

# **EXHIBIT 2**

# **TO COMPLAINT**

(12) **United States Patent**  
**Brownrigg et al.**

(10) **Patent No.:** **US 8,625,496 B2**  
 (45) **Date of Patent:** **\*Jan. 7, 2014**

(54) **WIRELESS NETWORK SYSTEM AND METHOD FOR PROVIDING SAME**

(56) **References Cited**

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U.S. PATENT DOCUMENTS

|           |   |         |              |
|-----------|---|---------|--------------|
| 3,665,475 | A | 5/1972  | Gram         |
| 3,705,385 | A | 12/1972 | Batz         |
| 3,723,876 | A | 3/1973  | Seaborn, Jr. |
| 3,742,142 | A | 6/1973  | Martin       |
| 3,768,014 | A | 10/1973 | Smith        |
| 3,769,965 | A | 11/1973 | Raddi et al. |

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(Continued)

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FOREIGN PATENT DOCUMENTS

|    |         |        |
|----|---------|--------|
| CA | 945277  | 4/1974 |
| CA | 2324563 | 9/1999 |

(Continued)

OTHER PUBLICATIONS

“Wayport’s Value Proposition: To provide the industry’s best high-speed Internet and business center experience for the airport passenger to stay productive,” <http://www.wayport.net/airportsoverview> (visited Jul. 29, 2003) (2 pages).

“Welcome to UtiliNet: A Wireless Data Communications Solution from Metricom, Inc.,” Author: unknown, available at <http://web.archive.org/web/199806028045812/www.metricom.com/industrial/utilinet.html> on May 10, 2010, pp. 1-10.

“What’s Behind Ricochet: A Network Overview,” Author: unknown, available at [http://web.archive.org/web/20000815090824/www.ricochet.com/ricochet\\_advantage/tech\\_overview.html](http://web.archive.org/web/20000815090824/www.ricochet.com/ricochet_advantage/tech_overview.html), Aug. 15, 2000, pp. 1-4.

(Continued)

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(57) **ABSTRACT**

A wireless network, which includes a wireless router client operable to broadcast data packets to at least one wireless server and one additional wireless client. Each client and server includes programs for determining optimum routes between them. The client also includes a program for determining if a received data packet is not addressed to it and if the packet has been sent via a new optimal route unknown to the client, and for notifying the respective server of such a new optimal route.

**45 Claims, 42 Drawing Sheets**

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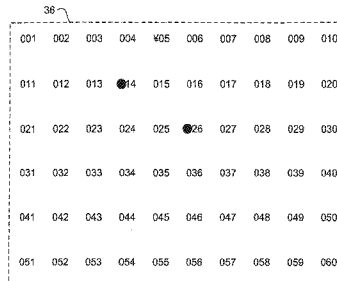
**Related U.S. Application Data**

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**H04W 4/00** (2009.01)

(52) **U.S. Cl.**  
 USPC ..... **370/328**; 455/11.1

(58) **Field of Classification Search**  
 None  
 See application file for complete search history.



There is only one Internet server in range of client 5.  
 5 will issue an "I am alive" packet seeking a route to the Internet.  
 Internet server 14 will respond and add user client 5 to its routing table as its left son.  
 The updated routing table of Internet server 14 is as follows:

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## References Cited

## U.S. PATENT DOCUMENTS

|           |   |         |                      |           |   |         |                     |
|-----------|---|---------|----------------------|-----------|---|---------|---------------------|
| 3,848,231 | A | 11/1974 | Wootton              | 4,949,077 | A | 8/1990  | Mbuthia             |
| 3,885,552 | A | 5/1975  | Kennedy              | 4,952,928 | A | 8/1990  | Carroll et al.      |
| 3,892,948 | A | 7/1975  | Constable            | 4,962,496 | A | 10/1990 | Vercellotti et al.  |
| 3,906,460 | A | 9/1975  | Halpern              | 4,967,366 | A | 10/1990 | Kaehler             |
| 3,914,692 | A | 10/1975 | Seaborn, Jr.         | 4,968,970 | A | 11/1990 | LaPorte             |
| 3,922,492 | A | 11/1975 | Lumsden              | 4,968,978 | A | 11/1990 | Stolarczyk          |
| 3,925,763 | A | 12/1975 | Wadhvani et al.      | 4,972,504 | A | 11/1990 | Daniel, Jr. et al.  |
| 4,025,315 | A | 5/1977  | Mazelli              | 4,973,957 | A | 11/1990 | Shimizu et al.      |
| 4,056,684 | A | 11/1977 | Lindstrom            | 4,973,970 | A | 11/1990 | Reeser              |
| 4,058,672 | A | 11/1977 | Crager et al.        | 4,977,612 | A | 12/1990 | Wilson              |
| 4,083,003 | A | 4/1978  | Haemmig              | 4,980,907 | A | 12/1990 | Raith et al.        |
| 4,120,452 | A | 10/1978 | Kimura et al.        | 4,987,536 | A | 1/1991  | Humblet             |
| 4,124,839 | A | 11/1978 | Cohen                | 4,989,230 | A | 1/1991  | Gillig et al.       |
| 4,135,181 | A | 1/1979  | Bogacki et al.       | 4,991,008 | A | 2/1991  | Nama                |
| 4,204,195 | A | 5/1980  | Bogacki              | 4,993,059 | A | 2/1991  | Smith et al.        |
| 4,213,119 | A | 7/1980  | Ward et al.          | 4,998,095 | A | 3/1991  | Shields             |
| 4,277,837 | A | 7/1981  | Stuckert             | 4,999,607 | A | 3/1991  | Evans               |
| 4,278,975 | A | 7/1981  | Kimura et al.        | 5,007,052 | A | 4/1991  | Flammer             |
| 4,284,852 | A | 8/1981  | Szybicki et al.      | 5,032,833 | A | 7/1991  | Laporte             |
| 4,322,842 | A | 3/1982  | Martinez             | 5,038,372 | A | 8/1991  | Elms et al.         |
| 4,345,116 | A | 8/1982  | Ash et al.           | 5,055,851 | A | 10/1991 | Sheffer             |
| 4,354,181 | A | 10/1982 | Spletzer             | 5,057,814 | A | 10/1991 | Onan et al.         |
| 4,395,780 | A | 7/1983  | Gohm et al.          | 5,061,997 | A | 10/1991 | Rea et al.          |
| 4,396,910 | A | 8/1983  | Enemark et al.       | 5,079,768 | A | 1/1992  | Flammer             |
| 4,396,915 | A | 8/1983  | Farnsworth et al.    | 5,086,391 | A | 2/1992  | Chambers            |
| 4,399,531 | A | 8/1983  | Grande et al.        | 5,088,032 | A | 2/1992  | Bosack              |
| 4,406,016 | A | 9/1983  | Abrams et al.        | 5,091,713 | A | 2/1992  | Horne et al.        |
| 4,417,450 | A | 11/1983 | Morgan, Jr. et al.   | 5,111,199 | A | 5/1992  | Tomoda et al.       |
| 4,436,957 | A | 3/1984  | Mazza et al.         | 5,113,183 | A | 5/1992  | Mizuno et al.       |
| 4,446,454 | A | 5/1984  | Pyle                 | 5,113,184 | A | 5/1992  | Katayama            |
| 4,446,458 | A | 5/1984  | Cook                 | 5,115,224 | A | 5/1992  | Kostusiak et al.    |
| 4,454,414 | A | 6/1984  | Benton               | 5,115,433 | A | 5/1992  | Baran et al.        |
| 4,468,656 | A | 8/1984  | Clifford et al.      | 5,117,422 | A | 5/1992  | Hauptschein et al.  |
| 4,488,152 | A | 12/1984 | Arnason et al.       | 5,124,624 | A | 6/1992  | de Vries et al.     |
| 4,495,496 | A | 1/1985  | Miller, III          | 5,128,855 | A | 7/1992  | Hilber et al.       |
| 4,551,719 | A | 11/1985 | Carlin et al.        | 5,130,519 | A | 7/1992  | Bush et al.         |
| 4,611,198 | A | 9/1986  | Levinson et al.      | 5,130,987 | A | 7/1992  | Flammer             |
| 4,621,263 | A | 11/1986 | Takenaka et al.      | 5,131,038 | A | 7/1992  | Puhl et al.         |
| 4,630,035 | A | 12/1986 | Stahl et al.         | 5,134,650 | A | 7/1992  | Blackmon            |
| 4,631,357 | A | 12/1986 | Grunig               | 5,136,285 | A | 8/1992  | Okuyama             |
| 4,665,519 | A | 5/1987  | Kirchner et al.      | 5,138,615 | A | 8/1992  | Lamport et al.      |
| 4,669,113 | A | 5/1987  | Ash et al.           | 5,155,481 | A | 10/1992 | Brennan, Jr. et al. |
| 4,670,739 | A | 6/1987  | Kelly, Jr.           | 5,159,317 | A | 10/1992 | Brav                |
| 4,692,761 | A | 9/1987  | Robinton             | 5,159,592 | A | 10/1992 | Perkins             |
| 4,704,724 | A | 11/1987 | Krishnan et al.      | 5,162,776 | A | 11/1992 | Bushnell et al.     |
| 4,707,852 | A | 11/1987 | Jahr et al.          | 5,170,393 | A | 12/1992 | Peterson et al.     |
| 4,731,810 | A | 3/1988  | Watkins              | 5,177,342 | A | 1/1993  | Adams               |
| 4,742,296 | A | 5/1988  | Petr et al.          | 5,189,287 | A | 2/1993  | Parianti            |
| 4,757,185 | A | 7/1988  | Onishi               | 5,191,192 | A | 3/1993  | Takahira et al.     |
| 4,788,721 | A | 11/1988 | Krishnan et al.      | 5,191,326 | A | 3/1993  | Montgomery          |
| 4,792,946 | A | 12/1988 | Mayo                 | 5,193,111 | A | 3/1993  | Matty et al.        |
| 4,799,059 | A | 1/1989  | Grindahl et al.      | 5,195,018 | A | 3/1993  | Kwon et al.         |
| 4,800,543 | A | 1/1989  | Lyndon-James et al.  | 5,197,095 | A | 3/1993  | Bonnet et al.       |
| 4,814,763 | A | 3/1989  | Nelson et al.        | 5,200,735 | A | 4/1993  | Hines               |
| 4,825,457 | A | 4/1989  | Lebowitz             | 5,204,670 | A | 4/1993  | Stinton             |
| 4,829,561 | A | 5/1989  | Matheny              | 5,212,645 | A | 5/1993  | Wildes et al.       |
| 4,849,815 | A | 7/1989  | Streck               | 5,216,502 | A | 6/1993  | Katz                |
| 4,851,654 | A | 7/1989  | Nitta                | 5,221,838 | A | 6/1993  | Gutman et al.       |
| 4,856,046 | A | 8/1989  | Streck et al.        | 5,223,844 | A | 6/1993  | Mansell et al.      |
| 4,857,912 | A | 8/1989  | Everett, Jr. et al.  | 5,224,468 | A | 7/1993  | Simon et al.        |
| 4,864,559 | A | 9/1989  | Perlman              | 5,231,658 | A | 7/1993  | Eftechiou           |
| 4,875,231 | A | 10/1989 | Hara et al.          | 5,235,630 | A | 8/1993  | Moody et al.        |
| 4,884,123 | A | 11/1989 | Dixit et al.         | 5,239,294 | A | 8/1993  | Flanders et al.     |
| 4,884,132 | A | 11/1989 | Morris et al.        | 5,239,575 | A | 8/1993  | White et al.        |
| 4,897,644 | A | 1/1990  | Hirano               | 5,241,410 | A | 8/1993  | Streck et al.       |
| 4,906,828 | A | 3/1990  | Halpern              | 5,243,338 | A | 9/1993  | Brennan, Jr. et al. |
| 4,908,769 | A | 3/1990  | Vaughan et al.       | 5,245,633 | A | 9/1993  | Schwartz et al.     |
| 4,912,656 | A | 3/1990  | Cain et al.          | 5,251,205 | A | 10/1993 | Callon et al.       |
| 4,918,432 | A | 4/1990  | Pauley               | 5,252,967 | A | 10/1993 | Brennan et al.      |
| 4,918,690 | A | 4/1990  | Markkula, Jr. et al. | 5,253,167 | A | 10/1993 | Yoshida et al.      |
| 4,918,995 | A | 4/1990  | Pearman et al.       | 5,265,150 | A | 11/1993 | Helmkamp et al.     |
| 4,924,462 | A | 5/1990  | Sojka                | 5,265,162 | A | 11/1993 | Bush et al.         |
| 4,928,299 | A | 5/1990  | Tansky et al.        | 5,266,782 | A | 11/1993 | Alanara et al.      |
|           |   |         |                      | 5,272,747 | A | 12/1993 | Meads               |
|           |   |         |                      | 5,276,680 | A | 1/1994  | Messenger           |
|           |   |         |                      | 5,282,204 | A | 1/1994  | Shpancer et al.     |
|           |   |         |                      | 5,282,250 | A | 1/1994  | Dent et al.         |

## US 8,625,496 B2

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(56)

## References Cited

## U.S. PATENT DOCUMENTS

|             |         |                      |             |         |                        |
|-------------|---------|----------------------|-------------|---------|------------------------|
| 5,291,516 A | 3/1994  | Dixon et al.         | 5,513,244 A | 4/1996  | Joao et al.            |
| 5,295,154 A | 3/1994  | Meier et al.         | 5,515,419 A | 5/1996  | Sheffer                |
| 5,305,370 A | 4/1994  | Kearns et al.        | 5,517,188 A | 5/1996  | Carroll et al.         |
| 5,309,501 A | 5/1994  | Kozik et al.         | 5,522,089 A | 5/1996  | Kikinis et al.         |
| 5,315,645 A | 5/1994  | Matheny              | 5,528,215 A | 6/1996  | Siu et al.             |
| 5,317,309 A | 5/1994  | Vercellotti et al.   | 5,528,507 A | 6/1996  | McNamara et al.        |
| 5,319,364 A | 6/1994  | Waraksa et al.       | 5,539,825 A | 7/1996  | Akiyama et al.         |
| 5,319,698 A | 6/1994  | Glidewell et al.     | 5,541,938 A | 7/1996  | Di Zenzo et al.        |
| 5,319,711 A | 6/1994  | Servi                | 5,542,100 A | 7/1996  | Hatakeyama             |
| 5,321,618 A | 6/1994  | Gessman              | 5,544,036 A | 8/1996  | Brown, Jr. et al.      |
| 5,323,384 A | 6/1994  | Norwood et al.       | 5,544,322 A | 8/1996  | Cheng et al.           |
| 5,325,429 A | 6/1994  | Kurgan               | 5,544,784 A | 8/1996  | Malaspina              |
| 5,329,394 A | 7/1994  | Calvani et al.       | 5,548,632 A | 8/1996  | Walsh et al.           |
| 5,331,318 A | 7/1994  | Montgomery           | 5,550,358 A | 8/1996  | Tait et al.            |
| 5,334,974 A | 8/1994  | Simms et al.         | 5,550,359 A | 8/1996  | Bennett                |
| 5,335,265 A | 8/1994  | Cooper et al.        | 5,550,535 A | 8/1996  | Park                   |
| 5,343,493 A | 8/1994  | Karimullah           | 5,553,094 A | 9/1996  | Johnson et al.         |
| 5,344,068 A | 9/1994  | Haessig              | 5,555,258 A | 9/1996  | Snelling et al.        |
| 5,345,231 A | 9/1994  | Koo et al.           | 5,555,286 A | 9/1996  | Tendler                |
| 5,345,595 A | 9/1994  | Johnson et al.       | 5,557,320 A | 9/1996  | Krebs                  |
| 5,347,263 A | 9/1994  | Carroll et al.       | 5,557,748 A | 9/1996  | Norris                 |
| 5,352,278 A | 10/1994 | Korver et al.        | 5,562,537 A | 10/1996 | Zver et al.            |
| 5,354,974 A | 10/1994 | Eisenberg            | 5,565,857 A | 10/1996 | Lee                    |
| 5,355,278 A | 10/1994 | Hosoi et al.         | 5,568,535 A | 10/1996 | Sheffer et al.         |
| 5,355,513 A | 10/1994 | Clarke et al.        | 5,570,084 A | 10/1996 | Ritter et al.          |
| 5,365,217 A | 11/1994 | Toner                | 5,572,438 A | 11/1996 | Ehlers et al.          |
| 5,371,736 A | 12/1994 | Evan                 | 5,572,528 A | 11/1996 | Shuen                  |
| 5,382,778 A | 1/1995  | Takahira et al.      | 5,573,181 A | 11/1996 | Ahmed                  |
| 5,383,134 A | 1/1995  | Wrzesinski           | 5,574,111 A | 11/1996 | Brichta et al.         |
| 5,383,187 A | 1/1995  | Vardakas et al.      | 5,583,850 A | 12/1996 | Snodgrass et al.       |
| 5,390,206 A | 2/1995  | Rein et al.          | 5,583,914 A | 12/1996 | Chang et al.           |
| 5,406,619 A | 4/1995  | Akhteruzzaman et al. | 5,587,705 A | 12/1996 | Morris                 |
| 5,412,192 A | 5/1995  | Hoss                 | 5,588,005 A | 12/1996 | Ali et al.             |
| 5,412,654 A | 5/1995  | Perkins              | 5,589,878 A | 12/1996 | Cortjens et al.        |
| 5,412,760 A | 5/1995  | Peitz                | 5,590,038 A | 12/1996 | Pitroda                |
| 5,416,475 A | 5/1995  | Tolbert et al.       | 5,590,179 A | 12/1996 | Shincovich et al.      |
| 5,416,725 A | 5/1995  | Pacheco et al.       | 5,592,491 A | 1/1997  | Dinkins                |
| 5,418,812 A | 5/1995  | Reyes et al.         | 5,594,431 A | 1/1997  | Sheppard et al.        |
| 5,420,910 A | 5/1995  | Rudokas et al.       | 5,596,719 A | 1/1997  | Ramakrishnan et al.    |
| 5,424,708 A | 6/1995  | Ballesty et al.      | 5,596,722 A | 1/1997  | Rahnema                |
| 5,430,729 A | 7/1995  | Rahnema              | 5,602,843 A | 2/1997  | Gray                   |
| 5,432,507 A | 7/1995  | Mussino et al.       | 5,604,414 A | 2/1997  | Milligan et al.        |
| 5,438,329 A | 8/1995  | Gastouniotis et al.  | 5,604,869 A | 2/1997  | Mincher et al.         |
| 5,439,414 A | 8/1995  | Jacob                | 5,606,361 A | 2/1997  | Davidsohn et al.       |
| 5,440,545 A | 8/1995  | Buchholz et al.      | 5,608,721 A | 3/1997  | Natarajan et al.       |
| 5,442,553 A | 8/1995  | Parrillo             | 5,608,786 A | 3/1997  | Gordon                 |
| 5,442,633 A | 8/1995  | Perkins et al.       | 5,613,620 A | 3/1997  | Center et al.          |
| 5,445,287 A | 8/1995  | Center et al.        | 5,615,227 A | 3/1997  | Schumacher, Jr. et al. |
| 5,445,347 A | 8/1995  | Ng                   | 5,615,277 A | 3/1997  | Hoffman                |
| 5,448,230 A | 9/1995  | Schanker et al.      | 5,617,084 A | 4/1997  | Sears                  |
| 5,451,929 A | 9/1995  | Adelman et al.       | 5,619,192 A | 4/1997  | Ayala                  |
| 5,451,938 A | 9/1995  | Brennan, Jr.         | 5,623,495 A | 4/1997  | Eng et al.             |
| 5,452,344 A | 9/1995  | Larson               | 5,625,410 A | 4/1997  | Washino et al.         |
| 5,454,024 A | 9/1995  | Lebowitz             | 5,628,050 A | 5/1997  | McGraw et al.          |
| 5,455,569 A | 10/1995 | Sherman et al.       | 5,629,687 A | 5/1997  | Sutton et al.          |
| 5,465,401 A | 11/1995 | Thompson             | 5,629,875 A | 5/1997  | Adair, Jr.             |
| 5,467,074 A | 11/1995 | Pedtke               | 5,630,209 A | 5/1997  | Wizgall et al.         |
| 5,467,082 A | 11/1995 | Sanderson            | 5,631,554 A | 5/1997  | Briese et al.          |
| 5,467,345 A | 11/1995 | Cutler, Jr. et al.   | 5,636,216 A | 6/1997  | Fox et al.             |
| 5,468,948 A | 11/1995 | Koenck et al.        | 5,640,002 A | 6/1997  | Ruppert et al.         |
| 5,471,201 A | 11/1995 | Cerami et al.        | 5,644,294 A | 7/1997  | Ness                   |
| 5,473,322 A | 12/1995 | Carney               | 5,655,219 A | 8/1997  | Jusa et al.            |
| 5,475,689 A | 12/1995 | Kay et al.           | 5,657,389 A | 8/1997  | Houvener               |
| 5,479,400 A | 12/1995 | Dilworth et al.      | 5,659,300 A | 8/1997  | Dresselhuys et al.     |
| 5,481,259 A | 1/1996  | Bane                 | 5,659,303 A | 8/1997  | Adair, Jr.             |
| 5,481,532 A | 1/1996  | Hassan et al.        | 5,668,876 A | 9/1997  | Falk et al.            |
| 5,484,997 A | 1/1996  | Haynes               | 5,673,252 A | 9/1997  | Johnson et al.         |
| 5,488,608 A | 1/1996  | Flammer, III         | 5,673,259 A | 9/1997  | Quick, Jr.             |
| 5,493,273 A | 2/1996  | Smurlo et al.        | 5,673,304 A | 9/1997  | Connor et al.          |
| 5,493,287 A | 2/1996  | Bane                 | 5,673,305 A | 9/1997  | Ross                   |
| 5,502,726 A | 3/1996  | Fischer              | 5,682,139 A | 10/1997 | Pradeep et al.         |
| 5,504,746 A | 4/1996  | Meier                | 5,682,476 A | 10/1997 | Tapperson et al.       |
| 5,506,837 A | 4/1996  | Sollner et al.       | 5,689,229 A | 11/1997 | Chaco et al.           |
|             |         |                      | 5,691,980 A | 11/1997 | Welles, II et al.      |
|             |         |                      | 5,696,695 A | 12/1997 | Ehlers et al.          |
|             |         |                      | 5,699,328 A | 12/1997 | Ishizaki et al.        |
|             |         |                      | 5,701,002 A | 12/1997 | Oishi et al.           |

## US 8,625,496 B2

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| (56)      | References Cited      |                   |           |           |                      |
|-----------|-----------------------|-------------------|-----------|-----------|----------------------|
|           | U.S. PATENT DOCUMENTS |                   |           |           |                      |
| 5,704,517 | A 1/1998              | Lancaster, Jr.    | 5,883,886 | A 3/1999  | Eaton et al.         |
| 5,706,191 | A 1/1998              | Bassett et al.    | 5,884,184 | A 3/1999  | Sheffer              |
| 5,706,976 | A 1/1998              | Purkey            | 5,884,271 | A 3/1999  | Pitroda              |
| 5,708,223 | A 1/1998              | Wyss              | 5,886,333 | A 3/1999  | Miyake               |
| 5,708,655 | A 1/1998              | Toth et al.       | 5,889,468 | A 3/1999  | Banga                |
| 5,712,619 | A 1/1998              | Simkin            | 5,892,690 | A 4/1999  | Boatman et al.       |
| 5,712,980 | A 1/1998              | Beeler et al.     | 5,892,758 | A 4/1999  | Argyrouis            |
| 5,714,931 | A 2/1998              | Petite et al.     | 5,892,924 | A 4/1999  | Lyon et al.          |
| 5,717,718 | A 2/1998              | RowSELL et al.    | 5,896,097 | A 4/1999  | Cardozo              |
| 5,719,564 | A 2/1998              | Sears             | 5,897,607 | A 4/1999  | Jenney et al.        |
| 5,722,076 | A 2/1998              | Sakabe et al.     | 5,898,369 | A 4/1999  | Godwin               |
| 5,726,534 | A 3/1998              | Seo               | 5,898,733 | A 4/1999  | Satyanarayana        |
| 5,726,544 | A 3/1998              | Lee               | 5,905,438 | A 5/1999  | Weiss et al.         |
| 5,726,634 | A 3/1998              | Hess et al.       | 5,905,442 | A 5/1999  | Mosebrook et al.     |
| 5,726,644 | A 3/1998              | Jednacz et al.    | 5,907,291 | A 5/1999  | Chen et al.          |
| 5,726,984 | A 3/1998              | Kubler et al.     | 5,907,491 | A 5/1999  | Canada et al.        |
| 5,732,074 | A 3/1998              | Spaur et al.      | 5,907,540 | A 5/1999  | Hayashi              |
| 5,732,078 | A 3/1998              | Arango            | 5,907,807 | A 5/1999  | Chavez, Jr. et al.   |
| 5,736,965 | A 4/1998              | Mosebrook et al.  | 5,909,429 | A 6/1999  | Satyanarayana et al. |
| 5,737,318 | A 4/1998              | Melnik            | 5,914,656 | A 6/1999  | Ojala et al.         |
| 5,740,232 | A 4/1998              | Pailles et al.    | 5,914,672 | A 6/1999  | Glorioso et al.      |
| 5,740,366 | A 4/1998              | Mahany et al.     | 5,914,673 | A 6/1999  | Jennings et al.      |
| 5,742,509 | A 4/1998              | Goldberg et al.   | 5,917,405 | A 6/1999  | Joao                 |
| 5,745,849 | A 4/1998              | Britton           | 5,917,629 | A 6/1999  | Hortensius et al.    |
| 5,748,104 | A 5/1998              | Argyroudis et al. | 5,923,269 | A 7/1999  | Shuey et al.         |
| 5,748,619 | A 5/1998              | Meier             | 5,926,101 | A 7/1999  | Dasgupta             |
| 5,754,111 | A 5/1998              | Garcia            | 5,926,103 | A 7/1999  | Petite               |
| 5,754,227 | A 5/1998              | Fukuoka           | 5,926,529 | A 7/1999  | Hache et al.         |
| 5,757,783 | A 5/1998              | Eng et al.        | 5,926,531 | A 7/1999  | Petite               |
| 5,757,788 | A 5/1998              | Tatsumi et al.    | 5,933,073 | A 8/1999  | Shuey                |
| 5,760,742 | A 6/1998              | Branch et al.     | 5,940,771 | A 8/1999  | Gollnick et al.      |
| 5,761,083 | A 6/1998              | Brown, Jr. et al. | 5,941,363 | A 8/1999  | Partyka et al.       |
| 5,764,742 | A 6/1998              | Howard et al.     | 5,941,955 | A 8/1999  | Wilby et al.         |
| 5,767,791 | A 6/1998              | Stoop et al.      | 5,946,631 | A 8/1999  | Melnik               |
| 5,771,274 | A 6/1998              | Harris            | 5,948,040 | A 9/1999  | DeLorme et al.       |
| 5,774,052 | A 6/1998              | Hamm et al.       | 5,949,779 | A 9/1999  | Mostafa et al.       |
| 5,781,143 | A 7/1998              | Rossin            | 5,949,799 | A 9/1999  | Grivna et al.        |
| 5,790,644 | A 8/1998              | Kikinis           | 5,953,319 | A 9/1999  | Dutta et al.         |
| 5,790,662 | A 8/1998              | Valerij et al.    | 5,953,371 | A 9/1999  | RowSELL et al.       |
| 5,790,938 | A 8/1998              | TalarMO           | 5,953,507 | A 9/1999  | Cheung et al.        |
| 5,796,727 | A 8/1998              | Harrison et al.   | 5,955,718 | A 9/1999  | Levasseur et al.     |
| 5,798,964 | A 8/1998              | Shimizu et al.    | 5,957,718 | A 9/1999  | Cheng et al.         |
| 5,801,643 | A 9/1998              | Williams et al.   | 5,960,074 | A 9/1999  | Clark                |
| 5,812,531 | A 9/1998              | Cheung et al.     | 5,963,146 | A 10/1999 | Johnson et al.       |
| 5,815,505 | A 9/1998              | Mills             | 5,963,452 | A 10/1999 | Etoh et al.          |
| 5,818,822 | A 10/1998             | Thomas et al.     | 5,963,650 | A 10/1999 | Simionescu et al.    |
| 5,822,273 | A 10/1998             | Bary et al.       | 5,966,658 | A 10/1999 | Kennedy, III et al.  |
| 5,822,309 | A 10/1998             | Ayanoglu et al.   | 5,969,608 | A 10/1999 | Sojdehei et al.      |
| 5,822,544 | A 10/1998             | Chaco et al.      | 5,973,756 | A 10/1999 | Erlin                |
| 5,825,772 | A 10/1998             | Dobbins et al.    | 5,974,236 | A 10/1999 | Sherman              |
| 5,826,195 | A 10/1998             | Westerlage et al. | 5,978,364 | A 11/1999 | Melnik               |
| 5,828,044 | A 10/1998             | Jun et al.        | 5,978,371 | A 11/1999 | Mason, Jr. et al.    |
| 5,832,057 | A 11/1998             | Furman            | 5,978,578 | A 11/1999 | Azarya et al.        |
| 5,838,223 | A 11/1998             | Gallant et al.    | 5,986,574 | A 11/1999 | Colton               |
| 5,838,237 | A 11/1998             | Revell et al.     | 5,987,011 | A 11/1999 | Toh                  |
| 5,838,812 | A 11/1998             | Pare, Jr. et al.  | 5,987,331 | A 11/1999 | Grube et al.         |
| 5,841,118 | A 11/1998             | East et al.       | 5,987,421 | A 11/1999 | Chuang               |
| 5,841,764 | A 11/1998             | Roderique et al.  | 5,991,625 | A 11/1999 | Vanderpool           |
| 5,842,976 | A 12/1998             | Williamson        | 5,991,639 | A 11/1999 | Rautiola et al.      |
| 5,844,808 | A 12/1998             | Konsmo et al.     | 5,994,892 | A 11/1999 | Turino et al.        |
| 5,845,230 | A 12/1998             | Lamberson         | 5,995,022 | A 11/1999 | Plis et al.          |
| 5,848,054 | A 12/1998             | Mosebrook et al.  | 5,995,592 | A 11/1999 | Shirai et al.        |
| 5,852,658 | A 12/1998             | Knight et al.     | 5,995,593 | A 11/1999 | Cho                  |
| 5,854,994 | A 12/1998             | Canada et al.     | 5,997,170 | A 12/1999 | Brodbeck             |
| 5,856,974 | A 1/1999              | Gervais et al.    | 5,999,094 | A 12/1999 | Nilsen               |
| 5,862,201 | A 1/1999              | Sands             | 6,005,759 | A 12/1999 | Hart et al.          |
| 5,864,772 | A 1/1999              | Alvarado et al.   | 6,005,884 | A 12/1999 | Cook et al.          |
| 5,867,688 | A 2/1999              | Donahue           | 6,005,963 | A 12/1999 | Bolle et al.         |
| 5,870,686 | A 2/1999              | Monson            | 6,018,659 | A 1/2000  | Ayyagari et al.      |
| 5,872,773 | A 2/1999              | Katzela et al.    | 6,021,664 | A 2/2000  | Granato et al.       |
| 5,873,043 | A 2/1999              | Comer             | 6,023,223 | A 2/2000  | Baxter, Jr.          |
| 5,874,903 | A 2/1999              | Shuey et al.      | 6,026,095 | A 2/2000  | Sherer et al.        |
| 5,875,185 | A 2/1999              | Wang et al.       | 6,028,522 | A 2/2000  | Petite               |
|           |                       |                   | 6,028,857 | A 2/2000  | Poor                 |
|           |                       |                   | 6,031,455 | A 2/2000  | Grube et al.         |
|           |                       |                   | 6,032,197 | A 2/2000  | Birdwell et al.      |
|           |                       |                   | 6,035,213 | A 3/2000  | Tokuda et al.        |

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