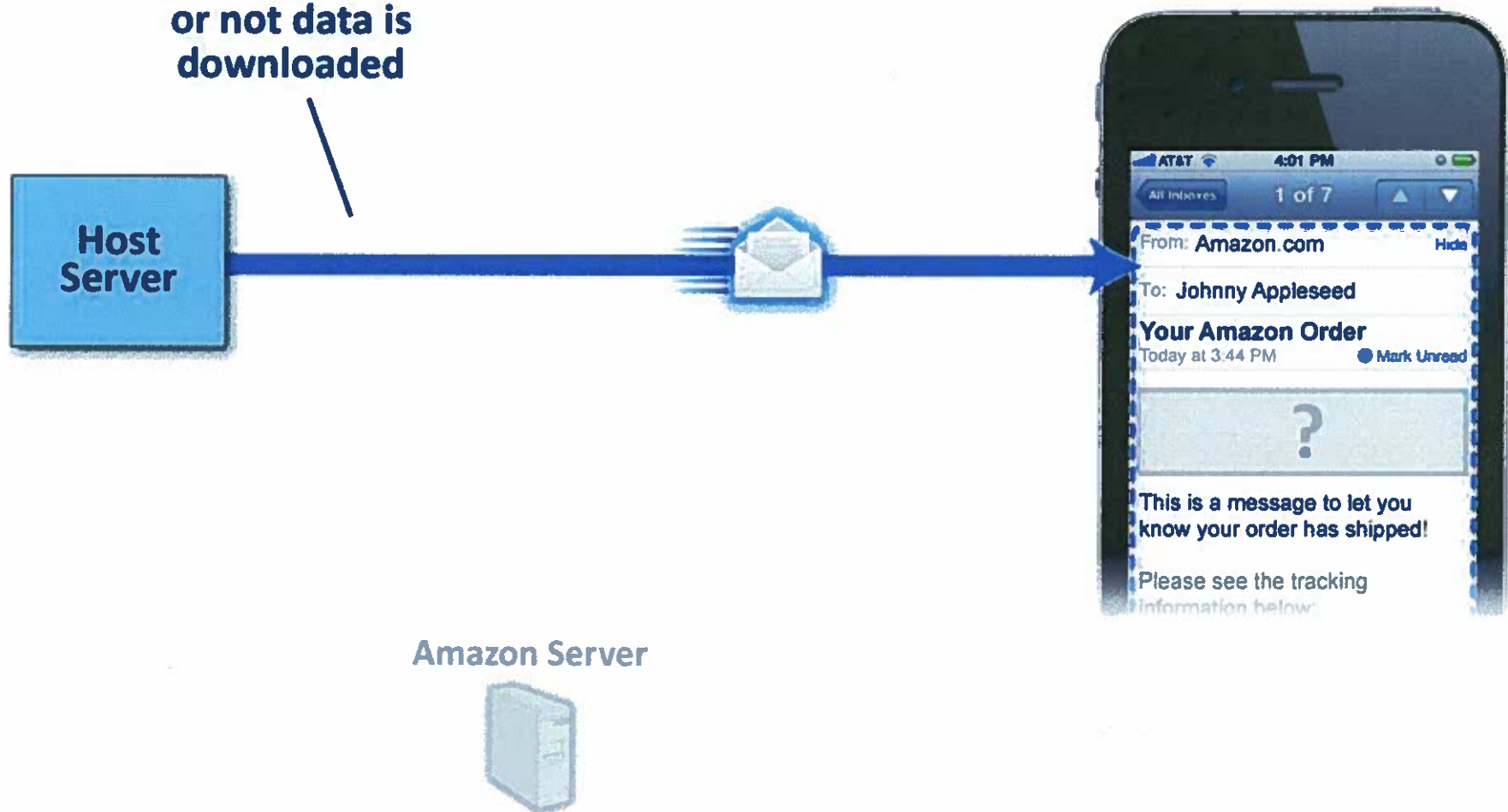
'006 + '531 Patents



# Accused Products and Remote Images

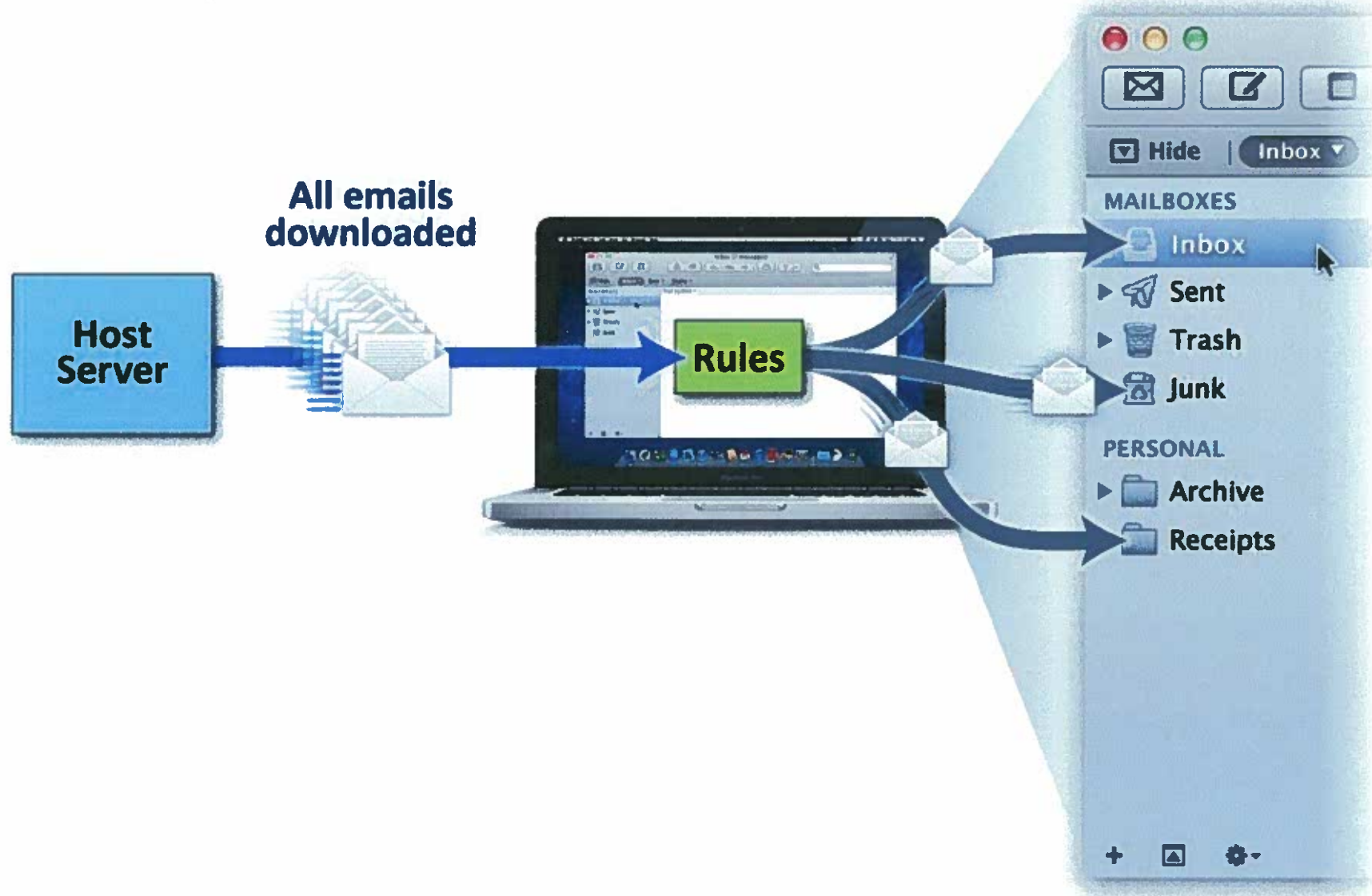
'006 + '531 Patents

No filter that  
determines whether  
or not data is  
downloaded



# Using Rules to Sort Emails After Download

'006 + '531 Patents

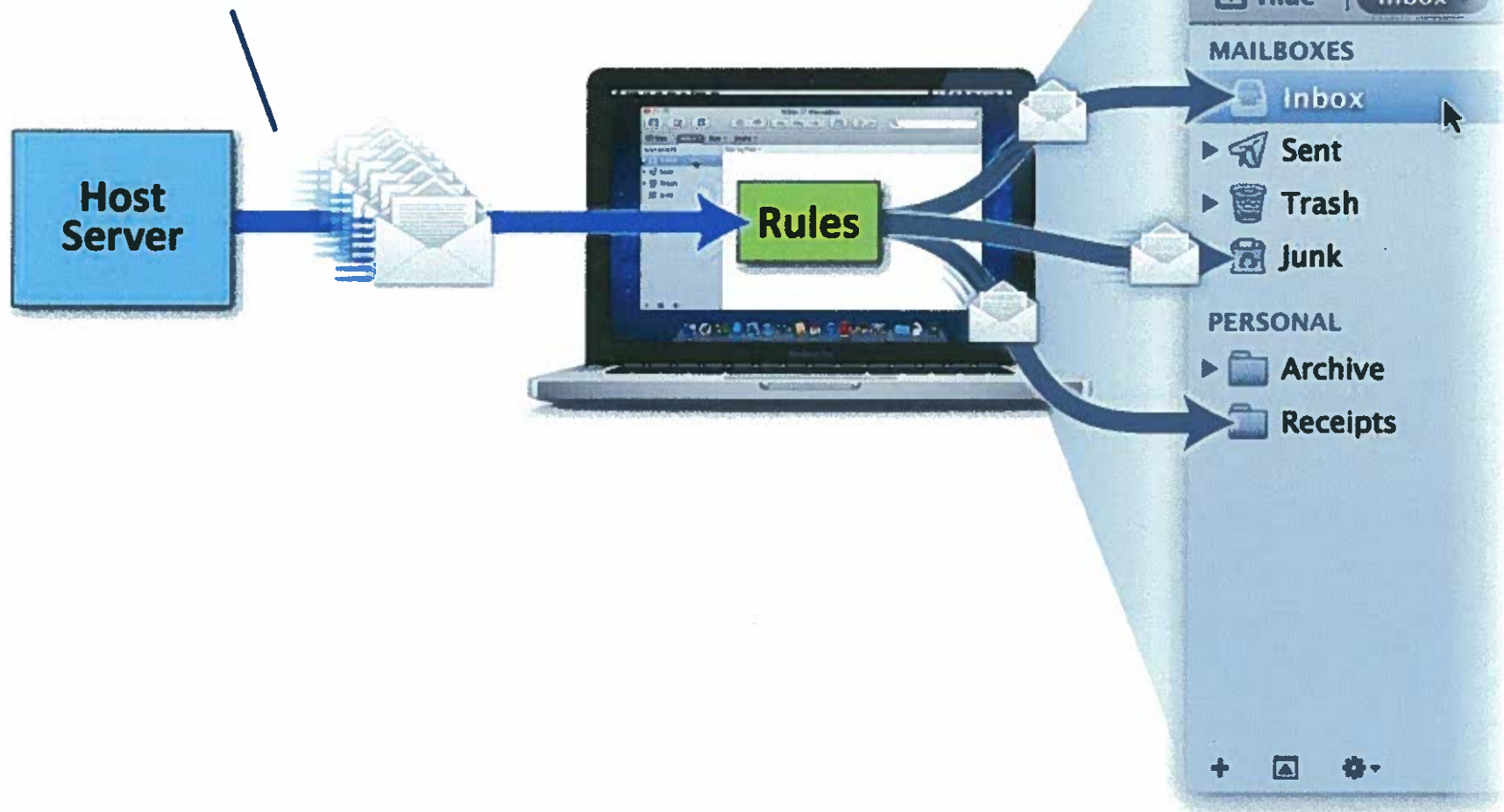




# Using Rules to Sort Emails After Download

'006 + '531 Patents

No filter that  
determines whether  
or not data is  
downloaded





*Motorola Mobility, Inc. v. Apple, Inc.,*

Case No. 1:10-CV-23580-UU (S.D. Fla.)

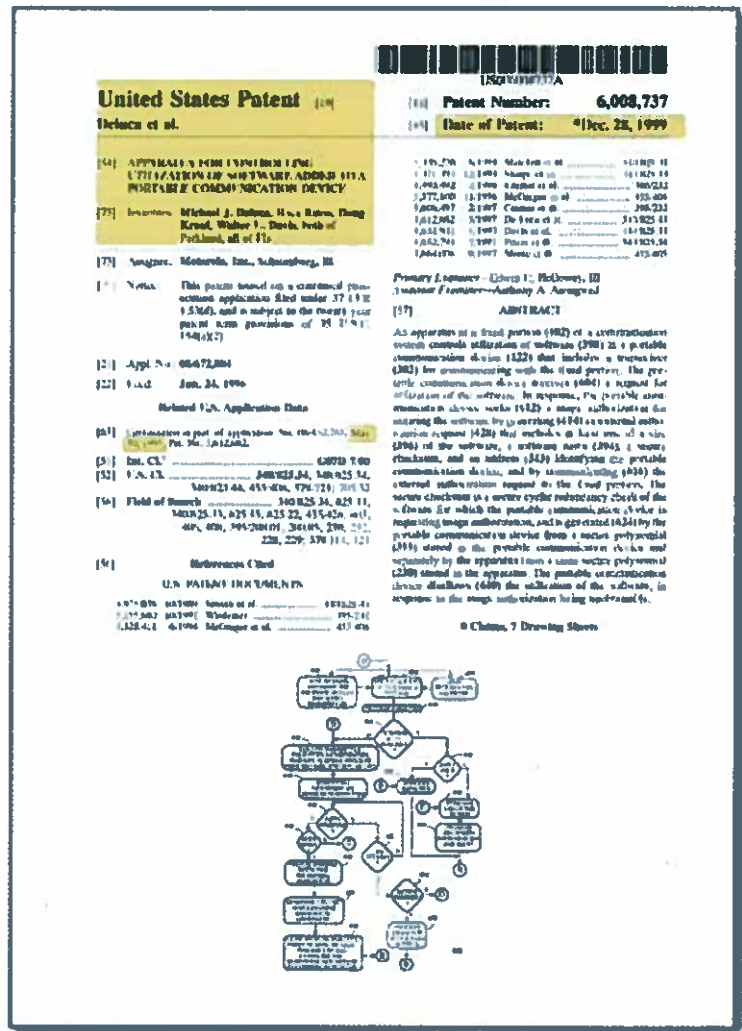
**'737 Patent  
Technology Tutorial**

## '737 Patent

## '737 Patent

## United States Patent [19]

Deluca et al.



- [54] APPARATUS FOR CONTROLLING  
UTILIZATION OF SOFTWARE ADDED TO A  
PORTABLE COMMUNICATION DEVICE**

- [75] Inventors: **Michael J. Deluca**, Boca Raton; **Doug Kraul**; **Walter L. Davis**, both of Parkland, all of Fla.

- **Issued:** Dec. 28, 1999
- **Priority Date:** May 30, 1995
- **Asserted Claim:** 9
- **Accused Products:** Apple iPhone 3G, Apple iPhone 3GS, Apple iPhone 4, Apple iPad WiFi, Apple iPad WiFi + 3G, Apple iPad 2 WiFi, Apple iPad 2 WiFi + 3G, Apple iPod Touch, Apple MacBook, Apple MacBook Pro, Apple MacBook Air, Apple iMac, Apple Mac Mini, and Apple Mac Pro
- **Identified Products:** Motorola pagers utilizing Motorola's "FLEX" protocol

# Pagers from the Mid-90's Were Starting to Run Additional, Simple Software

'737 Patent



Stock Market  
Chart

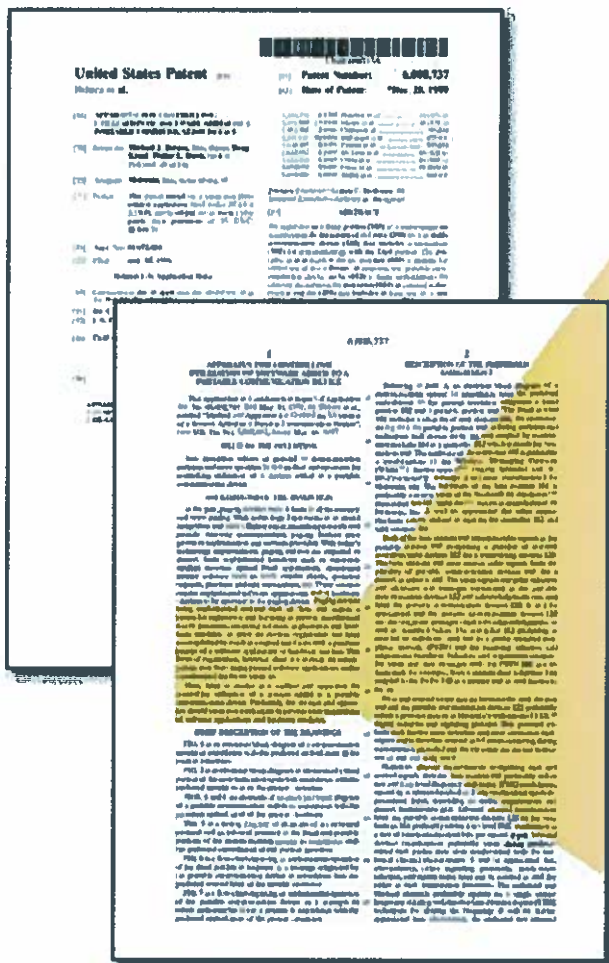
“With today's technology improvements, paging devices are expected to acquire more sophisticated functions such as electronic mailing services, spread sheet applications, investment finance services such as stock market charts, quotation requests, purchase and sale transactions, etc.”

'737 Patent, col. 1:22-27



# The Problem Addressed by the '737 Patent

'737 Patent



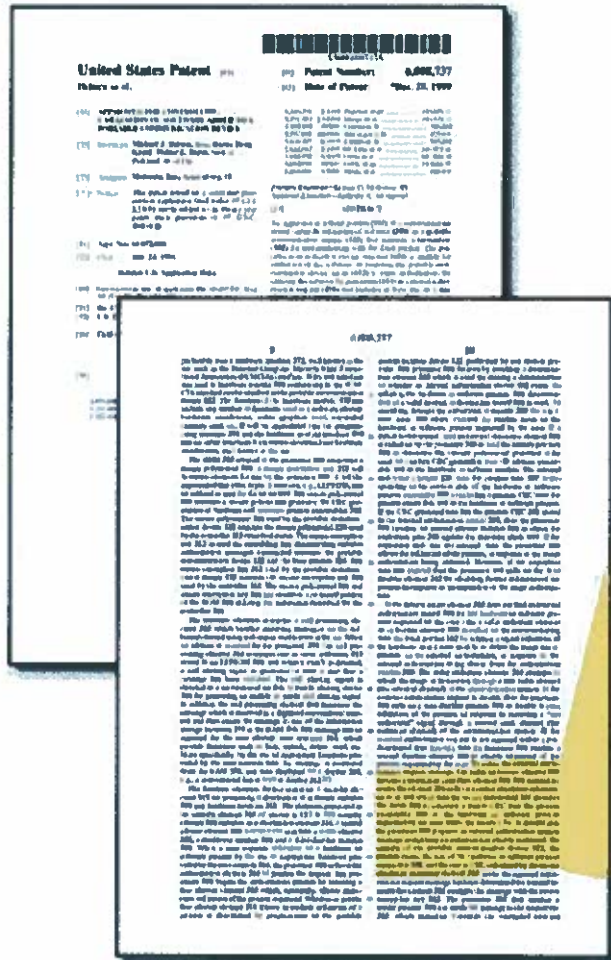
'737 Patent, col. 1:29-39

“Paging devices using sophisticated services such as these will require a means for registration and licensing to prevent unauthorized use of processes, including software applications and hardware modules. In prior art devices registration has been accomplished by mailing a signed certificate with a purchase receipt of a software application or hardware module. This form of registration, however, does not prevent an unscrupulous user from using pirated software applications and/or unauthorized hardware modules.”



# Solution: Request External Authorization

'737 Patent

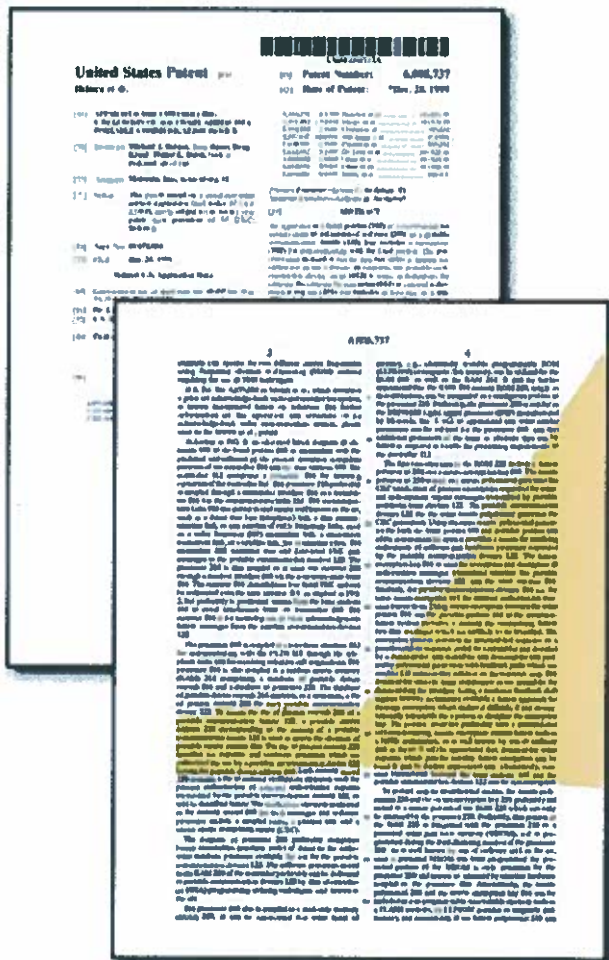


"To create the external authorization request message, the radio authorizer element 334 invokes a transmitter controller element 336.... [t]he processor 308 prepares an external authorization request message comprising an authorization request command, the address of the portable communication device 122, the process name, the size of the hardware or software process executable 398, and the secure CRC calculated by the secure checksum calculator element 338."

'737 Patent, col. 10:49-51; 57-62

# Provide for Requesting External Authorization

'737 Patent



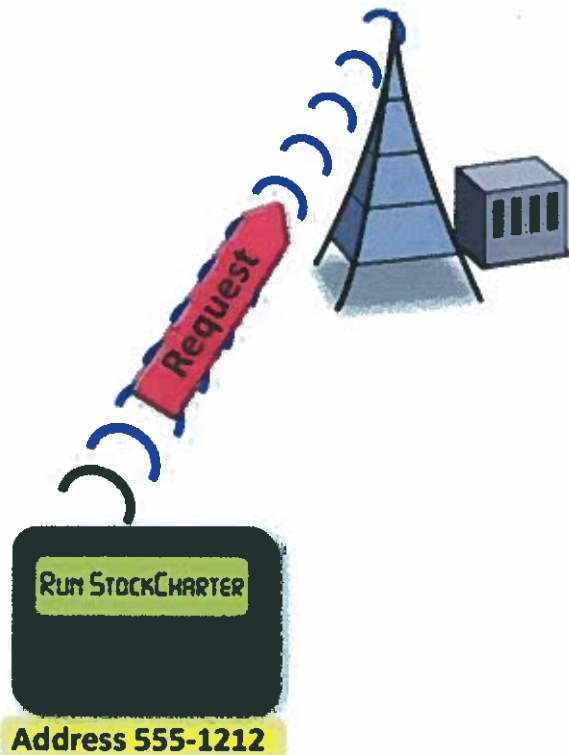
'737 Patent, col. 3:42-50

“To access the list of process records 220 of a portable communication device 122, a portable device address 218 corresponding to the address of a portable communication device 122 is used to search the database of portable device records 216. The list of process records 220 specifies the software and hardware processes which are authorized for use by a portable communication device 122 having the portable device address 218.”

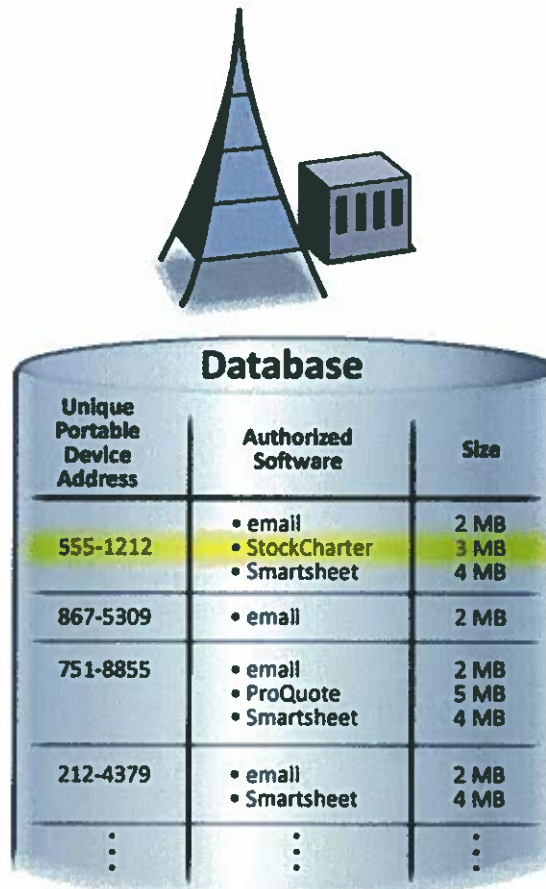
# The '737 Patent

'737 Patent

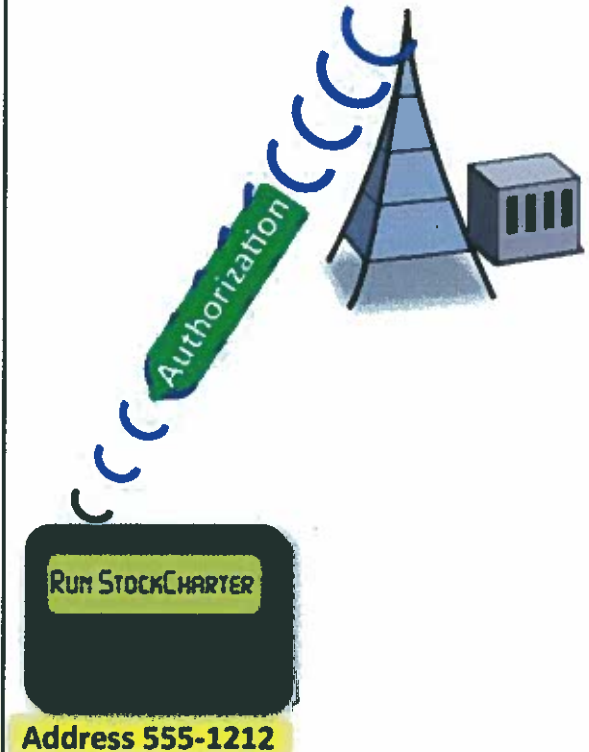
## Request



## Table Lookup



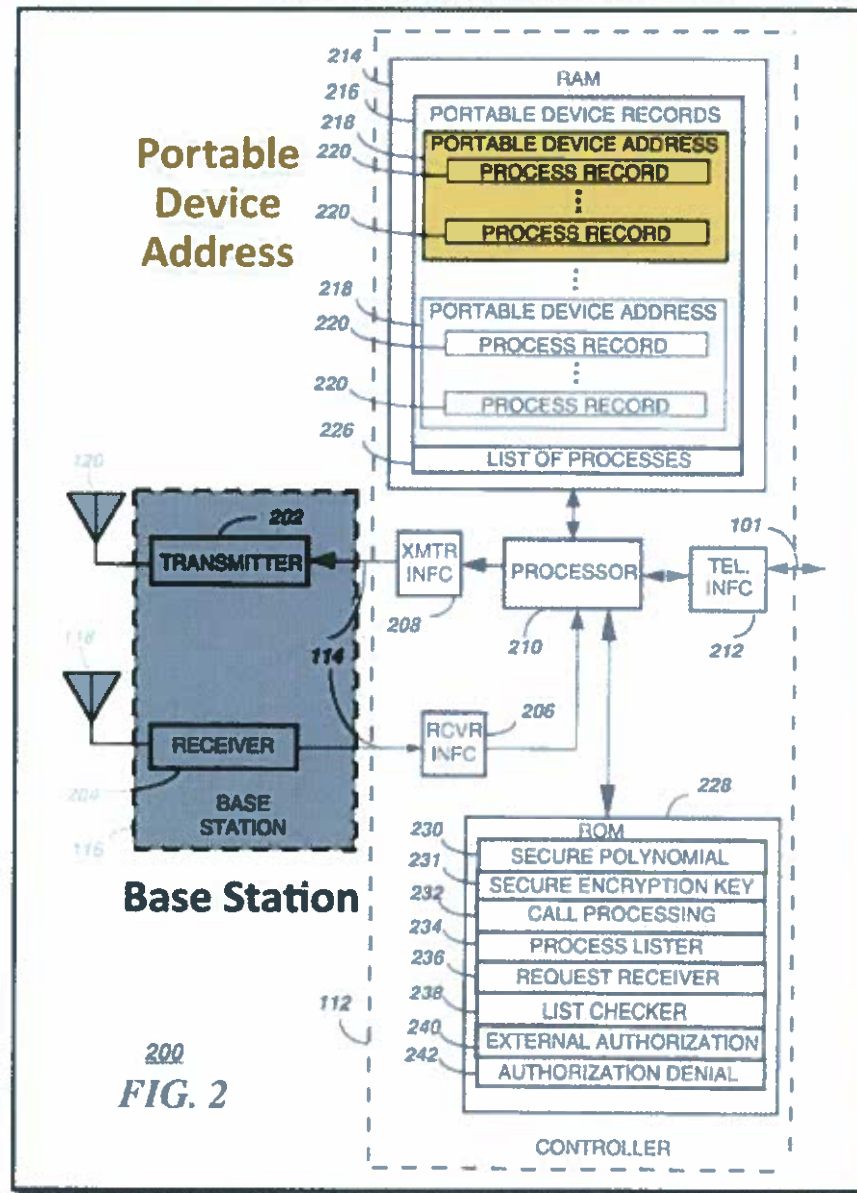
## Authorization





# Unique Portable Device Address Points to the Database

'737 Patent

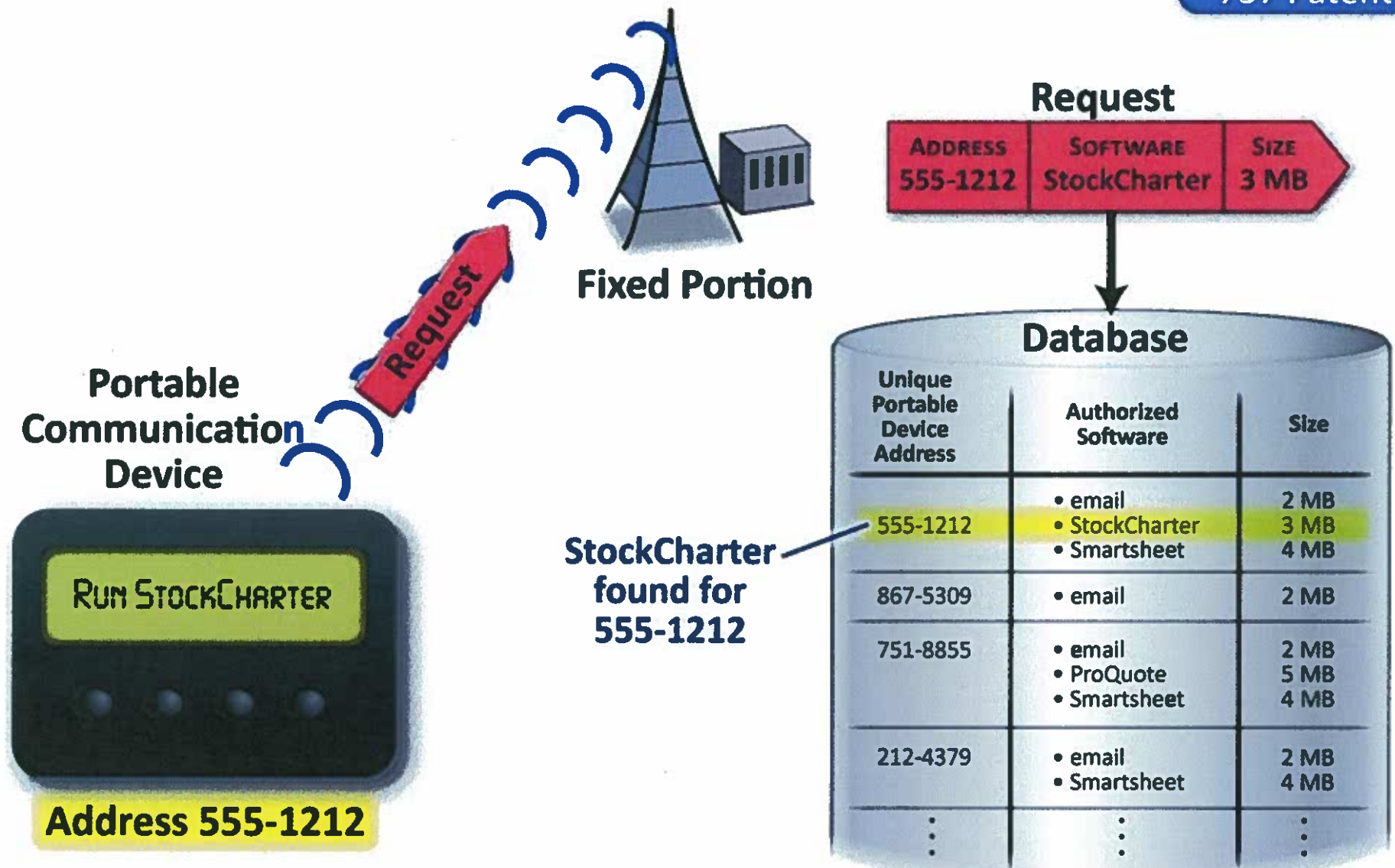


'737 Patent, Fig. 2



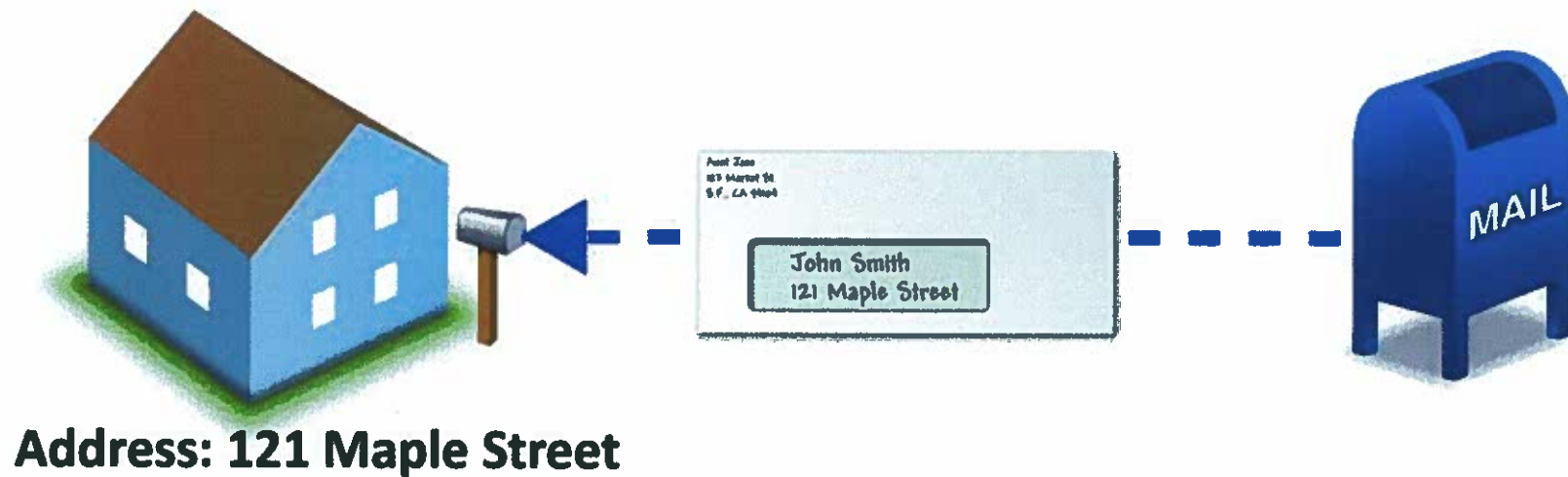
# Each Time a Portable Device Tries to Run a Software Program, It Must be Authorized

'737 Patent



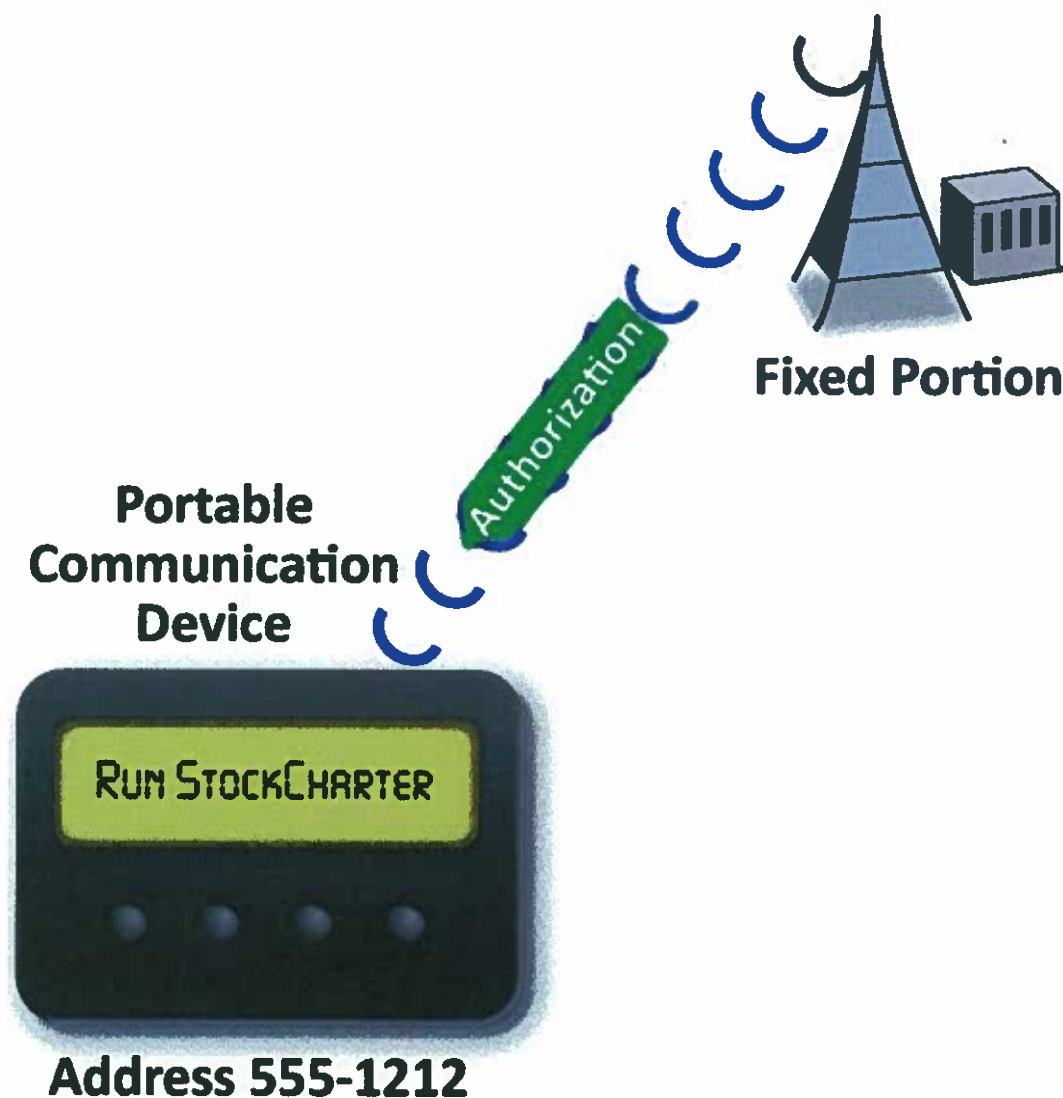
# Like a Street Address on a Letter, a Device Address Is Used to Direct Messages

'737 Patent



# If Software Is on that Device's List, the "Fixed Portion" Sends an Authorization Message to the Device

'737 Patent

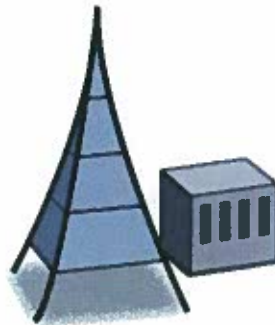


Database		
Unique Portable Device Address	Authorized Software	Size
555-1212	<ul style="list-style-type: none"><li>• email</li><li>• StockCharter</li><li>• Smartsheet</li></ul>	<ul style="list-style-type: none"><li>2 MB</li><li>3 MB</li><li>4 MB</li></ul>
867-5309	<ul style="list-style-type: none"><li>• email</li></ul>	2 MB
751-8855	<ul style="list-style-type: none"><li>• email</li><li>• ProQuote</li><li>• Smartsheet</li></ul>	<ul style="list-style-type: none"><li>2 MB</li><li>5 MB</li><li>4 MB</li></ul>
212-4379	<ul style="list-style-type: none"><li>• email</li><li>• Smartsheet</li></ul>	<ul style="list-style-type: none"><li>2 MB</li><li>4 MB</li></ul>
⋮	⋮	⋮



# If Software Is Not on that Device's List, No Authorization Message Is Sent to the Device

'737 Patent



Fixed Portion

Portable  
Communication  
Device



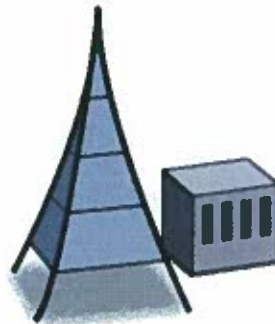
Address 555-1212

Database		
Unique Portable Device Address	Authorized Software	Size
555-1212	<ul style="list-style-type: none"><li>• email</li><li>• Smartsheet ?</li></ul>	<ul style="list-style-type: none"><li>2 MB</li><li>4 MB</li></ul>
867-5309	<ul style="list-style-type: none"><li>• email</li></ul>	<ul style="list-style-type: none"><li>2 MB</li></ul>
751-8855	<ul style="list-style-type: none"><li>• email</li><li>• ProQuote</li><li>• Smartsheet</li></ul>	<ul style="list-style-type: none"><li>2 MB</li><li>5 MB</li><li>4 MB</li></ul>
212-4379	<ul style="list-style-type: none"><li>• email</li><li>• Smartsheet</li></ul>	<ul style="list-style-type: none"><li>2 MB</li><li>4 MB</li></ul>
⋮	⋮	⋮



# If the Portable Device Receives Authorization, It Allows the Software to Run

'737 Patent



**Fixed Portion**

**Portable  
Communication  
Device**



**StockCharter  
Software**

**Address 555-1212**

**Database**

Unique Portable Device Address	Authorized Software	Size
555-1212	<ul style="list-style-type: none"><li>• email</li><li>• StockCharter</li><li>• Smartsheet</li></ul>	2 MB 3 MB 4 MB
867-5309	<ul style="list-style-type: none"><li>• email</li></ul>	2 MB
751-8855	<ul style="list-style-type: none"><li>• email</li><li>• ProQuote</li><li>• Smartsheet</li></ul>	2 MB 5 MB 4 MB
212-4379	<ul style="list-style-type: none"><li>• email</li><li>• Smartsheet</li></ul>	2 MB 4 MB
⋮	⋮	⋮

# Accused System: Apple's Enterprise App Distribution System

'737 Patent

- XYZ Enterprise develops an application and wishes to distribute it [directly to users] under Apple's Enterprise App Distribution System.



# Apple Provides a Validated Certificate to XYZ

'737 Patent

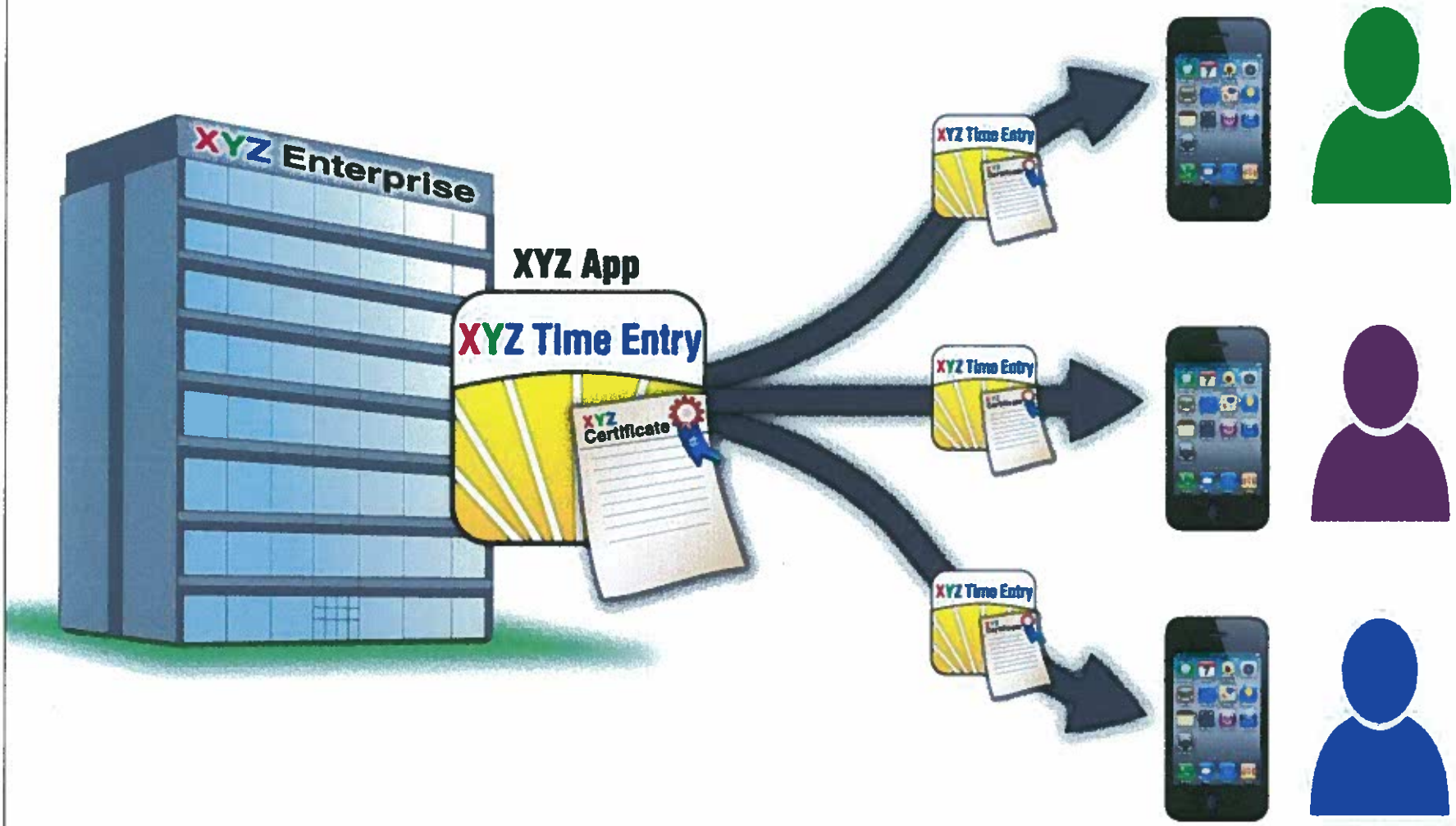
- Validation of a distribution certificate by Apple will permit XYZ Enterprise to distribute its apps to users and permits users to use them without further requests for permission.





# XYZ Enterprise “Signs” Its App With the Certificate and Distributes to Users

'737 Patent

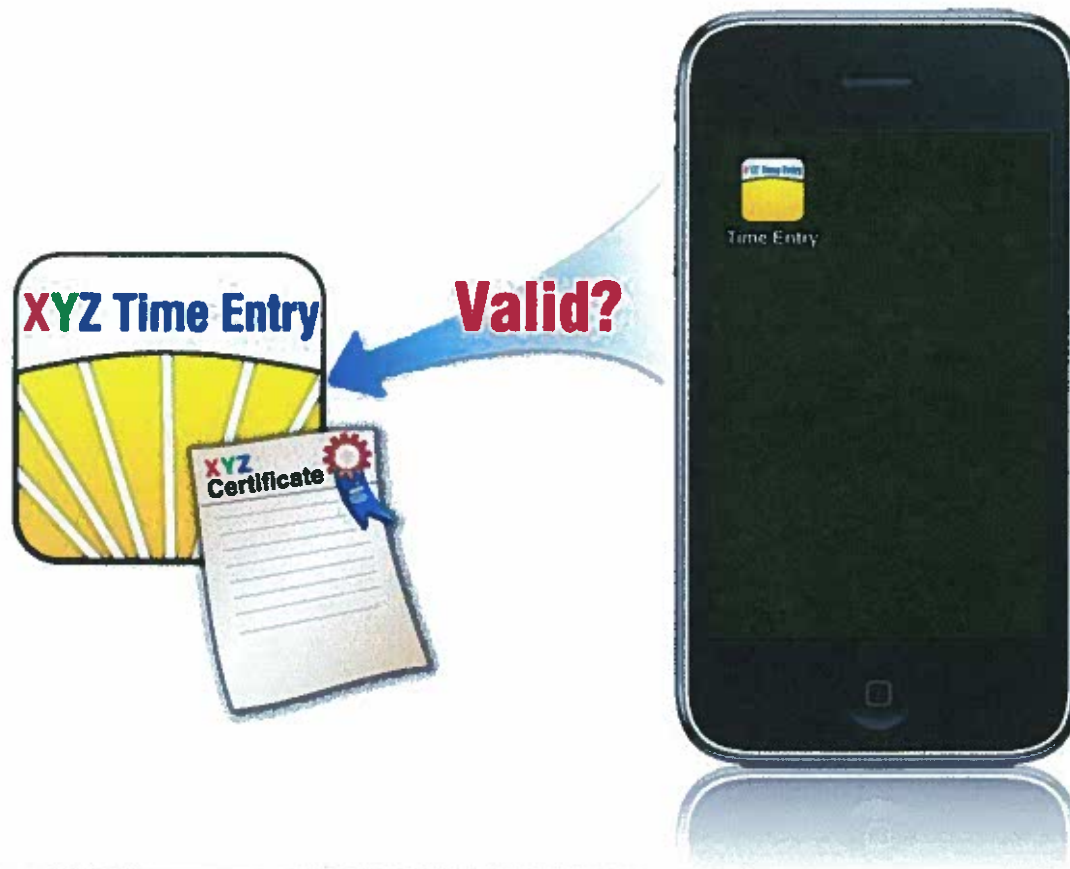




# iPhone Locally Checks Certification Before Running Software

'737 Patent

- Before running the software, the Apple iPhone checks that the application's signature matches the enterprise's certificate, which is stored on the device.



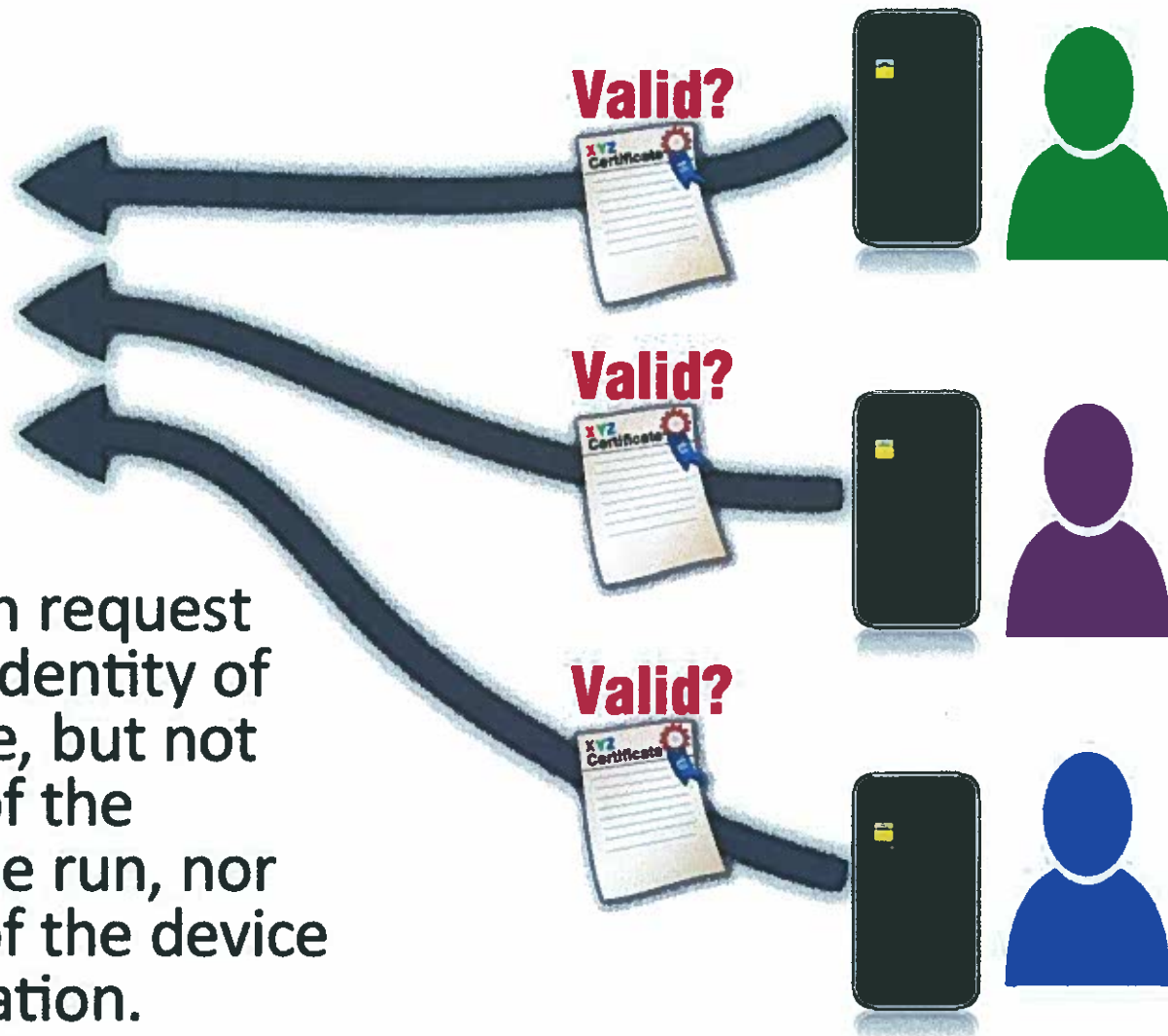
# Device Checks Every 3-7 Days to See If XYZ's Certificate Is Still Valid

'737 Patent



OCSP Server

- The validation request includes the identity of the certificate, but not the identity of the software to be run, nor the identity of the device seeking validation.



*Motorola Mobility, Inc. v. Apple, Inc.,*

Case No. 1:10-CV-23580-UU (S.D. Fla.)

**'987 Patent  
Technology Tutorial**



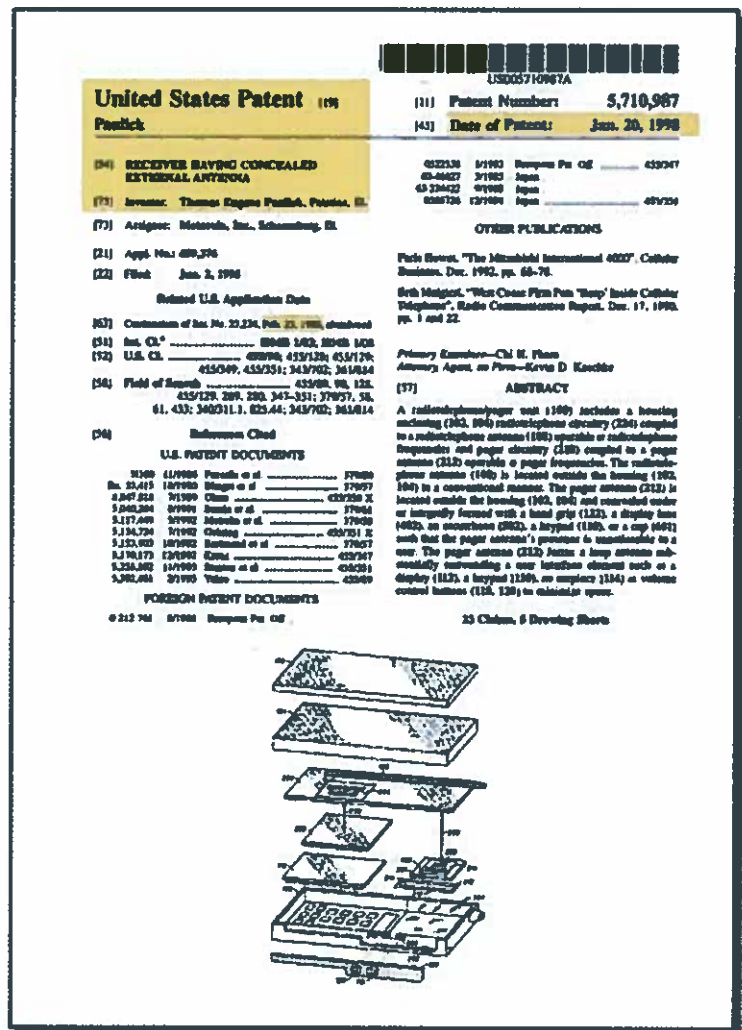
## '987 Patent

## '987 Patent

**United States Patent [19]**  
**Paulick**

- [54] **RECEIVER HAVING CONCEALED  
EXTERNAL ANTENNA**
- [75] **Inventor: Thomas Eugene Paulick, Palatine, Ill.**

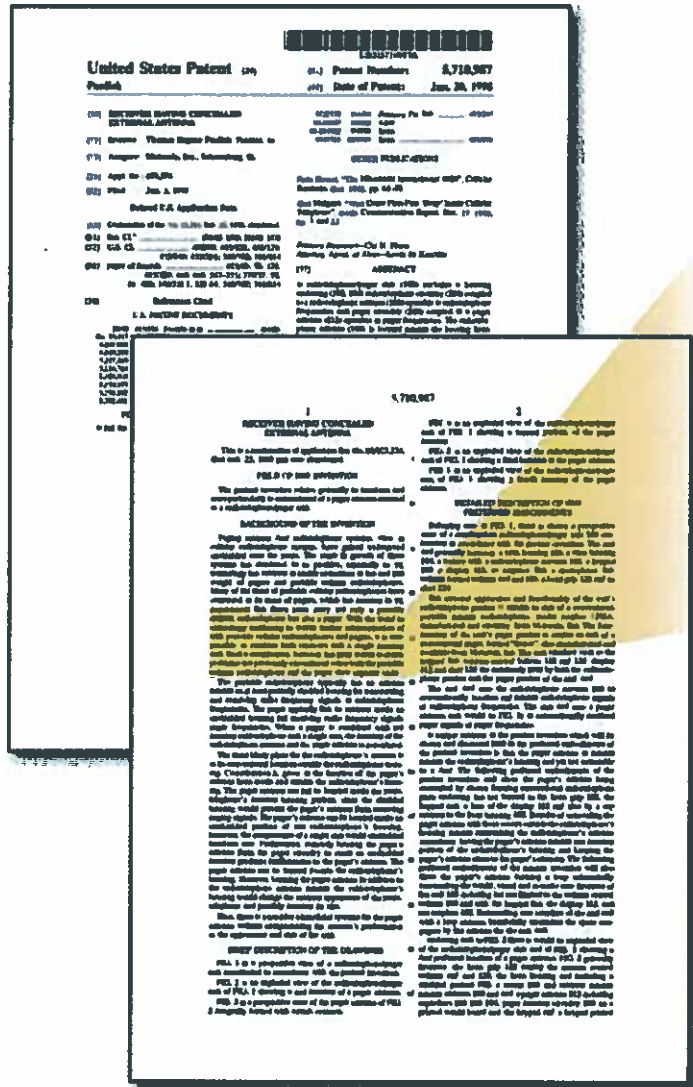
- **Issued: Jan. 20, 1998**
- **Priority Date: Feb. 25, 1993**
- **Asserted Claims: 13, 14, 17**
- **Accused Product: iPhone 4**
- **Identified Products: None**



### '987 Patent

# The Problem Addressed by the '987 Patent

'987 Patent

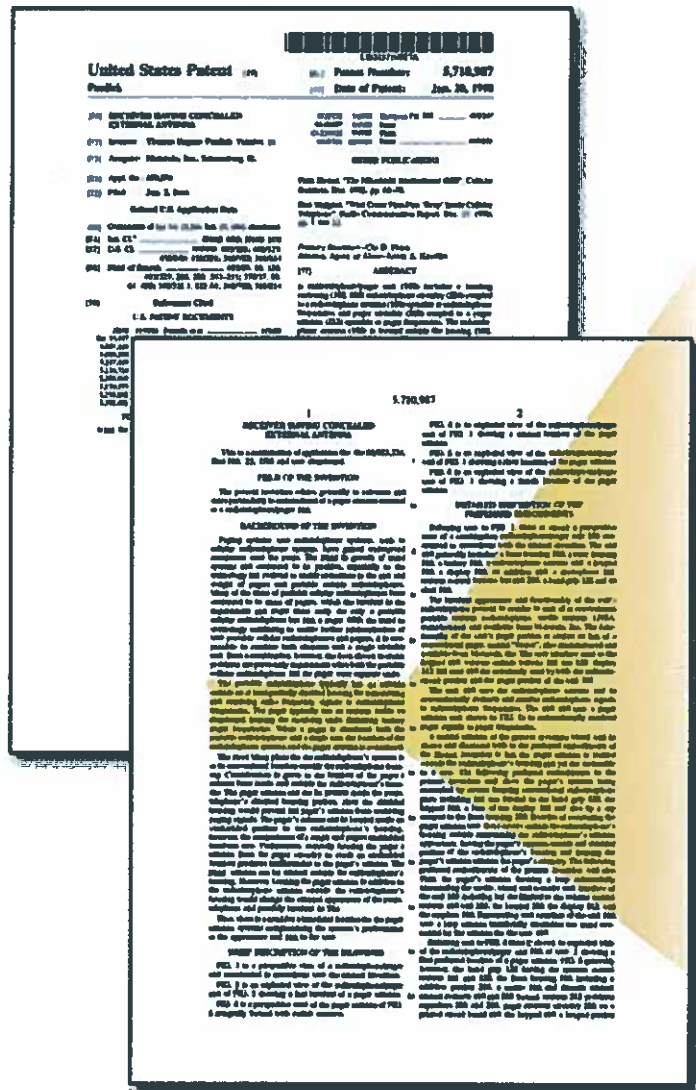


“With the trend in technology continuing to enable further miniaturization of both portable cellular radiotelephones and pagers, it is now possible to combine both elements into a single portable unit. Such a combination, however, has been shown to create problems not previously encountered when both the portable cellular radiotelephone and the pager were separate units.”

'987 Patent, col. 1:24-29

# The Problem Addressed by the '987 Patent

'987 Patent



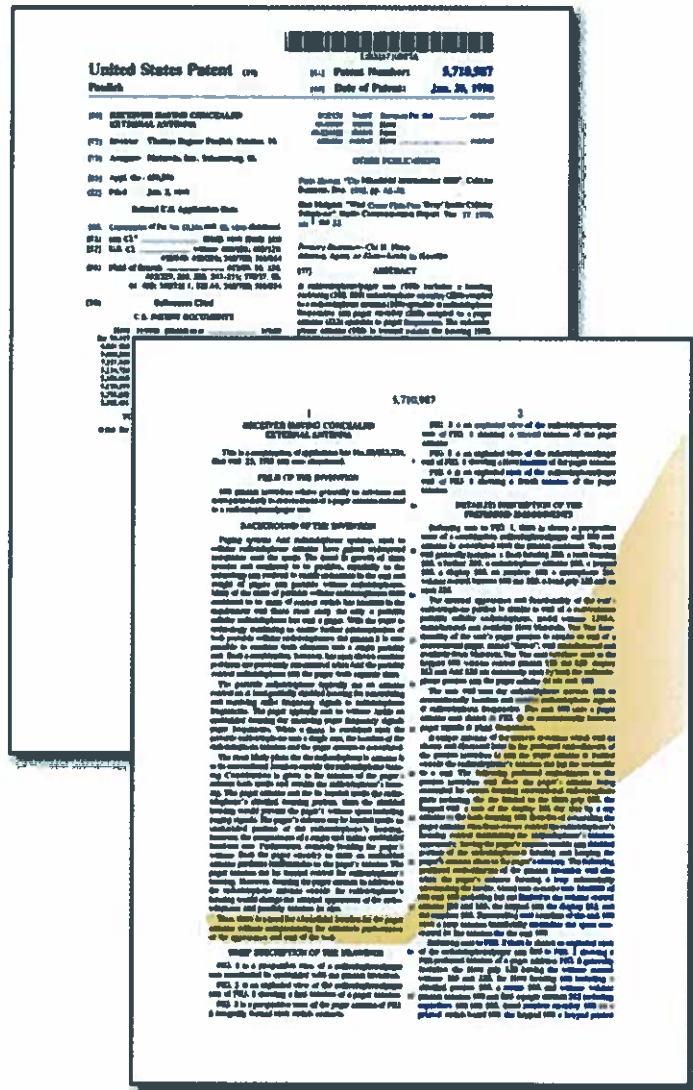
“The portable radiotelephone typically has an antenna outside an at least partially shielded housing for transmitting and receiving radio frequency signals at radiotelephone frequencies. The pager typically has an antenna inside an unshielded housing for receiving radio frequency signals pager frequencies. When a pager is combined with the portable radiotelephone into a single unit, the location of the radiotelephone antenna and the pager antenna is considered.”

'987 Patent, col. 1:30-37



# The Problem Addressed by the '987 Patent

'987 Patent

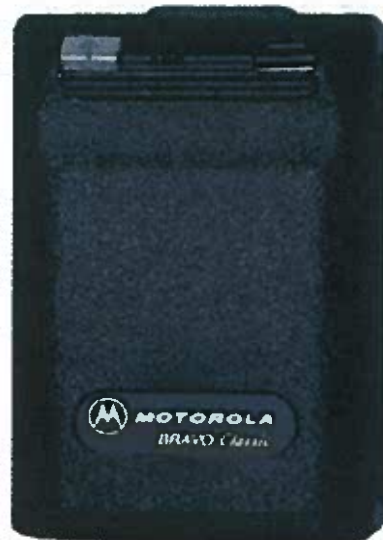


"Thus, there is a need for a beneficial location for the pager antenna without compromising the antenna's performance or the appearance and size of the unit."

'987 Patent, col. 1:56-58

# The '987 Patent Conceals the External Pager Antenna of a Combined Pager/Cellular Phone Unit

'987 Patent



**Motorola  
Bravo Pager**



**Motorola Micro TAC  
Cellular Phone**

“The present invention relates generally to antennas and more particularly to concealment of a pager antenna external to a radiotelephone/pager unit.”

*'987 Patent, col. 1:8-10*

## '987 Patent

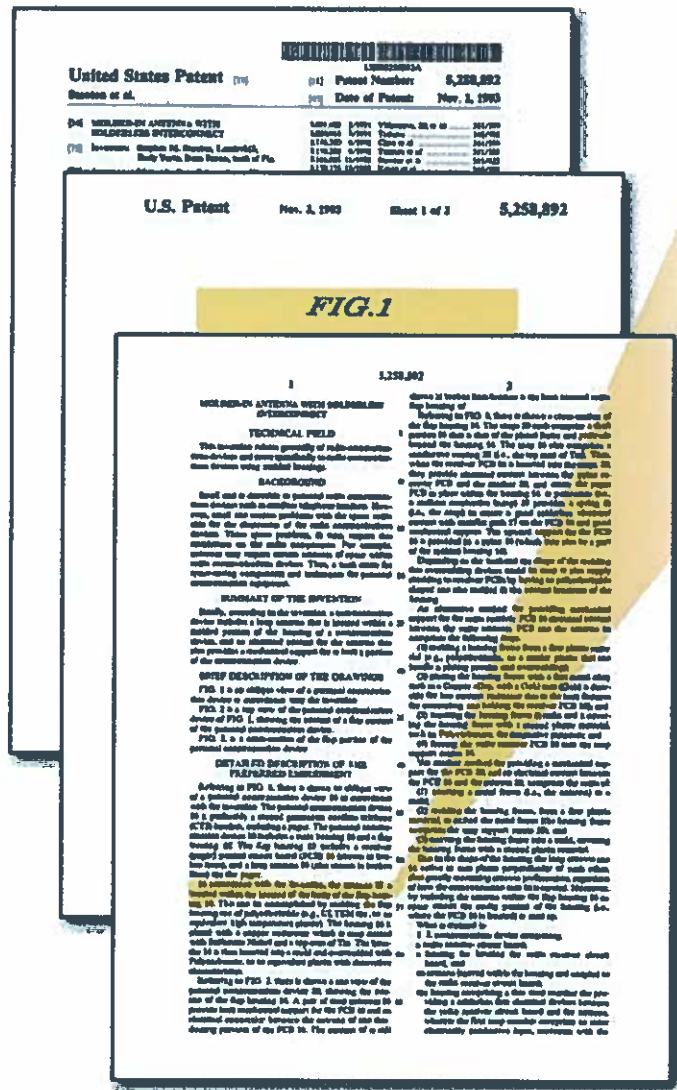


987 006



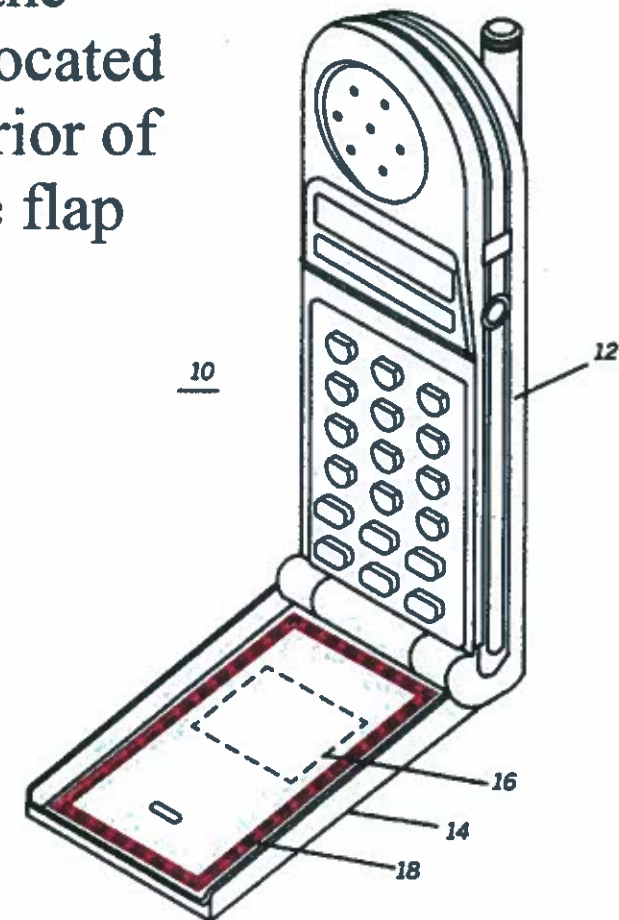
# Combining a Pager with a Cellular Phone Was Known in the Art

'987 Patent



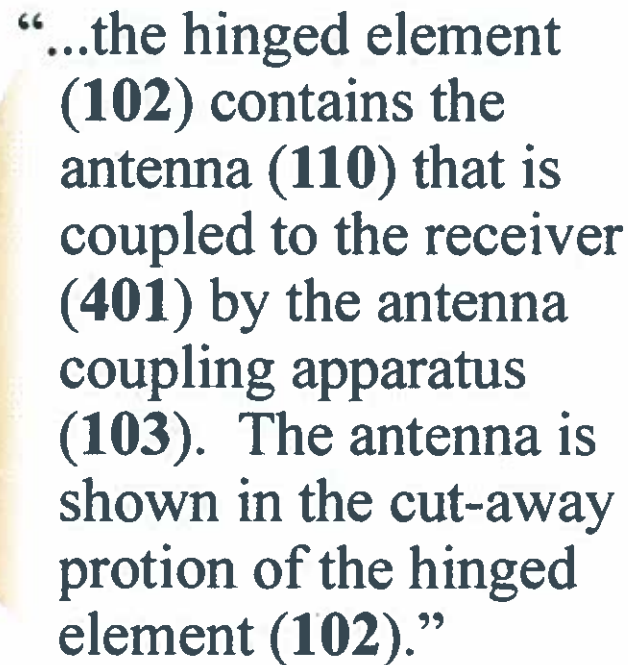
“In accordance with the invention, the antenna 18 is located within the interior of the body of the flap housing 14.”

FIG. 1



Motorola's  
U.S. Patent No.  
5,258,892,  
Fig. 1 and  
col. 1:53-55

## '987 Patent



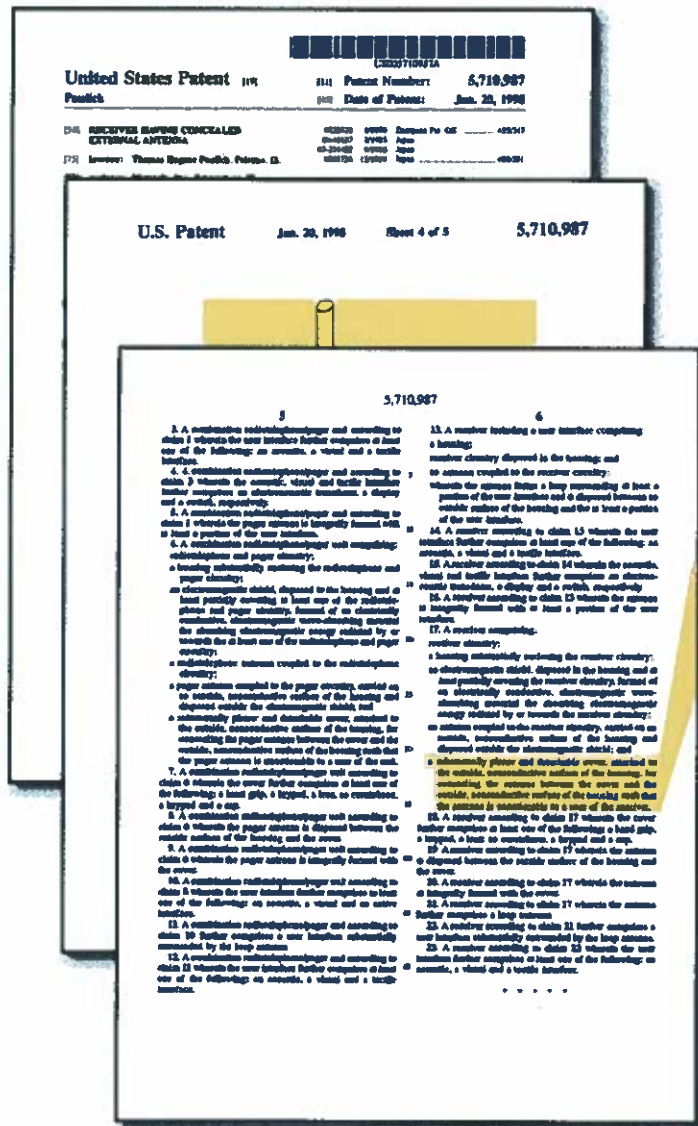
This diagram shows an exploded perspective view of a mobile phone assembly. The main body of the phone is labeled 101. It features a speaker grille at the top with seven circular holes, a numeric keypad with twelve buttons labeled 102, and a side-mounted antenna. A separate component, labeled 103, is shown below the keypad, which appears to be a sliding cover or a separate keypad unit. Below this, a red-colored component labeled 120 is shown, which is a rectangular plate with a central cutout. This plate is positioned to fit into a recessed area of the phone's base, which is labeled 110. A small rectangular component labeled 208 is also shown, positioned between the keypad area and the red plate 120.

**FIG. 1**

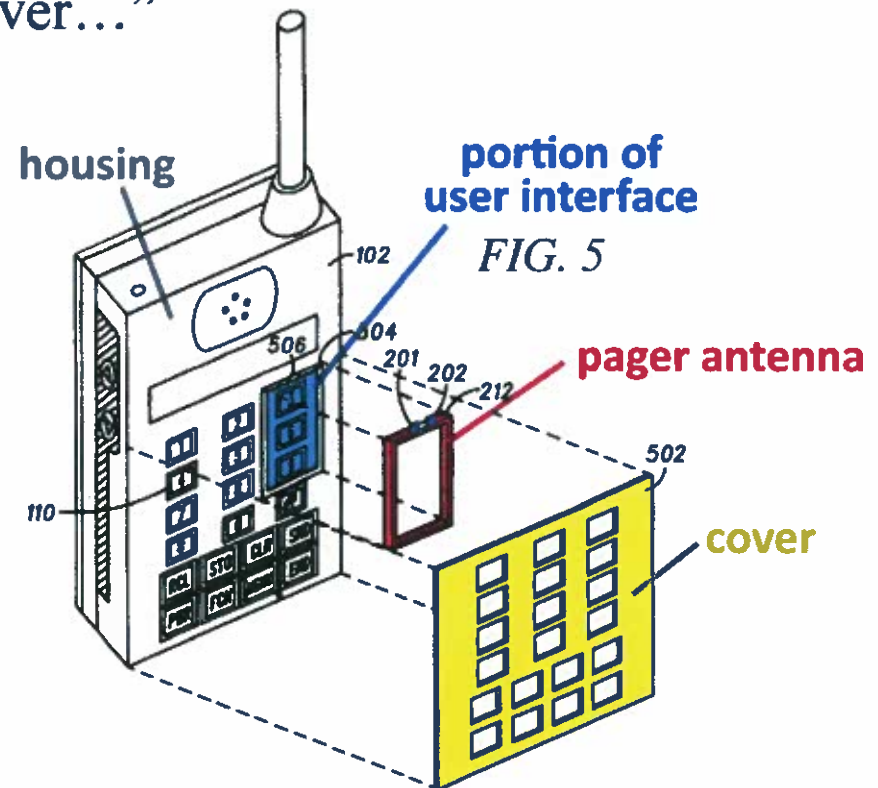


# The '987 Patent Conceals the External Pager Antenna Under a "Substantially Planar" Cover

'987 Patent



“...a substantially planar and detachable cover, attached to the outside, nonconductive surface of the housing, for concealing the antenna between the cover and the outside, nonconductive surface of the housing such that the antenna is unnoticeable to a user of the receiver...”



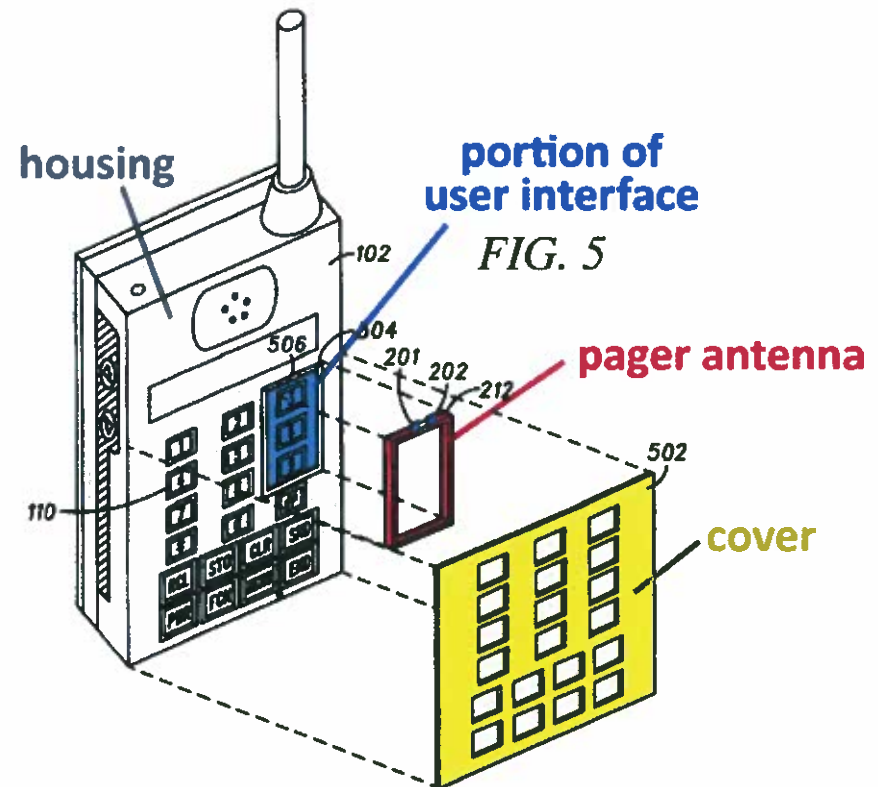
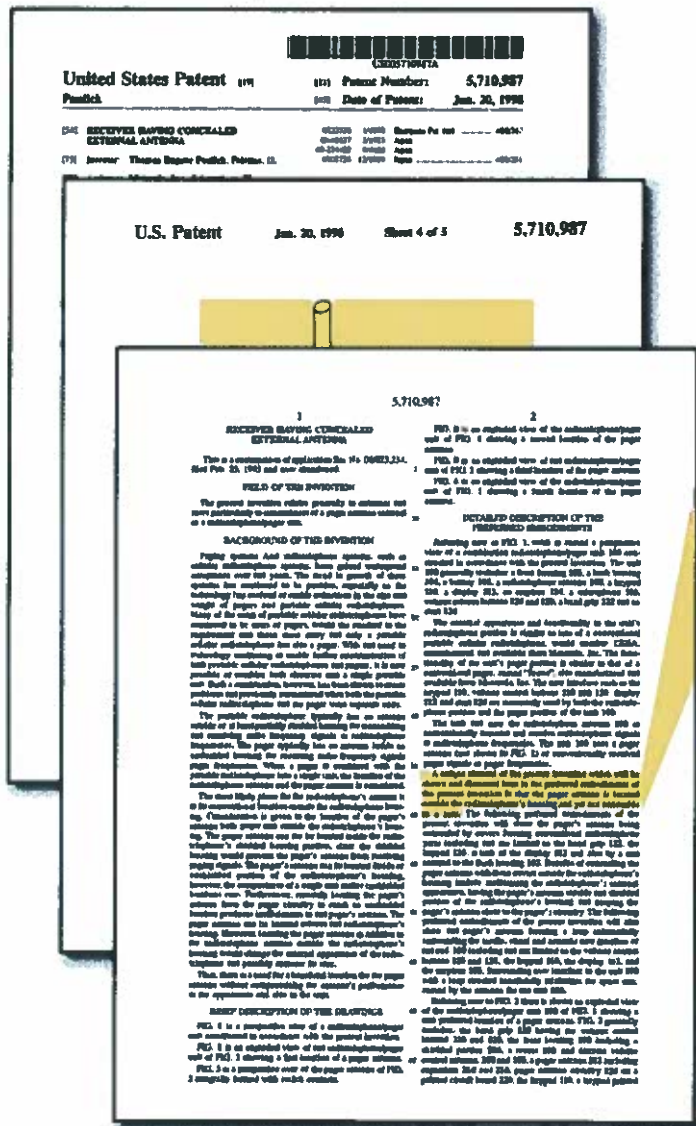
'987 Patent,  
Fig. 5 and  
col. 6:31-35



# Embodiment 1: Pager Antenna Is Outside the Case, But Concealed

'987 Patent

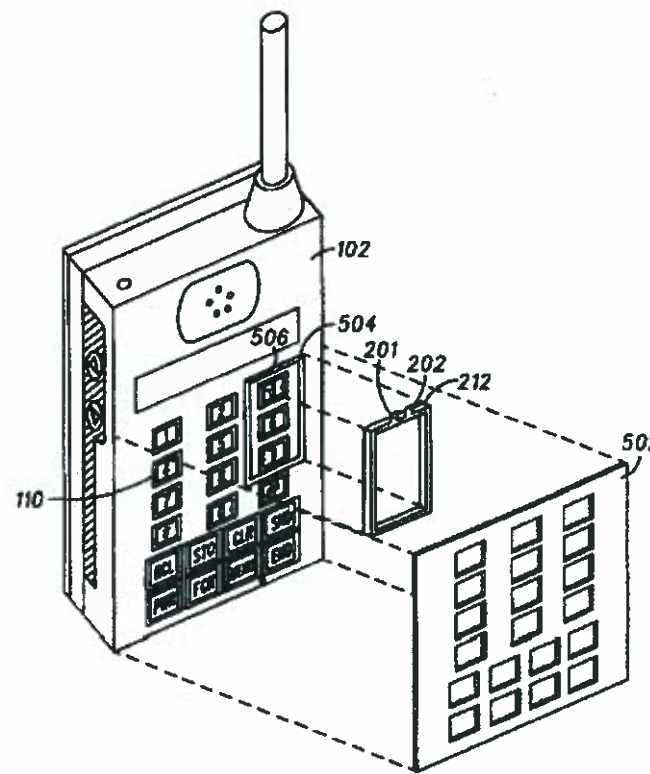
"A unique element of the present invention which will be shown and discussed later in the preferred embodiments of the present invention is that the pager antenna is located outside the radiotelephone's housing and yet unnoticeable to a user."



'987 Patent,  
Fig. 5 and  
col. 2:36-40

# Embodiment 1: Pager Antenna Is Outside the Case, But Concealed

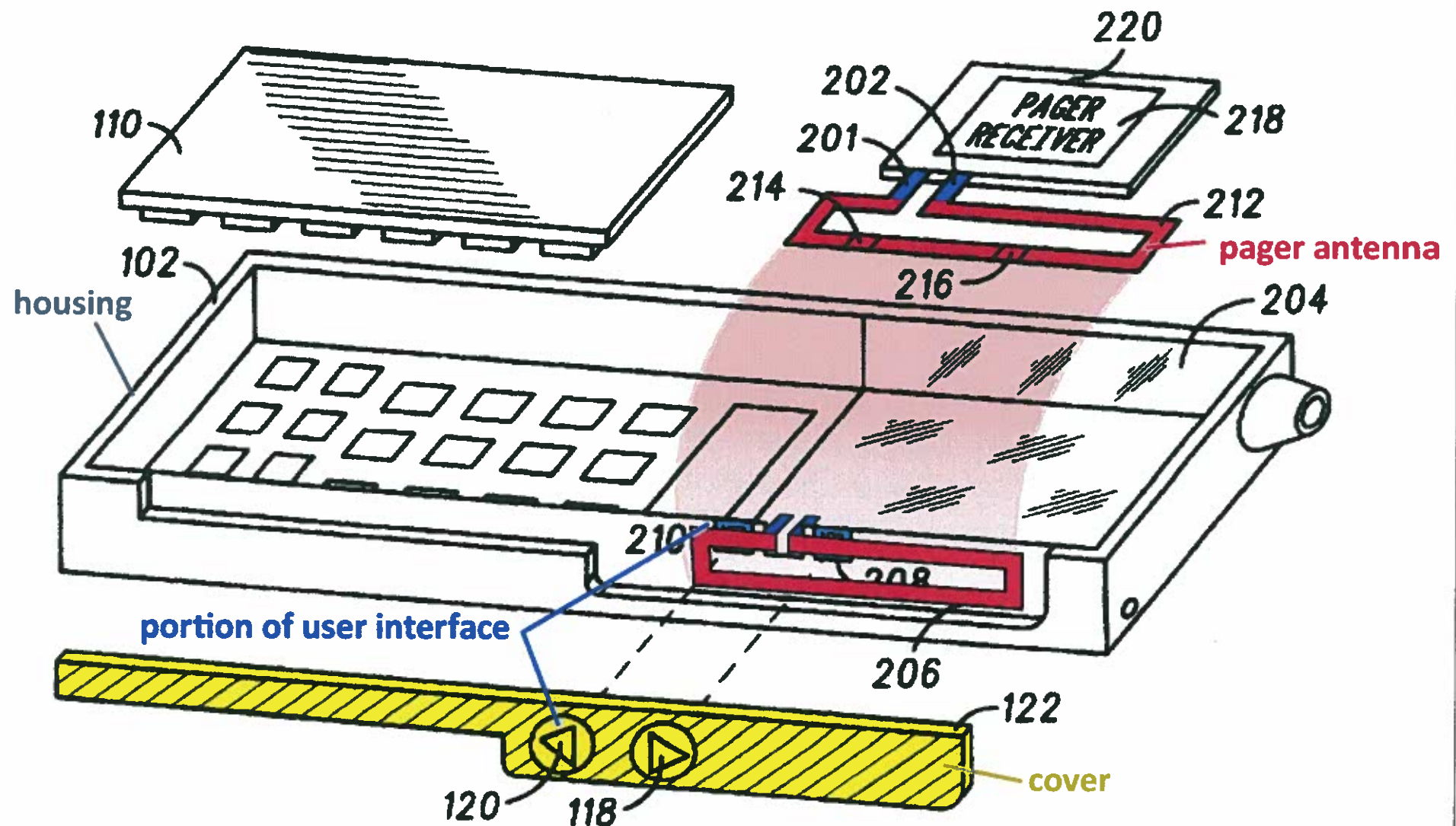
'987 Patent



**FIG. 5**

# Embodiment 2: Pager Antenna Is Outside the Case, But Concealed

'987 Patent

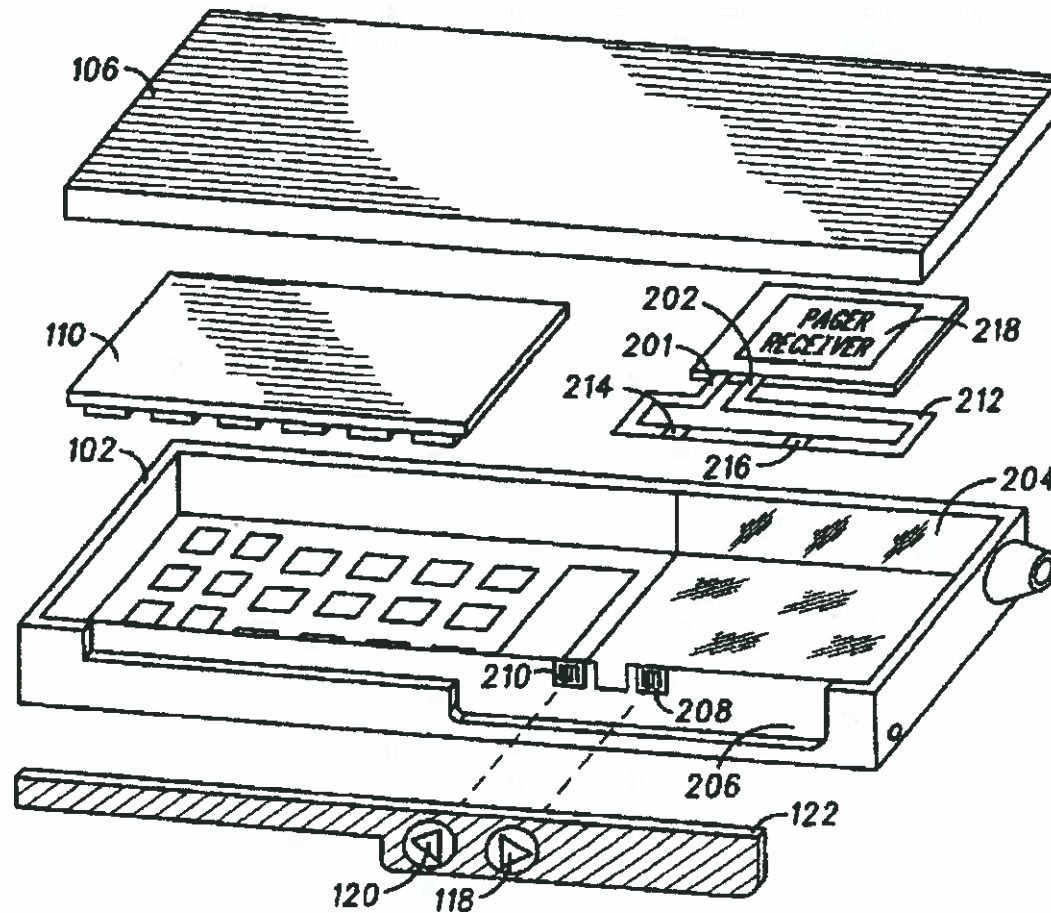


'987 Patent, Fig. 2 (modified)



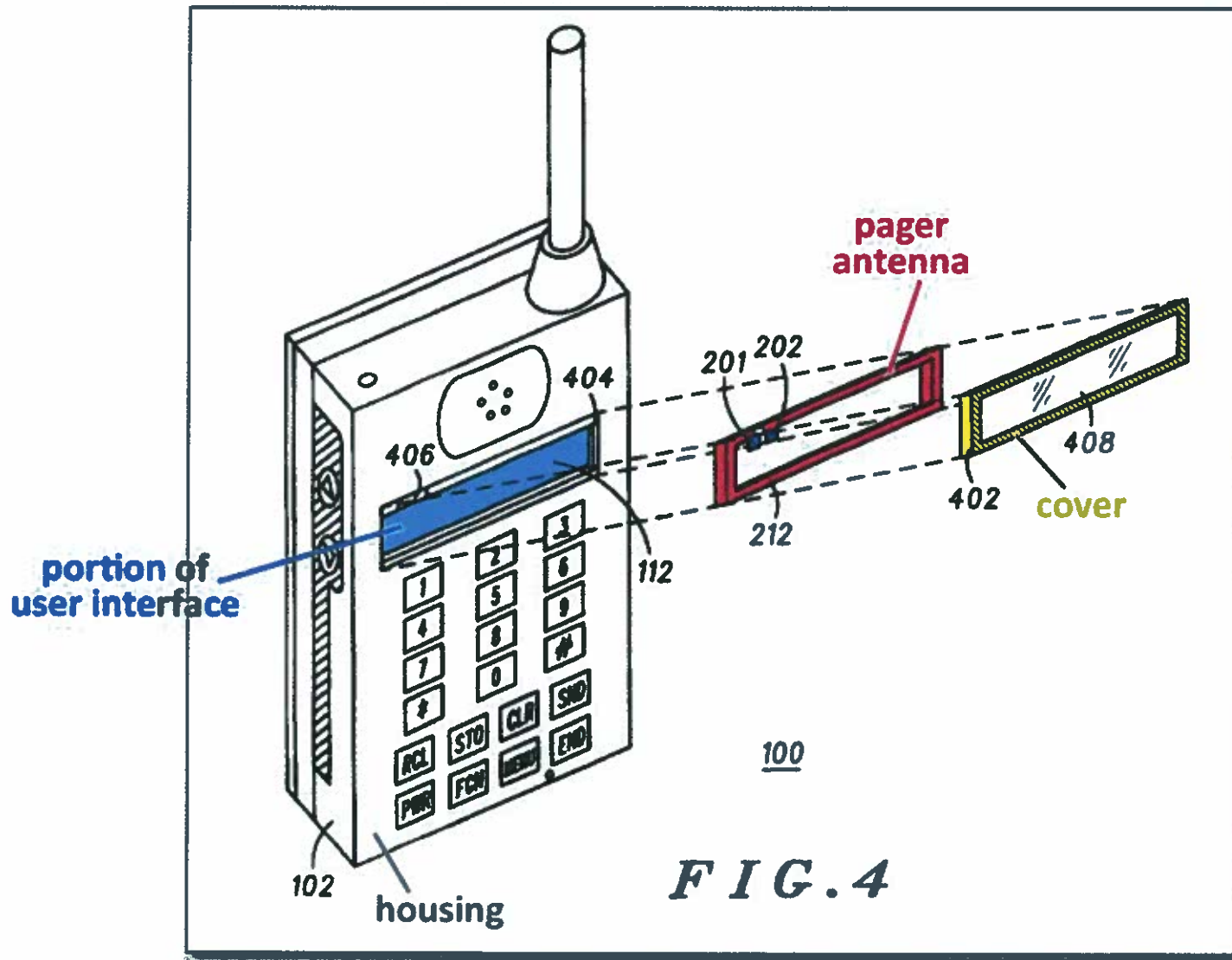
## Embodiment 2: Pager Antenna Is Outside the Case, But Concealed

'987 Patent



## Embodiment 3: Entire Pager Antenna Lies Between an Outside Surface of the Case and the Surround Portion of the UI

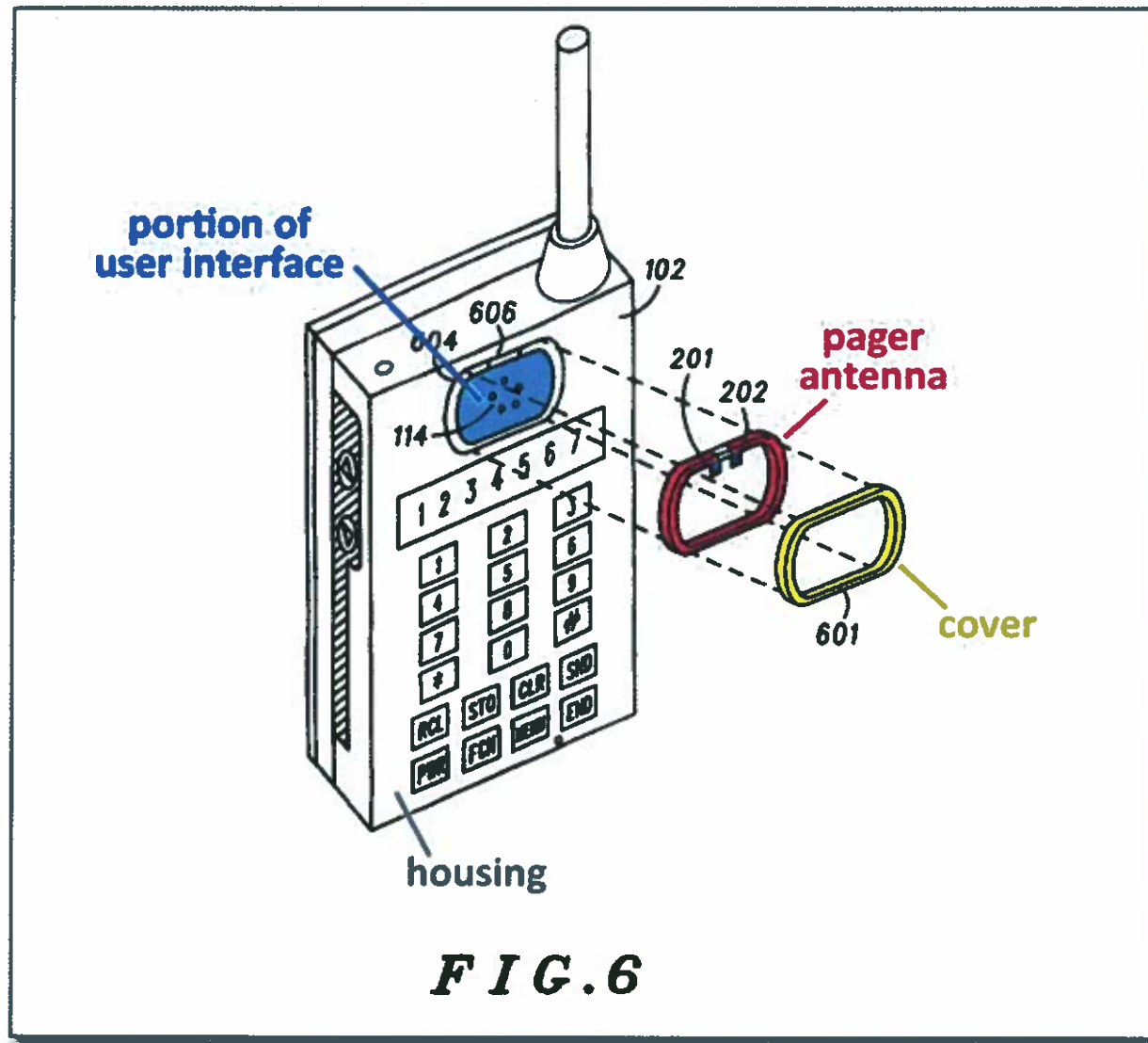
'987 Patent



'987 Patent, Fig. 4

## Embodiment 4: Entire Pager Antenna Lies Between an Outside Surface of the Case and the Surround Portion of the UI

'987 Patent



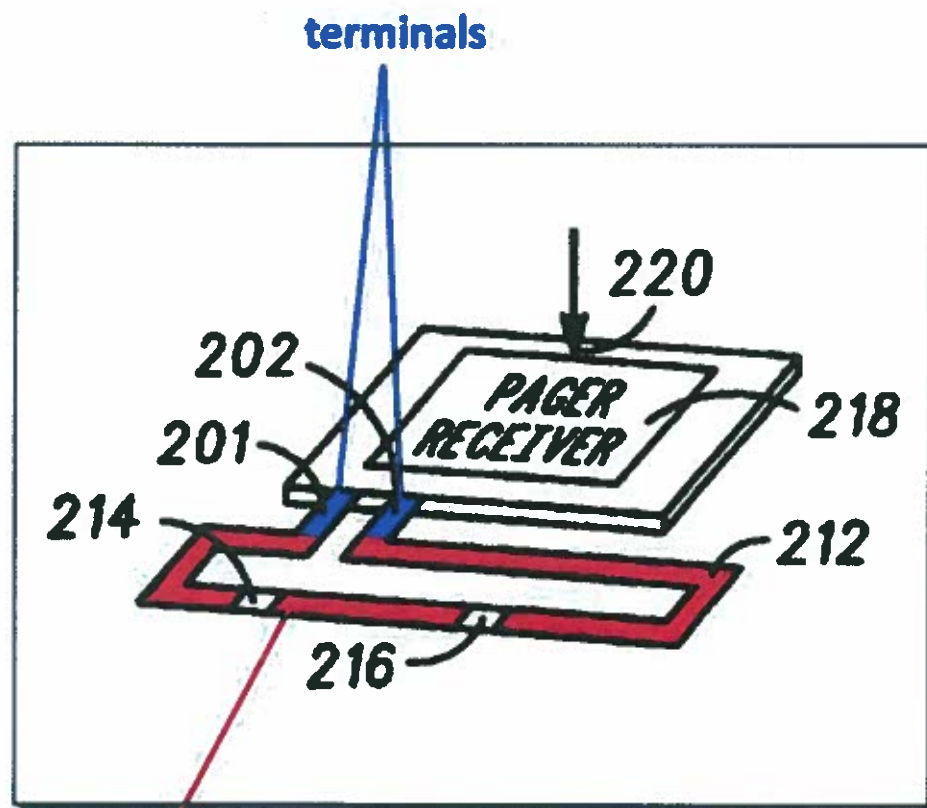
**FIG. 6**

'987 Patent, Fig. 6



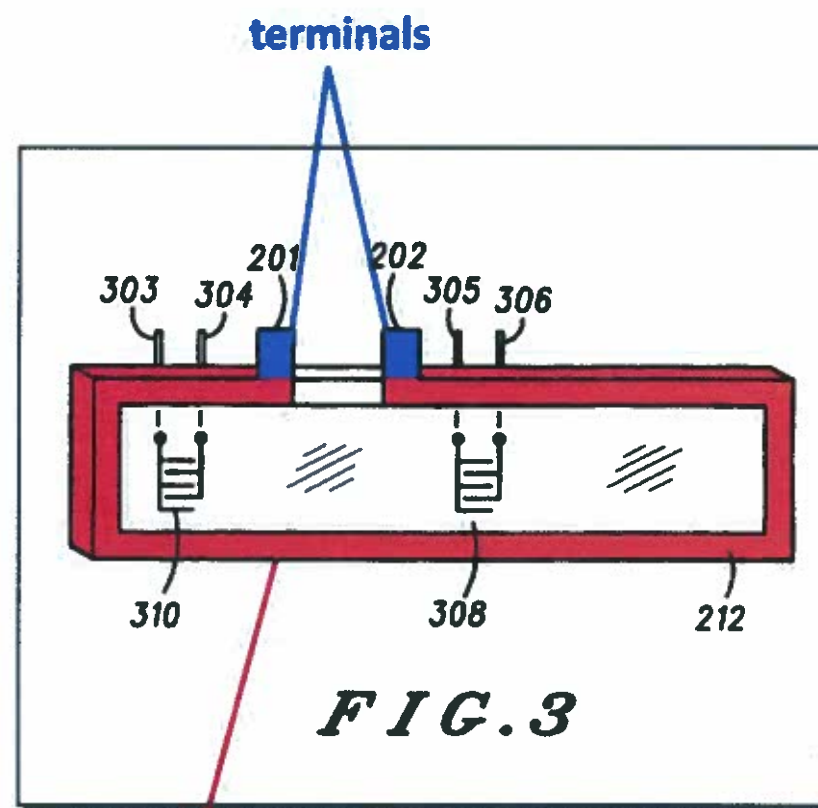
# Entire Pager Antenna Is Outside the Case

'987 Patent



'987 Patent, Fig. 2 (partial)

antenna



'987 Patent, Fig. 3

antenna

# The Antennas of the iPhone 4 are Not Concealed, and a Portion of Each Antenna Is Not External

'987 Patent



A portion of the cellular and WiFi/BT antennas is internal.

# The Antennas of the iPhone 4 Are Not Concealed by a “Substantially Planar” Cover

'987 Patent



**Apple's iPhone 4  
Bumper is not  
substantially planar**



*Motorola Mobility, Inc. v. Apple, Inc.,*

Case No. 1:10-CV-23580-UU (S.D. Fla.)

**'161 Patent  
Technology Tutorial**

# '161 Patent

'161 Patent

## (12) United States Patent Gromelski et al.

**United States Patent**  
Gromelski et al.

(10) Patent No.: **US 6,377,161 B1**  
(40) Date of Patent: **Apr. 23, 2002**

(54) **METHOD AND APPARATUS IN A WIRELESS MESSAGING SYSTEM FOR FACILITATING AN EXCHANGE OF ADDRESS INFORMATION**

(75) Inventors: **Lisa Jane Gromelski, Fort Worth, TX (US); Gregory Lewis Cannon, Boynton Beach, FL (US)**

(71) Applicant: **Motorola, Inc., Schaumburg, IL (US)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended to adjusted under 35 U.S.C. (540) by 0 days.

(21) Appl. No. **09/132,407**  
(22) Filed: **Aug. 11, 1998**  
(51) Int. Cl. **H04W 7/00, H04M 1/00, G06F 5/22**  
(52) U.S. Cl. **380/5.42, 380/7.2, 380/7.21, 455/454, 455/456, 455/567, 455/412**  
(50) Field of Invention **455/31.3, 31.1, 455/31.3, 32.1, 36.6, 412, 415, 456, 496, 567, 568, 419, 420, 560/235-44, 7.2, 7.21, 7.45, 704/245, 217**

(56) References Cited

U.S. PATENT DOCUMENTS

1,138,995 A	7/1982	Takamatsu	276/58
5,276,727 A	1/1994	Higuchi et al.	379/28
5,339,881 A	6/1996	Machovsky	379/28

20 Claims, 3 Drawing Sheets

**ABSTRACT**

A first portable messaging unit (PMU) (122) sends (302) address information to a second PMU through a wireless messaging system, and the second PMU (204) the address information in response, the second PMU makes a check (304) of whether additional information to the address information is stored in its address book (230) and then transmits (306-310) the address information to a portable messaging device (204) in the result of the check.

(54) **METHOD AND APPARATUS IN A WIRELESS MESSAGING SYSTEM FOR FACILITATING AN EXCHANGE OF ADDRESS INFORMATION**

(75) Inventors: **Lisa Jane Gromelski, Fort Worth, TX (US); Gregory Lewis Cannon, Boynton Beach, FL (US)**

● Issued: April 23, 2002

● Filed: Aug. 11, 1998

● Asserted Claims: 1-3, 5, 9, 12-14

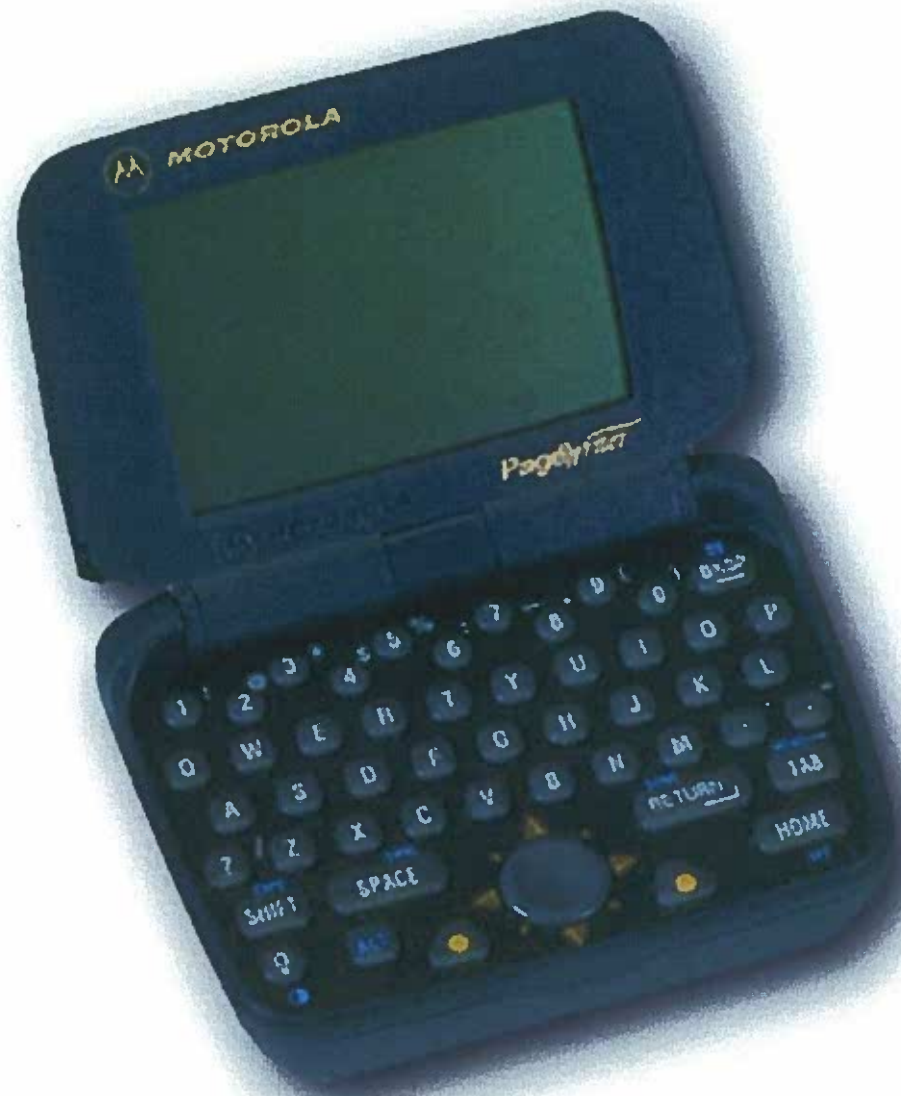
● Accused Products: iPhone 3G, iPhone 3GS, and iPhone 4G, iPad, iPad with 3G, iPad 2, iPad 2 with 3G, iPod Touch, MacBook, MacBook Pro, MacBook Air, iMac, Mac mini, Mac Pro, and MobileMe

● Identified Product: Motorola PageWriter 2000

'161 Patent

# Motorola PageWriter 2000

'161 Patent





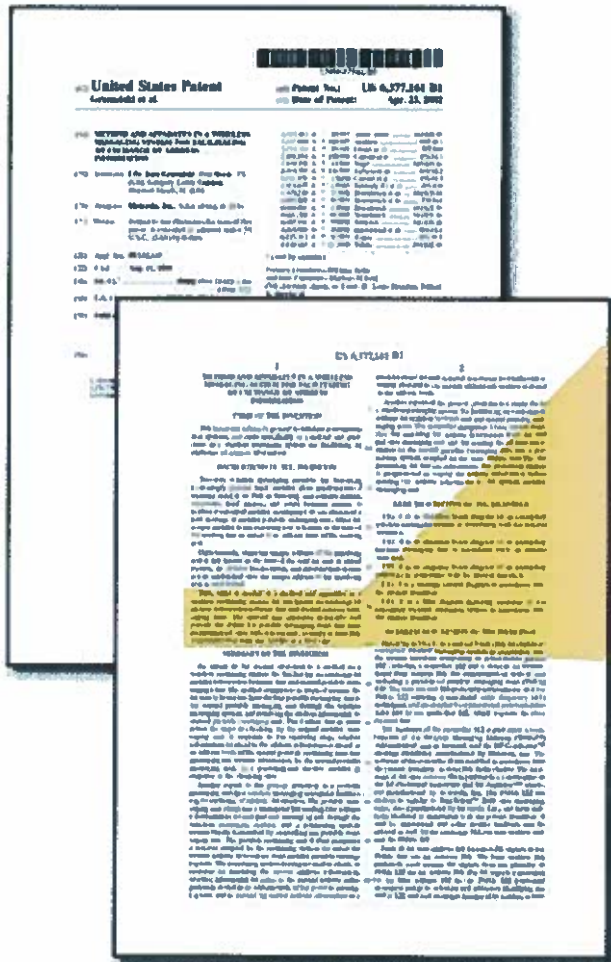
## '161 Patent



“Unfortunately, when the unique address of the receiving unit is not known to the user of the sending unit or stored therein, the process breaks down, and communication cannot be established until the unique address of the receiving unit is established.”

# The '161 Patent's Solution to the Problem

'161 Patent

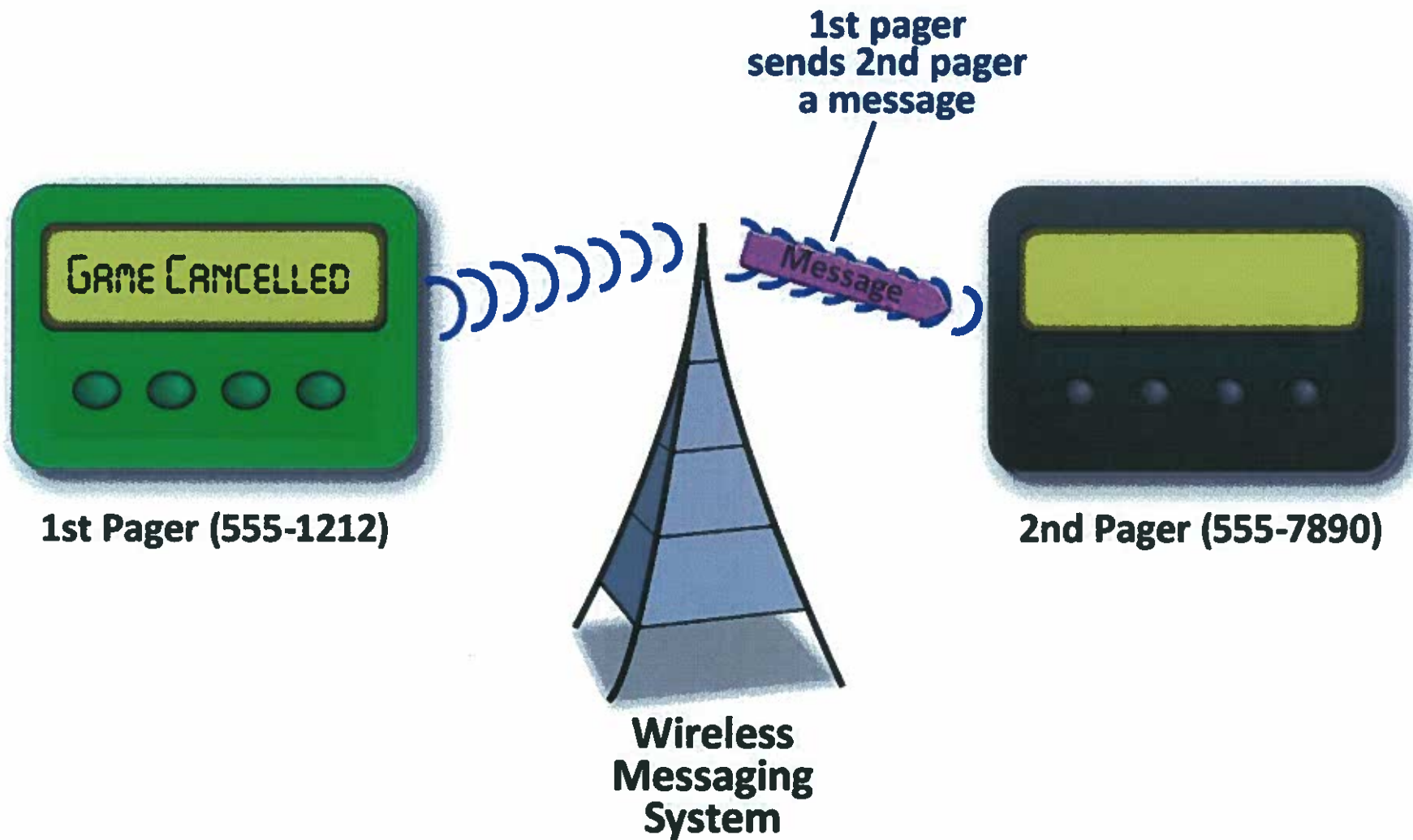


“Thus, what is needed is a method and apparatus in a wireless messaging system for facilitating an exchange of address information between first and second portable messaging units. The method and apparatus preferably will provide the ability for portable messaging units that have communicated once with one another, to easily re-establish communications with one another at a later time.”

'161 Patent, col. 1:28-35

# The Solution of the '161 Patent: First Embodiment

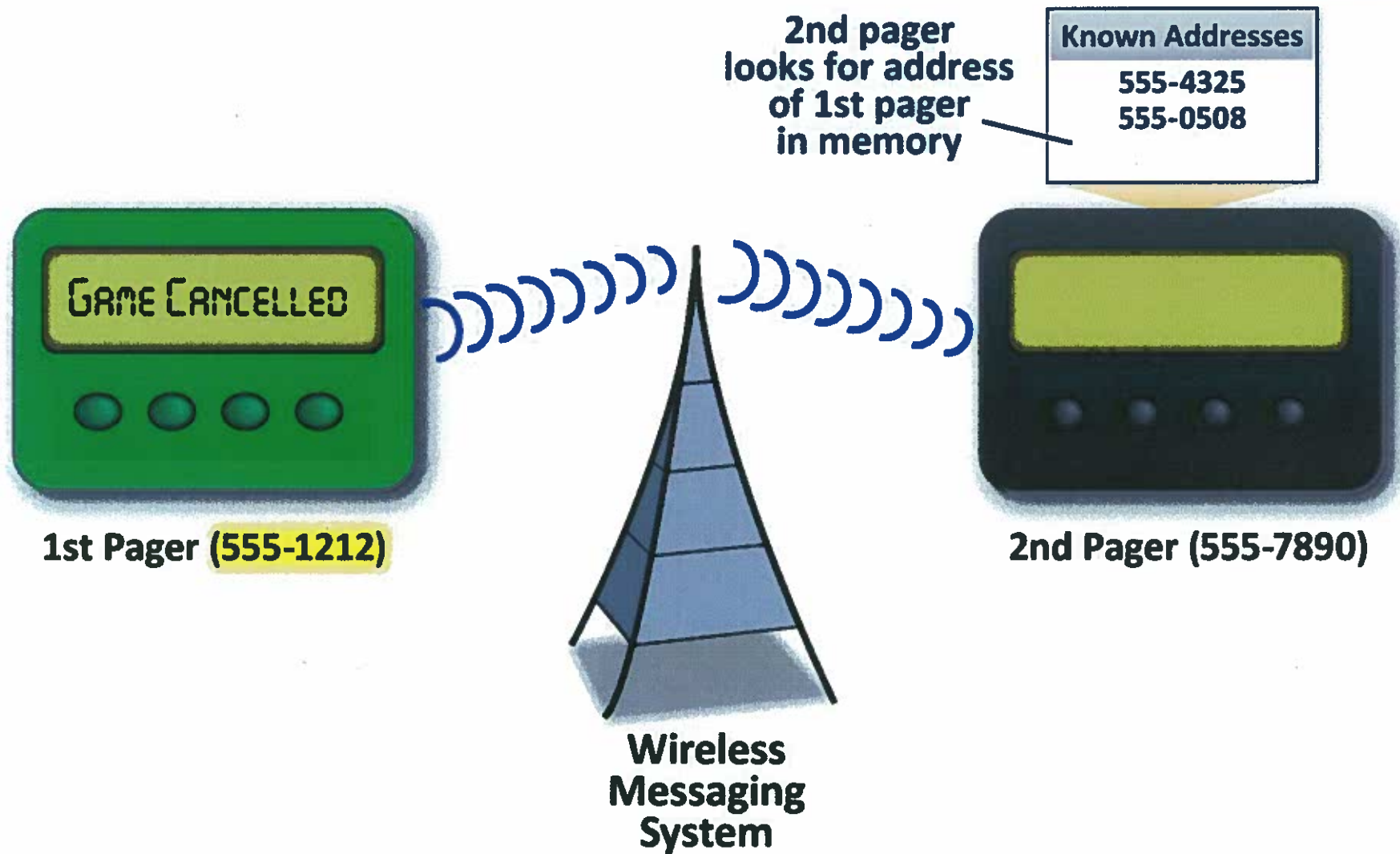
'161 Patent





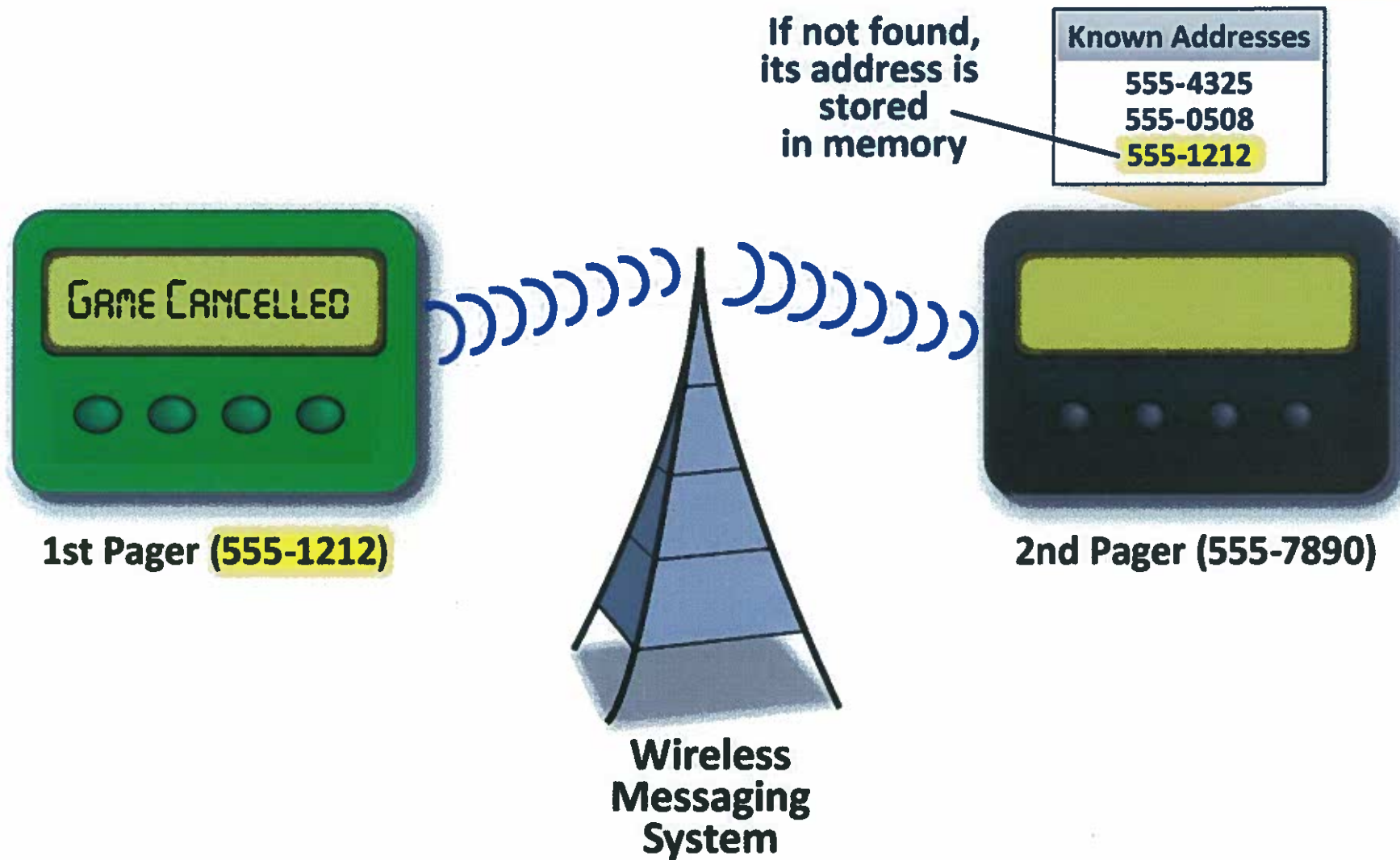
# The Solution of the '161 Patent: First Embodiment

'161 Patent



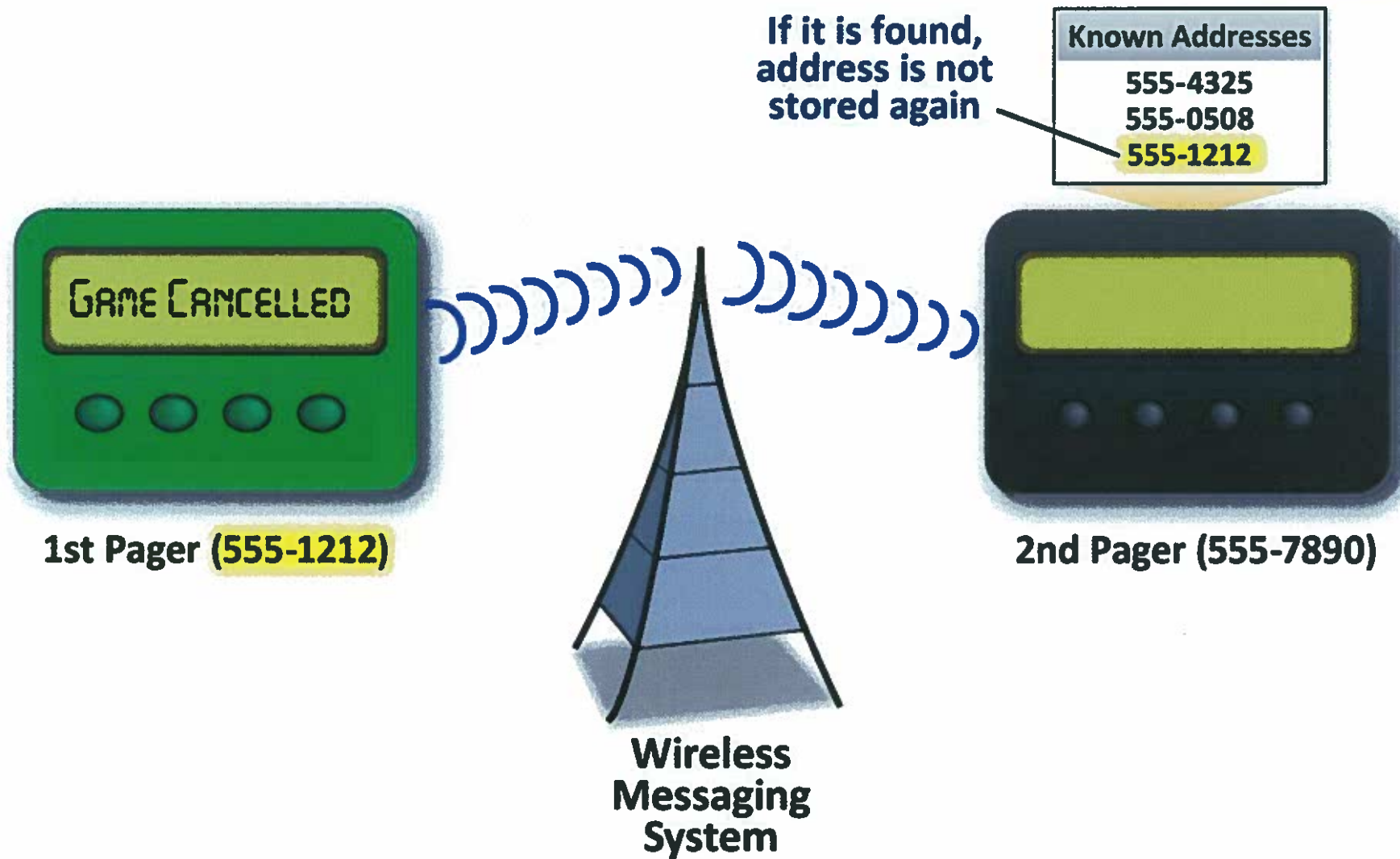
# The Solution of the '161 Patent: First Embodiment

'161 Patent



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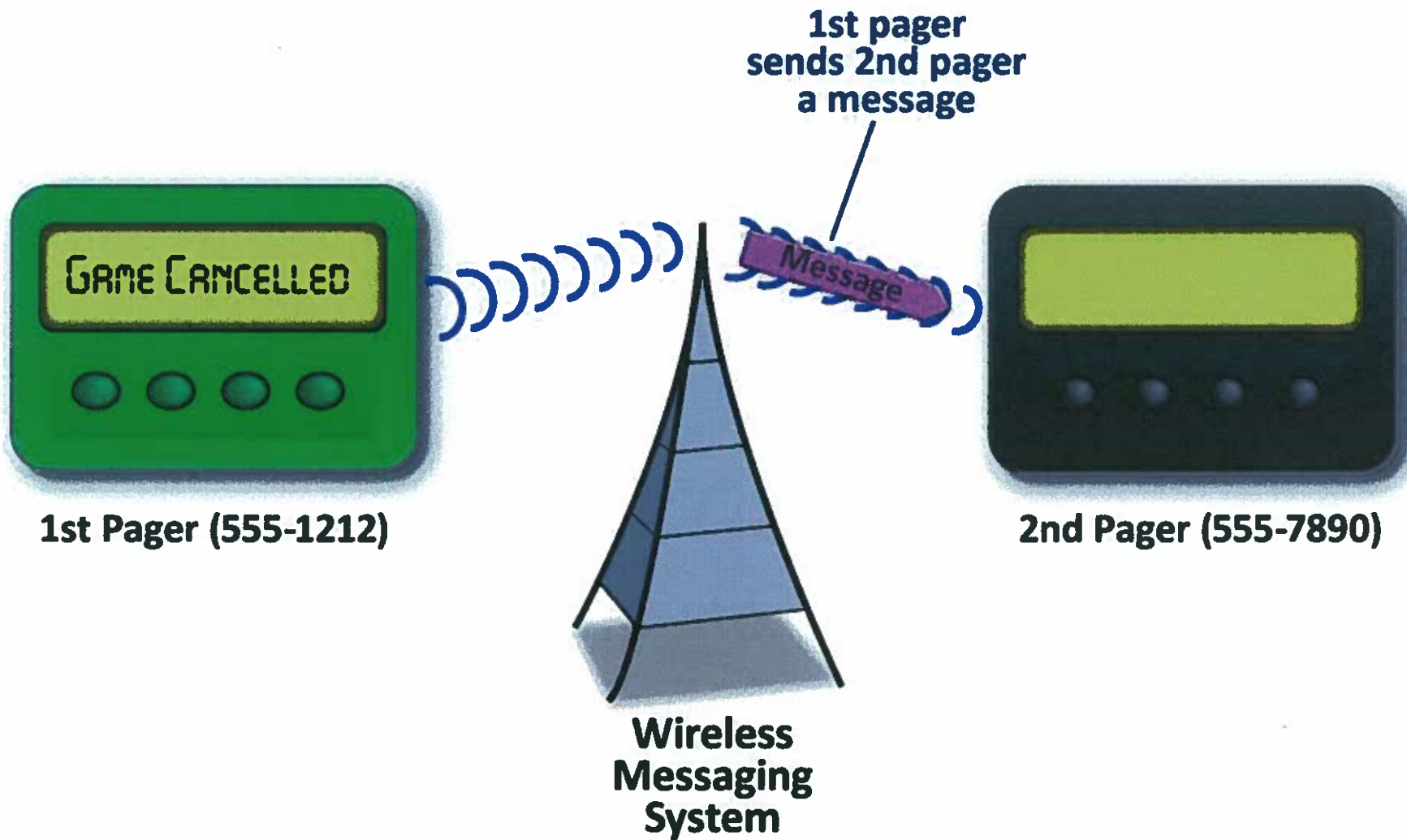
'161 Patent





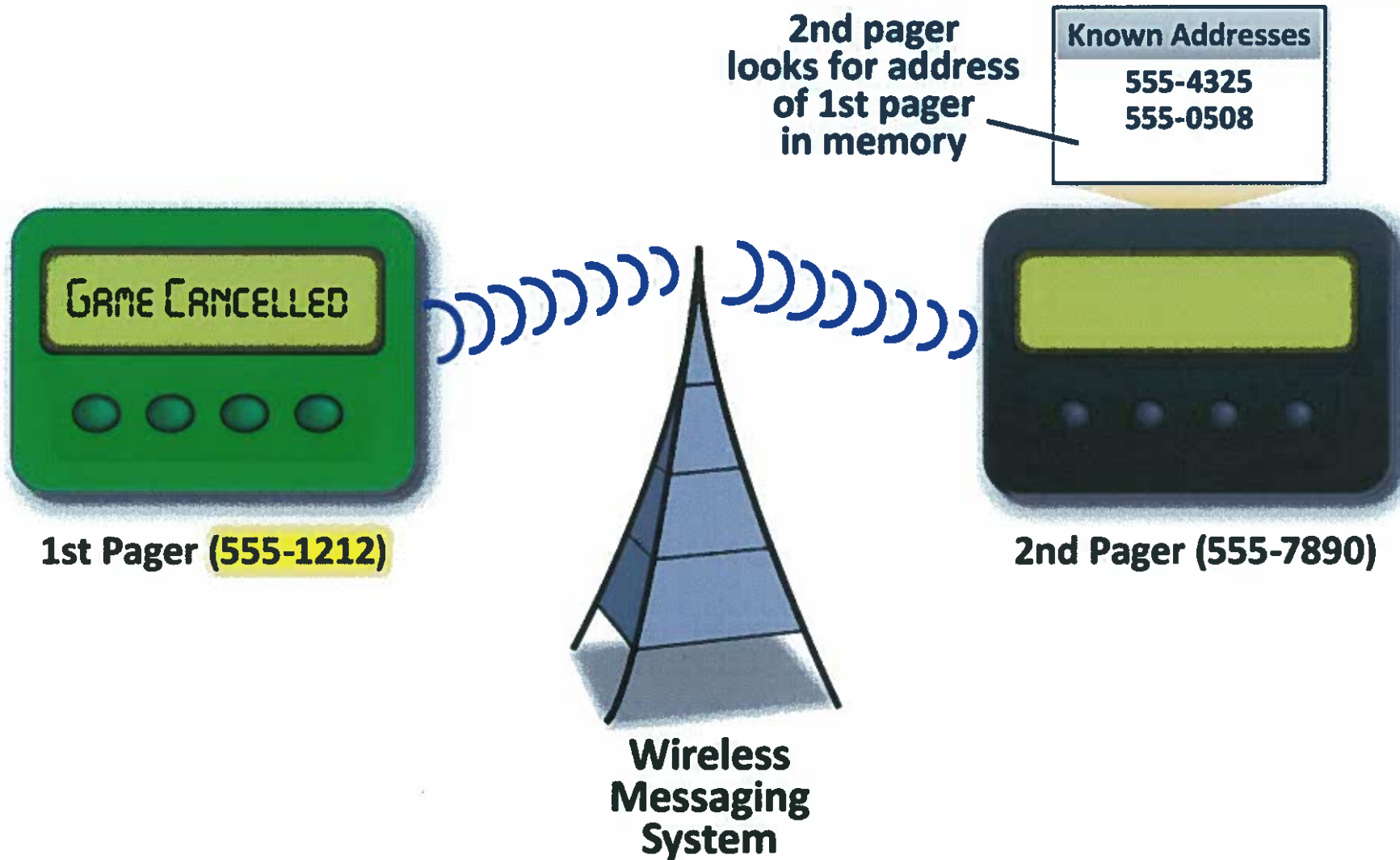
# The Solution of the '161 Patent: Second Embodiment

'161 Patent



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'161 Patent

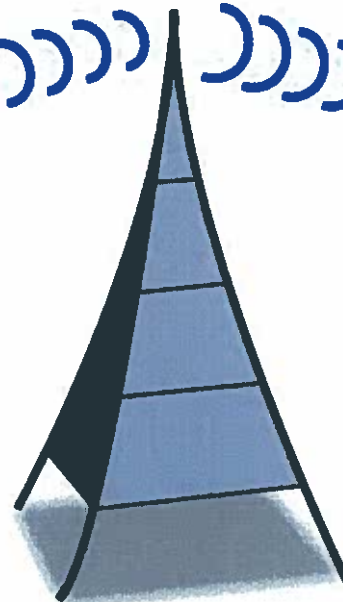


# The Solution of the '161 Patent: Second Embodiment

'161 Patent



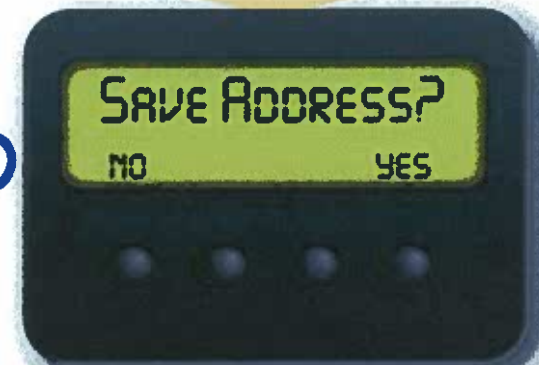
1st Pager (555-1212)



Wireless  
Messaging  
System

Known Addresses

555-4325  
555-0508



2nd Pager (555-7890)



# The Solution of the '161 Patent: Second Embodiment

'161 Patent

The user can  
store the new  
address  
in memory

Known Addresses

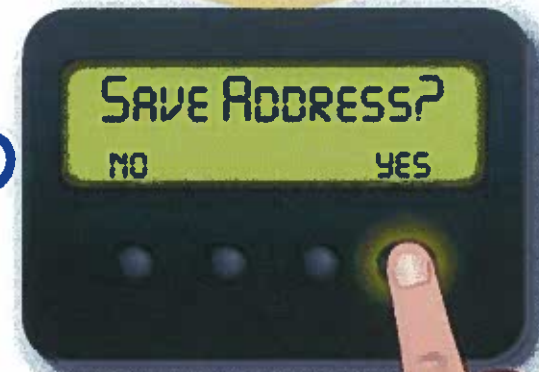
555-4325  
555-0508  
555-1212



1st Pager (555-1212)



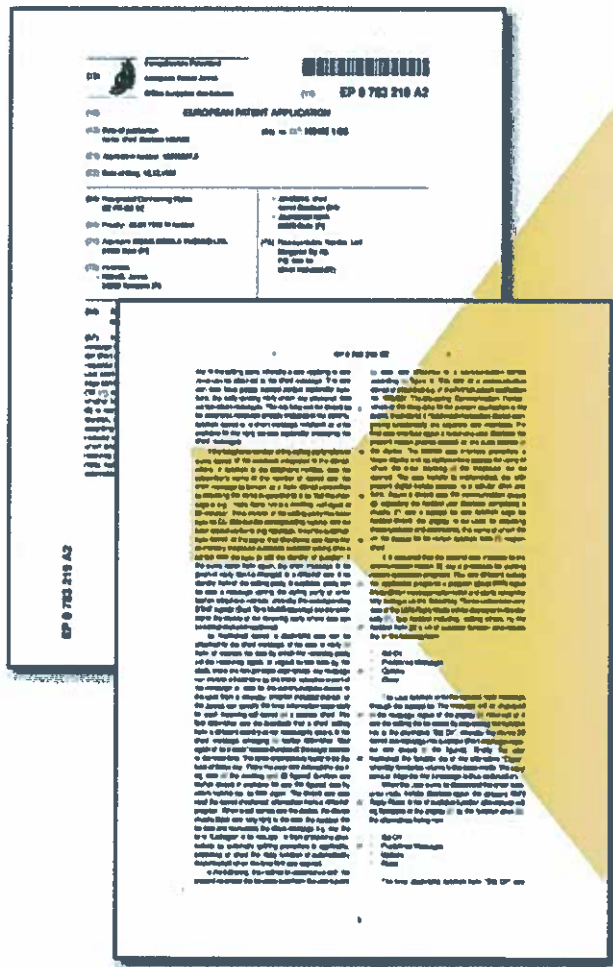
Wireless  
Messaging  
System



2nd Pager (555-7)

# Exemplary Prior Art

'161 Patent

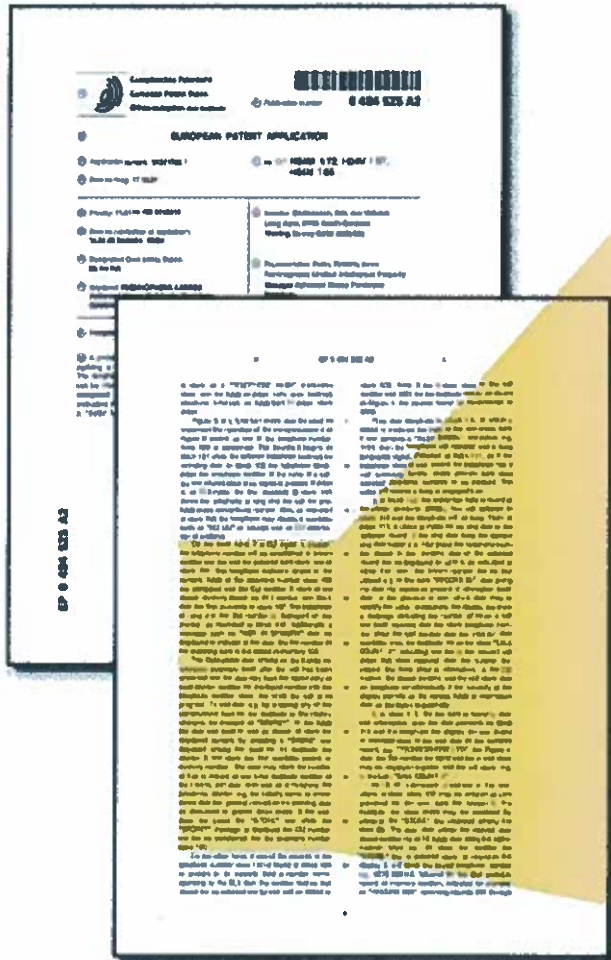


Nokia Patent (1997)

“If the telephone number of the calling party refers to some record of the notebook integrated to the device, where, in addition to the telephone number, also the subscriber's name of the number is stored into, the short message to be sent as a reply can be personalized by attaching the name in question to it, so that the message is e.g.: ‘Hello Anne, I'm in a meeting, call again in 20 minutes’. If the number of the calling party has been read as CLI data but the corresponding number has not been stored earlier to any notebook, it can be automatically stored. At the same time the device can store into its memory means an automatic reminder asking after a certain time the user to call the number in question.”

# Exemplary Prior Art

'161 Patent



Technophone Patent (1992)

“The telephone numbers stored in the numeric fields of the telephone number store 100 are compared with the CLI number.... Additionally a message such as ‘NOT IN MEMORY’ may be displayed to indicate to the user that the number of the incoming calls is not stored in memory 100.

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At this point the user can confirm that he wishes to store the displayed number by pressing a ‘STORE’ key disposed among the keys 6b.”