US008457113B2

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

(10) **Patent No.: US 8,457,113 B2**
(45) **Date of Patent: *Jun. 4, 2013**

(54) **BRANCH CALLING AND CALLER ID BASED CALL ROUTING TELEPHONE FEATURES**

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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 85 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **12/821,119**

(22) Filed: **Jun. 22, 2010**

(65) **Prior Publication Data**

US 2010/0254376 A1 Oct. 7, 2010

**Related U.S. Application Data**

(60) Continuation of application No. 11/948,965, filed on Nov. 30, 2007, now Pat. No. 7,764,777, which is a division of application No. 10/426,279, filed on Apr. 30, 2003, now Pat. No. 7,324,635, which is a continuation-in-part of application No. 09/565,565, filed on May 4, 2000, now Pat. No. 6,574,328.

(51) **Int. Cl.**
*H04L 12/66* (2006.01)

(52) **U.S. Cl.**
USPC ..... **370/352**; 379/220.01

(58) **Field of Classification Search**
USPC ..... 370/352; 379/220.01
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,100,377 A 7/1978 Flanagan
4,238,851 A 12/1980 Takahashi et al.
(Continued)

FOREIGN PATENT DOCUMENTS

DE 19813179 9/1999
EP 0 578 374 1/1994
(Continued)

OTHER PUBLICATIONS

Dowden, Douglas C., et al., "The Future of Network-Provided Communications Services," *Bell Labs Technical Journal*, Jul.-Sep. 2000, pp. 3-10.
(Continued)

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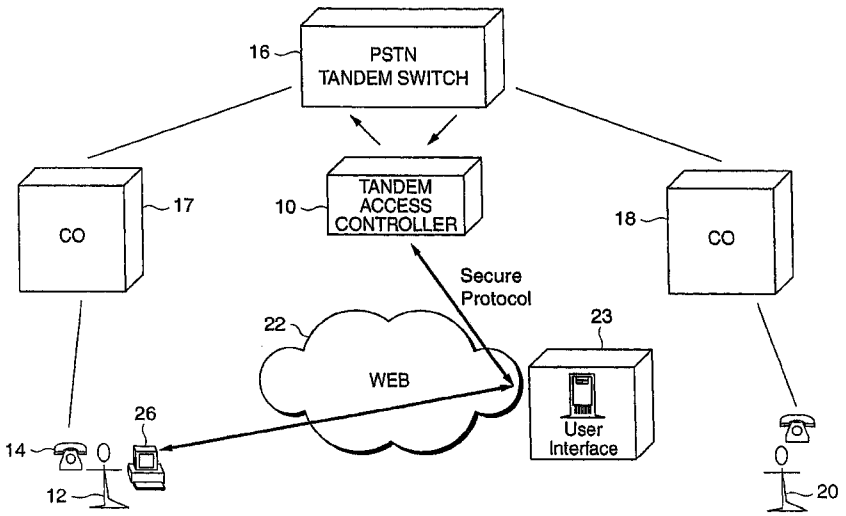
(57) **ABSTRACT**

A caller ID based call routing feature is described for blocked and non-blocked caller ID's. A processing system in the public switched telephone network (PSTN) receives first identifying information for identify the source of a telephone call and associates additional information stored in a memory with the first identifying information. The additional information may be information about the calling party initially downloaded to the memory by a subscriber. Once retrieved from the memory by the processing system, the additional information may then be transmitted to the subscriber via the Internet for display on a monitor or to the subscriber's telephone for display on a telephone display. Another feature described is a branch calling feature where the subscriber may program a processing system within the PSTN to forward an incoming call to two or more end units (e.g., telephones) simultaneously. If the call at an end unit is answered, answer supervision signaling is transmitted back to the processing system which then terminates all other calls. The processing system then connects the calling party to the subscriber. The branch calling may be made for any combination of local, long distance, and cellular telephone numbers.

**182 Claims, 11 Drawing Sheets**



U.S. PATENT DOCUMENTS


| | | | | |
|---|---|---|---|---|
| 4,310,726 | A | 1/1982 | Asmuth | 179/18 |
| 4,313,035 | A | 1/1982 | Jordan et al. | |
| 4,348,554 | A | 9/1982 | Asmuth | |
| 4,555,982 | A | 12/1985 | Goubaud | |
| 4,569,041 | A | 2/1986 | Takeuchi et al. | |
| 4,608,685 | A | 8/1986 | Jain et al. | |
| 4,611,094 | A | 9/1986 | Asmuth et al. | |
| 4,611,096 | A | 9/1986 | Asmuth et al. | |
| 4,630,260 | A | 12/1986 | Toy et al. | |
| 4,630,262 | A | 12/1986 | Callens et al. | |
| 4,661,947 | A | 4/1987 | Lea et al. | |
| 4,674,082 | A | 6/1987 | Flanagin et al. | |
| 4,679,190 | A | 7/1987 | Dias et al. | |
| 4,679,191 | A | 7/1987 | Nelson et al. | |
| 4,707,831 | A | 11/1987 | Weir et al. | |
| 4,715,026 | A | 12/1987 | Eberspaecher | |
| 4,723,238 | A | 2/1988 | Isreal et al. | |
| 4,757,497 | A | 7/1988 | Beierle et al. | |
| 4,761,779 | A | 8/1988 | Nara et al. | |
| 4,771,425 | A | 9/1988 | Baran et al. | |
| 4,815,071 | A | 3/1989 | Shimizu | |
| 4,819,228 | A | 4/1989 | Baran et al. | |
| 4,862,451 | A | 8/1989 | Closs et al. | |
| 4,866,704 | A | 9/1989 | Bergman | |
| 4,872,159 | A | 10/1989 | Hemmady et al. | |
| 4,872,160 | A | 10/1989 | Hemmady et al. | |
| 4,885,739 | A | 12/1989 | Read et al. | |
| 4,903,261 | A | 2/1990 | Baran et al. | |
| 4,926,416 | A | 5/1990 | Weik | |
| 4,932,022 | A | 6/1990 | Keeney et al. | |
| 4,933,931 | A | 6/1990 | Kokubo | |
| 4,953,158 | A | 8/1990 | Schreur | |
| 4,953,198 | A | 8/1990 | Daly et al. | |
| 4,958,341 | A | 9/1990 | Hemmady et al. | |
| 4,962,497 | A | 10/1990 | Ferenc et al. | |
| 4,969,184 | A | 11/1990 | Gordon et al. | |
| 4,970,721 | A | 11/1990 | Aczel et al. | |
| 4,973,837 | A | 11/1990 | Bradbeer | |
| 4,975,695 | A | 12/1990 | Almond et al. | |
| 4,996,685 | A | 2/1991 | Farese et al. | |
| 5,008,929 | A | 4/1991 | Olsen et al. | |
| 5,014,266 | A | 5/1991 | Bales et al. | |
| 5,018,136 | A | 5/1991 | Gollub | |
| 5,020,058 | A | 5/1991 | Holden et al. | |
| 5,022,071 | A | 6/1991 | Mozer et al. | |
| 5,048,081 | A | 9/1991 | Gavaras et al. | |
| 5,051,983 | A | 9/1991 | Kammerl | |
| 5,093,827 | A | 3/1992 | Franklin et al. | |
| 5,115,431 | A | 5/1992 | Williams et al. | |
| 5,150,357 | A | 9/1992 | Hopner et al. | |
| 5,157,662 | A | 10/1992 | Tadamura et al. | |
| 5,197,067 | A | 3/1993 | Fujimoto et al. | |
| 5,208,806 | A | 5/1993 | Hasegawa | |
| 5,218,602 | A | 6/1993 | Grant et al. | |
| 5,231,633 | A | 7/1993 | Hluchyj et al. | |
| 5,241,588 | A | 8/1993 | Babson, III et al. | |
| 5,247,571 | A | 9/1993 | Kay et al. | |
| 5,268,900 | A | 12/1993 | Hluchyj et al. | |
| 5,274,635 | A | 12/1993 | Rahman et al. | |
| 5,291,489 | A | 3/1994 | Morgan et al. | |
| 5,297,191 | A | 3/1994 | Gerszberg | |
| 5,301,189 | A | 4/1994 | Schmidt et al. | |
| 5,305,308 | A | 4/1994 | English et al. | |
| 5,311,582 | A | 5/1994 | Davenport et al. | |
| 5,327,428 | A | 7/1994 | Van As et al. | |
| 5,341,374 | A | 8/1994 | Lewen et al. | |
| 5,351,276 | A | 9/1994 | Doll, Jr. et al. | |
| 5,351,286 | A | 9/1994 | Nici | |
| 5,353,283 | A | 10/1994 | Tsuchiya | |
| 5,359,598 | A | 10/1994 | Steagall et al. | |
| 5,365,521 | A | 11/1994 | Ohnishi et al. | |
| 5,379,293 | A | 1/1995 | Kanno et al. | |
| 5,381,405 | A | 1/1995 | Daugherty et al. | |
| 5,381,466 | A | 1/1995 | Shibayama et al. | |
| 5,383,183 | A | 1/1995 | Yoshida | |
| 5,384,840 | A | 1/1995 | Blatchford et al. | |
| 5,396,542 | A | 3/1995 | Alger | |
| 5,420,858 | A | 5/1995 | Marshall et al. | |
| 5,422,882 | A | 6/1995 | Hiller et al. | |
| 5,423,003 | A | 6/1995 | Berteau | |
| 5,426,636 | A | 6/1995 | Hiller et al. | |
| 5,428,607 | A | 6/1995 | Hiller et al. | |
| 5,428,616 | A | 6/1995 | Field et al. | |
| 5,428,663 | A | 6/1995 | Grimes et al. | |
| 5,430,719 | A | 7/1995 | Weisser, Jr. | |
| 5,434,913 | A | 7/1995 | Tung et al. | |
| 5,436,898 | A | 7/1995 | Bowen et al. | |
| 5,438,614 | A | 8/1995 | Rozman et al. | |
| 5,444,709 | A | 8/1995 | Riddle | |
| 5,448,623 | A | 9/1995 | Wiedeman et al. | |
| 5,452,289 | A | 9/1995 | Sharma et al. | |
| 5,453,986 | A | 9/1995 | Davis et al. | |
| 5,455,853 | A | 10/1995 | Cebulka et al. | |
| 5,457,684 | A | 10/1995 | Bharucha et al. | |
| 5,469,500 | A | 11/1995 | Satter et al. | 379/201 |
| 5,471,470 | A | 11/1995 | Sharma et al. | |
| 5,471,616 | A | 11/1995 | Johnson et al. | |
| 5,479,411 | A | 12/1995 | Klein | |
| 5,485,457 | A | 1/1996 | Aramaki | |
| 5,495,567 | A | 2/1996 | Iizawa et al. | |
| 5,497,339 | A | 3/1996 | Bernard | |
| 5,521,914 | A | 5/1996 | Mavraganis et al. | |
| 5,526,353 | A | 6/1996 | Henley et al. | |
| 5,537,403 | A | 7/1996 | Cloonan et al. | |
| 5,541,917 | A | 7/1996 | Farris | |
| 5,544,161 | A | 8/1996 | Bigham et al. | |
| 5,544,163 | A | 8/1996 | Madonna | |
| 5,544,164 | A | 8/1996 | Baran | |
| 5,544,168 | A | 8/1996 | Jeffrey et al. | |
| 5,553,063 | A | 9/1996 | Dickson | |
| 5,557,658 | A | 9/1996 | Gregorek et al. | |
| 5,563,937 | A | 10/1996 | Bruno et al. | |
| 5,566,236 | A | 10/1996 | MeLampy et al. | |
| 5,568,475 | A | 10/1996 | Doshi et al. | |
| 5,570,355 | A | 10/1996 | Dail et al. | |
| 5,572,583 | A | 11/1996 | Wheeler, Jr. et al. | |
| 5,577,038 | A | 11/1996 | Miyahara | |
| 5,577,041 | A | 11/1996 | Sharma et al. | |
| 5,579,308 | A | 11/1996 | Humpleman | |
| 5,590,181 | A | 12/1996 | Hogan et al. | |
| 5,592,477 | A | 1/1997 | Farris et al. | |
| 5,592,538 | A | 1/1997 | Kosowsky et al. | |
| 5,594,732 | A | 1/1997 | Bell et al. | |
| 5,596,579 | A | 1/1997 | Yasrebi | |
| 5,600,643 | A | 2/1997 | Robrock, II | |
| 5,600,649 | A | 2/1997 | Sharma et al. | |
| 5,602,991 | A | 2/1997 | Berteau | |
| 5,604,737 | A | 2/1997 | Iwami et al. | |
| 5,606,594 | A | 2/1997 | Register et al. | |
| 5,608,786 | A | 3/1997 | Gordon | |
| 5,613,069 | A | 3/1997 | Walker | |
| H1641 | H | 4/1997 | Sharman | |
| 5,621,727 | A | 4/1997 | Vaudreuil | |
| 5,625,677 | A | 4/1997 | Feiertag et al. | |
| 5,628,004 | A | 5/1997 | Gormley et al. | |
| 5,631,897 | A | 5/1997 | Pacheco et al. | |
| 5,640,446 | A | 6/1997 | Everett et al. | |
| 5,646,945 | A | 7/1997 | Bergler | |
| 5,650,999 | A | 7/1997 | Dickson | |
| 5,654,957 | A | 8/1997 | Koyama | |
| 5,659,541 | A | 8/1997 | Chan | |
| 5,659,542 | A | 8/1997 | Bell et al. | |
| 5,673,262 | A | 9/1997 | Shimizu | 370/395 |
| 5,680,437 | A | 10/1997 | Segal | |
| 5,684,799 | A | 11/1997 | Bigham et al. | |
| 5,689,553 | A | 11/1997 | Ahuja et al. | |
| 5,692,126 | A | 11/1997 | Templeton et al. | |
| 5,701,301 | A | 12/1997 | Weisser, Jr. | |
| 5,706,286 | A | 1/1998 | Reiman et al. | |
| 5,710,769 | A | 1/1998 | Anderson et al. | |
| 5,712,903 | A | 1/1998 | Bartholomew et al. | |
| 5,712,908 | A | 1/1998 | Brinkman et al. | |
| 5,724,412 | A | 3/1998 | Srinivasan | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 5,732,074 | A | 3/1998 | Spaur et al. | 6,028,917 | A | 2/2000 | Creamer et al. |
| 5,732,078 | A | 3/1998 | Arango | 6,031,836 | A | 2/2000 | Haserodt |
| 5,732,216 | A | 3/1998 | Logan et al. | 6,031,904 | A | 2/2000 | An et al. |
| 5,737,320 | A | 4/1998 | Madonna | 6,041,325 | A | 3/2000 | Shah et al. |
| 5,737,331 | A | 4/1998 | Hoppal et al. | 6,044,403 | A | 3/2000 | Gerszberg et al. |
| 5,737,333 | A | 4/1998 | Civanlar et al. | 6,069,890 | A | 5/2000 | White et al. |
| 5,737,533 | A | 4/1998 | De Hond | 6,075,992 | A | 6/2000 | Moon et al. |
| 5,740,164 | A | 4/1998 | Liron | 6,078,581 | A | 6/2000 | Shtivelman et al. |
| 5,740,231 | A | 4/1998 | Cohn et al. | 6,084,584 | A | 7/2000 | Nahi et al. |
| 5,742,596 | A | 4/1998 | Baratz et al. | 6,094,478 | A | 7/2000 | Shepherd et al. |
| 5,742,905 | A | 4/1998 | Pepe et al. | 6,104,800 | A | 8/2000 | Benson |
| 5,751,706 | A | 5/1998 | Land et al. | 6,118,780 | A | 9/2000 | Dunn et al. |
| 5,751,968 | A | 5/1998 | Cohen | 6,134,235 | A | 10/2000 | Goldman et al. |
| 5,754,641 | A | 5/1998 | Voit et al. | 6,141,341 | A | 10/2000 | Jones et al. |
| 5,764,628 | A | 6/1998 | Davis et al. | 6,161,128 | A | 12/2000 | Smyk |
| 5,764,736 | A | 6/1998 | Shachar et al. | 6,161,134 | A | 12/2000 | Wang et al. |
| 5,764,750 | A | 6/1998 | Chau et al. | 6,163,598 | A | 12/2000 | Moore |
| 5,764,756 | A | 6/1998 | Onweller | 6,167,040 | A | 12/2000 | Haeggstrom |
| 5,777,991 | A | 7/1998 | Adachi et al. | 6,175,860 | B1 | 1/2001 | Gaucher |
| 5,790,538 | A | 8/1998 | Sugar | 6,185,285 | B1 | 2/2001 | Relyea et al. |
| 5,793,762 | A | 8/1998 | Penners et al. | 6,188,688 | B1 | 2/2001 | Buskirk, Jr. |
| 5,793,771 | A | 8/1998 | Darland et al. | 6,212,261 | B1 | 4/2001 | Meubus et al. |
| 5,799,072 | A | 8/1998 | Vulcan et al. | 6,216,158 | B1 | 4/2001 | Luo et al. |
| 5,799,154 | A | 8/1998 | Kuriyan | 6,240,097 | B1 | 5/2001 | Wesolek et al. |
| 5,802,160 | A | 9/1998 | Kugell et al. | 6,243,373 | B1 | 6/2001 | Turock |
| 5,805,587 | A | 9/1998 | Norris et al. | 6,259,692 | B1 | 7/2001 | Shtivelman et al. |
| 5,805,588 | A | 9/1998 | Petersen | 6,262,978 | B1 | 7/2001 | Bruno et al. |
| 5,806,057 | A | 9/1998 | Gormley et al. | 6,266,539 | B1 | 7/2001 | Pardo |
| 5,809,022 | A | 9/1998 | Byers et al. | 6,278,707 | B1 | 8/2001 | MacMillan et al. |
| 5,809,128 | A | 9/1998 | McMullin | 6,301,609 | B1 | 10/2001 | Aravamudan et al. |
| 5,812,534 | A | 9/1998 | Davis et al. | 6,308,201 | B1 | 10/2001 | Pivowar et al. |
| 5,815,505 | A | 9/1998 | Mills | 6,324,183 | B1 | 11/2001 | Miller et al. |
| 5,818,912 | A | 10/1998 | Hammond | 6,327,258 | B1 | 12/2001 | Deschaine et al. ..... 370/356 |
| 5,825,771 | A | 10/1998 | Cohen et al. | 6,334,126 | B1 | 12/2001 | Nagatomo et al. |
| 5,828,666 | A | 10/1998 | Focsaneanu et al. | 6,337,858 | B1 | 1/2002 | Petty et al. |
| 5,838,665 | A | 11/1998 | Kahn et al. | 6,339,594 | B1 | 1/2002 | Civanlar et al. |
| 5,848,140 | A | 12/1998 | Foladare et al. ..... 379/201 | 6,359,892 | B1 | 3/2002 | Szlam |
| 5,850,433 | A | 12/1998 | Rondeau | 6,381,323 | B1 | 4/2002 | Schwab et al. |
| 5,859,972 | A | 1/1999 | Subramaniam et al. | 6,385,308 | B1 | 5/2002 | Cohen et al. |
| 5,867,494 | A | 2/1999 | Krishnaswamy et al. | 6,404,764 | B1 | 6/2002 | Jones et al. |
| 5,867,495 | A | 2/1999 | Elliott et al. | 6,411,615 | B1 | 6/2002 | DeGolia et al. |
| 5,875,405 | A | 2/1999 | Honda | 6,411,965 | B2 | 6/2002 | Klug |
| 5,878,113 | A | 3/1999 | Bhusari | 6,414,962 | B1 | 7/2002 | Hall et al. |
| 5,878,418 | A | 3/1999 | Polcyn et al. | 6,418,198 | B2 | 7/2002 | Brablec et al. |
| 5,881,060 | A | 3/1999 | Morrow et al. | 6,421,235 | B2 | 7/2002 | Ditzik |
| 5,881,131 | A | 3/1999 | Farris et al. | 6,438,124 | B1 | 8/2002 | Wilkes |
| 5,889,774 | A | 3/1999 | Mirashrafi et al. | 6,445,694 | B1 | 9/2002 | Swartz |
| 5,894,473 | A | 4/1999 | Dent | 6,445,697 | B1 | 9/2002 | Fenton |
| 5,894,595 | A | 4/1999 | Foladare et al. | 6,446,127 | B1 | 9/2002 | Shuster et al. |
| 5,907,811 | A | 5/1999 | Foladare | 6,448,978 | B1 | 9/2002 | Salvador et al. |
| 5,913,029 | A | 6/1999 | Shostak | 6,456,594 | B1 | 9/2002 | Kaplan et al. |
| 5,915,008 | A | 6/1999 | Dulman | 6,456,601 | B1 | 9/2002 | Kozdon et al. |
| 5,918,172 | A | 6/1999 | Saunders et al. | 6,459,780 | B1 | 10/2002 | Wurster et al. |
| 5,922,047 | A | 7/1999 | Newlin et al. | 6,477,565 | B1 | 11/2002 | Daswani et al. |
| 5,930,700 | A | 7/1999 | Pepper et al. | 6,477,576 | B2 | 11/2002 | Angwin et al. |
| 5,933,490 | A | 8/1999 | White et al. | 6,483,902 | B1 | 11/2002 | Stewart et al. |
| 5,933,778 | A | 8/1999 | Buhrmann et al. | 6,493,338 | B1 | 12/2002 | Preston et al. |
| 5,938,757 | A | 8/1999 | Bertsch | 6,496,477 | B1 | 12/2002 | Perkins et al. |
| 5,946,386 | A | 8/1999 | Rogers et al. | 6,498,797 | B1 | 12/2002 | Anerousis |
| 5,946,684 | A | 8/1999 | Lund | 6,526,462 | B1 | 2/2003 | Elabd |
| 5,953,392 | A | 9/1999 | Rhie et al. | 6,539,359 | B1 | 3/2003 | Ladd et al. |
| 5,954,799 | A | 9/1999 | Goheen et al. | 6,577,622 | B1 | 6/2003 | Shuster et al. |
| 5,958,016 | A | 9/1999 | Chang et al. | 6,584,490 | B1 | 6/2003 | Shuster et al. |
| 5,960,340 | A | 9/1999 | Fuentes | 6,614,781 | B1 | 9/2003 | Elliott et al. |
| 5,963,551 | A | 10/1999 | Minko | 6,643,282 | B1 | 11/2003 | Christie ..... 370/352 |
| 5,970,059 | A | 10/1999 | Ahopelto et al. | 6,650,901 | B1 | 11/2003 | Shuster et al. |
| 5,974,449 | A | 10/1999 | Chang et al. | 6,681,252 | B1 | 1/2004 | Shuster et al. |
| 5,982,866 | A | 11/1999 | Kowalski | 6,697,461 | B1 | 2/2004 | Middleswarth et al. |
| 5,991,291 | A | 11/1999 | Asai et al. | 6,731,630 | B1 | 5/2004 | Shuster et al. |
| 5,991,310 | A | 11/1999 | Katko ..... 370/522 | 6,741,586 | B1 | 5/2004 | Shuster et al. |
| 5,991,394 | A | 11/1999 | Dezonno et al. | 6,744,759 | B1 | 6/2004 | Sidhu |
| 5,999,525 | A | 12/1999 | Krishnaswamy et al. | 6,775,264 | B1 | 8/2004 | Kurganov |
| 6,005,870 | A | 12/1999 | Leung et al. | 6,775,284 | B1 | 8/2004 | Calvignac |
| 6,006,272 | A | 12/1999 | Aravamudan et al. | 6,785,229 | B1 | 8/2004 | McNiff et al. |
| 6,009,469 | A | 12/1999 | Mattaway et al. | 6,785,266 | B2 | 8/2004 | Swartz |
| 6,012,088 | A | 1/2000 | Li et al. | 6,788,775 | B1 | 9/2004 | Simpson |
| 6,014,437 | A | 1/2000 | Acker et al. | 6,795,429 | B1 | 9/2004 | Shuster et al. |

| | | | | |
|---|---|---|---|---|
| 6,816,582 | B2 | 11/2004 | Levine | |
| 6,822,957 | B1 | 11/2004 | Shuster et al. | |
| 6,853,714 | B2 | 2/2005 | Liljestrand et al. | |
| 6,856,616 | B1 | 2/2005 | Shuster et al. | |
| 6,857,021 | B1 | 2/2005 | Schuster et al. | |
| 6,857,072 | B1 | 2/2005 | Schuster et al. | |
| 6,870,830 | B1 | 3/2005 | Shuster et al. | |
| 6,914,897 | B1 | 7/2005 | Shuster et al. | |
| 6,937,699 | B1 | 8/2005 | Shuster et al. | |
| 6,937,713 | B1 | 8/2005 | Kung | |
| 6,956,941 | B1 | 10/2005 | Duncan et al. | |
| 7,069,291 | B2 | 6/2006 | Graves et al. | |
| 7,123,708 | B1 | 10/2006 | Gavillet | 379/219 |
| 7,184,527 | B1 | 2/2007 | Lin | |
| 7,233,658 | B2 | 6/2007 | Koser | |
| 7,242,759 | B1 | 7/2007 | Sanchez et al. | 379/219 |
| 7,272,115 | B2 | 9/2007 | Maher et al. | |
| 7,436,851 | B1 | 10/2008 | Chambers et al. | 370/325 |
| 2001/0022784 | A1 | 9/2001 | Menon et al. | |
| 2001/0030950 | A1 | 10/2001 | Chen et al. | |
| 2003/0026403 | A1 | 2/2003 | Clapper | |
| 2003/0040325 | A1 | 2/2003 | Clark | |
| 2003/0095650 | A1 | 5/2003 | Mize | |
| 2003/0133553 | A1 | 7/2003 | Khakoo et al. | |
| 2003/0156693 | A1 | 8/2003 | Goldman | |
| 2003/0194078 | A1 | 10/2003 | Wood et al. | |
| 2004/0029568 | A1 | 2/2004 | DeLuca et al. | |
| 2004/0151294 | A1 | 8/2004 | Baniak et al. | |
| 2004/0240657 | A1 | 12/2004 | Camarillo | 379/221.02 |
| 2004/0264673 | A1 | 12/2004 | Novack | 379/221.11 |
| 2005/0041526 | A1 | 2/2005 | Esmersoy et al. | |
| 2005/0141500 | A1 | 6/2005 | Bhandari et al. | |
| 2005/0169445 | A1 | 8/2005 | Harris | |
| 2005/0207557 | A1 | 9/2005 | Dolan et al. | |
| 2007/0041526 | A1 | 2/2007 | Hill et al. | 379/88.21 |

FOREIGN PATENT DOCUMENTS

| | | | |
|---|---|---|---|
| EP | 0 704 788 | | 4/1996 |
| EP | 0 738 093 | | 10/1996 |
| EP | 0 789 470 | | 8/1997 |
| EP | 0 794 650 | | 9/1997 |
| EP | 0 797 373 | | 9/1997 |
| EP | 0 824 298 | | 2/1998 |
| EP | 0 829 995 | | 3/1998 |
| EP | 0 841 831 | | 5/1998 |
| EP | 0 847 176 | | 6/1998 |
| EP | 0 851 653 | | 7/1998 |
| EP | 0 853 411 | A2 | 7/1998 |
| EP | 0 853 411 | A3 | 7/1998 |
| EP | 0 858 202 | | 8/1998 |
| EP | 0 866 596 | | 9/1998 |
| EP | 0 869 688 | | 10/1998 |
| EP | 0 872 998 | | 10/1998 |
| EP | 0 918 423 | | 10/1998 |
| EP | 0 881 848 | A2 | 12/1998 |
| EP | 0 898 431 | | 2/1999 |
| GB | 2 315 190 | A | 1/1998 |
| JP | 10-023067 | | 1/1998 |
| JP | 10-051453 | | 2/1998 |
| JP | 10-164135 | | 6/1998 |
| JP | 10-164257 | | 6/1998 |
| WO | WO 94/05111 | | 3/1994 |
| WO | WO 95/34985 | | 12/1995 |
| WO | WO 96/08935 | | 3/1996 |
| WO | WO 96/15598 | | 5/1996 |
| WO | WO 97/14234 | | 4/1997 |
| WO | WO 97/14238 | | 4/1997 |
| WO | WO 97/16007 | | 5/1997 |
| WO | WO 97/22216 | | 6/1997 |
| WO | WO 97/23078 | | 6/1997 |
| WO | WO 97/27692 | | 7/1997 |
| WO | WO 97/28628 | | 8/1997 |
| WO | WO 97/29581 | | 8/1997 |
| WO | WO 97/31492 | | 8/1997 |
| WO | WO 97/33412 | | 9/1997 |
| WO | WO 97/33421 | | 9/1997 |
| WO | WO 97/38511 | | 10/1997 |
| WO | WO 97/44943 | | 11/1997 |
| WO | WO 97/46073 | | 12/1997 |
| WO | WO 97/47118 | | 12/1997 |
| WO | WO 97/50217 | | 12/1997 |
| WO | WO 97/50271 | | 12/1997 |
| WO | WO 97/50277 | | 12/1997 |
| WO | WO 98/00988 | | 1/1998 |
| WO | WO 98/04065 | | 1/1998 |
| WO | WO 98/04989 | | 2/1998 |
| WO | WO 98/10538 | | 3/1998 |
| WO | WO 98/11704 | | 3/1998 |
| WO | WO 98/12860 | | 3/1998 |
| WO | WO 98/13974 | | 4/1998 |
| WO | WO 98/16051 | | 4/1998 |
| WO | WO 98/18238 | | 4/1998 |
| WO | WO 98/18289 | | 4/1998 |
| WO | WO 98/19425 | | 5/1998 |
| WO | WO 98/19445 | | 5/1998 |
| WO | WO 98/20701 | | 5/1998 |
| WO | WO 98/21911 | | 5/1998 |
| WO | WO 98/23067 | | 5/1998 |
| WO | WO 98/23080 | | 5/1998 |
| WO | WO 98/26543 | | 6/1998 |
| WO | WO 98/28885 | | 7/1998 |
| WO | WO 98/30007 | | 7/1998 |
| WO | WO 98/30008 | | 7/1998 |
| WO | WO 98/34391 | | 8/1998 |
| WO | WO 98/34399 | | 8/1998 |
| WO | WO 98/36543 | | 8/1998 |
| WO | WO 98/37665 | | 8/1998 |
| WO | WO 98/37688 | | 8/1998 |
| WO | WO 98/39897 | | 9/1998 |
| WO | WO 98/42104 | | 9/1998 |
| WO | WO 98/42107 | | 9/1998 |
| WO | WO 98/42146 | | 9/1998 |
| WO | WO 98/47256 | | 10/1998 |
| WO | WO 98/51063 | | 11/1998 |
| WO | WO 99/12365 | | 3/1999 |
| WO | WO 99/19988 | | 4/1999 |
| WO | WO 99/20059 | | 4/1999 |
| WO | WO 99/35802 | | 7/1999 |
| WO | WO 99/45687 | | 9/1999 |
| WO | WO 01/05078 | | 1/2001 |
| WO | WO 01/24496 | | 4/2001 |
| WO | WO 01/24498 | | 4/2001 |
| WO | WO 01/24500 | | 4/2001 |
| WO | WO 01/24501 | | 4/2001 |
| WO | WO 01/24502 | | 4/2001 |
| WO | WO 01/24503 | | 4/2001 |
| WO | WO 01/84859 | | 11/2001 |

OTHER PUBLICATIONS

Foard, C.F., "Teaming Switches and Computers for Customer Applications," *AT&T Technology*, 1991; 6, 4; Research Library, pp. 32-38.

Foster, Robin Harris, "Computer-Telephone Integration Goes Global," *AT&T Technology*, Autumn 1995; 10, 3; Research Library , pp. 18-22.

Kozik, Jack, et al., "On Opening PSTN to Enhanced Voice/Data Services—The PINT Protocol Solution," *Bell Labs Technical Journal*, Jul.-Sep. 2000, pp. 153-165.

Lui, Anthony Y., et al., "The Enhanced Service Manager: A Service Management System for Next-Generation Networks," *Bell Labs Technical Journal*, Jul.-Sep. 2000, pp. 130-144.

Reisfield, E.S., "Customers Take Control of the AT&T Network," *AT&T Technology*, 1991; 6, 1; Research Library, pp. 44-48.

Sijben, Paul G., et al, "Bridging the Gap to IP Telephony," *Bell Labs Technical Journal*, Oct.-Dec. 1998, pp. 192-207.

RFC 3298 Service in the PSTN, Aug. 2002.

Implementing Automatic Location Update for Follow-Me database using VoIP and Bluetooth Technologies, IEEE Transaction on computers, vol. 51, No. 10, Oct. 2002.

New services demand integration, Electronic Engineering Times,

This pipe dream will come true: Voice Over Internet Protocol (VoIP) technology will make the phone Box something that really talks, Businessline, Chennai: Apr. 17, 2002.
Using Optimization to Achieve Efficient Quality of Service in Voice over IP Networks, IEEE 2003.
Broadsoft literature Broadworks overview, Copyright date 2002.
BroadSoft introduces industry's first complete service delivery and creation product suite for enhanced telephony services Broadworks, ATM Newsletter: Boston: Mar. 2000, vol. 9, Iss. 3, p. 13.
BroadSoft unveils advanced architecture for the rapid and cost effective delivery of enhanced communications services, Website, Aug. 25, 1999, Press releases, 3 pages.
ADC Telecommunications; SS7 New Net SS7 Tutorial; Copyright 1999.
Mary Carmichael, "Calls That Follow you Anywhere" Newsweek, Apr. 28, 2003, p. 43.
U.S. Appl. No. 09/406,322, Schuster et al., filed Sep. 27, 1999.
U.S. Appl. No. 09/515,798, Schuster et al., filed Feb. 29, 2000.

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