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US8861512B2

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Summary

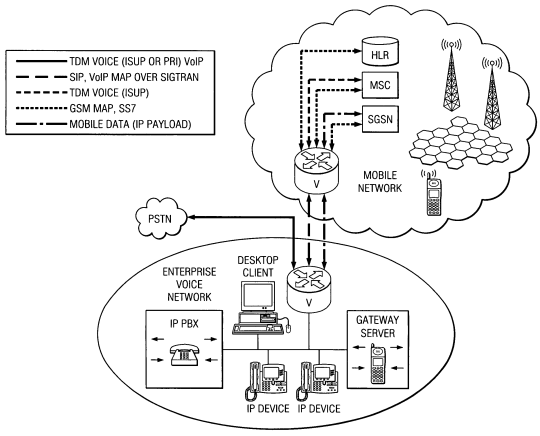
#	Publication number	Title	Applicants	Score
1	US8958346B2	Calling line/name identification of enterprise subscribers in mobile calls	Tango Networks Inc	62
2	US20060077956A1	Common telephony services to multiple devices associated with multiple networks	Sonus Networks Inc	60
3	US20060077957A1	Call handoff between subscriber's multiple devices associated with multiple networks	Sonus Networks Inc	60
4	EP1814292A1	Call handoff between subscriber's multiple devices associated with multiple networks	Sonus Networks Inc	60
5	US8428578B2	System and method for enabling call originations using SMS and hotline capabilities	Tango Networks Inc	60
6	US9622078B2	Mobile application gateway for connecting devices on a cellular network with individual enterprise and data networks	Tango Networks Inc	60
7	US11405846B2	Call flow system and method for use in a legacy telecommunication system	Tango Networks Inc	60
8	US8532630B2	Unstructured supplementary service data application within a wireless network	VascoDe Tech Ltd	59
9	US8175053B2	System and method for enabling VPN-less session setup for connecting mobile data devices to an enterprise data network	Tango Networks Inc	59
10	US7873001B2	System and method for enabling VPN-less session setup for connecting mobile data devices to an enterprise data network	Tango Networks Inc	59
11	US8532629B2	Unstructured supplementary service data call control manager within a wireless network	VascoDe Tech Ltd	58
12	EP1413154A1	TELEPHONE CALL ROUTING	WASSER AMOS	57
13	US20040038706A1	Telephone call routing	WASSER AMOS S.	57
14	US20070298771A1	Method And Device For Routing Communications In Cellular Communications Network	MOTTES DORRON	57
15	US7664495B1	Voice call redirection for enterprise hosted dual mode service	AT&T Mobility II LLC	57
16	US9215318B2	Methods and systems for call processing in a wireline and wireless network	Callwave Communications LLC	57
17	US8064951B2	Method and system for selective application of cellular-PBX integration service	Sprint Spectrum LLC	57
18	WO2006015013A2	METHOD AND SYSTEM FOR EXTENDING IP PBX SERVICES TO CELLULAR WIRELESS COMMUNICATION DEVICES	SPRINT SPECTRUM LP, MCCONNELL VON K, PHILLIPS JEFFREY F, WEILAND DORENE G, WOODSON CHARLES E, WEAVER FARNI, PACZKOWSKI LYLE W, SANKARANARAYNAN PALLAVUR, BROWN JACK E, BALES MARK R	57
19	US8060135B2	Method and system for selective application of cellular-PBX integration service	Sprint Spectrum LLC	57
20	US7835746B2	Method and system for information transfer mechanism selection in mobile telephony	Ivent Mobile BV	56
21	US8180393B2	Method and system for location-based restriction on application of cellular-PBX integration service	Sprint Spectrum LLC	56
22	US9363370B2	Methods of delivering calls on dual-mode wireless handsets	Qwest Communications International Inc	56
23	US9363384B2	Systems for delivering calls on dual-mode wireless handsets	Qwest Communications International Inc	56
24	US8254989B2	Method and system for account balance restriction on application of cellular-PBX integration service	Sprint Spectrum LLC	56
25	US6654615B1	Wireless centrex services	AT&T Corp	56
26	US6643507B1	Wireless centrex automatic callback	AT&T Corp	56
27	US6560216B1	Data network computing device call processing	Openwave Systems Inc	56
28	US7116972B1	Method and system for control over call handling	Sprint Spectrum LLC	56
29	US7245927B2	Intelligent network interface	Science Applications International Corp SAIC	56
30	US8335187B2	Routing mobile voice calls	Bridgeport Networks Inc	55
31	US6819945B1	Wireless centrex feature activation/deactivation	AT&T Corp	55
32	EP1568150A2	METHODS AND SYSTEMS FOR AUTOMATIC COMMUNICATION LINE MANAGEMENT BASED ON DEVICE LOCATION	Telesector Resources Group Inc	55
33	US8472931B2	Methods and systems for automatic communication line management based on device location	Telesector Resources Group Inc	55
34	EP1596566A1	Method of re-directing IP-telephone calls to a mobile telephone	Dansk Mobiltelefon IS	55
35	US7260384B2	Method and system for dynamic selection of voice mail system	Sprint Spectrum LLC	55
36	US20040235482A1	Integrated wireline and wireless service using a common directory number	Nortel Networks Ltd	55
37	US6631258B1	Busy call forwarding in a wireless centrex services system	AT&T Corp	55

38	US6587683B1	Unconditional call forwarding in a wireless centrex services system	AT&T Corp	55
39	EP1589738A1	Method of routing a telephone call	Dansk Mobiltelefon IS	55
40	US6745025B1	Time-of-day call forwarding in a wireless centrex services system	AT&T Corp	55
41	US9338190B2	System and method for managing multimedia communications across convergent networks	AIP Acquisition LLC	55
42	EP1181805A1	METHOD AND APPARATUS FOR INTEGRATED VOICE GATEWAY WITH INTERFACE TO MOBILE TELEPHONE, IP TELEPHONE AND UN-PBX SYSTEMS	Starvox Inc	55
43	US6738615B1	Wireless centrex caller ID	AT&T Corp	55
44	US6711401B1	Wireless centrex call return	AT&T Corp	55
45	US6574470B1	Programmable ring-call forwarding in a wireless centrex services system	AT&T Corp	55
46	WO2007091264A1	AN APPARATUS FOR CONNECTING TELEPHONY NETWORKS TO A COMPUTER	LIM KIA HONG, LIM KIAH MENG, KHASKIN OLEG, NAVOT OMRI	55
47	US20050064853A1	Unified telephone handset for personal communications based on wireline and wireless network convergence	SBC Knowledge Ventures LP	54
48	US6374102B1	User proactive call handling	AT&T Corp	54
49	US8594298B2	Call management	Avaya Inc	54
50	US9258430B2	Method for dynamically providing a terminal connected to a public communication network, with services offered by a private telecommunication network	Alcatel Lucent SAS	54
51	US7924825B2	System for providing portable VoIP services	Internet Communications Solutions LLC	54
52	US7379436B2	Integrated cellular VoIP for call rerouting	Roamware Inc	54
53	US20070049329A1	IP-enhanced cellular services	Net2phone Inc	54
54	US7477893B2	On hold call retrieval and routing	Motorola Inc	54
55	US6654603B1	Call waiting in a wireless centrex system	AT&T Corp	54
56	US6606505B1	Wireless centrex call screen	AT&T Corp	54
57	US6970546B2	Intelligent remote caller ID	BellSouth Intellectual Property Corp	54
58	US6785560B1	Speed calling in a wireless centrex system	AT&T Corp	54
59	US8340649B2	Establishing communications sessions	British Telecommunications PLC	54
60	US8694008B2	Multi-mode handset services	AT&T Mobility II LLC	54
61	US8369311B1	Methods and systems for providing telephony services to fixed and mobile telephonic devices	Callwave Communications LLC	54
62	US6535730B1	Wireless centrex conference call adding a party	AT&T Corp	54
63	US6618600B1	Distinctive ringing in a wireless centrex system	AT&T Corp	54
64	US6961559B1	Distributed network voice messaging for wireless centrex telephony	AT&T Corp	53
65	US8180038B2	Rule-based intelligent call forwarding	AT&T Intellectual Property I LP	53
66	US7991001B2	Packet-switched telephony call server	Skype Ltd Ireland	53
67	US20070060196A1	Call delivery between networks serving a dual mode wireless communication device	Lucent Technologies Inc	53
68	US8135410B2	Method and apparatus for communicating with one of plural devices associated with a single telephone number during a disaster and disaster recovery	Ascendent Telecommunications Inc	53
69	US20080153480A1	Integrated cellular VoIP for call rerouting	JIANG YUE JUN	53
70	US6606493B1	Wireless centrex conference call deleting a party	AT&T Corp	53
71	US7519362B2	Personal wireless gateway and method for implementing the same	LAPERCH RICHARD C	53
72	US6771953B1	Wireless centrex call transfer	AT&T Corp	53
73	US20080261603A1	System for Optimizing Cellular Telephone Call Placement With Minimal User Overhead	MobileMax Inc	53
74	US20070070976A1	Mobile and packet-based call control	Bridgeport Networks Inc	53
75	US7647052B2	Method and gateway for controlling call routing	Motorola Inc	53
76	WO2001049060A1	APPARATUS FOR REROUTING CALLS PLACED ON A MOBILE TELEPHONE	KREATEL COMM AB, CARLSSON NICLAS, LOEWENBRAND DAVID	53
77	US20090270082A1	Method and Device for Communications While Using a Single Telephone Device	MOTTES DORRON	53
78	US7724879B2	Efficient communication through networks	ANIP Inc	53
79	US10117134B2	Call handling on dual-mode wireless handsets	Qwest Communications International Inc	53
80	US6591115B1	Wireless centrex call hold	AT&T Corp	53
81	US7542558B2	Informing caller of callee activity mode	Avaya Inc	53
82	US8010092B2	System for facilitating parallel data transfer from a wireless caller into a communications center	Genesys Telecommunications Laboratories Inc	53
83	US6496691B1	Enhanced call return in a wireless telephone network	BellSouth Intellectual Property Corp	53
84	US7298833B2	Wireless device to manage cross-network telecommunication services	Avaya Integrated Cabinet Solutions Inc	53
85	US20060003770A1	Virtual phone service over wireless systems	PARK SEYONG	53
86	US7054417B2	Advanced call screening appliance	Qwest Communications International Inc	53
87	US20070047707A1	IP-enhanced cellular services	Net2phone Inc	53
88	US9842442B2	Realtime, location-based cell phone enhancements, uses, and applications	Resight LLC	53
89	US8761745B2	Call forwarding on screening	Verizon Patent and Licensing Inc	53

90	EP1672899B1	A method for deciding the network over which a communication should be routed	Swisscom AG	53
91	US8761363B2	Methods and systems for automatic forwarding of communications to a preferred device	Telesctor Resource Group Inc	53
92	US8355731B2	Intelligent interactive call handling	AT&T Intellectual Property I LP	53
93	US20060234712A1	Routing wireless communications	MM INVENTIONS LLC	53
94	GB2405057A	Means for reducing call cost	ELLIS CHRISTOPHER WILLIAM HEND	53
95	WO2007010541A2	METHOD AND SYSTEM FOR SECURE REDIRECTION OF INCOMING AND OUTGOING MULTIMEDIA SESSIONS OVER A DATA NETWORK	BACKVON LTD, NISENBLAT POL, EFRATI OFIR	53
96	US7116975B1	Systems and methods for automatic call forwarding in a wireless mobile station	Cingular Wireless II LLC	53
97	GB2426410A	Communicating call control and/or presence data using a radio access network messaging channel	Nortel Networks Ltd	52
98	US8320528B2	System and method for electronic message notification	AT&T Intellectual Property I LP	52
99	US8385949B2	Method, call setup device and computer product for controlling and setting up calls with reduced costs	Opticaller Software AB	52
100	US20070058613A1	Integrating telephonic service subscribers	TELEVOLUTION Inc	52

1. Calling line/name identification of enterprise subscribers in mobile calls

US8958346B2 | Tango Networks Inc



Bibliographic data

Publication date: 2015-02-17
Application date: 2006-08-24
Earliest priority date: 2006-03-02

Inventors: SILVER ANDREW, LEWIS LATHAN, LANDGREN PATRICIA

CPC classification: H04L 12/66, H04L 29/06176, H04L 65/00, H04L 65/1016, H04L 65/1023, H04L 65/104, H04L 65/1053, H04L 65/1069, H04L 65/1076, H04L 67/10, H04M 15/57, H04M 15/63, H04M 15/8292, H04M 2203/1091, H04M 2215/208, H04M 3/42042, H04M 3/42068, H04M 3/42102, H04M 3/42314, H04M 7/0075, H04M 7/009, H04Q 2213/13034, H04Q 2213/1307, H04Q 2213/13091, H04Q 2213/13098, H04Q 2213/13109, H04Q 2213/13176, H04Q 2213/1318, H04Q 2213/13196, H04Q 2213/13204, H04Q 2213/1322, H04Q 2213/13224, H04Q 2213/13296, H04Q 2213/13348, H04Q 2213/13384, H04Q 2213/13389, H04Q 2213/13405, H04Q 2213/13407, H04Q 3/0025, H04Q 3/0045, H04Q 3/62, H04Q 3/72, H04W 28/0289, H04W 4/16, H04W 4/20, H04W 40/22, H04W 40/30, H04W 76/12, H04W 76/19, H04W 76/22, H04W 76/28, H04W 76/30, H04W 8/12, H04W 8/26, H04W 80/00, H04W 84/16, H04W 88/16, H04W 92/02, H04W 92/06, H05K 999/99

IPC classification: H04L 12/66, H04W 40/00, H04W 80/00, H04M 3/42, H04M 15/00, H04L 29/06, H04W 88/16, H04M 7/00, H04W 76/02, H04Q 3/00, H04W 4/16, H04W 92/02, H04W 4/20, H04W 84/16, H04W 76/04, H04W 76/06, H04Q 3/72, H04W 40/22, H04W 92/06, H04W 8/12, H04W 40/30, H04Q 3/62

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A system, server, and method of DTMF detection in a VoIP network.

First claim

A method of identifying a line called on a mobile telephone, comprising the steps of:
receiving, by the enterprise gateway server, a call intended to be routed to a subscriber having multiple telephone devices each having a respective assigned telephone number, the enterprise gateway server identifying the mobile telephone as a destination to which the call should be routed based on criteria;
terminating, by the enterprise gateway server, the call to the wireless network, the wireless network sending a trigger message to a carrier gateway server containing an enterprise gateway server identification, the carrier gateway server communicating with the enterprise gateway server, the communication response;
instructing the carrier gateway server to order the wireless network to proceed with routing the call;
including line information specifying one of the multiple telephone devices by sending an identifier to the mobile telephone that is indicative of the one of the multiple telephone devices called.

2. Common telephony services to multiple devices associated with multiple networks

US20060077956A1 | Sonus Networks Inc

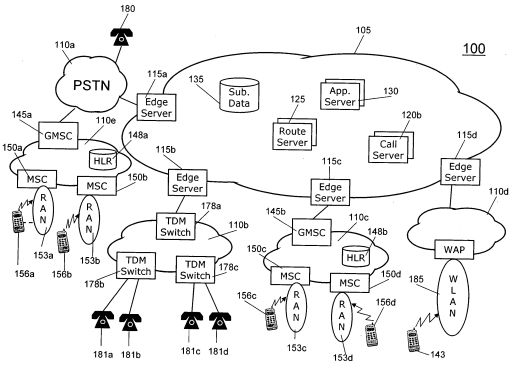
Bibliographic data

Publication date: 2006-04-13
Application date: 2004-10-08
Earliest priority date: 2004-10-08

Inventors: SAKSENA VIKRAM R, REDDY UMAMAHESWAR, HLUCHYJ MICHAEL G

CPC classification: H04M 3/42229, H04M 7/006
IPC classification: H04L 12/66

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

Described are methods and apparatus, including computer program products, for common telephony services to multiple devices associated with multiple networks. A centralized packet-based network is provided that is capable of providing the common telephony services associated with a subscriber to a first telephony device of the subscriber associated with a first network and to a second telephony device of the subscriber associated with a second network. Each call placed to or from a subscriber's device is routed to the centralized, packet-based network. Each device can be assigned an identical unique identifier. The packet-based service provider network can perform a handoff of the call while the call is in process from the first device associated with the first network to the second device associated with the second network.

First claim

A method for providing common telephony services to a subscriber having a plurality of devices associated with a plurality of different networks, the method comprising:
assigning an identical unique identifier to a first telephony device and a second telephony device associated with a first network and second network, respectively;
receiving, via a packet-based network, a call set-up request associated with the unique identifier;
routing, via the packet-based network, a call to or from the first device, the second device, or the first and second devices, based on a routing preference.

3. Call handoff between subscriber's multiple devices associated with multiple networks

US20060077957A1 | Sonus Networks Inc

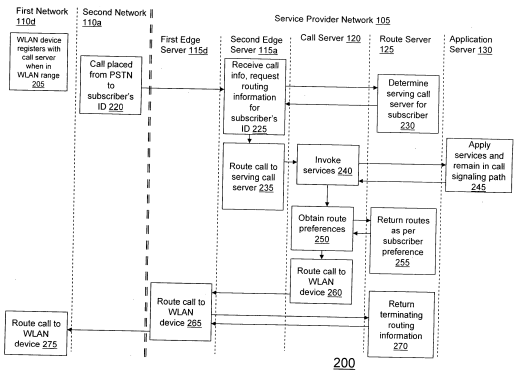
Bibliographic data

Publication date: 2006-04-13
Application date: 2004-10-08
Earliest priority date: 2004-10-08

Inventors: REDDY UMAMAHESWAR, SAKSENA VIKRAM, HLUCHYJ MICHAEL G

CPC classification: H04M 3/42229, H04W 4/16, H04W 76/20, H04W 8/04, H04W 8/28, H04W 88/06, H04W 92/02
IPC classification: H04L 12/66

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

Described are methods and apparatus, including computer program products, for common telephony services to multiple devices associated with multiple networks. A centralized packet-based network is provided that is capable of providing the common telephony services associated with a subscriber to a first telephony device of the subscriber associated with a first network and to a second telephony device of the subscriber associated with a second network. Each call placed to or from a subscriber's device is routed to the centralized, packet-based network. Each device can be assigned an identical unique identifier. The packet-based service provider network can perform a handoff of the call while the call is in process from the first device associated with the first network to the second device associated with the second network.

First claim

In a centralized, packet-based network with a subscriber having a plurality of devices corresponding to a plurality of different networks, a method for handoff of a call from a first device of the subscriber to a second device of a subscriber, the method comprising:
assigning an identical unique identifier to each of a plurality of devices corresponding to a plurality of different networks, the unique identifier being associated with a subscriber associated with the plurality of devices;
receiving, by the centralized, packet-based network, a call associated with the unique identifier;
routing, by the centralized network, the call to a first device of the plurality of devices used on a first communications network of the plurality of networks;
establishing, by the centralized network, a call leg to a second device of the plurality of devices used on a second communications network of the plurality of networks; and
routing, by the centralized network, the call to the second device after the call leg is established.

4. Call handoff between subscriber's multiple devices associated with multiple networks

EP1814292A1 | Sonus Networks Inc

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Earliest priority date: 2004-10-08

Inventors: SASKSENA VIKRAM, REDDY UMAMAHESWAR, HLUCHYJ MICHAEL G

CPC classification: H04M 3/42272, H04M 3/42297, H04M 3/4234, H04M 7/12, H04W 36/14, H04W 76/10, H04W 8/26
IPC classification: H04M 3/42

External links: Google Patents, Espacenet, EP Register, PatBase Express, PatBase, Orbit

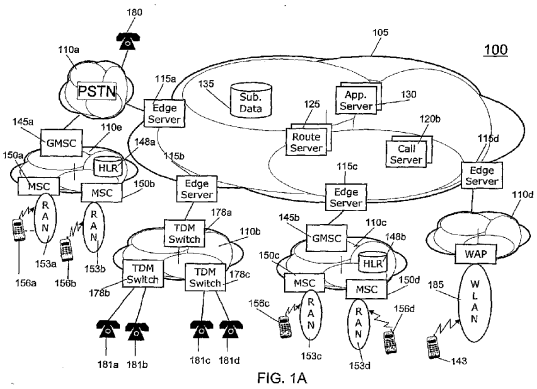


FIG. 1A

Abstract

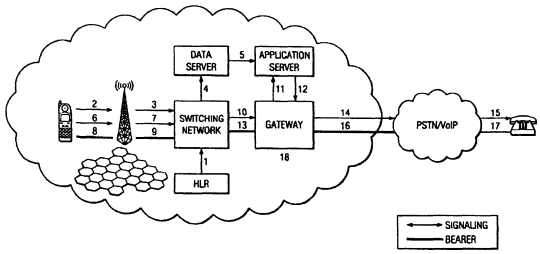
Described are methods and apparatus, including computer program products, for common telephony services to multiple devices associated with multiple networks. A centralized packet-based network is provided that is capable of providing the common telephony services associated with a subscriber to a first telephony device of the subscriber associated with a first network and to a second telephony device of the subscriber associated with a second network. Each call placed to or from a subscriber's device is routed to the centralized, packet-based network. Each device can be assigned an identical unique identifier. The packet-based service provider network can perform a handoff of the call while the call is in process from the first device associated with the first network to the second device associated with the second network.

First claim

In a centralized, packet-based network with a subscriber having a plurality of devices corresponding to a plurality of different networks, a method for handoff of a call from a first device of the subscriber to a second device of a subscriber, the method comprising:
assigning an identical unique identifier to each of a plurality of devices corresponding to a plurality of different networks, the unique identifier being associated with a subscriber associated with the plurality of devices;
receiving, by the centralized, packet-based network, a call associated with the unique identifier;
routing, by the centralized network, the call to a first device of the plurality of devices used on a first communications network of the plurality of networks;
establishing, by the centralized network, a call leg to a second device of the plurality of devices used on a second communications network of the plurality of networks; and
routing, by the centralized network, the call to the second device after the call leg is established.

5. System and method for enabling call originations using SMS and hotline capabilities

US8428578B2 | Tango Networks Inc



Bibliographic data

Publication date:	2013-04-23
Application date:	2010-12-28
Earliest priority date:	2006-03-02
Inventors:	SILVER ANDREW
CPC classification:	H04L 65/1016, H04L 65/103, H04L 65/104, H04L 65/1063, H04L 65/1069, H04M 2207/18, H04M 3/42042, H04M 3/42068, H04M 3/42382, H04Q 2213/1307, H04Q 2213/13091, H04Q 2213/13098, H04Q 2213/13103, H04Q 2213/13109, H04Q 2213/13141, H04Q 2213/13152, H04Q 2213/13176, H04Q 2213/1318, H04Q 2213/13196, H04Q 2213/13206, H04Q 2213/1322, H04Q 2213/13336, H04W 4/14, H04W 4/16, H04W 76/15
IPC classification:	H04L 12/28, H04W 40/00
External links:	Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

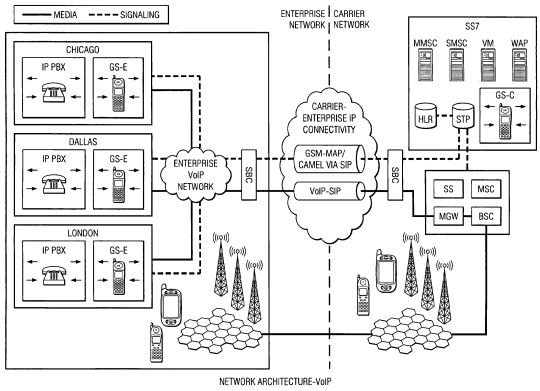
A method for handling call originations is provided. The method includes sending origination information from a mobile device to an application server in an enterprise network using Short Message Service (SMS) and determining whether a hotline feature is present in a subscriber profile associated with the mobile device. Data is then routed from the mobile device to a predetermined destination based on the hotline feature.

First claim

A method, comprising:
activating a hotline feature in a subscriber profile associated with a mobile device;
sending call origination information including origination digits and destination digits from the mobile device to an application server deployed in an enterprise network;
routing a first voice call from the mobile device to a gateway server, based on the hotline feature, the gateway server deployed in one of a carrier network or the enterprise network, that is communicatively coupled with the application server;
receiving the call origination information, by the application server from the mobile device, in advance of a hotline call based on the activated hotline feature;
directing the gateway server to originate a second voice call, by the application server, based on the received call origination information, to a destination device to join with the first voice call.

6. Mobile application gateway for connecting devices on a cellular network with individual enterprise and data networks

US9622078B2 | Tango Networks Inc



Bibliographic data

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Application date: 2014-10-13
Earliest priority date: 2006-03-02

Inventors: SILVER ANDREW, LEWIS LATHAN, LANDGREN PATRICIA, SCHMID GLEN

CPC classification: H04L 12/4633, H04L 12/64, H04L 63/107, H04L 65/1016, H04L 65/103, H04L 65/104, H04Q 2213/1307, H04Q 2213/13091, H04Q 2213/13098, H04Q 2213/13103, H04Q 2213/13109, H04Q 2213/13141, H04Q 2213/13152, H04Q 2213/13176, H04Q 2213/1318, H04Q 2213/13196, H04Q 2213/13206, H04Q 2213/1322, H04Q 2213/13336, H04W 12/08, H04W 40/02, H04W 76/12, H04W 8/04, H04W 8/18

IPC classification: G06F 15/16, H04W 4/00, H04L 12/66, H04W 40/00, H04M 3/42, H04L 29/06, H04W 40/02, H04W 12/08, H04M 7/00, H04W 76/02, H04W 8/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

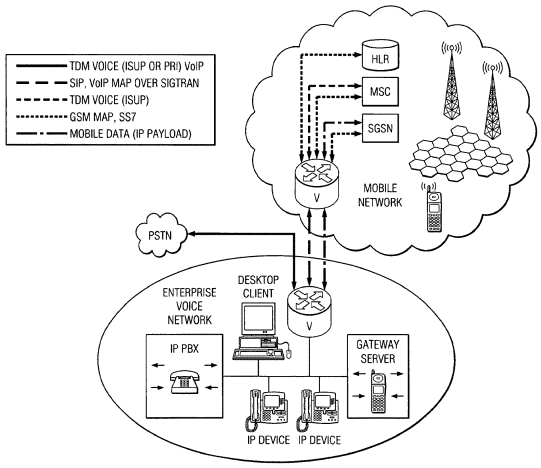
A mobile application gateway for connecting devices on a cellular network with individual networks, such as enterprise voice and data networks and/or residential networks. The effects of the present invention are far reaching in terms of transferring effective call control from the cellular network into the control of the individual network such as the enterprise, and enabling new business models for the purchase of cellular service from a public cellular carrier by an enterprise. The invention may consist of a primarily of core network and services components based on the IMS network architecture, and is backward compatible to support legacy systems in place in current telecom and data networks.

First claim

A method, comprising:
receiving a request to establish a data session or a call from a mobile device;
querying an enterprise gateway server in an enterprise network for a data session associated with the mobile device, when a request to establish a data session is received, or call policy associated with the mobile device, when a call is received;
automatically establishing a secure tunnel between the enterprise gateway server and a carrier gateway server in a carrier network, when the request to establish the data session is received, to provide a secure data session for the mobile device to communicate with at least one node on the enterprise network, wherein the secure tunnel supports selectable security and encryption specific to requirements of the enterprise network.

7. Call flow system and method for use in a legacy telecommunication system

US11405846B2 | Tango Networks Inc



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Earliest priority date: 2006-03-02

Inventors: SILVER ANDREW, LEWIS LATHAN, LANDGREN PATRICIA

CPC classification: H04L 12/66, H04L 29/06176, H04L 65/00, H04L 65/1006, H04L 65/1009, H04L 65/1016, H04L 65/1023, H04L 65/104, H04L 65/1053, H04L 65/1069, H04L 65/1076, H04L 67/10, H04L 67/28, H04M 15/57, H04M 15/63, H04M 15/8292, H04M 2203/1091, H04M 2215/208, H04M 3/42042, H04M 3/42068, H04M 3/42102, H04M 3/42314, H04M 7/0075, H04M 7/009, H04Q 2213/13034, H04Q 2213/1307, H04Q 2213/13091, H04Q 2213/13098, H04Q 2213/13109, H04Q 2213/13176, H04Q 2213/1318, H04Q 2213/13196, H04Q 2213/13204, H04Q 2213/1322, H04Q 2213/13224, H04Q 2213/13296, H04Q 2213/13348, H04Q 2213/13384, H04Q 2213/13389, H04Q 2213/13405, H04Q 2213/13407, H04Q 3/0025, H04Q 3/0045, H04Q 3/62, H04Q 3/72, H04W 28/0289, H04W 4/16, H04W 4/20, H04W 40/22, H04W 40/30, H04W 76/12, H04W 76/19, H04W 76/22, H04W 76/28, H04W 76/30, H04W 8/12, H04W 8/26, H04W 80/00, H04W 84/16, H04W 88/16, H04W 92/02, H04W 92/06, H05K 999/99

IPC classification: H04L 12/66, H04W 40/00, H04W 80/00, H04M 3/42, H04M 15/00, H04W 40/02, H04W 88/16, H04M 7/00, H04Q 3/00, H04W 4/16, H04W 92/02, H04W 8/26, H04W 4/20, H04W 28/02, H04W 84/16, H04Q 3/72, H04W 40/22, H04W 92/06, H04W 8/12, H04W 40/30, H04Q 3/62, H04W 76/28, H04W 76/12, H04W 76/19, H04W 76/30, H04W 76/22, H04W 76/10, H04W 76/20, H04L 67/10, H04L 65/10, H04L 65/1069, H04L 65/1016, H04L 65/1023, H04L 65/1033, H04L 67/56, H04L 65/00, H04L 65/102, H04L 65/1076, H04L 65/1053

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A method of operating a network server, such as a mobile application gateway, connect devices on a cellular or carrier network with individual networks, such as enterprise voice and data networks or residential networks. The effects of the present invention are far reaching in terms of transferring effective call control from the cellular network into the control of the individual network, such as the enterprise, and enabling new business models for the purchase of cellular service from a public cellular carrier by an enterprise.

First claim

A method comprising:
receiving, by an enterprise gateway server acting as a Session Initiation Protocol (SIP) Back-to-Back User Agent (B2BUA) in an enterprise network, a query for call routing information from a carrier gateway server in a mobile network, the query in response to the carrier gateway server receiving a call origination request for a call destined for a mobile station associated with the enterprise network;
in response to the query, analyzing, by the enterprise gateway server, original digits of the call to identify whether to route the call via one of the mobile network and a private branch exchange;
sending, by the enterprise gateway server, the identified route of the call to the carrier gateway server to route the call via one of the mobile network and a private branch exchange.

8. Unstructured supplementary service data application within a wireless network

US8532630B2 | VascoDe Tech Ltd

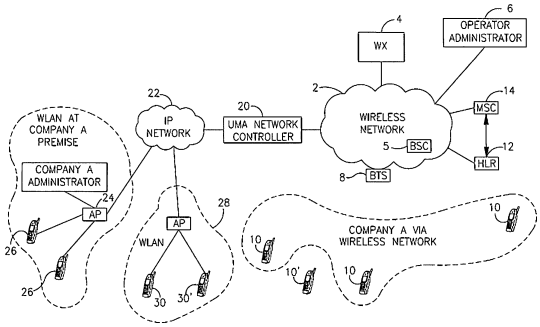
Bibliographic data

Publication date: 2013-09-10
Application date: 2008-02-18
Earliest priority date: 2004-11-24

Inventors: MOTTES DORRON

CPC classification: H04M 2203/2011, H04M 2203/5018, H04M 2203/654, H04M 2207/18, H04M 3/42059, H04M 3/436, H04M 3/5322, H04M 3/54, H04M 3/56, H04W 4/20
IPC classification: H04M 3/42, H04W 4/20

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

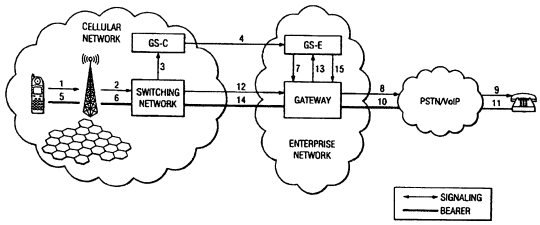
A method is provided for handling a call communication session via a communication address associated with a private network using Unstructured Supplementary Service Data (USSD) protocol. USSD messages are used between the wireless private network subscriber and a wireless network to provide the subscriber with information about the caller, and routing options of the call. The subscriber can also inform the wireless network using USSD messages how to proceed with the call. USSD messages such as but not limited to, transferring the call to another subscriber with canned messages, transferring the call to a subscriber's voice mail, establishing a conference call, swapping to other call, creating new call, consulting with other person, transferring to specific predefined person, hold, consulting with other person via canned message, etc. Another method is exchanging the device status information using USSD messages.

First claim

A method for call control, comprising:
sending from a call control manager a first message using an Unstructured Supplementary Service Data (USSD) protocol to a first device, wherein the first message alerts the first device of an incoming call from at least one second device and includes a first set of call options and call initiator information;
receiving a first response message from said first device responsive of said first message;
,
when the first response includes an instruction for accepting said call with at least one second device, exchanging USSD messages, during said call established between the at least one second device and the first device, between said call control manager and said first device and between the first device and the at least one second device through the call control manager, said USSD messages containing selection lists including a second set of call options sent to said first device from said call control manager and responses thereof received from said first device;
sending a barge-in call control message from said call control manager to said first device during a call in progress.

9. System and method for enabling VPN-less session setup for connecting mobile data devices to an enterprise data network

US8175053B2 | Tango Networks Inc



Bibliographic data

Publication date: 2012-05-08
Application date: 2010-12-13
Earliest priority date: 2006-03-02

Inventors: SILVER ANDREW

CPC classification: H04L 12/66, H04L 65/1016, H04L 65/1023, H04L 65/104, H04L 65/1053, H04L 65/1069, H04L 65/1096, H04M 15/57, H04M 15/63, H04M 15/8292, H04M 2203/1091, H04M 2215/208, H04M 3/42042, H04M 3/42314, H04M 3/543, H04M 5/12, H04M 7/006, H04Q 2213/13034, H04Q 2213/1307, H04Q 2213/13091, H04Q 2213/13098, H04Q 2213/13109, H04Q 2213/13176, H04Q 2213/1318, H04Q 2213/13196, H04Q 2213/13204, H04Q 2213/1322, H04Q 2213/13224, H04Q 2213/13296, H04Q 2213/13348, H04Q 2213/13384, H04Q 2213/13389, H04Q 2213/13405, H04Q 2213/13407, H04Q 3/0025, H04Q 3/0045, H04Q 3/62, H04Q 3/72, H04W 4/16, H04W 4/20, H04W 40/00, H04W 76/12, H04W 76/19, H04W 76/22, H04W 76/30, H04W 8/12, H04W 80/00, H04W 84/16, H04W 88/16, H04W 92/02, H04W 92/06

IPC classification: H04W 74/00, H04L 12/54

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

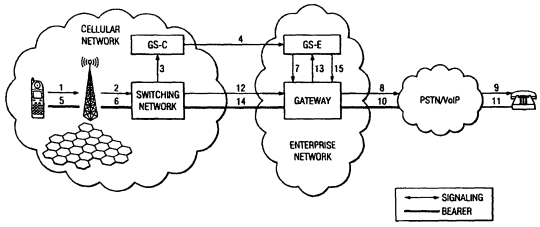
A mobile application gateway configured to interconnect mobile communication devices on a cellular network with an enterprise network is provided. The mobile application gateway includes a voice and data signaling gateway configured to provide routing functionalities, service functionalities and admission control. A gateway GPRS support node (GGSN) is configured to establish a secure data session between one or more of the mobile communication devices and the enterprise network by establishing a GPRS tunneling protocol (GTP) tunnel between a carrier-hosted serving GPRS support node (SGSN) and the GGSN.

First claim

A system, comprising:
a cellular network including a mobile switching network that provides cellular telecommunication services to cellular phones;
a carrier gateway server that is communicatively coupled with the mobile switching network; and
an enterprise network including an enterprise gateway server that is communicatively coupled with a PBX located in the enterprise network;
wherein the enterprise gateway server is communicatively coupled with the carrier gateway server and wherein signaling information only is transmitted between the carrier gateway server and the enterprise gateway server,
wherein the carrier gateway server receives an indication from the mobile switching network that a call is originating or terminating for a cellular phone associated with the enterprise network,
wherein the carrier gateway server identifies the enterprise network of the associated cellular phone,
wherein the carrier gateway server notifies the enterprise gateway server of the call and call information of the originating or the terminating call,
wherein the enterprise gateway server stores the call information including an originally intended destination,
wherein the enterprise gateway server determines a call routing for the call,
wherein the mobile switching network routes the call to the enterprise gateway server directly or via the PBX,
wherein the enterprise gateway server associates the call with the previously stored call information to perform the call routing.

10. System and method for enabling VPN-less session setup for connecting mobile data devices to an enterprise data network

US7873001B2 | Tango Networks Inc



Bibliographic data

Publication date: 2011-01-18
Application date: 2006-10-26
Earliest priority date: 2006-03-02

Inventors: SILVER ANDREW

CPC classification: H04L 12/66, H04L 65/1016, H04L 65/103, H04L 65/104, H04M 15/8044, H04M 15/8228, H04Q 2213/1307, H04Q 2213/13091, H04Q 2213/13098, H04Q 2213/13103, H04Q 2213/13109, H04Q 2213/13141, H04Q 2213/13152, H04Q 2213/13176, H04Q 2213/1318, H04Q 2213/13196, H04Q 2213/13206, H04Q 2213/1322, H04Q 2213/13336, H04W 4/24, H04W 88/16

IPC classification: H04L 12/56, H04W 74/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A mobile application gateway configured to interconnect mobile communication devices on a cellular network with an enterprise network is provided. The mobile application gateway includes a voice and data signaling gateway configured to provide routing functionalities, service functionalities and admission control. A gateway GPRS support node (GGSN) is configured to establish a secure data session between one or more of the mobile communication devices and the enterprise network by establishing a GPRS tunneling protocol (GTP) tunnel between a carrier-hosted serving GPRS support node (SGSN) and the GGSN.

First claim

A system, comprising:
a cellular network including a mobile switching network that provides cellular telecommunication services to cellular phones;
a carrier gateway server that is communicatively coupled with the mobile switching network; and
an enterprise network including an enterprise gateway server that is communicatively coupled with a PBX located in the enterprise network;
wherein the enterprise gateway server is communicatively coupled with the carrier gateway server and wherein signaling information only is transmitted between the carrier gateway server and the enterprise gateway server,
wherein the carrier gateway server receives an indication from the mobile switching network that a call is originating or terminating for a cellular phone associated with the enterprise network,
wherein the carrier gateway server identifies the enterprise network of the associated cellular phone,
wherein the carrier gateway server notifies the enterprise gateway server of the call and call information of the originating or the terminating call,
wherein the enterprise gateway server stores the call information including an originally intended destination,
wherein the enterprise gateway server determines a call routing for the call,
wherein the enterprise gateway server informs the carrier gateway server of the call routing,
wherein the carrier gateway server orders the mobile switching network to perform the call routing,
wherein the mobile switching network routes the call to the enterprise gateway server directly or via the PBX,
wherein the enterprise gateway server associates the call with the previously stored call information, and
wherein the enterprise gateway server routes the call to a final destination.

11. Unstructured supplementary service data call control manager within a wireless network

US8532629B2 | VascoDe Tech Ltd

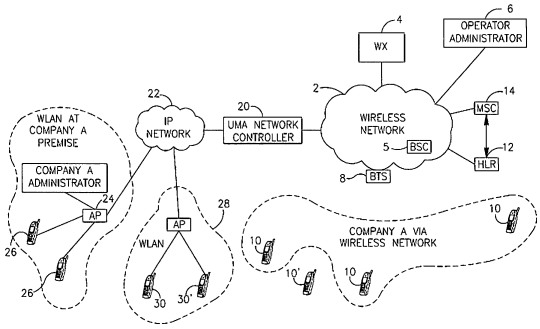
Bibliographic data

Publication date: 2013-09-10
Application date: 2008-02-18
Earliest priority date: 2004-11-24

Inventors: MOTTES DORRON

CPC classification: H04M 2203/2011, H04M 2203/652, H04M 3/428, H04M 3/436, H04M 3/533, H04M 3/54, H04M 3/56, H04M 3/58
IPC classification: H04M 3/42

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A system and apparatus for call control management using the Unstructured Supplementary Service Data (USSD) protocol. The system and apparatus uses USSD messages between the wireless private network subscriber and a wireless network to provide subscribers with information about callers and routing options of the call. The subscriber can also inform the system using USSD messages how to proceed with the call. The system provides USSD messages such as but not limited to, transferring the call to another subscriber with canned messages, transferring the call to a subscriber's voice mail, establishing a conference call, swapping to other call, creating new call, consulting with other person, transferring to specific predefined person, hold, consulting with other person via canned message, etc. The system and apparatus also exchanges device status information using USSD messages.

First claim

A call control manager comprising:
means for sending a first message using an Unstructured Supplementary Service Data (USSD) protocol to a first device, said first message alerts said first device of an incoming call from at least one second device and includes a first set of call options and call initiator information;
means for receiving a first response message from said first device and responsive to a type of said first response message determining how to handle the call;
means for exchanging USSD messages, during said call established between the at least one second device and the first device, with said first device and at least one second device, said USSD messages containing selection lists including a second set of call options sent to said first device and responses thereof received from said first device, when the type of the first response message is accepting said call with said second device;
means for enabling barge-in to a call in progress; and
means for causing a display of said selection lists on a display of said first device.

12. TELEPHONE CALL ROUTING

EP1413154A1 | WASSER AMOS

Bibliographic data

Publication date: 2004-04-28
Application date: 2001-02-22
Earliest priority date: 2001-02-22

Inventors: WASSER AMOS

CPC classification: H04W 40/02
IPC classification: H04W 40/02

External links: Google Patents, Espacenet, EP Register, PatBase Express, PatBase, Orbit

Abstract

Provided is an apparatus for wireless communications that includes: means for wirelessly communicating with a base station in accordance with a first protocol that permits the apparatus to function as a telephone; means for permitting a user to designate a telephone number for a remote device that the user desires to contact; means for identifying an access telephone number that is different than the telephone number; means for providing the access telephone number to the base station, in accordance with the first protocol, so as to indicate that a connection is desired with a routing system corresponding to the access telephone number; and means for providing the telephone number to the routing system in accordance with a second protocol (e.g., using the telephone connection established with the routing system), so as to indicate that a connection is desired with the remote device. In addition, the invention is directed to facilitating telephone-based communications. Initially, a contact telephone number is assigned to each of a number of different subscribers. An electronic message that has been formatted in accordance with an established protocol is received from a particular subscriber from among the different subscribers, the message identifying a current telephone number for the particular subscriber. A telephone call is received on the contact telephone number for the particular subscriber, and the telephone call automatically is forwarded to the current telephone number by dialing the current telephone number.

First claim

An apparatus for wireless communications, said apparatus comprising:
means for wirelessly communicating with a base station in accordance with a first protocol that permits said apparatus to function as a telephone;
means for permitting a user to designate a telephone number for a remote device that the user desires to contact;
means for identifying an access telephone number that is different than the telephone number;
means for providing the access telephone number to the base station, in accordance with the first protocol, so as to indicate that a connection is desired with a routing system corresponding to the access telephone number; and
means for providing the telephone number to the routing system in accordance with a second protocol, so as to indicate that a connection is desired with the remote device.

13. Telephone call routing

US20040038706A1 | WASSER AMOS S.

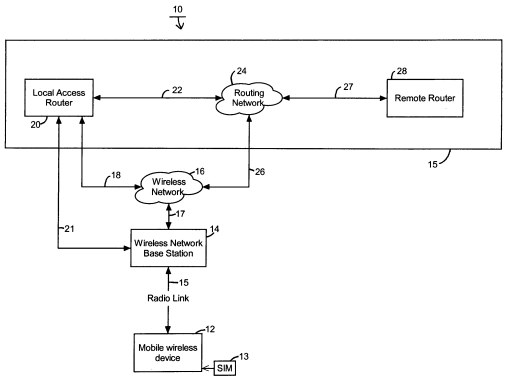
Bibliographic data

Publication date: 2004-02-26
Application date: 2003-08-26
Earliest priority date: 2000-10-19

Inventors: WASSER AMOS S

CPC classification: H04M 1/27485, H04W 76/10
IPC classification: H04W 76/02, H04M 1/725, H04M 1/2745

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

Provided is an apparatus for wireless communications that includes: means for wirelessly communicating with a base station in accordance with a first protocol that permits the apparatus to function as a telephone; means for permitting a user to designate a telephone number for a remote device that the user desires to contact; means for identifying an access telephone number that is different than the telephone number; means for providing the access telephone number to the base station, in accordance with the first protocol, so as to indicate that a connection is desired with a routing system corresponding to the access telephone number; and means for providing the telephone number to the routing system in accordance with a second protocol (e.g., using the telephone connection established with the routing system), so as to indicate that a connection is desired with the remote device. In addition, the invention is directed to facilitating telephone-based communications. Initially, a contact telephone number is assigned to each of a number of different subscribers. An electronic message that has been formatted in accordance with an established protocol is received from a particular subscriber from among the different subscribers, the message identifying a current telephone number for the particular subscriber. A telephone call is received on the contact telephone number for the particular subscriber, and the telephone call automatically is forwarded to the current telephone number by dialing the current telephone number.

First claim

An apparatus for wireless communications, said apparatus comprising:
means for wirelessly communicating with a base station in accordance with a first protocol that permits said apparatus to function as a telephone;
means for permitting a user to designate a telephone number for a remote device that the user desires to contact;
means for identifying an access telephone number that is different than the telephone number;
means for providing the access telephone number to the base station, in accordance with the first protocol, so as to indicate that a connection is desired with a routing system corresponding to the access telephone number; and
means for providing the telephone number to the routing system in accordance with a second protocol, so as to indicate that a connection is desired with the remote device.

14. Method And Device For Routing Communications In Cellular Communications Network

US20070298771A1 | MOTTES DORRON

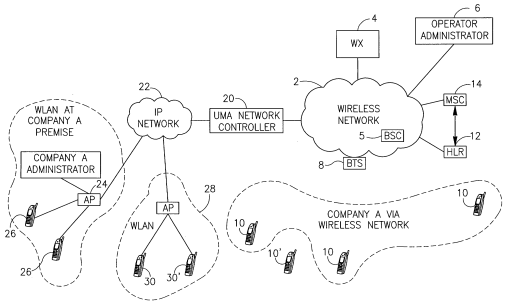
Bibliographic data

Publication date: 2007-12-27
Application date: 2005-11-23
Earliest priority date: 2004-11-24

Inventors: MOTTES DORRON

CPC classification: H04W 76/18, H04W 8/12, H04W 8/18, H04W 8/26
IPC classification: H04W 76/02, H04W 8/26, H04W 8/18, H04W 8/12

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

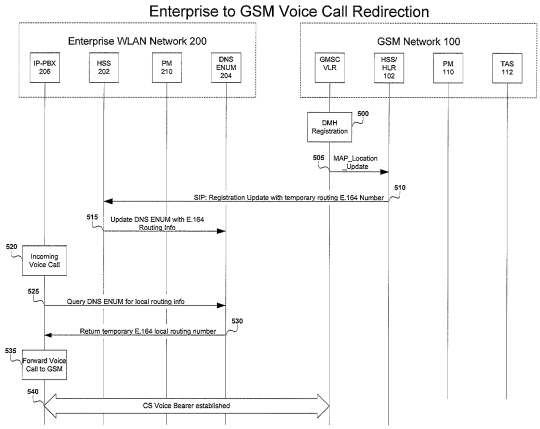
A method and devices are provided for routing a request to establish a communication session via a communication address associated with a private network, wherein the request is routed via a public cellular network, and for establishing that communication session. The method comprises the steps of: establishing a pre-defined list of telephone numbers belonging to the private network; associating each of the telephone numbers with at least one communication address; defining at least one management rule for handling requests for establishing communication sessions with at least one of the communication addresses; receiving a request to establish a communication session, wherein at least one telephone number selected out of the pre-defined list of telephone numbers is associated with the request; routing the request towards a communication address associated with at least one telephone number, and wherein the routing is carried out in accordance with the at least one management rule; and establishing a communication session between the originator of the arriving request for communication session and a user associated with the communication address, via at least one center of the public cellular network.

First claim

A method for routing a request to establish a communication session via a communication address associated with a private network, wherein said request is routed via a public cellular network, and for establishing said communication session, said method comprising:
establishing a pre-defined list of telephone numbers belonging to said private network;
associating each of said telephone numbers with at least one communication address;
defining at least one management rule for handling requests for establishing communication sessions with at least one of said communication addresses;
receiving a request to establish said communication session, wherein at least one telephone number selected out of said pre-defined list of telephone numbers is associated with said request;
routing said request towards a communication address associated with said at least one telephone number, and wherein said routing is carried out in accordance with said at least one management rule;
associating a message with the communication session being established for display at a user's device associated with said communication address;
establishing a communication session between the originator of the arriving request for communication session and a user associated with said communication address, via at least one center of the public cellular network.

15. Voice call redirection for enterprise hosted dual mode service

US7664495B1 | AT&T Mobility II LLC



Bibliographic data

Publication date: 2010-02-16
Application date: 2005-12-05
Earliest priority date: 2005-04-21

Inventors: BONNER THOMAS WAYNE, TRAN NHAN THANH, ENZMANN MARK, RICHARDSON SIMON

CPC classification: H04W 4/16, H04W 60/00, H04W 8/18, H04W 84/12, H04W 88/06
IPC classification: H04L 12/28

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

Systems and methods provide a single E.164 number for voice and data call redirection and telephony services such as caller identification, regardless of in which type of network a dual mode mobile device operates. When the dual mode device registers and is active in a GSM network, temporary routing and status updates are triggered and resultant information is maintained in both networks. A mobile terminated call is routed through an enterprise WLAN with call control within the enterprise being handled by SIP or H.323 signaling, and the call is redirected to the mobile device in the GSM network, where call control is assumed by the SS7 network. Services are provided using the protocols native to the active network, and the single E.164 is used consistently along with or lieu of the temporary routing information for subscriber identity specific functions, such as caller identification and voice mail.

First claim

In an enterprise wireless local area network (WLAN), a method for redirecting an incoming call to a dual mode device, the method comprising:
receiving, at a first subscriber database in the enterprise WLAN, a registration update indicating that the dual mode device is registered in a wireless telecom network, the registration update being received from a second subscriber database in the wireless telecom network in response to the dual mode device being registered with the wireless telecom network, and the registration update comprising temporary routing information used to route incoming calls received at the enterprise WLAN via an enterprise switching system to the dual mode device;
updating the first subscriber database with the temporary routing information, in response to receiving the registration update;
receiving, at the enterprise switching system, notification of an incoming call directed to the dual mode device;
retrieving the temporary routing information from the first subscriber database;
connecting the incoming call to the dual mode device in the wireless telecom network using the temporary routing information.

16. Methods and systems for call processing in a wireline and wireless network

US9215318B2 | Callwave Communications LLC

Bibliographic data

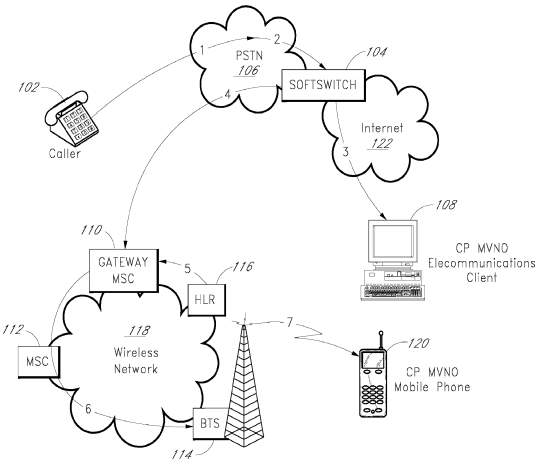
Publication date: 2015-12-15
Application date: 2015-01-08
Earliest priority date: 2006-02-22

Inventors: KIRCHHOFF LELAND W, TRANDAL DAVID S

CPC classification: H04L 67/306, H04M 1/651, H04M 1/72563, H04M 2250/60, H04M 3/42042, H04M 3/42068, H04M 3/42263, H04M 3/4228, H04M 7/0093, H04M 7/1235, H04Q 3/0029, H04W 4/14, H04W 4/16, H04W 40/02, H04W 8/183

IPC classification: H04M 3/42, H04W 4/12, H04W 40/02, H04M 7/00, H04Q 3/00, H04W 4/16, H04M 1/725, H04M 1/65, H04W 8/18, H04M 7/12

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

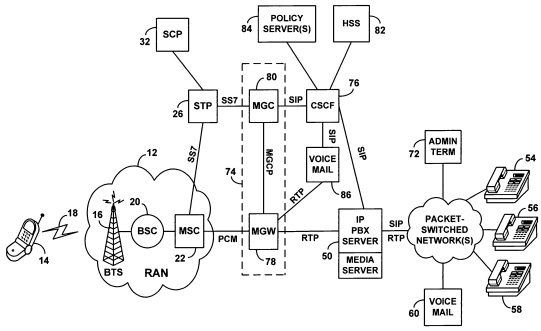
Methods and systems are described for routing call in a wireless network environment. In one embodiment, a phone address is assigned to a subscriber and/or a subscriber's mobile telecommunications device. A call directed to the phone address is routed to a call processing system. An outbound call from the call processing system is placed to a wireless communication service provider so as to cause, at least in part, the wireless communication service provider to route the outbound call to the subscriber's mobile telecommunications device, wherein the call processing system configures call signaling parameters associated with the outbound call so that the outbound call appears to be to a phone number ported to the wireless communication service provider, and wherein the phone number has not been ported to the wireless communication service provider. The outbound call is bridged with the inbound call.

First claim

A system, comprising:
a data network interface;
a telecommunications interface;
a call processing system, including at least one processing device, coupled to the data network interface and the telecommunications interface, the call processing system configured to perform operations, comprising:
receiving, using the data network interface, a communication from a computing device of a user;
determining, from the communication received using the data network interface, that the computing device of the user is online;
receiving a first call over the telecommunications interface from a first calling party, the first call directed to a first phone address associated with the user, wherein the first call is associated with a calling party phone address;
at least partly in response to the first call and the determination that the computing device of the user is online, automatically causing a notification of the incoming first call to be presented in a web page on the computing device of the user, wherein the incoming first call notification includes the calling party phone address and wherein the incoming first call notification is presented during the received call; and
subsequent to the received first call and at least in part in response to a web page interface control selection on the computing device of the user, causing a call from the computing device of the user to be presented to the first calling party with the first phone address.

17. Method and system for selective application of cellular-PBX integration service

US8064951B2 | Sprint Spectrum LLC



Bibliographic data

Publication date: 2011-11-22
Application date: 2005-05-24
Earliest priority date: 2004-07-29

Inventors: WOODSON CHARLES E, PHILLIPS JEFFREY F, PACZKOWSKI LYLE W, BALES MARK R, WEAVER FARNI B

CPC classification: H04W 8/18, H04W 84/16
IPC classification: H04M 1/00, H04W 4/00, H04W 8/18, H04W 84/16

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

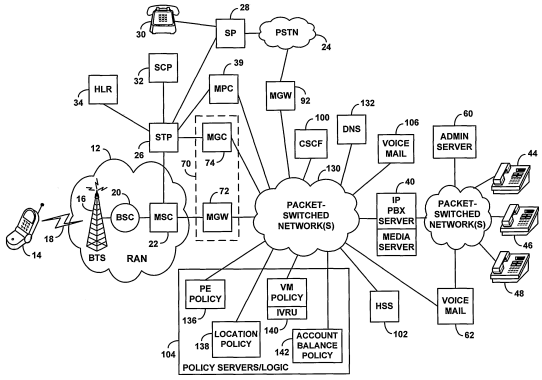
A method and system for selectively applying a cellular-PBX integration service. When a radio access network (RAN) receives a call request seeking to set up a call for a cellular wireless communication device (WCD) that is operating in the coverage area of the RAN, a determination is made as to whether the WCD is currently checked-into a cellular-PBX integration service. A service control point (SCP), for instance, may make the determination. If the determination is that the WCD is currently checked-in, then the call is set up to an IP PBX server that services the WCD, and the IP PBX server may then handle the call as it would handle a call placed to any IP PBX extension. Further, differential billing can be applied, charging an enterprise billing-account for the call if the WCD is checked-in, and charging a WCD billing-account for the call if the WCD is not checked-in.

First claim

A method comprising:
receiving into a cellular radio access network (RAN) a call request seeking to set up a call for a cellular wireless communication device (WCD) that is operating in a wireless coverage area of the RAN, wherein the call is a call to a called party;
responsively making a determination of whether the WCD is currently checked-into a cellular-PBX integration service to which the WCD subscribes;
if the determination is that the WCD is currently checked-into the cellular-PBX integration service, then setting up the call to an IP PBX server that serves the WCD;
if the determination is that the WCD is not currently checked-into the cellular-PBX integration service, then setting up the call to the called party without setting up the call to the IP PBX server,
wherein the cellular RAN includes a mobile switching center (MSC) that is communicatively linked with a service control point (SCP) to which the MSC signals for call processing guidance in response to the call request, the SCP maintaining a subscriber profile record for the WCD, wherein the subscriber profile record includes an indication of whether the WCD is currently checked-into or checked-out of the cellular-PBX integration service, and
wherein making the determination of whether the WCD is currently checked-into the cellular-PBX integration service comprises the SCP referring to the subscriber profile record to determine whether the WCD is currently checked-into or checked-out of the cellular PBX integration service.

18. METHOD AND SYSTEM FOR EXTENDING IP PBX SERVICES TO CELLULAR WIRELESS COMMUNICATION DEVICES

WO2006015013A2 | SPRINT SPECTRUM LP, MCCONNELL VON K, PHILLIPS JEFFREY F, WEILAND DORENE G, WOODSON CHARLES E, WEAVER FARNI, PACZKOWSKI LYLE W, SANKARANARAYNAN PALLAVUR, BROWN JACK E, BALES MARK R



Bibliographic data

Publication date: 2006-02-09
Application date: 2005-07-27
Earliest priority date: 2004-07-29

Inventors: MCCONNELL VON K, PHILLIPS JEFFREY F, WEILAND DORENE G, WOODSON CHARLES E, WEAVER FARNI, PACZKOWSKI LYLE W, SANKARANARAYNAN PALLAVUR, BROWN JACK E, BALES MARK R

CPC classification: H04L 65/1026, H04L 65/1036, H04M 2203/1091, H04M 2207/35, H04M 3/4234, H04M 7/006, H04Q 2213/13098, H04Q 2213/13196, H04Q 2213/1322, H04Q 2213/13389, H04Q 3/0025, H04Q 3/0045, H04W 76/12, H04W 92/02

IPC classification: H04M 7/00, H04W 76/02, H04W 92/02, H04W 76/04

External links: Google Patents, Espacenet, EP Register, Patentscope, PatBase Express, PatBase, Orbit

Abstract

An IP PBX system that serves enterprise telephones via a landline IP network connection is be expanded to serve cellular wireless communication devices (WCD) via a cellular wireless carrier's radio access network (RAN). Calls to and from the cellular WCD (14) are connected through the cellular carrier's RAN and the IP PBX system, so that the IP PBX system can control and manage the calls just as the IP PBX would control and manage calls involving other extensions on the IP PBX. A cellular WCD (14) thereby becomes an IP PBX client station, i.e., an extension on the IP PBX system. As such, the cellular WCD (14) can seamlessly benefit from many of the same IP PBX features that other more conventional IP PBX client stations (44, 46, 48) (e.g., desk phones) enjoy. Additional enhancements are disclosed as well.

First claim

A method comprising:
receiving into a cellular radio access network (RAN) a call request seeking to set up a call for a cellular wireless communication device (WCD) that is operating in a wireless coverage area of the RAN;
responsively (a) engaging in first call setup signaling between the cellular RAN and a media gateway system to set up a first leg of the call between the cellular RAN and the media gateway system,
identifying an IP PBX system that serves the cellular WCD, and
engaging in second call setup signaling between the media gateway system and the IP PBX system to set up a second leg of the call between the media gateway system and the IP PBX system;
setting up the call from the IP PBX system for the cellular WCD.

19. Method and system for selective application of cellular-PBX integration service

US8060135B2 | Sprint Spectrum LLC

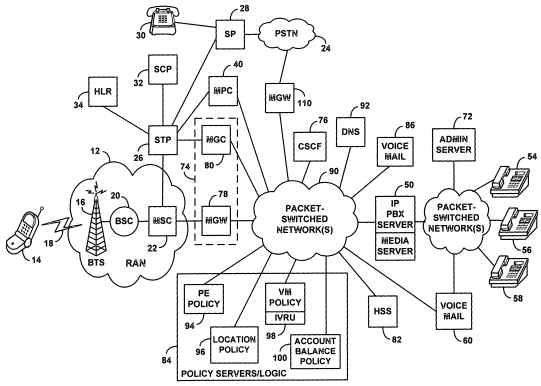
Bibliographic data

Publication date: 2011-11-15
Application date: 2005-05-24
Earliest priority date: 2004-07-29

Inventors: BALES MARK R, WEAVER FARNI B, PHILLIPS JEFFREY F, PACZKOWSKI LYLE W

CPC classification: H04W 4/24, H04W 84/16, H04W 88/16
IPC classification: H04M 1/00, H04W 88/16, H04W 4/24, H04W 84/16

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A method and system for selectively applying a cellular-PBX integration service. When a radio access network (RAN) receives a call request for a served wireless communication device (WCD), call setup signaling passes to a call session control function (CSCF), and a determination is made as to whether the WCD is currently checked-into or checked-out of the cellular-PBX integration service. If the WCD is checked-in, the call is set up to an IPPBX server for handling. If the WCD is checked-out, the call is set up back to the RAN for handling. Similarly, the CSCF may receive call setup signaling in response to a call dialed to an IPPBX extension associated with the WCD, and the check-in/check-out status of the WCD may be used as a basis to decide whether to send the call to the RAN for handling or whether to return the call to the IPPBX server for handling.

First claim

A method comprising:
receiving into a cellular radio access network (RAN) a call request seeking to set up a call for a cellular wireless communication device (WCD) that is operating in a wireless coverage area of the RAN, wherein the call is a call to a called party;
responsively (i) requesting setup of a first leg of the call between the RAN and a media gateway system, and (ii) sending call setup signaling from the media gateway system to a call session control function (CSCF);
making a determination of whether the WCD is currently checked-into or checked-out of a cellular-PBX integration service to which the WCD subscribes;
if the determination is that the WCD is currently checked-into the cellular-PBX integration service, then passing the call setup signaling from the CSCF to an IP PBX server that serves the WCD, to request setup of a second leg of the call from the media gateway system to the IP PBX server;
if the determination is that the WCD is currently checked-out of the cellular-PBX integration service, then signaling back from the CSCF to the media gateway system to request setup of the call back from the media gateway system to the RAN without setting up the call to the IP PBX server,
wherein the method further comprises receiving together with the call request a toggle command comprising a feature code, and
wherein making the determination comprises (i) referring to a WCD profile record to ascertain whether the WCD is currently checked-into or checked-out of the cellular-PBX integration service, (ii) if the profile record indicates that the WCD is currently checked into the cellular-PBX integration service, then concluding in view of the toggle command that the WCD is currently checked-out of the cellular-PBX integration service, and (iii) if the profile record indicates that the WCD is currently checked-out of the cellular-PBX integration service, then concluding in view of the toggle command that the WCD is currently checked-into the cellular-PBX integration service.

20. Method and system for information transfer mechanism selection in mobile telephony

US7835746B2 | Ivent Mobile BV

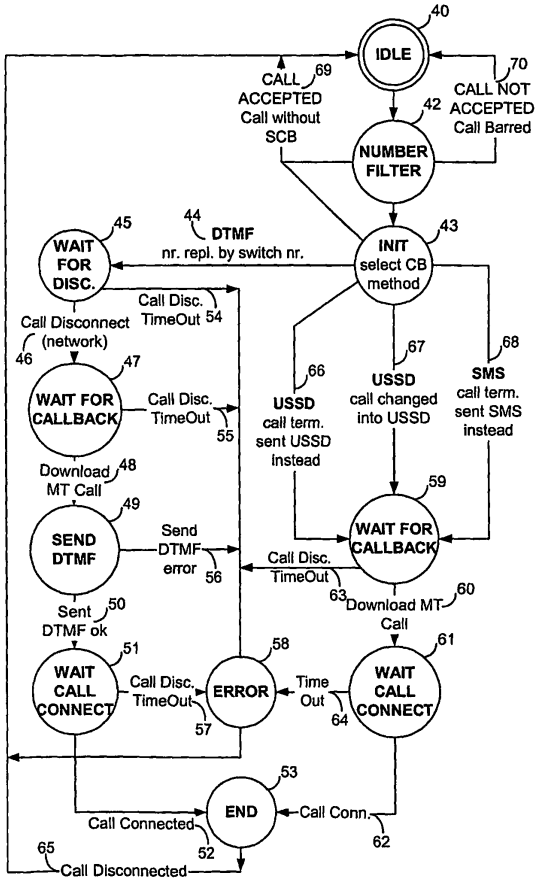
Bibliographic data

Publication date: 2010-11-16
Application date: 2003-07-22
Earliest priority date: 2002-07-22

Inventors: GELDERBLOM ANTONIE JOHANNES

CPC classification: H04W 76/18, H04W 8/20
IPC classification: H04W 76/02, H04W 8/20

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

The invention relates to a method for providing a mobile telephony application to a mobile communication device (15) in communication with a first network (10), comprising the step of transferring information related to the mobile telephony application. The method comprises the further steps of retrieving data on information transfer mechanism supported by the mobile communication device (15), the first network (10), an the second network (5), selecting an information transfer mechanism supported by the mobile communication device (15), the first network (10) and the second network (5), and initializing the mobile telephony application using the selected information transfer mechanism to relay the information between the mobile communication device (15) and the second network exchange (6). The invention further relates to a mobile communication device (15) arranged to execute the method, and to a SIM card (16).

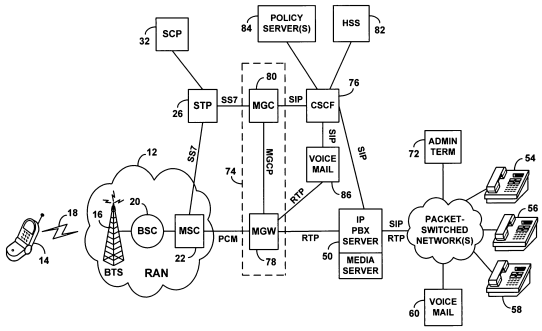
First claim

A method for providing a mobile telephony application to a mobile communication device in communication with a first network, comprising the step of transferring information related to the mobile telephony application between the mobile phone and a second network exchange, wherein the method comprises the further steps of:
retrieving data on information transfer mechanisms supported by the mobile communication device;
retrieving data on information transfer mechanisms supported by the first network;
retrieving data on information transfer mechanisms supported by the second network;
selecting an information transfer mechanism supported by the mobile communication device, the first network and the second network;
initializing the mobile telephony application using the selected information transfer mechanism to relay the information between the mobile communication device and the second network exchange;
wherein the selected information transfer mechanism comprises one or more of the group of Dual Tone Multiple Frequency;

Direct Dial In;
Unstructured Supplementary Services Data;
Short Message Service, and
wherein the mobile telephony application is a call back application allowing establishment of a connection between the mobile communication device and a further mobile communication device by intervention of the second network exchange, in which the step of initializing comprises the steps of:
transferring a request for call back, the number to be called associated with the further mobile communication device and the number of the mobile communication device to the second network exchange;
accepting the call from the second network exchange to establish the connection.

21. Method and system for location-based restriction on application of cellular-PBX integration service

US8180393B2 | Sprint Spectrum LLC



Bibliographic data

Publication date: 2012-05-15
Application date: 2005-05-24
Earliest priority date: 2004-07-29

Inventors: PHILLIPS JEFFREY F, PACZKOWSKI LYLE W, BALES MARK R, WEAVER FARNI B

CPC classification: H04W 4/029, H04W 64/00, H04W 76/10, H04W 76/20, H04W 8/02, H04W 80/06, H04W 84/16, H04W 92/02

IPC classification: H04M 1/00, H04W 4/00, H04W 64/00, H04W 4/02, H04W 8/02, H04W 76/02, H04W 92/02, H04W 80/06, H04W 84/16, H04W 76/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A method and system for using location of a cellular wireless communication device (WCD) as a basis to restrict application of a cellular-PBX integration service. In one embodiment, a radio access network (RAN) serving the WCD receives a call request for the WCD, and, based on the WCD's location, a determination is made as to whether the call should be set up to an IP PBX server that serves the WCD, to allow the IP PBX server to handle the call. In another embodiment, an IP PBX server serving a WCD receives a call request and responsively signals to a call session control function (CSCF), and the CSCF or a policy server decides based on the WCD's location whether the call should be set up to the RAN that serves the WCD, to allow the RAN to handle the call.

First claim

A method comprising:
receiving into a cellular radio access network (RAN) a call request seeking to set up a call for a cellular wireless communication device (WCD) that is operating in a wireless coverage area of the RAN;
responsively (i) requesting setup of a first leg of the call between the RAN and a media gateway system, and (ii) sending call setup signaling from the media gateway system to a call session control function (CSCF);
making a determination of whether a location of the WCD satisfies at least one condition;
if the determination is that the location of the WCD satisfies the at least one condition, then passing the call setup signaling from the CSCF to an IP PBX server that serves the WCD, to request setup of a second leg of the call from the media gateway system to the IP PBX server;
if the determination is that the location of the WCD does not satisfy the at least one condition, then signaling back from the CSCF to the media gateway system to request setup of the call back from the media gateway system to the RAN.

22. Methods of delivering calls on dual-mode wireless handsets

US9363370B2 | Qwest Communications International Inc

Bibliographic data

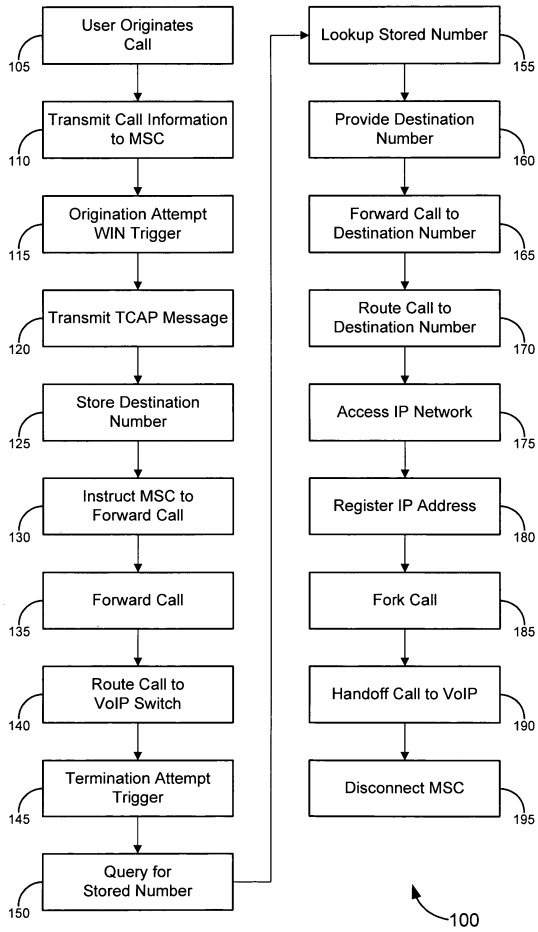
Publication date: 2016-06-07
Application date: 2005-04-06
Earliest priority date: 2005-04-06

Inventors: LABAUVE LANCE, COOK CHARLES I, STEVENS GILMAN R

CPC classification: H04M 3/42246, H04M 7/006, H04Q 2213/13034, H04Q 2213/13098, H04Q 2213/13282, H04Q 2213/13389, H04Q 3/0029, H04W 36/14

IPC classification: H04W 88/06, H04M 3/42, H04M 7/00, H04Q 3/00, H04W 36/14

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

Embodiments of the invention provide novel solutions, including systems, methods and/or software, for providing handoffs between cellular providers and VoIP providers. In some cases, for example, upon the initiation of a call from a dual-mode cellular phone, the cellular network (and/or a component thereof) may be configured to store the dialed number and/or substitute a predetermined number for the dialed number. The predetermined number may be associated with a VoIP provider's system. Hence, in a particular embodiment, the call may be routed (e.g., via the PSTN) to the VoIP provider's system, which may be configured to obtain (perhaps from an application server) the original dialed number and/or to route the call (e.g., via the PSTN) to the original dialed number. If the dual-mode phone subsequently obtains IP access, a VoIP connection may be established between the VoIP system and the phone and/or a handoff may be performed (e.g., in the VoIP system) to transfer the call from the cellular connection to the VoIP connection. Optionally, the cellular connection may be terminated.

First claim

In a telecommunications system comprising a cellular system and a voice over Internet Protocol (“VoIP”) system, a method for handling a call placed by a dual-mode phone capable of operating in a cellular mode and in a VoIP mode, the method comprising:
the cellular system receiving the call placed by the dual-mode phone registered with the cellular system, wherein the call is associated with a destination number identifying a destination for the call, and wherein the dual-mode phone is configured to communicate with the cellular system via a cellular connection between the dual-mode phone and the cellular system and to communicate with the VoIP system via an Internet Protocol (“IP”) connection, separate from the cellular system, between the dual-mode phone and the VoIP system;
the cellular system obtaining a forwarding telephone number of the VoIP system;
the cellular system storing the destination number;
forwarding the call to the VoIP system at the forwarding telephone number to establish a connection between the

cellular system and the VoIP system, such that the VoIP system can be used to connect the call with the destination without connecting through the cellular connection between the dual-mode phone and the cellular system;
receiving, from the VoIP system, a query request for the destination number;
providing, to the VoIP system, the destination number, wherein the VoIP system connects the call to the destination over the IP connection;
disconnecting, via the VoIP system, the connection between the cellular system and the VoIP system; and
disconnecting, via the cellular system and in response to disconnecting from the VoIP system, the cellular connection to the dual-mode phone.

23. Systems for delivering calls on dual-mode wireless handsets

US9363384B2 | Qwest Communications International Inc

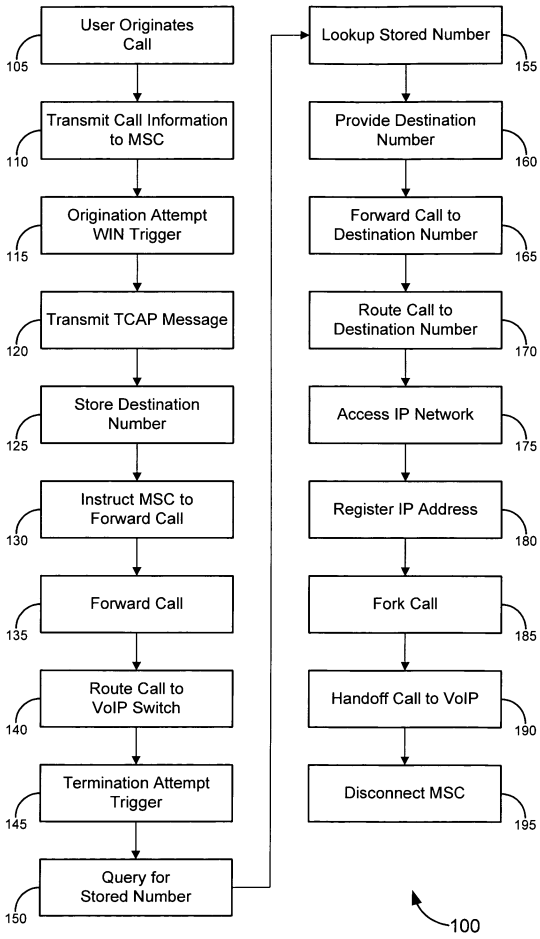
Bibliographic data

Publication date: 2016-06-07
Application date: 2005-04-06
Earliest priority date: 2005-04-06

Inventors: LABAUVE LANCE, COOK CHARLES I, STEVENS GILMAN R

CPC classification: H04M 2203/1091, H04M 2207/12, H04M 2207/20, H04M 3/42246, H04M 7/0075, H04W 4/16, H04W 88/06
IPC classification: H04W 88/06, H04M 3/42, H04M 7/00, H04W 4/16

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

Embodiments of the invention provide novel solutions, including systems, methods and/or software, for providing handoffs between cellular providers and VoIP providers. In some cases, for example, upon the initiation of a call from a dual-mode cellular phone, the cellular network (and/or a component thereof) may be configured to store the dialed number and/or substitute a predetermined number for the dialed number. The predetermined number may be associated with a VoIP provider's system. Hence, in a particular embodiment, the call may be routed (e.g., via the PSTN) to the VoIP provider's system, which may be configured to obtain (perhaps from an application server) the original dialed number and/or to route the call (e.g., via the PSTN) to the original dialed number. If the dual-mode phone subsequently obtains IP access, a VoIP connection may be established between the VoIP system and the phone and/or a handoff may be performed (e.g., in the VoIP system) to transfer the call from the cellular connection to the VoIP connection. Optionally, the cellular connection may be terminated.

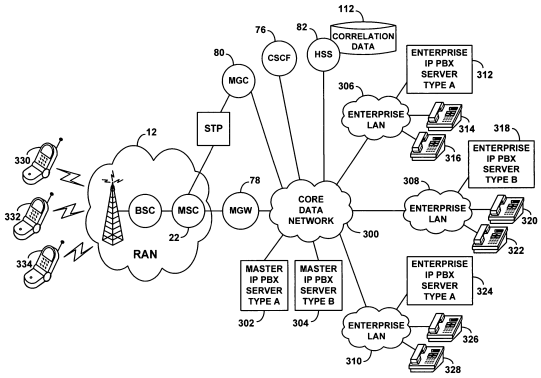
First claim

A telecommunication system for handling a call placed by a dual-mode phone configured to operate in a cellular mode and in a voice over Internet Protocol (“VoIP”) mode, the system comprising:
a mobile switching center (“MSC”) configured to:
receive the call placed by the dual-mode phone registered with a cellular network, wherein the call is associated with a destination number identifying a destination for the call, and wherein the dual-mode phone is configured to communicate with the cellular network via a cellular connection between the dual-mode phone and the cellular network and to communicate with a VoIP system via an Internet Protocol (“IP”) connection, separate from the cellular network, between the dual-mode phone and the VoIP system;
store the destination number at a location accessible by the VoIP system;
transmit a message requesting a forwarding telephone number of the VoIP system;
forward the call to the VoIP system at the forwarding telephone number of the VoIP system, wherein the VoIP system

establishes an IP connection with the dual-mode phone without connecting through the cellular connection between the dual-mode phone and the cellular network;
receiving, from the VoIP system, a query request for the destination number;
providing, to the VoIP system, the destination number, wherein the VoIP system connects the call to the destination over the IP connection; and
disconnect, in response to determining that a handoff of the call to the VoIP system has occurred, the cellular connection and connection to the VoIP system;
a service control point (“SCP”) in communication with the MSC and configured to:
receive a message requesting a forwarding telephone number of a VoIP system;
obtain the forwarding telephone number of the VoIP system; and
transmit the forwarding telephone number for reception by the MSC.

24. Method and system for account balance restriction on application of cellular-PBX integration service

US8254989B2 | Sprint Spectrum LLC



Bibliographic data

Publication date: 2012-08-28
Application date: 2005-05-24
Earliest priority date: 2004-07-29

Inventors: BALES MARK R, WEAVER FARNI B, WOODSON CHARLES E

CPC classification: H04W 4/24, H04W 48/02, H04W 84/16
IPC classification: H04M 1/00, H04W 48/02, H04W 4/24, H04W 84/16

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

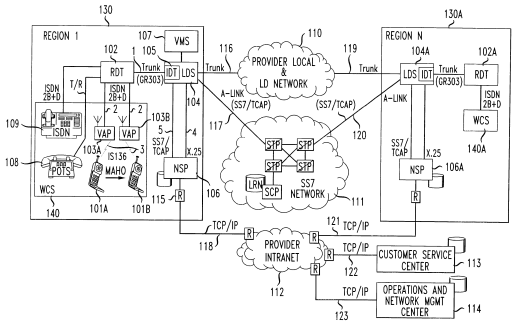
A method for using an account balance to limit application of cellular-PBX integration service. A cellular wireless communication device (WCD) will be allotted a quantity of cellular-PBX integration service, such as a number of minutes of use per month for instance. The quantity will be decremented a the WCD uses the service, and the WCD may be precluded from benefiting from the cellular-PBX integration service upon exhaustion of the balance. In one embodiment, for instance, when a radio access network (RAN) that serves the WCD receives a call request for the WCD, the account balance can be used as a basis to decide whether to pass the call to an IP PBX server that serves the WCD or whether to have the RAN handle the call.

First claim

A method comprising:
determining that a cellular wireless communication device (WCD) subscribes to a cellular-PBX integration service;
allotting a quantity of cellular-PBX integration service to the WCD;
detecting the WCD using the cellular-PBX integration service, wherein the using is via a cellular radio access network;
decrementing the quantity as the WCD uses the cellular-PBX integration service;
detecting exhaustion of the quantity of cellular-PBX integration service allotted to the WCD, the exhaustion resulting from the decrementing;
responsive to the detecting, precluding the WCD from using further cellular-PBX integration service, but still allowing a cellular wireless call between the WCD and another party to proceed without cellular-PBX integration service.

25. Wireless centrex services

US6654615B1 | AT&T Corp



Bibliographic data

Publication date: 2003-11-25
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, RUSSELL JESSE EUGENE, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

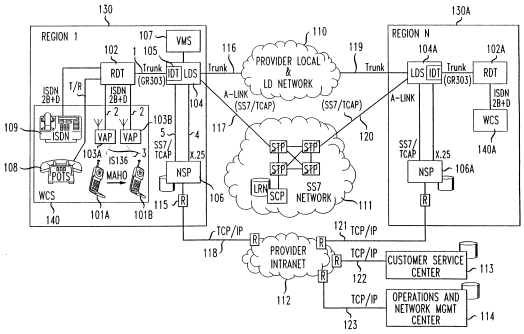
The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A method for handing a call off between a wireless communication system and a public cellular network, the wireless communication system comprising at least one local digital switch and at least one intelligent radio transceiver, the at least one intelligent radio transceiver connected to the at least one local digital switch through a wireline interface without being connected through any public cellular system, the method comprising steps of:
connecting a call to a wireless communication device from the at least one intelligent radio transceiver when the wireless communication device is within a service region of the wireless communication system;
handing the call off to the public cellular network when the wireless communication device leaves the service region of the wireless communication system.

26. Wireless centrex automatic callback

US6643507B1 | AT&T Corp



Bibliographic data

Publication date: 2003-11-04
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A method for, where a number called by a wireless user is busy, automatically redialing a call in a wireless communication system, wherein the wireless communication system comprises:
a switched communications network, coupled to at least a first local digital switch;
at least a first network server platform, coupled to the at least first local digital switch;
the at least first local digital switch, coupled to the at least first network server platform, and, where selected, to a voice message system;
the at least first local digital switch, coupled to at least a first voice access port;
the at least first voice access port, coupled to the at least first local digital switch and arranged to communicate with at least a first mobile station;
the at least first mobile station, arranged to communicate with the at least first voice access port, wherein the at least first mobile station includes the wireless apparatus for automatically redialing the number;
and wherein the switched communications network, the at least first network server platform, the at least first local digital switch, the at least first voice access port and the at least first mobile station utilize a predetermined scheme to provide automatic callback for the wireless apparatus, the method comprising the steps of:
dialing a phone number for a call by a wireless apparatus, and where the phone number called is busy, automatically saving the phone number for the call;
initiating, upon one of a predetermined button/buttons being pressed or a predetermined verbal callback command being issued, automatic redialing of the phone number for the call by the wireless apparatus.

27. Data network computing device call processing

US6560216B1 | Openwave Systems Inc

Bibliographic data

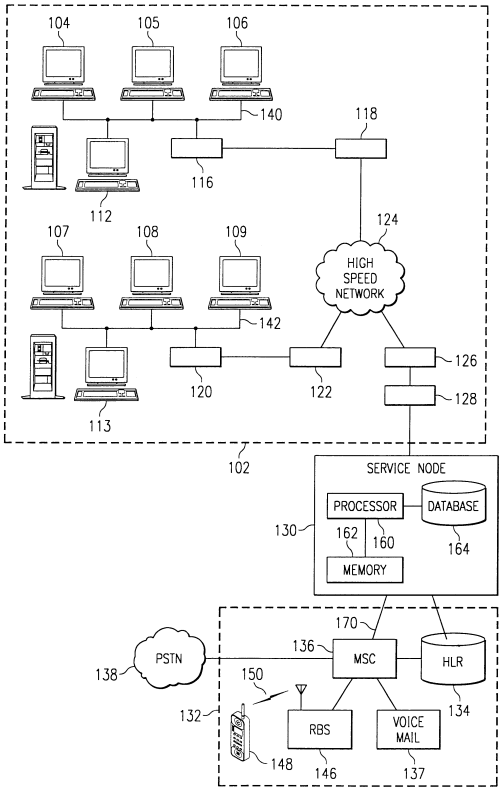
Publication date: 2003-05-06
Application date: 1998-09-17
Earliest priority date: 1998-09-17

Inventors: MCNIFF PETER GERALD, WILHOITE MICHAEL THOMAS

CPC classification: H04L 12/28, H04L 12/66, H04M 3/436, H04M 3/533, H04M 7/12, H04M 7/1235, H04W 8/02

IPC classification: H04L 12/28, H04L 12/66, H04M 3/42, H04M 3/00, H04L 29/06, H04W 8/02, H04M 7/00, H04M 3/533, H04L 29/12, H04M 3/436, H04M 7/12

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A telecommunications service node is connected to a data network using a packet data protocol and a telephone network using a circuit switched protocol. The service node is also connected to a wireless roaming network using the IS-41 signaling protocol. The service node stores status information, including location and registration information, for mobile computing devices connected to the data packet network. The location information includes a temporary data network address for visiting mobile computing devices. The service node manages voice calls to and from the mobile computing devices. If a call is received to a mobile computing device which is not registered, the service node will attempt to connect the call to a wireless telephone associated with the mobile computing device, or a predefined destination established as a preference by the user. In the case of a voice call between a telephone connected to the telephone network and a mobile computing device connected to the data network, the service node acts as a gateway and translates between the data packet protocol and the circuit switched protocol. A personal information manager executing in a mobile computing device may be used for managing call processing functions of the mobile computing device.

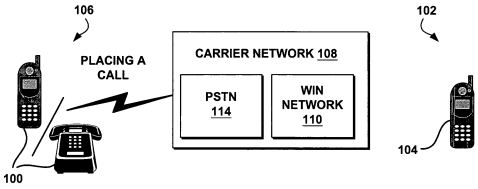
First claim

A device for linking data networks and a wireless network, the device comprising:
a wireless network interface to the wireless network, the wireless network interface having a unique destination point code address on the wireless network;
a data network interface to the data networks, the data networks having a plurality of Internet Protocol addresses assignable to devices on said data networks, the device's data network interface having a unique IP address on said data network;
a database comprising information related to computers that are capable of registering on said data networks, the computers having a permanent IP address that is associated with a home data network and the computers being capable of connecting to other data networks in addition to a home data network, wherein said information includes a current registration status of each computer, the permanent IP address of each computer, a current IP address of each computer and one or more telephone numbers associated with each computer;
a processor coupled to said database and to said network interfaces,

wherein the processor receives registration messages from computers on said data networks when said computers connect to one of said data networks, the registration messages identifying a current IP address for the connected computers,
wherein the processor routes IP voice data to a called computer using the information stored in the database, and
wherein the processor receives a deregistration message from at least one computer when a screen saver is activated on the at least one computer.

28. Method and system for control over call handling

US7116972B1 | Sprint Spectrum LLC



Bibliographic data

Publication date: 2006-10-03
Application date: 2001-11-16
Earliest priority date: 2001-11-16

Inventors: ZHANG BAOQUAN A, MCCONNELL VON

CPC classification: H04M 2203/2011, H04M 3/42042, H04M 3/436
IPC classification: H04M 3/42

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

Methods and a system are provided for allowing a subscriber to control the call handling at a customer premises equipment. A calling party can place a call from anywhere in a carrier network to a subscriber at a customer premises equipment. The carrier network prompts the subscriber with call information and a list of call processing choices. The subscriber can select one of the choices and the call is handled properly by the system. The methods and system allow the subscriber to interact with the carrier network in real-time.

First claim

A method for providing real-time service provisioning at a customer premises equipment, the method comprising:
receiving an incoming call to the customer premises equipment at a switch in a carrier network, and responsively sending a query for call handling instructions from the switch to a service control node in the carrier network;
providing one or more choices corresponding to handling of the incoming call for selection at the customer premises equipment in response to receipt of the query for call handling instructions at the service control node;
receiving at the service control node an indication of a choice selected at the customer premises equipment, and providing a response to the query from the service control node to the switch, wherein the response to the query includes call handling instructions corresponding to the selected choice;
processing the incoming call at the switch according to the response received from the service control node.

29. Intelligent network interface

US7245927B2 | Science Applications International Corp SAIC

Bibliographic data

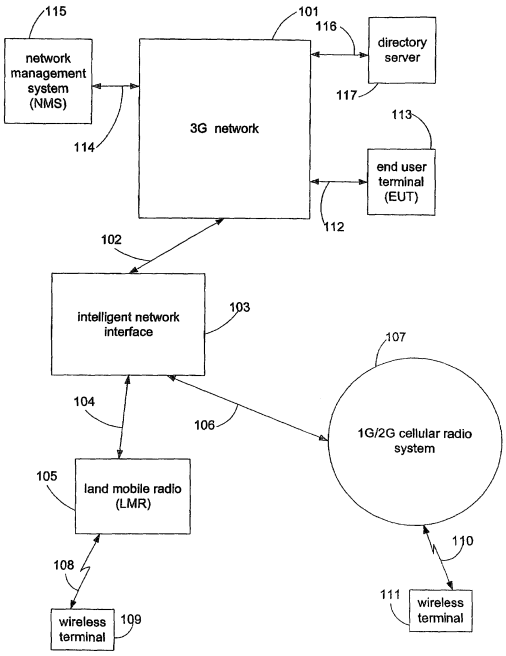
Publication date: 2007-07-17
Application date: 2005-12-16
Earliest priority date: 2002-03-12

Inventors: HANSEN DAVID SCOTT

CPC classification: H04L 61/106, H04L 63/0428, H04L 63/0884, H04L 69/08, H04W 12/06, H04W 4/18, H04W 76/10, H04W 8/26, H04W 92/02

IPC classification: G06F 15/173, H04W 12/06, H04W 76/02, H04W 4/18, H04W 92/02, H04W 8/26

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

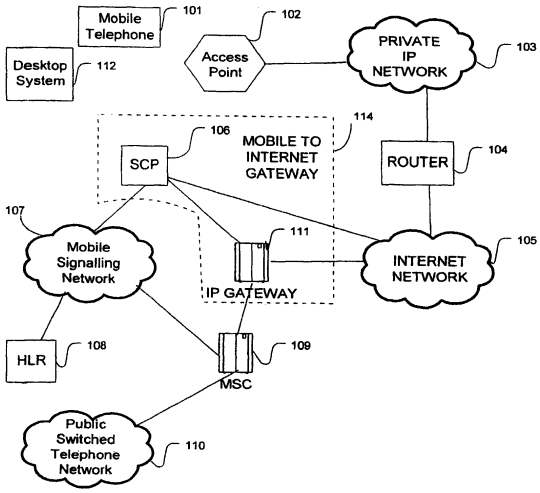
The present invention provides methods and apparatus for interconnecting disparate communications systems. A call request that originates from a communications network is directed to a network interface. The network interface consequently redirects the call request to a communications entity, such as a radio or a cellular radio system that serves the user associated with the call request. The network interface may support address translation functionality for identifying the communications entity, control conversion functionality for generating control and signaling with the communications entity, transmission content conversion functionality for converting the transmission content during the call, and security functionality for encrypting and decrypting the transmission content. Also, the present invention enables non-networking communications entities to interact with applications that are being executed on another terminal through the network, enables network management systems to manage non-networking communications entities through a network, and enables non-networking communications entities to utilize networking routing services.

First claim

A method for supporting a directory service between a first terminal associated with a first communication system and a directory server, the method comprising the steps of:
receiving a request from the first terminal in the first communication system to determine a first network location of a second terminal in a second communication system, the request containing at least one identifying attribute of a user, the user associated with the second terminal in the second communication system;
determining a second network location of the directory server;
translating the request in order to query the directory server;
sending a translated request to the second network location of the directory server to query for an address of the second terminal, the address being unknown to the first terminal, wherein the translated request contains the at least one identifying attribute;
receiving from the directory server a response containing the first network location and the address of the second terminal, the address including an identification of the second terminal;
sending the first network location to the first terminal, wherein the first terminal can call the second terminal at the first network location, wherein the first communication system and the second communication system are disparate systems.

30. Routing mobile voice calls

US8335187B2 | Bridgeport Networks Inc



Bibliographic data

Publication date: 2012-12-18
Application date: 2007-02-05
Earliest priority date: 2000-12-14

Inventors: WILHOITE MICHAEL T, CARTER THOMAS A

CPC classification: H04M 2203/1091, H04M 2207/18, H04M 2207/20, H04M 2242/30, H04M 3/38, H04M 3/42229, H04M 3/436, H04M 3/54, H04Q 3/0045, H04W 24/00, H04W 40/00, H04W 40/36, H04W 40/38, H04W 64/00, H04W 76/10, H04W 8/005, H04W 80/00, H04W 84/042

IPC classification: H04W 4/00, H04L 12/56, H04L 12/28, H04W 40/00, H04W 80/00, H04M 3/42, H04W 24/00, H04W 64/00, H04W 12/06, H04M 7/00, H04W 8/00, H04W 76/02, H04Q 3/00, H04M 3/54, H04M 3/436, H04W 40/36, H04M 3/38, H04W 84/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

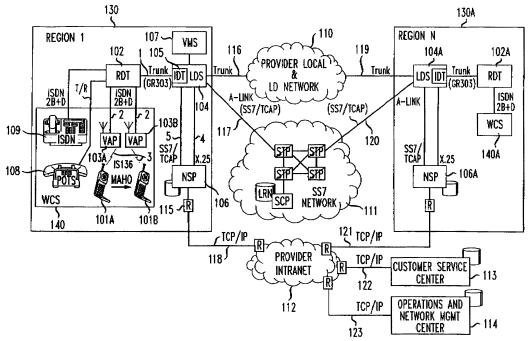
A call routing system for use with a wireless telephone systems is disclosed. The system, which monitors the subscriber's current physical location, determines the device to which a call should be terminated, and routes the call. The device can be any IP telephone, including a cable television system adapted to IP telephony. The system routes calls without direct subscriber actions, without a second telephone number, regardless of the time of day and day of week. Various options can also apply to a call, determined by subscriber-established preferences, when specified criteria are met, or calls can be limited to/from specified telephone numbers. The system and method uses signaling techniques that will allow routing of the call, along with any authorization or restrictions, to be done remotely from the actual switching for the call. Call events are transmitted to the call routing system while the communications path of the call is held at the switching system awaiting call routing information. The identity of the subscriber is established using existing means that are used to authenticate the user. The wireless phone user does not have to enter any additional codes or identification to obtain access to the call routing system.

First claim

A mobile device-initiated call handover method for comprising:
determining by a mobile device that the mobile device is in a service coverage area of a wireless local area data network, and based on a result of the determining, initiating from the mobile device an establishment of a packet data based leg for a call between the mobile device and a first component of a public mobile telephone network, wherein at least part of the packet data based leg is established over the wireless local area data network;
while the call is in progress, sending by the mobile device a redirection request to initiate a handoff of the call to the public mobile telephone network based at least in part on an anticipated or actual movement of the mobile device out of the service coverage area of the wireless local area data network into a service coverage area of the public mobile telephone network;
responsive to the redirection request, initiating from the first component of the telephone network a first circuit based leg for the call between the first component and the mobile device, wherein at least part of the first circuit based leg is established over the public mobile telephone network;
re-routing the call between the mobile device and the first component of the telephone network from the packet data based leg to the first circuit based leg.

31. Wireless centrex feature activation/deactivation

US6819945B1 | AT&T Corp



Bibliographic data

Publication date: 2004-11-16
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.In accordance with the invention, a wireless telephone subscriber can use a standard cellular/PCS telephone as a wireless extension of their desktop phone, while in the proximity of a miniature radio base station capable of communicating with the PCS/cellular telephone. The advantage of such a system is that a subscriber can use the same cellular/PCS telephone that provides service in the public network in the wireless centrex environment. Additionally, the wireless centrex system provides services and features which are similar to those offered to regular centrex telephone subscribers. Exemplary features include, caller ID, call waiting, call hold, call transfer, call forwarding and voice messaging.

First claim

A system for handling feature/function activation/deactivation from a mobile station in a wireless centrex system, comprising:
a local digital switch routing communications between said mobile station and another communication device;
a network server platform coupled to said local digital switch determining where said mobile station is registered and receiving and processing a feature activation/deactivation code message received from said mobile station to activate/deactivate a particular feature/function for handling communications with said mobile station; and
an intelligent radio transceiver communicating with said mobile station via airwaves, said intelligent radio transceiver located in an area remote from said local digital switch,
wherein said local digital switch is in communication with the intelligent radio transceiver via a wireline interface without being connected to any public cellular system.

32. METHODS AND SYSTEMS FOR AUTOMATIC COMMUNICATION LINE MANAGEMENT BASED ON DEVICE LOCATION

EP1568150A2 | Telesector Resources Group Inc

Bibliographic data

Publication date: 2005-08-31
Application date: 2003-11-25
Earliest priority date: 2002-11-25

Inventors: REDING CRAIG L, HELBLING CHRISTOPHER L

CPC classification: H04M 15/09, H04M 2203/1091, H04M 2203/2011, H04M 2207/12, H04M 2215/66, H04M 3/42263, H04M 3/42357, H04M 3/54, H04Q 2213/13034, H04Q 2213/13093, H04Q 2213/1322, H04Q 2213/13224, H04Q 2213/13282, H04Q 3/0029

IPC classification: G06F 17/30, H04B 7/00, G06F 15/16, H04M 1/00, H04L 12/16, H04L 12/66, H04Q 7/24, H04J 1/00, H04M 1/64, H04M 3/42, H04M 15/00, H04M 1/56, H04M 3/00, H04Q 7/20, G06F 15/167, G06F 15/173, H04M 15/06, H04M 7/00, H04L 1/00, H04M 3/493, H04Q 3/00, H04M 3/54, H04M 3/56, H04M 3/537, H04M 3/58, H04M 3/48, H04M 3/436, H04M 3/24, H04M 3/38

External links: Google Patents, Espacenet, EP Register, PatBase Express, PatBase, Orbit

Abstract

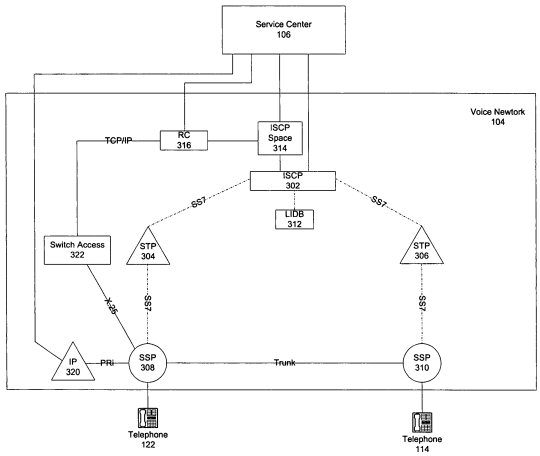
Methods and Systems for managing one or more communications devices associated with a user of a communications network (110) are disclosed. The methods and systems are capable of receiving an indication regarding wireless communications between a first device (112) and a second device (114, 116, 118). This indication may indicate that the first device (112) has entered or left a vicinity (or range) of a second device (114, 116, 118). Additionally, this may be accomplished by using a protocol such as Bluetooth protocol, the IEEE 802.11 (b) protocol, and/or the IEEE 802.11(g) protocol. For example if a first device (112) enters the vicinity of a second device (114, 116, 118), calls for the user may be automatically forwarded to a phone of the user that is located near the second device (114, 116, 118). Likewise, in an embodiment, if the first device (112) leaves the vicinity of the second device (114, 116, 118), calls may be automatically forwarded to the first device (112).

First claim

A method for managing calls directed to one or more communications devices associated with a user of a communications network, comprising: receiving user-defined preferences regarding handling of calls directed to at least one of the devices; receiving an indication regarding wireless communications between a first device and a second device; and modifying the handling of calls to the one or more communications devices in response to receipt of the indication.

33. Methods and systems for automatic communication line management based on device location

US8472931B2 | Telesector Resources Group Inc



Bibliographic data

Publication date: 2013-06-25
Application date: 2003-11-24
Earliest priority date: 2002-11-25

Inventors: REDING CRAIG L, HELBLING CHRISTOPHER

CPC classification: H04M 15/09, H04M 2201/40, H04M 2203/2005, H04M 2203/2011, H04M 2207/12, H04M 2215/66, H04M 3/382, H04M 3/387, H04M 3/42204, H04M 3/42221, H04M 3/42229, H04M 3/436, H04M 3/4933, H04M 3/4936, H04M 3/537, H04M 3/56, H04Q 2213/13034, H04Q 2213/13093, H04Q 2213/1322, H04Q 2213/13224, H04Q 2213/13282, H04Q 3/0029

IPC classification: G06F 17/30, H04B 7/00, G06F 15/16, H04M 1/00, H04L 12/16, H04L 12/66, H04Q 7/24, H04J 1/00, H04M 1/64, H04M 3/42, H04M 15/00, H04M 1/56, H04M 3/00, H04Q 7/20, G06F 15/167, G06F 15/173, H04M 15/06, H04M 7/00, H04L 1/00, H04M 3/493, H04Q 3/00, H04M 3/56, H04M 3/537, H04M 3/58, H04M 3/48, H04M 3/436, H04M 3/24, H04M 3/38

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

Methods and Systems for managing one or more communications devices associated with a user of a communications network are disclosed. The methods and systems are capable of receiving an indication regarding wireless communications between a first device and a second device. This indication may indicate that the first device has entered or left a vicinity (or range) of a second device. Additionally, this may be accomplished by using a protocol such as Bluetooth protocol, the IEEE 802.11(b) protocol, and/or the IEEE 802.11(g) protocol. For example, in an embodiment, if a first device (e.g., a Bluetooth-enabled wireless phone) enters the vicinity of a second device (e.g., a Bluetooth-enabled user computer), calls for the user may be automatically forwarded to a phone of the user that is located near the second device. Likewise, in an embodiment, if the first device (e.g., a Bluetooth-enabled wireless phone) leaves the vicinity of the second device (e.g., a Bluetooth-enabled computer), calls may be automatically forwarded to the first device.

First claim

A method for managing calls directed to a plurality of communication devices with a user, the method comprising:
receiving user-defined preferences regarding handling of calls directed to the plurality of communications devices;
storing the user-defined preferences;
receiving an indication that a first one of the communications devices has moved within wireless communication range of a terminal;
forwarding calls intended for at least two of the communications devices to a second one of the communications devices in response to receipt of the indication and based on the user-defined preferences;
receiving a second indication that the first communications device has moved outside of wireless communication range of the terminal;
terminating the forwarding of calls to the second communications device in response to receipt of the second indication;
forwarding calls intended for at least two of the communications devices to the first communications device in response to receipt of the second indication.

34. Method of re-directing IP-telephone calls to a mobile telephone

EP1596566A1 | Dansk Mobiltelefon IS

Bibliographic data

Publication date: 2005-11-16
Application date: 2004-04-23
Earliest priority date: 2004-04-23

Inventors: The designation of the inventor has not yet been filed

CPC classification: H04M 2207/20, H04M 3/54, H04M 7/00
IPC classification: H04M 7/00, H04M 3/54

External links: Google Patents, Espacenet, EP Register, PatBase Express, PatBase, Orbit

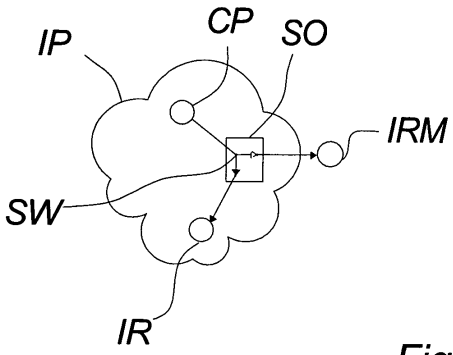


Fig.1A

Abstract

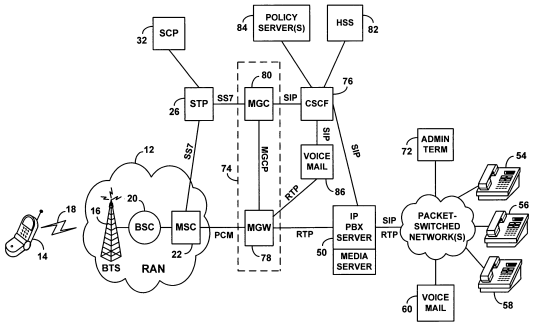
The invention relates to a method of routing a telephone call from a calling party (CP) to an intended recipient (IR) associated to at least one Internet Telephone according to a routing routine (RR) comprising the steps of determining whether the Internet Telephone of the intended recipient (IR) is reachable and routing (R1) the call to the intended recipient if the intended recipient (IR) is reachable or rerouting (R2) the call to a mobile telephone of the intended recipient of the recipient is not reachable by means of the at least one IP telephone (IPT).

First claim

Method of routing a telephone call from a calling party (CP) to an intended recipient (IR) associated to an Internet Telephone and a mobile telephone comprising the steps of
determining whether the Internet Telephone of the intended recipient (IR) is reachable and
routing (R1) the call to the intended recipient if the intended recipient (IR) is reachable or
rerouting (R2) the call to a mobile telephone of the intended recipient of the recipient is not reachable by means of the at least one Internet telephone.

35. Method and system for dynamic selection of voice mail system

US7260384B2 | Sprint Spectrum LLC



Bibliographic data

Publication date: 2007-08-21
Application date: 2005-05-24
Earliest priority date: 2004-07-29

Inventors: BALES MARK R, WEAVER FARNI B, WOODSON CHARLES E

CPC classification: H04M 2207/35, H04M 2207/45, H04M 3/53333, H04M 7/123, H04M 7/1235
IPC classification: H04M 1/64, H04M 11/10

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A method for dynamically selecting a voice mail system to receive a call on behalf of a cellular wireless subscriber. A radio access network (RAN) receives a voice mail call request, and a policy server determines which of a plurality of voice mail systems should receive the call from the media gateway system. The policy server can make this determination based on user profile logic and/or by voice interaction with the caller. In one embodiment, the determination may be whether to set up the call to a voice mail system provided by the subscriber's wireless carrier or rather whether to set up the call to a voice mail system provided by an enterprise that serves the subscriber.

First claim

A method comprising:
receiving into a cellular radio access network (RAN), from a cellular wireless subscriber operating in a wireless coverage area of the RAN, a voice mail call request;
responsively setting up a first leg of the call from the subscriber, via the RAN, to a media gateway system;
determining which of a plurality of voice mail systems associated with the subscriber should receive the call;
setting up a second leg of the call from the media gateway system to the determined voice mail system, thus connecting the subscriber to the determined voice mail system,
wherein the method further comprises maintaining a profile record for the subscriber, wherein the profile record includes at least one criterion for use in determining which of the plurality of voice mail systems associated with the subscriber should receive the call,
wherein determining which of the plurality of voice mail systems associated with the subscriber should receive the call comprises (i) querying the profile record to determine the at least one criterion, and (ii) using the at least one criterion as a basis to determine which of the plurality of voice mail systems associated with the subscriber should receive the call,
wherein the at least one criterion comprises a rule specifying (a) that the call should be routed to a first voice mail system if the subscriber is checked-into a cellular-PBX integration service to which the subscriber subscribes and (b) that the call should be routed to a second voice mail system if the subscriber is checked-out of the cellular-PBX integration service, and
wherein determining which of the plurality of voice mail systems associated with the subscriber should receive the call comprises (i) making a determination whether the subscriber is checked-into or checked-out of the cellular-PBX integration service, (ii) if the determination is that the subscriber is checked-into the cellular-PBX integration service, then determining that the first voice mail system should receive the call, and (iii) if the determination is that the subscriber is checked-out of the cellular-PBX integration service, then determining that the second voice mail system should receive the call.

36. Integrated wireline and wireless service using a common directory number

US20040235482A1 | Nortel Networks Ltd

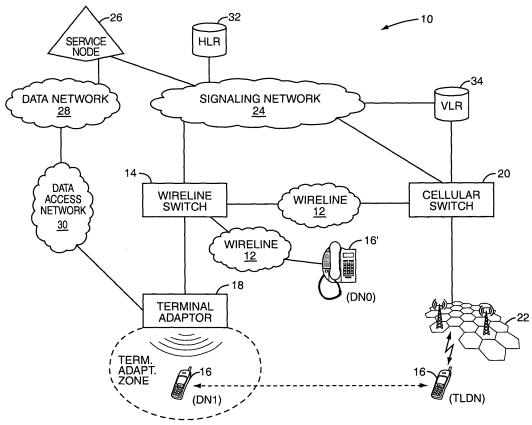
Bibliographic data

Publication date: 2004-11-25
Application date: 2003-07-24
Earliest priority date: 2003-05-21

Inventors: SYLVAIN DANY

CPC classification: H04M 2203/1091, H04M 2207/206, H04M 3/54, H04W 4/16, H04W 92/02
IPC classification: H04M 3/54, H04W 4/16, H04W 92/02

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

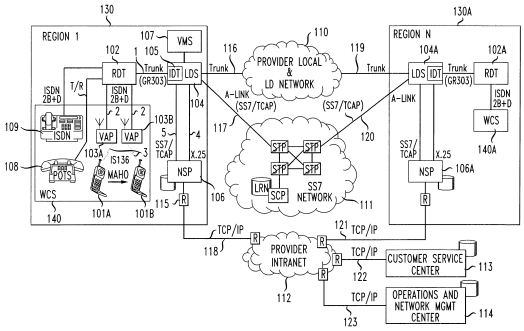
The present invention relates to routing incoming calls to a single mobile terminal either through a cellular network or through a wireline network via a terminal adaptor, which is capable of wirelessly communicating with the mobile terminal. As such, the mobile terminal may facilitate traditional cellular calls via the cellular network, or traditional wireline network calls via the terminal adaptor. The mobile terminal is only associated with one directory number, which can be used by a caller regardless of whether the mobile terminal is being supported by the wireline network or the cellular network.

First claim

A method comprising:
a) determining whether to route an incoming call intended for a directory number supported by a wireline switch to a mobile terminal via a terminal adaptor operatively associated with the wireline switch or to the mobile terminal via a cellular network;
b) when determining the incoming call should be routed via the terminal adaptor, instructing the wireline switch to route the incoming call to the mobile terminal via the terminal adaptor;
c) when determining the incoming call should be routed via the cellular network, instructing the wireline switch to route the incoming call to the mobile terminal via the cellular network using a temporary routing indicia, which is temporarily associated with the mobile terminal to facilitate routing the incoming call to the mobile terminal via the cellular network.

37. Busy call forwarding in a wireless centrex services system

US6631258B1 | AT&T Corp



Bibliographic data

Publication date: 2003-10-07
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WALKER HOPETON, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A system for forwarding an incoming call, the call originating from a first communication device and being directed to a directory number of a wireless centrex system, the wireless centrex system comprising:
an intelligent radio transceiver in communication with a mobile station;
a local digital switch configured to route communications between the first communication device and the mobile station, in communication with the intelligent radio transceiver via a wireline interface without being connected to any public cellular system, configured to route communications between the first communication device and a second communication device; and
a network server platform configured to determine whether the wireless mobile station having a forward directory number associated with the directory number is busy with another call,
the local digital switch configured to forward the call to the second communication device responsive to the network server platform determining that the wireless mobile station is busy, and further configured to route the call to the wireless mobile station responsive to the network server platform determining that the wireless mobile station is not busy.

38. Unconditional call forwarding in a wireless centrex services system

US6587683B1 | AT&T Corp

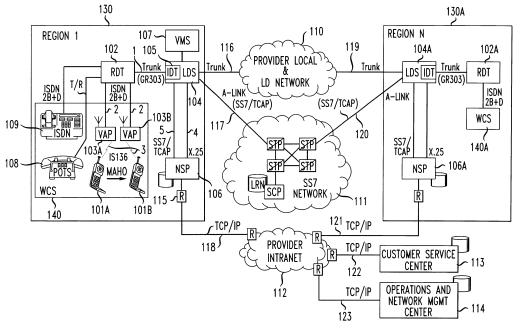
Bibliographic data

Publication date: 2003-07-01
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WALKER HOPETON, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A system for forwarding an incoming call, the call originating from a first communication device and being directed to a directory number of a wireless centrex system, the wireless centrex system comprising:
an intelligent radio transceiver in communication with a mobile station;
a local digital switch configured to route communications between the first communication device and the mobile station, in communication with the intelligent radio transceiver via a wireline interface without being connected to any public cellular system, configured to route communications between the first communication device and a second communication device and configured to generate a message in response to the call; and
a network server platform coupled to the local digital switch to determine responsive to receiving the message whether the call should be forwarded, and to determine where the mobile station is registered and how to route the call to the mobile station,
the local digital switch being configured to forward the call to the second communication device responsive to the network server platform determining that the call should be forwarded, and being further configured to route the call to the mobile station having a forward directory number associated with the directory number responsive to the network server platform determining that the call should not be forwarded.

39. Method of routing a telephone call

EP1589738A1 | Dansk Mobiltelefon IS

Bibliographic data

Publication date: 2005-10-26
Application date: 2004-06-02
Earliest priority date: 2004-04-19

Inventors: PRAESTGAARD ALF, NIELSEN JOHANNES, SKOVGAARD NIELS, ROVSING CHRISTENSEN MICHAEL

CPC classification: H04M 2207/18, H04M 2207/20, H04M 3/42263, H04M 3/42374, H04M 3/54, H04M 7/006
IPC classification: H04M 7/00, H04M 3/54

External links: Google Patents, Espacenet, EP Register, PatBase Express, PatBase, Orbit

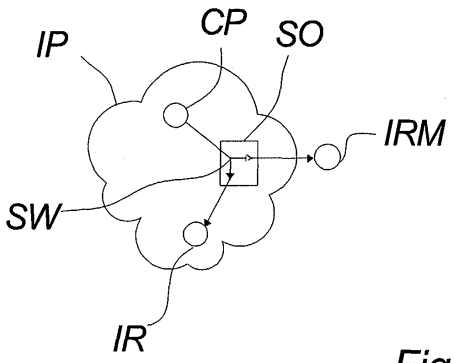


Fig.1A

Abstract

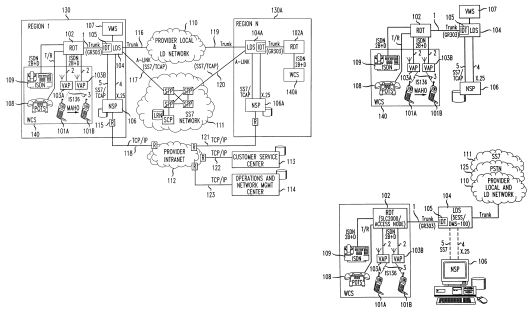
The invention relates to a method of routing a telephone call from a calling party (CP) to an intended recipient (IR) associated to at least one Internet Telephone according to a routing routine (RR) comprising the steps of determining whether the Internet Telephone of the intended recipient (IR) is reachable and routing (R1) the call to the intended recipient if the intended recipient (IR) is reachable or rerouting (R2) the call to a mobile telephone of the intended recipient of the recipient is not reachable by means of the at least one IP telephone (IPT).

First claim

Method of routing a telephone call from a calling party (CP) to an intended recipient (IR) associated to an Internet Telephone and a mobile telephone comprising the steps of
determining whether the Internet Telephone of the intended recipient (IR) is reachable and
routing (R1) the call to the intended recipient if the intended recipient (IR) is reachable or
rerouting (R2) the call to a mobile telephone of the intended recipient of the recipient is not reachable by means of the at least one Internet telephone.

40. Time-of-day call forwarding in a wireless centrex services system

US6745025B1 | AT&T Corp



Bibliographic data

Publication date: 2004-06-01
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WALKER HOPETON, WANG SPENCER, YING WENCHU

CPC classification: H04M 3/42246, H04W 4/00
IPC classification: A61M 1/10, H04W 4/00, A61M 1/12, F04D 29/28, F04D 17/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

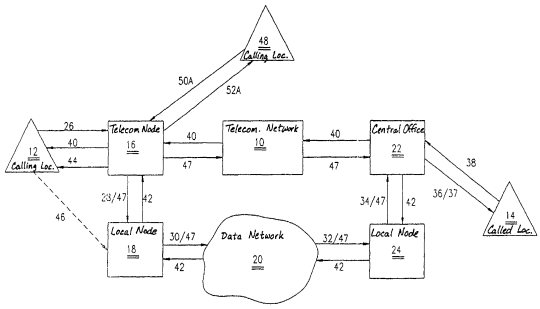
The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.In accordance with the invention, a wireless telephone subscriber can use a standard cellular/PCS telephone as a wireless extension of their desktop phone, while in the proximity of a miniature radio base station capable of communicating with the PCS/cellular telephone. The advantage of such a system is that a subscriber can use the same cellular/PCS telephone that provides service in the public network in the wireless centrex environment. Additionally, the wireless centrex system provides services and features which are similar to those offered to regular centrex telephone subscribers. Exemplary features include, caller ID, call waiting, call hold, call transfer, call forwarding and voice messaging.

First claim

A system for forwarding an incoming call, the call originating from a communication device and being directed to a directory number of a wireless centrex system, the wireless centrex system comprising:
an intelligent radio transceiver in communication with a mobile station,
a local digital switch routing communications between the communication device and said mobile station and generating a message in response to the call, said local digital switch being further in communication with said intelligent radio transceiver via a wireline interface without being connected to any public cellular system;
a clock generating a current time; and
a network server platform coupled to the local digital switch and the clock, the network server platform determining where said mobile station is registered and how to route the call to said mobile station, said network server platform further determining whether the current time is between a begin time and an end time,
the local digital switch being configured to forward the call to the mobile station responsive to the network server platform determining that the current time is between the begin time and the end time, and being further configured to route the call to said mobile station having a forward directory number associated with the directory number responsive to the network server platform determining that the call should not be forwarded.

41. System and method for managing multimedia communications across convergent networks

US9338190B2 | AIP Acquisition LLC



Bibliographic data
Publication date: 2016-05-10
Application date: 2012-07-03
Earliest priority date: 1994-10-11

Inventors: ENG CHI, HEAP STEVEN, MASHINSKY ALEXANDER, KIM ROGER

CPC classification: H04L 43/0829, H04L 43/087, H04L 43/0876, H04L 45/00, H04L 45/302, H04L 65/1069, H04L 65/80
IPC classification: H04W 4/00, H04L 12/26, H04L 12/66, H04L 29/06, H04B 14/06, H04L 12/725, H04L 12/701

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract
A method and device that interrogates the availability of a called party before placing a communication from the calling party to the called party. A callback may be initiated so that both communications are completed simultaneously. The routing of communication may take place through any one of a number of different networks and at another time of the day, even if the caller does not otherwise have access to those networks.

First claim
A method for communication between two access devices via one or more networks, comprising the steps:
receiving a transmission in a first format through a first communication network from a first access device of a calling party, the transmission comprising a signaling message for one of establishing and transmitting voice communication for a phone call in one of a digital telephone network, an analog telephone network, and a cellular network from the calling party to a called party;
performing a first conversion converting the transmission from the first format to a second format, the second format being Internet protocol (IP);
sending the converted transmission through a second communication network, the second communication network being a data network, for reception by a second access device of the called party,
performing a second conversion further converting the converted transmission from the second format to a further format suitable for the second access device,
wherein each respective one of the first access device and the second access device comprises one of a telephone, a pager, a cellular phone, a laptop, a facsimile machine, and a multimedia workstation and said further format comprises said first format or another telecommunication protocol, and
optimizing routing of a multimedia communication between access devices, the optimizing including:
determining, by a control node, a quality of each IP network of a plurality of IP networks connected to the control node;
creating, by the control node, a quality matrix including the determined quality for the each IP network;
setting up, by the control node, a media session between an originating access device and a receiving access device across a plurality of communications networks having different communications protocols including Internet protocol (IP);
upon successful setup of the media session, routing by the control node the multimedia communication between the originating and receiving access devices along a select path through at least a portion of one of the IP networks based on the quality matrix.

42. METHOD AND APPARATUS FOR INTEGRATED VOICE GATEWAY WITH INTERFACE TO MOBILE TELEPHONE, IP TELEPHONE AND UN-PBX SYSTEMS

EP1181805A1 | Starvox Inc

Bibliographic data

Publication date: 2002-02-27
Application date: 2000-05-12
Earliest priority date: 1999-05-12

Inventors: DUFFY JUDITH, RAAD STEPHEN R, CHANG GORDON K, BARRY RICHARD B

CPC classification: H04L 65/1043, H04L 65/1069, H04M 2207/20, H04M 2242/22, H04M 3/2254, H04M 3/42042, H04M 3/42102, H04M 3/42323, H04M 3/4234, H04M 3/428, H04M 3/4931, H04M 3/54, H04M 3/56, H04M 7/0057, H04M 7/1285, H04Q 3/72

IPC classification: H04M 3/42, H04L 29/06, H04M 3/22, H04M 7/00, H04M 3/493, H04M 3/54, H04M 3/56, H04M 3/428, H04Q 3/72

External links: Google Patents, Espacenet, EP Register, PatBase Express, PatBase, Orbit

Abstract

A communication system (100) and a method for operating the same are described to provide seamless, automatic routing of telephone calls over a public switched telephone network (PSTN 160), an internet protocol (IP) network (145), a public-wireless-network (150) and a private-wireless-network (120). In one embodiment, the system (100) comprises a plurality of gateway networks (105) coupled to the PSTN (160), IP network (145) and the public-wireless-network (150). The gateway networks (105) are configured to automatically select over which of the IP network (145), PSTN (160) or the public-wireless-network (150) to route the telephone call. Preferably, the gateway networks (105) are configured to reroute an in-progress telephone call over the IP network (145) over the PSTN (160) if a delay in transmission of date packets, losses in transmission of data packets, or jitter exceeds a specified maximum. More preferably, the gateway networks (105) are configured so that the routing of the telephone call is substantially transparent to the calling party and to the called party.

First claim

A communication system (100) for providing communication between a plurality of sites within an enteφrise, the communication system (100) comprising: a public switched telephone network (PSTN 160); an internet protocol (IP) network (145); a public-wireless-network (150); and a plurality of gateway networks (105) coupled to the PSTN (160), IP network (145) and the public-wireless-network (150) to route a telephone call between a calling and a called party thereover, each of the plurality of gateway networks (105) configured to automatically select over which of the IP network (145), PSTN (160) or the public-wireless-network (150) to route the telephone call.

43. Wireless centrex caller ID

US6738615B1 | AT&T Corp

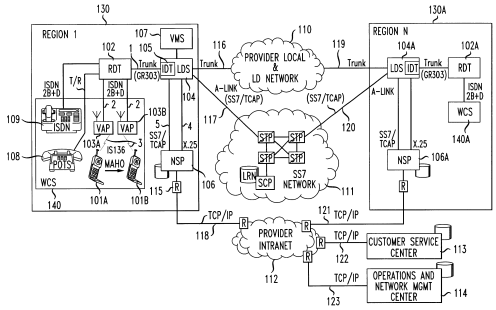
Bibliographic data

Publication date: 2004-05-18
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WALKER HOPETON, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

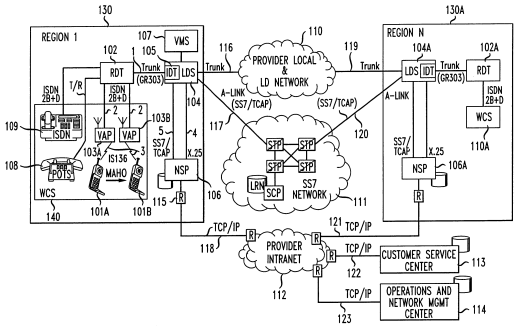
The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.In accordance with the invention, a wireless telephone subscriber can use a standard cellular/PCS telephone as a wireless extension of their desktop phone, while in the proximity of a miniature radio base station capable of communicating with the PCS/cellular telephone. The advantage of such a system is that a subscriber can use the same cellular/PCS telephone that provides service in the public network in the wireless centrex environment. Additionally, the wireless centrex system provides services and features which are similar to those offered to regular centrex telephone subscribers. Exemplary features include, caller ID, call waiting, call hold, call transfer, call forwarding and voice messaging.

First claim

A method for providing caller identification information for a mobile station in a wireless centrex system including an intelligent radio transceiver, comprising the steps of:
initiating, with said mobile station, a call to another communication device via said intelligent radio transceiver coupled to a local digital switch, said mobile station being registered with said intelligent radio transceiver, said intelligent radio transceiver being further in communication with the local digital switch via a wireline interface without being connected to any public cellular system;
determining, with a network server platform coupled to said local digital switch, said caller identification information based on an identifier of said mobile station;
providing said caller identification information to said another communication device via said local digital switch and said intelligent radio transceiver.

44. Wireless centrex call return

US6711401B1 | AT&T Corp



Bibliographic data

Publication date: 2004-03-23
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WANG SPENCER, YING WENCHU

CPC classification: H04L 12/1818, H04M 2207/18, H04M 2207/45, H04M 3/42314, H04M 3/56, H04W 4/06
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A communications system includes a dual mode mobile station and a home base station. Dual mode mobile station is operable selectively in CDMA and analog modes. Home base station includes circuitry for establishing wireless communications with mobile station in the analog mode, and circuitry for establishing communications with a wireline communications system, the base station allowing an exchange of information between mobile station and wireline system in the analog mode.

First claim

A method for automatically returning an incoming call in a wireless communication system, wherein the wireless communication system comprises:
a switched communications network, coupled to at least a first local digital switch;
at least a first network server platform, coupled to the at least first local digital switch;
the at least first local digital switch, coupled to the at least first network server platform, and, where selected, to a voice message system;
the at least first local digital switch, coupled to at least a first voice access port;
the at least first voice access port, coupled to the at least first local digital switch and arranged to communicate with at least a first mobile station;
the at least first mobile station, arranged to communicate with the at least first voice access port, wherein the at least first mobile station includes the wireless apparatus for automatically returning the incoming call;
and wherein the switched communications network, the at least first network server platform, the at least first local digital switch, the at least first voice access port and the at least first mobile station utilize a predetermined scheme to automatically return an incoming call, the method comprising the steps of:
receiving the incoming call by a wireless apparatus and automatically saving, where permitted, a phone number for the incoming call;
initiating, upon one of a predetermined button/buttons being pressed or a predetermined verbal call return command being issued, automatic dialing of the phone number for the incoming call by the wireless apparatus.

45. Programmable ring-call forwarding in a wireless centrex services system

US6574470B1 | AT&T Corp

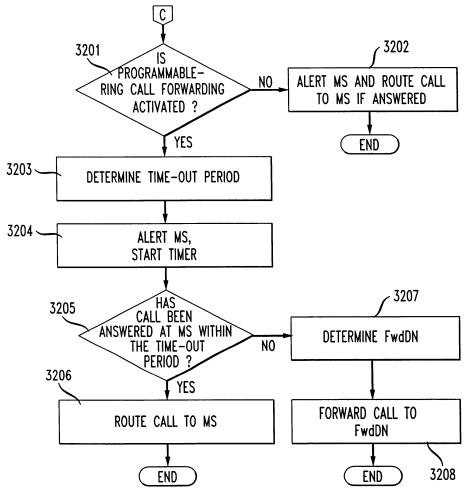
Bibliographic data

Publication date: 2003-06-03
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WALKER HOPETON, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A system for forwarding an incoming call, the call originating from a first communication device and being directed to a directory number of a wireless centrex system, the wireless centrex system comprising:
an intelligent radio transceiver in communication with a mobile station;
a local digital switch configured to route communications between the first communication device and the mobile station, in communication with the intelligent radio transceiver via a wireline interface without being connected to any public cellular system, configured to receive an incoming call and transmit a routing request for the call, and configured to alert a mobile station having a forward directory number associated with the directory number of the call, said logical digital switch having a timer for counting a predetermined amount of time in response to receipt of a programmable ring value while alerting the mobile station of the call, and configured to transmit a notification when the predetermined amount of time has been exceeded without the call being answered, and configured to receive a call forwarding number associated with a second communication device and forward the call to the second communication device;
a network server platform configured to receive the routing request, determine where the mobile station is registered and how to route the call to the mobile station, and instruct said local digital switch to alert the mobile station having a forward directory number associated with the directory number of the call, and configured to determine whether a programmable ring call forwarding feature is active and if so, configured to provide said local digital switch with the programmable ring value for setting the predetermined amount of time, the value representing a time period for which the call should ring before being forwarded, and configured to receive the notification from said local digital switch when the timer counts the predetermined amount of time and configured to trait the call forwarding number associated with the second communication device to said local digital switch responsive to the notification.

46. AN APPARATUS FOR CONNECTING TELEPHONY NETWORKS TO A COMPUTER

WO2007091264A1 | LIM KIA HONG, LIM KIAH MENG, KHASKIN OLEG, NAVOT OMRI

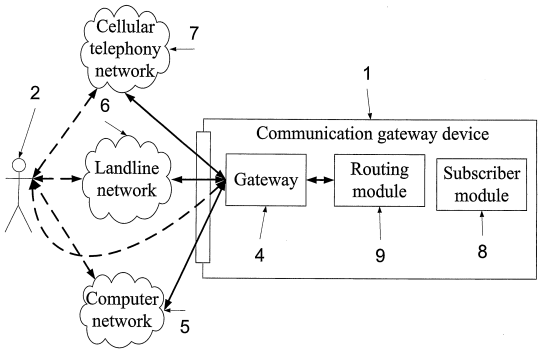
Bibliographic data

Publication date: 2007-08-16
Application date: 2007-02-08
Earliest priority date: 2006-02-09

Inventors: LIM KIA HONG, LIM KIAH MENG, KHASKIN OLEG, NAVOT OMRI

CPC classification: H04M 2207/18, H04M 2207/206, H04M 7/0069, H04M 7/12
IPC classification: H04M 7/12

External links: Google Patents, Espacenet, EP Register, Patentscope, PatBase Express, PatBase, Orbit



Abstract

A communication gateway device for a predetermined subscriber. The communication gateway device comprises a PSTN interface for connection to the PSTN network, a cellular interface for connection to a cellular telephony network; and a Internet Protocol interface for at least one of direct and indirect connection to the Internet. The device is configured to route incoming communications to the predetermined subscriber from any one of the interfaces and to route outgoing communications from the subscriber via any one of the interfaces.

First claim

A communication gateway device for a predetermined subscriber, comprising: a PSTN interface for connection to the PSTN network; a cellular interface for connection to a cellular telephony network; and an Internet Protocol interface for at least one of direct and indirect connection to the Internet, the device configured to route incoming communications to said predetermined subscriber from any one of said interfaces and to route outgoing communications from said subscriber via any one of said interfaces.

47. Unified telephone handset for personal communications based on wireline and wireless network convergence

US20050064853A1 | SBC Knowledge Ventures LP

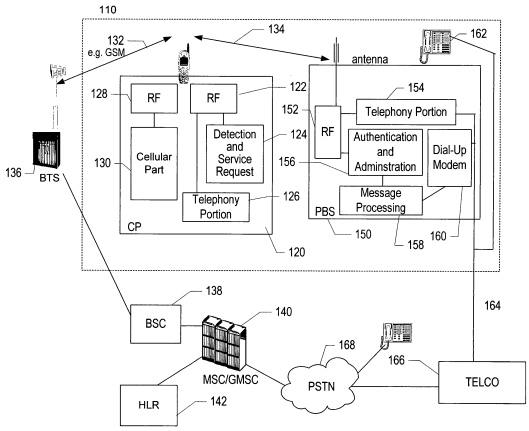
Bibliographic data

Publication date: 2005-03-24
Application date: 2003-09-23
Earliest priority date: 2003-09-23

Inventors: RADPOUR ASSAD

CPC classification: H04W 88/02
IPC classification: H04B 7/00, H04M 1/00, H04M 3/42, H04W 88/02

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

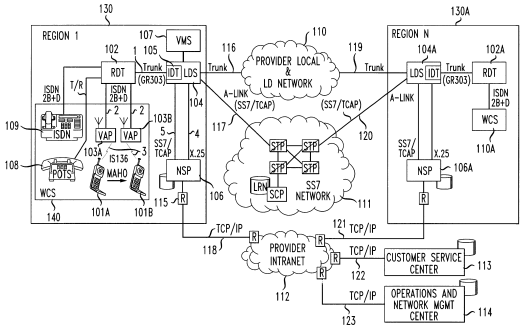
In a particular embodiment, the disclosure is directed to a mobile communication device including an antenna, mobile telephony circuitry, a service request module and a voice conversion module. The mobile telephony circuitry is configured to communicate with a mobile telephony network using a mobile communication protocol. The mobile telephony circuitry is coupled to the antenna. The service request module is configured to determine the proximity to a wireless network base station using a wireless data network protocol. The service request module is configured to establish a communication path via the wireless data network protocol. The voice conversion module is configured to convert voice communication to packet data to be communicated using the wireless data network protocol to the wireless network base station.

First claim

A mobile communication device comprising:
an antenna;
mobile telephony circuitry configured to communicate with a mobile telephony network using a mobile communication protocol, the mobile telephony circuitry coupled to the antenna;
a service request module configured to determine proximity to a wireless network base station using a wireless data network protocol and configured to establish a communication path via the wireless data network protocol; and
a voice conversion module configured to convert between voice communication and data packets to be communicated using the wireless data network protocol with the wireless network base station.

48. User proactive call handling

US6374102B1 | AT&T Corp



Bibliographic data

Publication date: 2002-04-16
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: BRACHMAN RONALD J, CHU YUE-CHUAN, HUANG KENNY XIAOJIAN, RUSSELL JESSE EUGENE

CPC classification: H04W 4/00, H04W 76/00, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

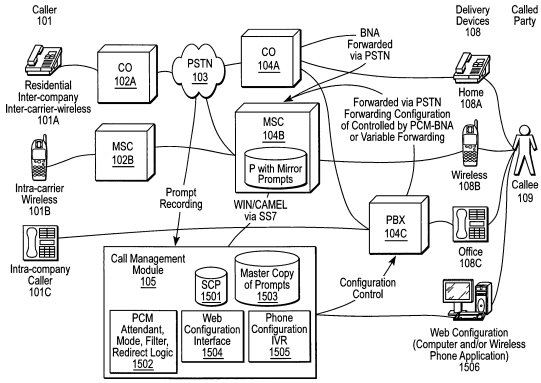
The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses. In accordance with the invention, a wireless telephone subscriber can use a standard cellular/PCS telephone as a wireless extension of their desktop phone, while in the proximity of a miniature radio base station capable of communicating with the PCS/cellular telephone. The advantage of such a system is that a subscriber can use the same cellular/PCS telephone that provides service in the public network in the wireless centrex environment. Additionally, the wireless centrex system provides services and features which are similar to those offered to regular centrex telephone subscribers. Exemplary features include, caller ID, call waiting, call hold, call transfer, call forwarding and voice messaging.

First claim

A system for allowing a called party to proactively handle in real time an incoming call to a mobile station assigned to the called party, comprising:
a local digital switch, responsive to an incoming call, for creating a voice path between an origin of the incoming call and the local digital switch;
a network server platform, coupled to said local digital switch, for transmitting a short message to the called party over a control channel, the short message informing the called party of the incoming call;
a remote digital terminal, coupled to the local digital switch, providing voice transport, data transport, signaling transport and multiplexing of integrated service digital network devices, plain old telephones and voice access ports; and
a base station for receiving the short message from said network server platform and transmitting the short message over the control channel to the called party and for receiving over the control channel from the called party a selection of one of a plurality of options for terminating the incoming call and transmitting the selection over the control channel to said network server platform, said network server platform terminating the call in accordance with the selection, wherein one of the plurality of options is answering the call with the mobile station.

49. Call management

US8594298B2 | Avaya Inc



Bibliographic data

Publication date: 2013-11-26
Application date: 2005-02-16
Earliest priority date: 2004-02-20

Inventors: KLEIN MARK D, MANZO MICHAEL SCOTT, MAHMOOD TAMARA HILLS, MAURER ANDREW M, KOLBLY MICHAEL J, STELTER RONALD D, BRACKBILL DOUGLAS L

CPC classification: H04M 2203/2072, H04M 2203/4536, H04M 3/42161, H04M 3/42263, H04M 3/436, H04M 3/53325, H04M 3/537
IPC classification: H04L 12/66, H04M 3/42, H04M 3/537, H04M 3/436

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A personal call management system allows a user to specify how incoming telephone calls should be handled. The user can specify various parameters including modes, filters, schedules, and the like. Incoming calls are routed to a specified telephone number, or sent to voicemail, or otherwise disposed of. Users can change modes manually or can specify automatic mode selection based on time of date, day of week, location, and/or other factors.

First claim

A method comprising:
receiving, by a first system, a request transmitted by a second system, wherein the request is to retrieve instructions for routing a call placed by a first user at a first terminal to a telephone number of a second terminal associated with a second user;
identifying, by the first system, in response to receiving the request, a mode that is currently enabled for the second user, wherein the mode comprises a plurality of instructions for routing calls that are placed to a particular telephone number of the second user;
selecting, by the first system, a first instruction from the plurality of instructions based on:
the second user's current geo-location, and
past behaviors of the second user at the current geo-location;
transmitting, by the first system, the first instruction to the second system, wherein the first instruction:
routes the call to a third system, and
transmits a message to the second user at a third terminal, wherein the message comprises information on how the call was routed.

50. Method for dynamically providing a terminal connected to a public communication network, with services offered by a private telecommunication network

US9258430B2 | Alcatel Lucent SAS

Bibliographic data

Publication date: 2016-02-09
Application date: 2003-06-13
Earliest priority date: 2002-06-13

Inventors: PINAULT FRANCIS, BOULET JEAN-LOUIS

CPC classification: H04M 2203/053, H04M 2203/257, H04M 2207/18, H04M 3/42, H04M 3/42178, H04M 7/0009, H04W 76/10

IPC classification: G06F 15/16, H04M 3/42, H04M 3/00, H04L 29/06, H04M 7/00, H04W 76/02

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

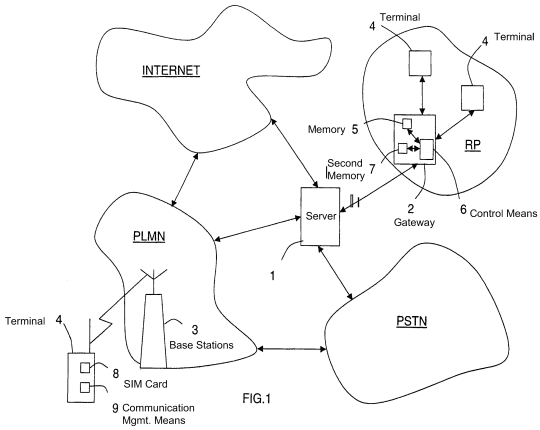


FIG.1

Abstract

A communication server enabling the provision of services offered by a second private communication network to terminals connected to a first communication network. The terminals are capable of simultaneously exchanging signaling data on a first transmission channel and voice data on a second transmission channel, in accordance with a selected protocol. The server is capable of transmitting configuration data to a terminal connected to the first network over the first channel and in accordance with a selected criterion. The configuration data is designed to enable a connection with the server to be set up on the first channel by the terminal, during a voice link on the second channel, so as to provide the terminal, during the voice link, with services offered by the second network.

First claim

A method of making services offered by a private second communication network available to at least one terminal connected to a first communication network comprising the steps of:
sending, from a communication server, configuration data via a first transmission channel to a terminal connected to a first communication network, the configuration data sent as a function of a selected criterion;
setting up a connection between the terminal connected to the first communication network and the communication server using a selected primary identifier, wherein the setting up of the connection constitutes the selected criterion, the configuration data enabling the terminal connected to the first communication network to set up the connection with the communication server on the first transmission channel during a voice connection between at least two users on a second transmission channel;
simultaneously exchanging signaling data on the first transmission channel and voice data on the second transmission channel via the communication server and in accordance with a selected protocol, wherein the second transmission channel is dedicated only to exchange of voice data, so that at least some services offered by the private second communication network are available to the terminal connected to the first communication network during the voice connection;
inhibiting access, using the configuration data, to the first communication network by the terminal connected to the first communication network;
receiving, by the server via said first transmission channel, information including at least a secondary identifier of a remote terminal in the event of an attempt by the terminal connected to the first communication network to call the remote terminal;
processing the information as a function of its contents on receipt of said information;
choosing a message as a function of said processing and said information received, wherein the message comprises at least one of a call authorization or a call prohibition and information to be displayed on the screen of the terminal;
sending the message to the terminal on said first transmission channel so that, on reception of said message, said configuration data either removes the inhibition on access to the first communication network to allow setting up the call or prohibits said call.

51. System for providing portable VoIP services

US7924825B2 | Internet Communications Solutions LLC

Bibliographic data

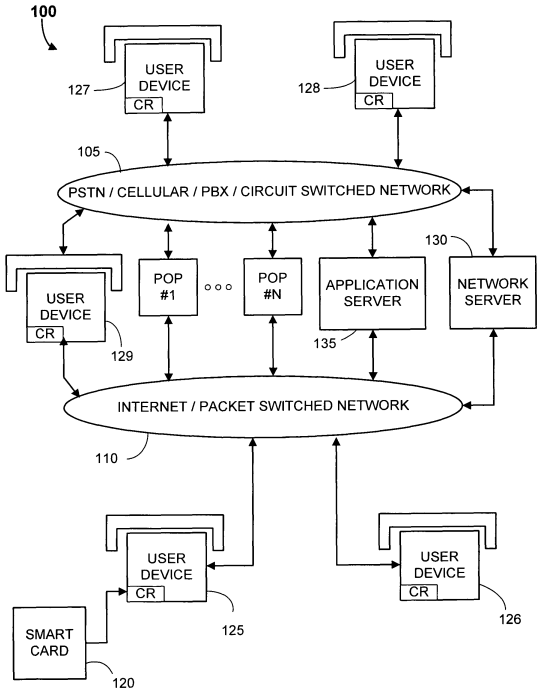
Publication date: 2011-04-12
Application date: 2008-11-05
Earliest priority date: 2004-09-01

Inventors: DOWLING ERIC MORGAN, WESTERLUND ROBERT A

CPC classification: G06F 21/6218, G06Q 20/04, G06Q 20/305, H04L 63/0853, H04L 63/145, H04L 65/1046, H04L 65/1069, H04L 67/02, H04L 67/10, H04M 1/675, H04M 2203/6063, H04M 2250/14, H04M 3/42161, H04M 3/42263, H04M 7/0075, H04M 7/0078, H04W 40/20, H04W 80/12

IPC classification: H04L 12/66

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A portable VoIP telephony service includes a portable device that includes a processor and memory having information stored therein. If the portable device is coupled to a first computer, information is coupled via the first computer to the telephony service, and in the event a first incoming telephone call is received, the telephony service causes the first incoming call to be directed as a first VoIP call to the first computer. If the portable device is coupled to the second computer, information is coupled via the second computer to the telephony service, and in the event a second incoming telephone call is received while the portable device is coupled to the second computer, the telephone service causes the second incoming telephone call to be directed to the second computer.

First claim

A system, comprising:
a portable device that includes a processor and memory having a set of information stored thereon that includes first information; and
a telephony service that includes a remote server system having associated therewith a database that includes a user telephone number that is associated with the portable device;
wherein the system is configured so that in the event the portable device is coupled to a first computer via an external peripheral interface of the first computer, the first information stored in the memory is coupled via the first computer and a first network connection to the telephony service, and in the event a first incoming telephone call is received that designates the user telephone number while the portable device is coupled to the first computer, the telephony service uses at least a portion of the first information to cause the first incoming telephone call to be directed as a first VoIP call via a first call path to the first computer,
wherein the system is configured so that the first VoIP call is converted into a first PSTN telephone compatible call which is coupled to a first telephony device external to the first computer,
wherein the system is configured so that in the event the portable device is coupled to a second computer via an external peripheral interface of the second computer, the first information stored in the memory is coupled via the second computer and a second network connection to the telephony service, and in the event a second incoming telephone call is received that designates the user telephone number while the portable device is coupled to the second computer, the telephony service uses at least a portion of the first information to cause the second incoming telephone call to be directed as a second VoIP call via a second call path to the second computer, wherein the system is configured so that the second VoIP call is converted into a second PSTN telephone compatible call which is coupled to a second telephony device external to the second computer, and

wherein the first call path and the second call path include respective call path segments that include respective portions of the global Internet.

52. Integrated cellular VoIP for call rerouting

US7379436B2 | Roamware Inc

Bibliographic data

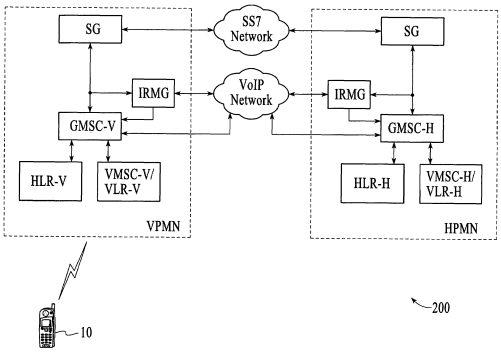
Publication date: 2008-05-27
Application date: 2005-02-23
Earliest priority date: 2004-02-23

Inventors: JIANG YUE JUN

CPC classification: H04L 65/1083, H04M 7/123, H04W 8/06, H04W 8/12, H04W 80/00, H04W 88/06, H04W 88/16

IPC classification: H04L 12/28, H04W 80/00, H04W 88/06, H04L 29/06, H04W 88/16, G01S 19/13, H04W 8/06, G01S 19/49, G01S 19/35, H04M 7/12, H04W 8/12

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

Integrated Cellular Voice over Internet Protocol (“VoIP”) systems (“ICV systems”) are described that redirect or reroute wireless network voice and data traffic to roaming subscribers via VoIP networks. The ICV system monitors roaming links of a first communication system. The first communication system may include a home network and a visited network. The ICV system detects a mobile device registering with the visited network. The ICV system receives location information corresponding to a location of the mobile device and selects a routing number corresponding to the location. The ICV system uses the selected routing number to transfer calls received at the home network to the mobile device via a second communication system.

First claim

A system comprising:
a first communication system comprising a home network and a visited network, the home network having a subscriber and a Home Location Register (HLR), the subscriber having a mobile device and a profile in the HLR;
at least one Voice-over Internet Protocol (VoIP) communication system coupled to the home network and the visited network; and
a gateway coupled to at least one of the first and the VoIP communication systems,
wherein the gateway monitors roaming links of the first communication system and detects the mobile device registering with the visited network,
wherein the gateway receives location information corresponding to a location of the mobile device and selects a VoIP routing number corresponding to the location,
wherein the subscriber's HLR profile is set, via a SS7 message, to transfer calls for the mobile device via the selected VoIP routing number, and
wherein the gateway uses the selected VoIP routing number to transfer calls for the mobile device received at the home network to the mobile device via the VoIP communication system.

53. IP-enhanced cellular services

US20070049329A1 | Net2phone Inc

Bibliographic data

Publication date: 2007-03-01
Application date: 2005-08-26
Earliest priority date: 2005-08-26

Inventors: MAYER DANIEL J, STANIFORTH ALAN

CPC classification: H04M 1/2535, H04M 1/72502, H04W 48/18, H04W 76/10, H04W 88/16, H04W 92/02
IPC classification: H04M 1/00, H04W 88/16, H04W 76/02, H04W 92/02, H04W 76/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A portable, multimedia terminal adapter cellular (MTAC) has input/outputs for a cellular phone, a PSTN, a cellular network, an IP network and a telephone, which may be integrated. The MTAC has a Digital Subscriber Line (DSL) adapted for connection to both the IP network and the PSTN, and connects signaling, media and DC power with the cellular phone. A service platform determines operative presence of the cellular phone. Transcoding between the cellular network and the IP network is performed only by a codec of the cellular phone. The MTAC bridges the PSTN and the cellular phone without gateway functionality, and has gateway functionality that bridges the IP network and the cellular phone without transcoding. The service platform proxies fetch information from databases and in response to signaling at the initiation stage of a communication session, estimates a cost comparison of a communication session traversing each of two paths, respectively through an IP network and a cellular network; and in response to a choice based upon the cost comparison, signals the setting up of the communication session through the network of the choice.

First claim

A portable, multimedia terminal adapter cellular, internet protocol gateway (MTAC IPG), comprising:
a first input/output interface for call session signaling and media for a cellular network device;
a second input/output interface for call session signaling and media for an IP network; and
said first and second input/output interfaces being operatively connected for transmission of call session signaling and media,
whereby call session signaling and media is transmittable through a cellular network, the cellular network device, the MTAC IPG and the IP network.

54. On hold call retrieval and routing

US7477893B2 | Motorola Inc

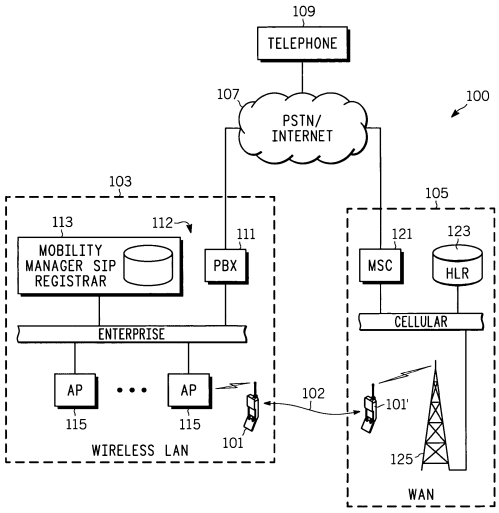
Bibliographic data

Publication date: 2009-01-13
Application date: 2003-12-04
Earliest priority date: 2003-12-04

Inventors: BELKIN ANATOLY S, HIRSBRUNNER ALEX P, HOSHEN JOSHEPH, PIERC JENNNIFER A, SEGAL NIRANJAN N

CPC classification: H04M 2250/06, H04M 3/428, H04W 4/16, H04W 92/02
IPC classification: H04M 3/42, H04W 4/16, H04W 92/02, H04M 1/725, H04M 3/428

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A wireless communication unit (101, 200, 401), network switch (112, 300, 407) and corresponding methods facilitate retrieval, routing, and management of on-hold calls (FIG. 4 -FIG. 7) within a first communication network (103) when the unit is operating in a second communication network (105) that is loosely coupled to the first. The communication unit comprises a transceiver (203) configured to support an air interface with the first and the second communication network; and a controller (209) arranged to cooperatively operate with the transceiver to retrieve an on-hold call from the first network via a call leg established to support a handout to and while the unit is operating in the second network. A user interface (211) and in band signaling over the call leg facilitates management, connecting, disconnecting, etc., of the on-hold calls by the communication unit.

First claim

A wireless communication unit arranged and constructed for operation within a loosely coupled communication network comprising a first communication network and a second communication network, the wireless communication unit comprising:
a transceiver configured to support an air interface with the first communication network and with the second communication network; and
a controller arranged to control and cooperatively operate with the transceiver to manage and retrieve an on-hold call on the first communication network after a handout of the wireless communication unit from the first communication network to the second communication network via a call leg established to support the on-hold call while the wireless communication unit is operating in the second communication network, wherein the on-hold call is a call placed on-hold when the wireless communication unit is in the first communication network.

55. Call waiting in a wireless centrex system

US6654603B1 | AT&T Corp

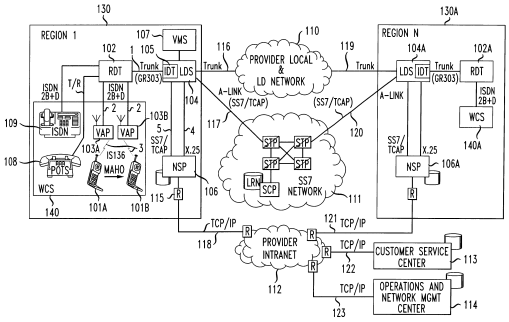
Bibliographic data

Publication date: 2003-11-25
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, WANG SPENCER, YING WENCHU, KIM JINMAN

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

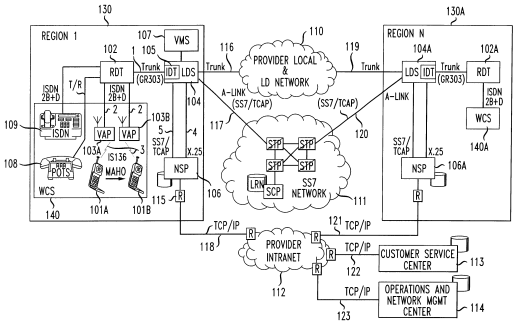
The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.In accordance with the invention, a wireless telephone subscriber can use a standard cellular/PCS telephone as a wireless extension of their desktop phone, while in the proximity of a miniature radio base station capable of communicating with the PCS/cellular telephone. The advantage of such a system is that a subscriber can use the same cellular/PCS telephone that provides service in the public network in the wireless centrex environment. Additionally, the wireless centrex system provides services and features which are similar to those offered to regular centrex telephone subscribers. Exemplary features include, caller ID, call waiting, call hold, call transfer, call forwarding and voice messaging.

First claim

In a wireless centrex system, a method for notifying a mobile station coupled to an intelligent radio transceiver (IRT) of a second call directed to a subscriber's directory number when the mobile station is involved in a first call, comprising the steps of:
receiving the second call to said subscriber's directory number at a local digital switch (LDS), the subscriber having a mobile station currently registered in the wireless centrex system, the mobile station being involved in said first call;
confirming that call waiting is available to the mobile station by a network server platform (NSP) coupled to said LDS;
forwarding the second call to a forward directory number assigned to the mobile station via said IRT;
transmitting a tone to the mobile station by said NSP, the tone indicating a presence of the second call.

56. Wireless centrex call screen

US6606505B1 | AT&T Corp



Bibliographic data

Publication date: 2003-08-12
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WALKER HOPETON, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

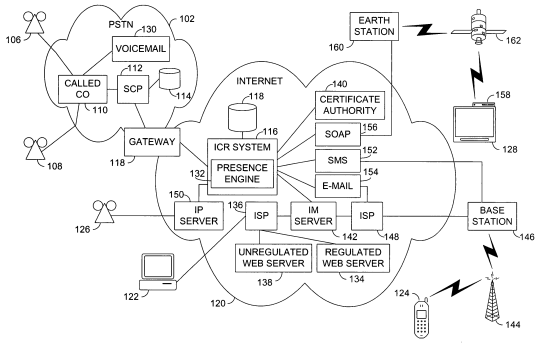
The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A method for blocking incoming calls to a mobile station in a wireless centrex system including an intelligent radio transceiver assigned to a called party, comprising the steps of:
enabling said call blocking by entering a feature code with said mobile station;
receiving said call blocking feature code at said intelligent radio transceiver from said mobile station registered in said wireless centrex system, said intelligent radio transceiver in communication with a local digital switch without being connected to any public cellular system;
identifying a directory number from which incoming calls to said mobile station will be blocked;
verifying that said mobile station is authorized to block incoming calls;
storing said director number in a database including a list of directory numbers from which incoming calls to said mobile station will be blocked, via a line side interface to said local digital switch, said local digital switch in communication with a network server platform, said network server platform determining where said mobile station is registered and how to route said incoming calls to said mobile station.

57. Intelligent remote caller ID

US6970546B2 | BellSouth Intellectual Property Corp



Bibliographic data

Publication date:	2005-11-29
Application date:	2004-01-12
Earliest priority date:	2004-01-12
Inventors:	KENT JR LARRY G, DANIELL W TODD, ARNOFF MARY S
CPC classification:	H04M 2207/20, H04M 3/42102, H04M 3/42374, H04M 7/006, H04Q 3/0045, H04Q 3/72
IPC classification:	H04M 3/42, H04M 7/00, H04Q 3/00, H04Q 3/72
External links:	Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

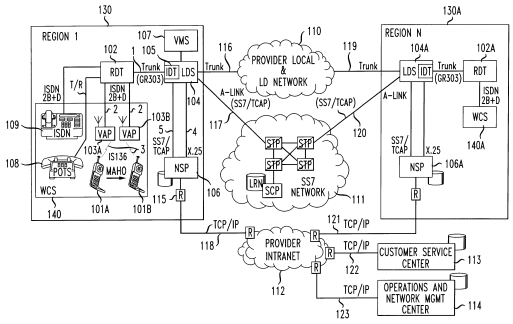
An intelligent remote caller identification system is provided that typically includes a central office, a service control point, and an internet call routing system. The central office typically triggers a query responsive to receiving a call request. The service control point is coupled to the central office, receives the query, and triggers an internet call routing query. The internet call routing system is coupled to the service control point and typically receives the internet call routing query, determines the presence of the called party with respect to a registered communication device, and sends an internet-based message to the called party at the registered communication device in response to the presence determination. Methods and other systems are also provided.

First claim

An intelligent remote caller identification system, comprising:
a telephone routing device operable to receive a query responsive to a call request to a telephone number of a called party and trigger an internet call routing query; and
an internet call routing system coupled to the telephone routing device, the internet call routing system operable to receive the internet call routing query, dispose of the call request based upon rules set up by the called party, and send internet-based messages to the called party at a plurality of registered communication devices.

58. Speed calling in a wireless centrex system

US6785560B1 | AT&T Corp



Bibliographic data

Publication date: 2004-08-31
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WALKER HOPETON, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

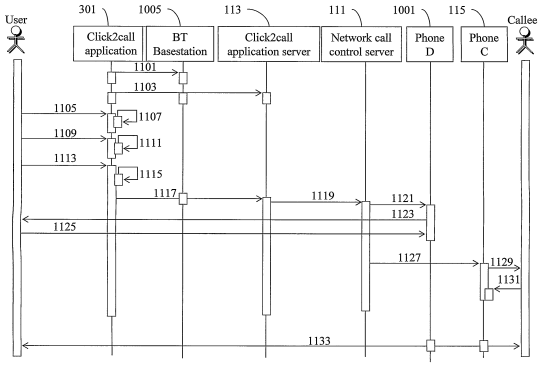
The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.In accordance with the invention, a wireless telephone subscriber can use a standard cellular/PCS telephone as a wireless extension of their desktop phone, while in the proximity of a miniature radio base station capable of communicating with the PCS/cellular telephone. The advantage of such a system is that a subscriber can use the same cellular/PCS telephone that provides service in the public network in the wireless centrex environment. Additionally, the wireless centrex system provides services and features which are similar to those offered to regular centrex telephone subscribers. Exemplary features include, caller ID, call waiting, call hold, call transfer, call forwarding and voice messaging.

First claim

A method for a wireless centrex subscriber to call a telephone number using a speed call code from a mobile station registered in a wireless centrex system including an intelligent transceiver, said method comprising the steps of:
receiving a call origination request with a speed call code at said intelligent transceiver from the mobile station registered in the wireless centrex system;
validating whether the mobile station is authorized for speed call;
retrieving a directory number associated with the speed call code if a directory number has been associated therewith, when the mobile station is authorized for speed call;
initiating a call set up procedure at said intelligent transceiver for placing a call to the retrieved directory number via a wireline line side interface to a local digital switch without being connected through any public cellular system to the local digital switch.

59. Establishing communications sessions

US8340649B2 | British Telecommunications PLC



Bibliographic data

Publication date: 2012-12-25
Application date: 2006-02-27
Earliest priority date: 2005-03-11

Inventors: RINGLAND SIMON P A, SCAHILL FRANCIS J

CPC classification: H04M 1/2745, H04M 1/2757, H04M 2203/652, H04M 7/003, H04W 76/10
IPC classification: H04M 3/00, H04W 76/02, H04W 76/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A method of establishing a communications session in a communications system is disclosed. The communications system comprises a caller terminal (103), a mobile terminal (101) associated with the caller terminal (103), a callee terminal (115) associated with a callee and session initiation means (111,113). It has become common yet frustrating for users to have to maintain contact lists on a multiplicity of communications devices (e.g. the caller terminal and the mobile terminal). The method comprises: (i) identifying the callee using the mobile telephone (101); (ii) responsive to identification of said callee, transferring data identifying the callee from the mobile terminal (101) to the session initiation means (111,113); and (iii) in dependence on the transferred data, operating the session initiation means (111,113) to establish a communications session between the caller terminal (103) and the callee terminal (115).

First claim

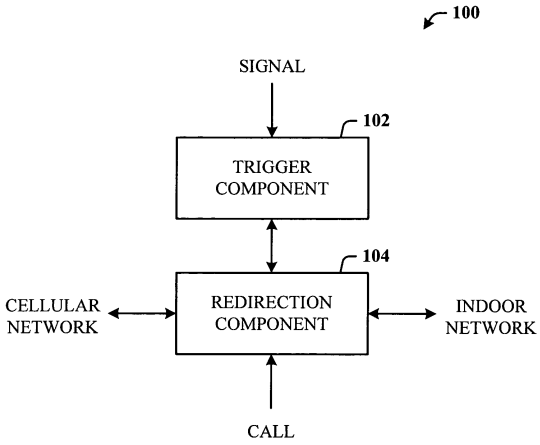
A method of establishing a communications session in a communications system, said communications system comprising a first caller terminal, a further caller terminal, a mobile terminal associated with said first caller terminal and with said further caller terminal, a callee terminal associated with a callee, and session initiation means, said method comprising:
associating said first caller terminal with said mobile terminal by storing, in a network based registration database, a first mapping between data identifying said mobile terminal and data identifying said first caller terminal;
associating said further caller terminal with said mobile terminal by storing, in a network based registration database, a further mapping between data identifying said mobile terminal and data identifying said further caller terminal;
identifying said callee using said mobile terminal;
responsive to identification of said callee, transferring data identifying said callee from said mobile terminal to said session initiation means;
in dependence on said transferred data, operating said session initiation means to establish a communications session between a selected caller terminal being said first caller terminal or said further caller terminal selected in dependence on the location of said mobile terminal, and said callee terminal, by establishing a first leg of said communications session with said selected caller terminal, establishing a second leg of said communications session with said callee terminal, and connecting said first and second legs together.

60. Multi-mode handset services

US8694008B2 | AT&T Mobility II LLC

Bibliographic data

Publication date:	2014-04-08
Application date:	2005-06-16
Earliest priority date:	2005-06-16
Inventors:	BONNER THOMAS W
CPC classification:	H04L 69/18, H04W 36/0011, H04W 36/14, H04W 36/30, H04W 80/10, H04W 84/105, H04W 88/06
IPC classification:	H04W 40/00, H04W 88/06, H04W 36/14
External links:	Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

Delivery of dual-mode GSM/WiFi voice and data services to a consumer with support for transparent network registrations and handovers between GSM and WiFi networks. Aspects include transparently and wirelessly automating call redirection procedures of calls and data (e.g., SMS messages) to legacy telephone devices, to GSM handsets via broadband, and to VoIP devices via broadband. An indoor network is treated as a pseudo visitor PLMN (VPLMN) by the home PLMN (HPLMN) which does not require GSM radio coverage in an indoor network. This innovation provides a means for automating a process of redirecting a subscriber's calls from the GSM network to the subscriber's home network, and can utilize a Bluetooth access point to provide a beacon signal for triggering redirection.

First claim

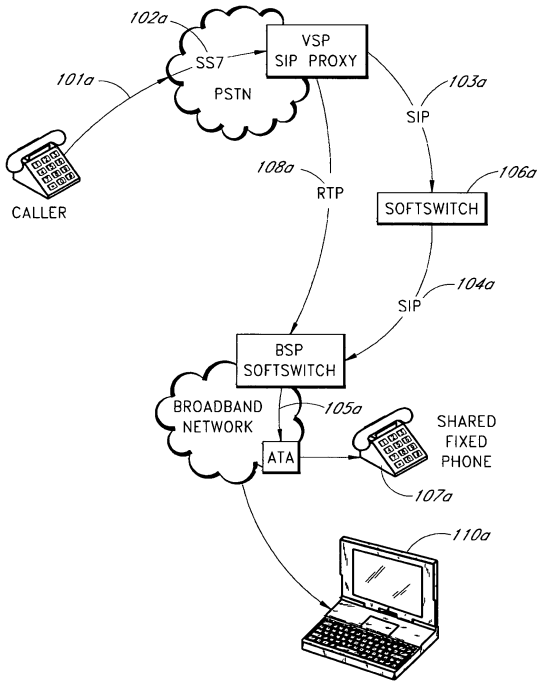
A system, comprising:
a memory to store executable instructions; and
a processor, coupled to the memory, that facilitates execution of the executable instructions to perform operations, comprising:
detecting whether a dual mode wireless device is located within an 802.11 wireless coverage area of an 802.11 network utilizing a global system for mobile communications wireless interface;
in response to detecting that the dual mode wireless device is located within the 802.11 wireless coverage area, sending, via a plain old telephone system interface, a session initiation protocol message directed to a voice-over-internet protocol system for initiating power up of an 802.11 transceiver of the dual mode wireless device, wherein the voice-over-internet protocol system is coupled to a network device of a global system for mobile communications network;
in response to receiving a communication from the voice-over-internet protocol system based on the session initiation protocol message, initiating the power up of the 802.11 transceiver;
in response to the initiating of the power up of the 802.11 transceiver, receiving, from the dual mode wireless device via an 802.11 based wireless communication, information associated with a subscription of a voice-over-internet protocol service associated with the voice-over internet protocol system, based on another communication that has been registered with an internet protocol multimedia system service device by the voice-over internet protocol system, forwarded from the voice-over internet protocol system to an access point device of the 802.11 network, and routed between the voice-over internet protocol system and a home public land mobile network device.

61. Methods and systems for providing telephony services to fixed and mobile telephonic devices

US8369311B1 | Callwave Communications LLC

Bibliographic data

Publication date:	2013-02-05
Application date:	2006-08-01
Earliest priority date:	2005-07-01
Inventors:	KIRCHHOFF LELAND W, TRANDAL DAVID S, KELLEY COLIN
CPC classification:	H04M 3/42263, H04M 7/1235, H04M 7/127, H04M 7/128, H04M 7/129, H04W 76/12
IPC classification:	H04L 12/66, H04M 3/42, H04M 11/10
External links:	Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

The present invention relates generally to telecommunications and in particular to systems and methods for routing telephone calls. A first address, such as a first phone number, can be associated with a telephonic terminal, such as a fixed or mobile phone. Incoming calls to the first address can be routed using an Internet Protocol, such as SIP, or other protocol to the telephonic terminal or to other destinations based on telephonic terminal status and/or based on a user instruction.

First claim

A method of processing calls, the method comprising:
receiving over a network at a call processing system a first call from a calling party directed to a called party's phone address, wherein signaling information associated with the first call includes the calling party's phone address;
originating a second call from the call processing system to a telephonic device associated with the called party, wherein the telephonic device is coupled to a broadband data connection;
transmitting, while the first call is in progress, a call alert notification regarding the first call, including at least a portion of the signaling information, to a networked computer associated with the called party via a communication channel;
bridging the first call with the second call and the communication channel associated with the networked computer;
providing a greeting to the calling party via the call processing system;
receiving a voice communication from the calling party at the processing system;
streaming at least a first portion of the voice communication via the call processing system in substantially real time to the telephonic device and/or the networked computer while ensuring that sound does not travel back to the calling party from the telephonic device or networked computer associated with the called party to thereby allow the called party to screen the caller call from the telephonic device or networked computer while the calling party is unaware that the call screening is being performed;
providing a first user interface via the telephonic device or networked computer that when a first input is provided by the called party, causes duplex communication to be provided to the telephonic device or networked computer so that the called party can converse with the calling party, wherein the first user interface is provided during the first call enabling the called party to indicate, during that first call, that the duplex communication is to be provided to the telephonic device or networked computer;
determining a current physical location of the called party based at least in part on GPS (Global Positioning Satellite) location information and/or latitude and longitudinal information indicating the called party's current geographic

location;
identifying an alternate telephonic device and/or an alternate networked computer in geographic proximity with the called party based at least in part on the determined physical location of the called party and a record of phone address destinations associated with the called party;
providing, during the first call, a second user interface via the telephonic device or networked computer, the second user interface enabling the called party to indicate that the first call is to be transferred to a device different than the telephonic device or the networked computer, and
at least partly in response to receiving an indication from the called party during the first call via the second user interface that the called party wants the first call to be transferred, providing, during the first call, a third user interface enabling the called party to select a call transfer destination from a set of destinations, and
at least partly in response to receiving a selection by the called party of a destination from the set of destinations within a first period of time, the first period of time occurring during the first call, transferring the first call to the destination selected by the called party, and
if the called party does not select the call transfer destination during the first period of time, the first period of time occurring during the first call, causing
at least in part a third call to be originated during the first call to the identified alternate telephonic device and/or the identified alternate networked computer in geographic proximity with the called party.

62. Wireless centrex conference call adding a party

US6535730B1 | AT&T Corp

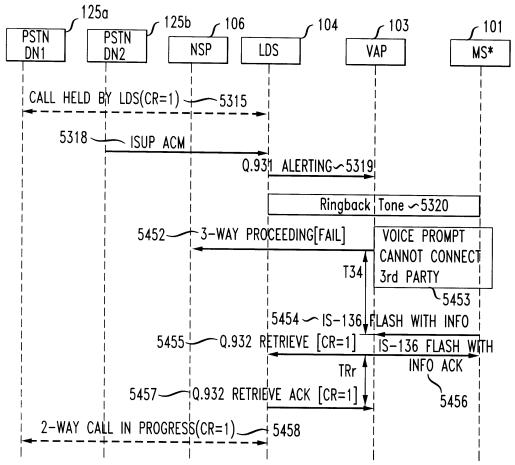
Bibliographic data

Publication date: 2003-03-18
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

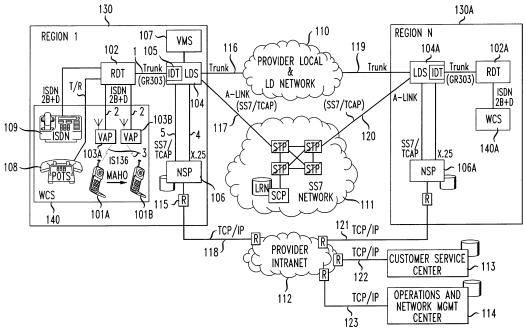
The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A method for adding at least one other party to a telephone call with a mobile station, comprising the steps of:
establishing an active call between at least one other communication device and said mobile station;
requesting, using an input on said mobile station, an intelligent transceiver to add said another party to said active call;
forwarding said requested addition of said another party from said intelligent transceiver to an intelligent server;
approving said mobile station as being authorized to add said another party to said active call;
providing said intelligent transceiver instructions from said intelligent server indicating that said another party having a conference-to directory number is to be added to said active call;
placing said active call on hold with said intelligent transceiver;
playing comfort noise to said at least one other user communication device;
establishing another active call between said mobile station and said conference-to directory number;
indicating to said intelligent transceiver that said conference call setup is proceeding;
connecting said active call on hold with said another active call so that said at least one other communication device is connected to said conference-to directory number and said mobile station in said conference call, wherein :
said conference-to directory number is associated with a PSTN telephone,
said step of forwarding said requested addition of said another party is provided using a feature request message, and said step of indicating to said intelligent transceiver that said conference call setup is proceeding is provided by using a three way proceeding message.

63. Distinctive ringing in a wireless centrex system

US6618600B1 | AT&T Corp



Bibliographic data

Publication date: 2003-09-09
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WALKER HOPETON, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/00, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.In accordance with the invention, a wireless telephone subscriber can use a standard cellular/PCS telephone as a wireless extension of their desktop phone, while in the proximity of a miniature radio base station capable of communicating with the PCS/cellular telephone. The advantage of such a system is that a subscriber can use the same cellular/PCS telephone that provides service in the public network in the wireless centrex environment. Additionally, the wireless centrex system provides services and features which are similar to those offered to regular centrex telephone subscribers. Exemplary features include, caller ID, call waiting, call hold, call transfer, call forwarding and voice messaging.

First claim

In a wireless centrex system, a method for alerting a mobile station of a call directed to a subscriber's directory number from a predetermined directory number, said method comprising the steps of:
receiving a call from a call-originating directory number directed to a directory number of a subscriber via a line side interface of a local digital switch at an intelligent transceiver of said wireless centrex system, said local digital switch being in communication with said intelligent transceiver via a wireline interface without being connected through any public cellular system to said intelligent transceiver, the subscriber having a mobile station currently registered with said intelligent transceiver of said wireless centrex system;
comparing the call-originating directory number with a list of at least one predetermined directory number;
when the call-originating directory number matches a predetermined directory number in the list, retrieving distinctive call ring information associated with the call-originating directory number;
routing the call to the mobile station via said local digital switch and said intelligent transceiver;
transmitting the distinctive call ring information to the mobile station by said intelligent transceiver of said wireless centrex system.

64. Distributed network voice messaging for wireless centrex telephony

US6961559B1 | AT&T Corp

Bibliographic data

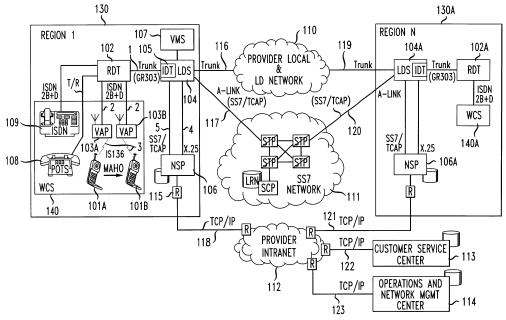
Publication date: 2005-11-01
Application date: 2000-08-02
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WANG SPENCER C

CPC classification: H04M 2207/18, H04M 2207/45, H04M 3/42314, H04M 3/436, H04M 3/53391, H04M 3/56, H04W 4/12, H04W 4/16, H04W 84/16

IPC classification: H04M 3/42, H04W 4/12, H04W 4/16, H04M 3/533, H04W 84/16, H04M 3/436

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

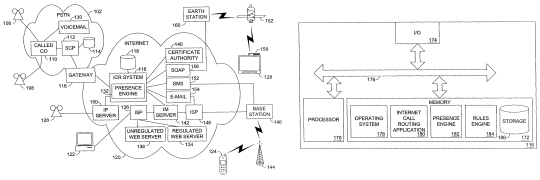
A method and system for distributing voice prompts and messaging closer to the calling or called party via the Voice Access Port (VAP) of a wireless centrex system comprises the steps of transmitting a message request to the VAP from a network server platform, retrieving a selected message and forwarding the message, for example, to the calling party, for example, when the called party is not available or during conference call set-up, call hold or call screening. In accordance with a further embodiment, the voice prompt or message may be personalized with the calling/called party's name, address or other personalized information as appropriate.

First claim

Network apparatus including a wireless centrex system for providing telecommunication informational messages responsive to an incoming communication directed to a mobile station in the wireless centrex system, comprising:
an intelligent radio transceiver in communication with the mobile station;
a network server platform for monitoring a status of the incoming communication in order to identify which incoming communication requires any informational messages associated with the mobile station, said network server platform having a communication interface with said intelligent radio transceiver for forwarding a message request for a particular class of informational message; and;
wherein said intelligent radio transceiver comprises
a memory for storing said informational messages including message configuration features for the mobile station's user; and
a controller unit for interfacing with the memory and selectively finding and generating for the communications sender and/or the mobile station a predetermined informational message upon receiving said message request from said network server platform.

65. Rule-based intelligent call forwarding

US8180038B2 | AT&T Intellectual Property I LP



Bibliographic data

Publication date: 2012-05-15
Application date: 2009-12-11
Earliest priority date: 2004-01-12

Inventors: KENT JR LARRY G, DANIELL W TODD, ARNOFF MARY S

CPC classification: H04M 2207/20, H04M 3/42272, H04M 3/54, H04W 4/16
IPC classification: H04M 3/42, H04M 3/54

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A rule-based intelligent call forwarding system is provided that typically includes a central office, a service control point, and an internet call routing system. The central office typically triggers a query responsive to receiving a call request. The service control point, which is coupled to the central office, receives the query, and triggers an internet call routing query. The internet call routing system, which is coupled to the service control point, typically receives the internet call routing query, determines presence of the called party with respect to a registered communication device, parses rules associated with the called party, and terminates the call request responsive to the rules parsing and presence determination. Methods and other systems are also provided.

First claim

A call routing device, comprising:
memory for storing a program having computer executable instructions; and
a processor, functionally coupled to the memory, the processor being responsive to the computer executable instructions contained in the program and operative for:
receiving a call routing query related to a call request;
determining presence of a called party with respect to a registered communication device in response to the registered communication device processing a presence message, the determining presence of the called party being based upon whether the called party has retrieved the presence message from a message server;
authenticating with a certificate authority whether the called party has a current subscription; and
transmitting a message to the registered communication device determined as present, the message notifying the called party of call being made by a calling party;
wherein the message is configured to cause the registered communication device to display options directing how to terminate the call;
wherein the message is configured to allow each of a plurality of registered communication devices to select from options directing how to terminate the call;
wherein the options at the registered communication device for directing how to terminate the call comprise: forward the call to a voicemail system, forward the call to any of the plurality of registered communication devices, forward the call to a default number, forward the call to a number corresponding to a location at which the message is presently being checked, and forward the call to a number that the called party presently designates in response to the message;
wherein the call routing query comprises an account number associated with the called party, a phone number associated with the called party, a registration identification associated with the called party, and a certificate associated with the called party;
wherein the authenticating with the certificate authority whether the called party has the current subscription comprises causing the certificate authority to search a customer database for the current subscription and payment information for the called party.

66. Packet-switched telephony call server

US7991001B2 | Skype Ltd Ireland

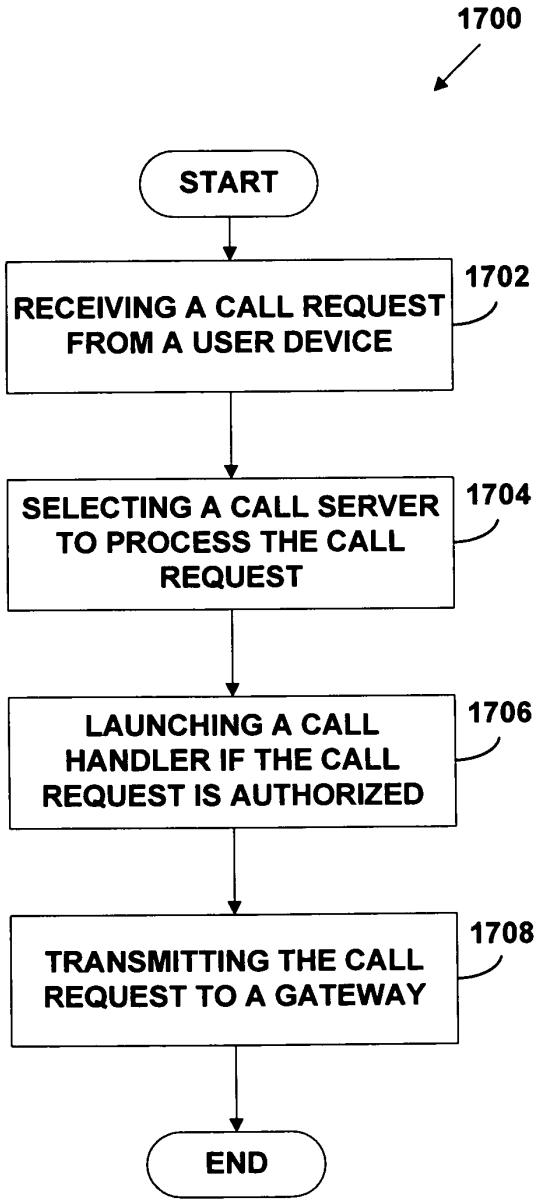
Bibliographic data

Publication date: 2011-08-02
Application date: 2006-11-07
Earliest priority date: 2001-05-31

Inventors: NIX JOHN A, WILES BRIAN C, MUMMA JEFFREY S

CPC classification: H04L 12/56, H04L 12/66, H04L 65/1069, H04M 1/2535, H04M 7/127, H04W 12/06
IPC classification: H04L 12/56, H04J 3/16, H04L 12/16, H04L 29/06, H04M 7/00, H04L 12/54

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A system and method for providing packet-switched telephony service. The system provides call control, signaling, and/or delivery of voice, video, and other media in substantially real time. One embodiment of the system includes a call client application on a user device, and a call server located at a packet-switched telephony service provider. The call server is preferably operable to communicate with the call client in a non-native protocol and with the gateway in a native protocol.

First claim

A method for providing telephony service over the Internet, the method comprising:
downloading a call client to a user device associated with a first user;
launching the call client on the user device, wherein the user device is connected to the Internet;
receiving a call request according to a non-native protocol at a packet switched telephony service provider, wherein the call request includes a telephone number corresponding to a second user accessible through a Public-Switched Telephone Network (PSTN);
determining whether the first user associated with the user device is authorized to place a call associated with the call

request;
selecting a gateway to process the call request;
transmitting the call request from the packet switched telephony service provider to the selected gateway according to Session Initiation Protocol (SIP), wherein the gateway is operable to forward the call request to the second user;
communicating media of a call associated with the call request between the user device and the gateway according to User Datagram Protocol (UDP) along a different path to that along which the call request is transmitted;
logging call information so that call durations may be determined.

67. Call delivery between networks serving a dual mode wireless communication device

US20070060196A1 | Lucent Technologies Inc

Bibliographic data

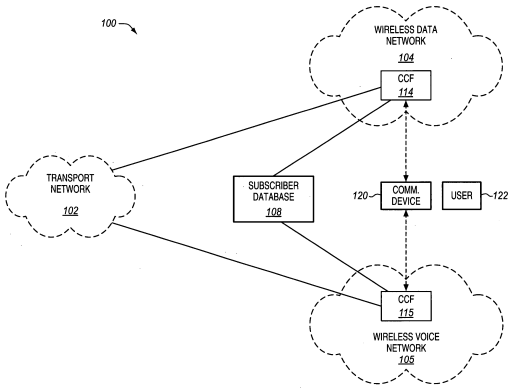
Publication date: 2007-03-15
Application date: 2005-09-14
Earliest priority date: 2005-09-14

Inventors: SHARMA ALOK

CPC classification: H04L 65/1016, H04L 65/103, H04L 65/104, H04W 40/02, H04W 76/20, H04W 8/08, H04W 84/12, H04W 88/06, H04W 92/02

IPC classification: H04M 1/00, H04W 88/06, H04W 84/12, H04W 92/02, H04W 8/08, H04W 76/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

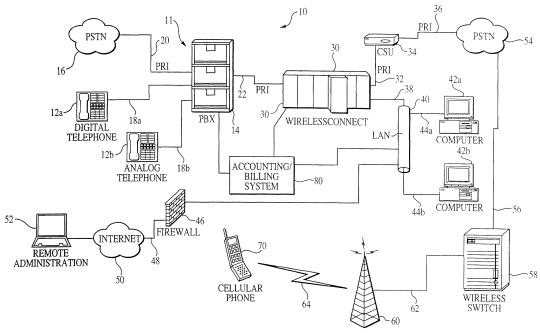
Communication networks and methods are disclosed that provide call delivery to a dual mode wireless communication device served by a wireless data network (e.g., an IMS/WiFi network) and a wireless voice network (e.g., cellular network). A common subscriber database includes subscriber data for the dual mode device. A call received to the dual mode device is routed to a call control function in one of the wireless networks. The call control function then queries the common subscriber database to determine in which network the dual mode device is currently registered. The call control function then routes the call to the dual mode device through the proper network.

First claim

A communication network for providing call delivery to a dual mode wireless communication device, the communication network comprising:
a wireless data network having a call control function adapted to serve the dual mode wireless communication device;
a wireless voice network having a call control function adapted to serve the dual mode wireless communication device; and
a common subscriber database for the wireless data network and the wireless voice network having a subscriber record for a user of the dual mode wireless communication device;
wherein one of the call control functions receives a call to the dual mode wireless communication device;
wherein responsive to receiving the call, the receiving call control function and the common subscriber database are effective to route the call to the dual mode wireless communication device through the wireless data network if the dual mode wireless communication device is registered in the wireless data network, and to route the call to the dual mode wireless communication device through the wireless voice network if the dual mode wireless communication device is registered in the wireless voice network.

68. Method and apparatus for communicating with one of plural devices associated with a single telephone number during a disaster and disaster recovery

US8135410B2 | Ascendent Telecommunications Inc



Bibliographic data

Publication date: 2012-03-13
Application date: 2007-05-15
Earliest priority date: 1999-06-14

Inventors: FORTE STEPHEN P

CPC classification: H04L 41/00, H04M 2207/18, H04M 2207/20, H04M 2207/35, H04M 2242/04, H04M 2242/06, H04M 2242/22, H04M 3/02, H04M 3/12, H04M 3/42042, H04M 3/42059, H04M 3/42102, H04M 3/42144, H04M 3/42229, H04M 3/42331, H04M 3/4234, H04M 3/436, H04M 3/465, H04M 3/548, H04M 7/0057, H04M 7/006, H04M 7/009, H04M 7/12, H04M 7/1235, H04M 7/1295, H04Q 2213/13072, H04Q 2213/13097, H04Q 2213/13098, H04Q 2213/13109, H04Q 2213/13166, H04Q 2213/13167, H04Q 2213/13194, H04Q 2213/1322, H04Q 2213/13224, H04Q 2213/1325, H04Q 2213/13286, H04Q 2213/1337, H04Q 2213/13384, H04Q 3/0079, H04Q 3/62, H04W 4/12, H04W 4/90, H04W 76/50, H04W 8/28, H04W 84/16

IPC classification: H04M 3/42, H04W 4/12, H04M 7/00, H04Q 3/00, H04M 3/54, H04M 3/46, H04W 84/16, H04M 3/436, H04M 3/02, H04M 7/12, H04Q 3/62, H04W 8/28, H04M 3/12, H04W 4/90

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

A system for (and a method of) selectively establishing communication with one of plural devices associated with a single telephone number during a disaster or disaster recovery period. The method can offer disaster recovery to an enterprise depending upon its size, financial well-being and desired capabilities. For example, the enterprise has the option of owning or renting all of the equipment required so that it may perform disaster recovery on its own and with little outside intervention. The enterprise may own some or none of the necessary equipment and contract with a service bureau so that the bureau provides recovery equipment when needed. The system also provides for roll call, priority preemption and seamless switching services to and from circuit and packet communication devices.

First claim

A method of switching a telephone call from a circuit-switched communication network to a data packet communication network, the method comprising:
receiving, at a wireless connect unit, an incoming call for a user at a telephone extension of the circuit-switched communication network;
retrieving from a storage medium a mobile telephone number for a wireless device associated with the telephone extension;
routing the incoming call to the wireless device;
receiving from the wireless device a signal indicative that the wireless device can handle the call on the data packet communication network;
bridging the call to the data packet communication network when the wireless connect unit determines that the call should be switched to the data packet communication network based on user preferences associated with the telephone extension of the circuit-switched communication network.

69. Integrated cellular VoIP for call rerouting

US20080153480A1 | JIANG YUE JUN

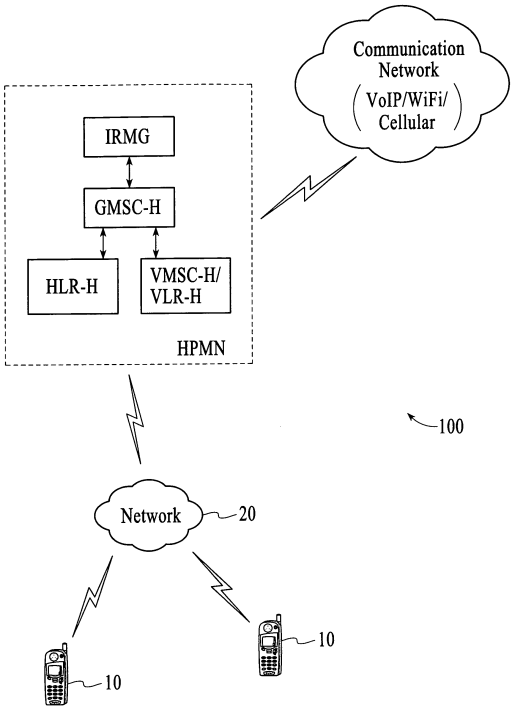
Bibliographic data

Publication date: 2008-06-26
Application date: 2008-03-03
Earliest priority date: 2005-02-23

Inventors: JIANG YUE JUN

CPC classification: H04M 2242/15, H04M 7/0057, H04M 7/123, H04W 8/06, H04W 88/16, H04W 92/02
IPC classification: H04W 88/16, H04W 92/02, H04W 76/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

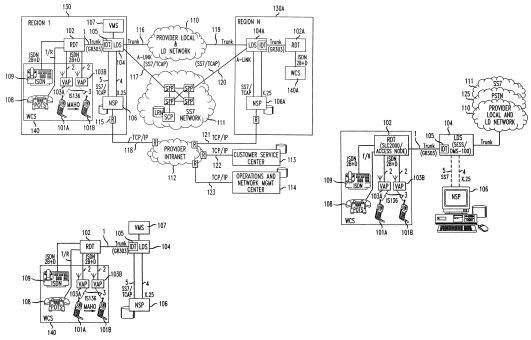
Integrated Cellular Voice over Internet Protocol ("VoIP") systems ("ICV systems") are described that redirect or reroute wireless network voice and data traffic to roaming subscribers via VoIP networks. The ICV system monitors roaming links of a first communication system. The first communication system may include a home network and a visited network. The ICV system detects a mobile device registering with the visited network. The ICV system receives location information corresponding to a location of the mobile device and selects a routing number corresponding to the location. The ICV system uses the selected routing number to transfer calls received at the home network to the mobile device via a second communication system.

First claim

A system comprising:
a first communication system comprising a home network and a visited network, the home network having a subscriber and a Home Location Register (HLR), the subscriber having a mobile device and a profile in the HLR; and a gateway coupled to the first communication system,
wherein the gateway monitors roaming links of the first communication system and detects the mobile device registering with the visited network,
wherein the HLR profiles includes a setup for routing an incoming call to the mobile device via a second communication system;
wherein the gateway receives location information corresponding to a location of the mobile device and selects a routing number corresponding to the location, and
wherein the gateway uses the selected routing number to transfer calls for the mobile device received at the home network to the mobile device via the second communication system that is coupled with the gateway.

70. Wireless centrex conference call deleting a party

US6606493B1 | AT&T Corp



Bibliographic data

Publication date: 2003-08-12
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WANG SPENCER, YING WENCHU

CPC classification: H04L 12/1818, H04M 2207/18, H04M 2207/45, H04M 3/42314, H04M 3/56, H04W 4/06
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A method for dropping at least one party to a conference call with a mobile station in a wireless centrex system, comprising the steps of:
establishing an active conference call between at least two other communication devices and said mobile station;
requesting, using an input on said mobile station, an intelligent transceiver of said wireless centrex system to drop said at least one party to said active conference call, said at least one party using one of said at least two other communication devices;
instructing, using said intelligent transceiver, a local digital switch to drop said at least one party from said active conference call,
wherein said mobile station being registered with the intelligent transceiver, said intelligent transceiver further in communication with the local digital switch via a wireline interface without being connected to any public cellular system.

71. Personal wireless gateway and method for implementing the same

US7519362B2 | LAPERCH RICHARD C

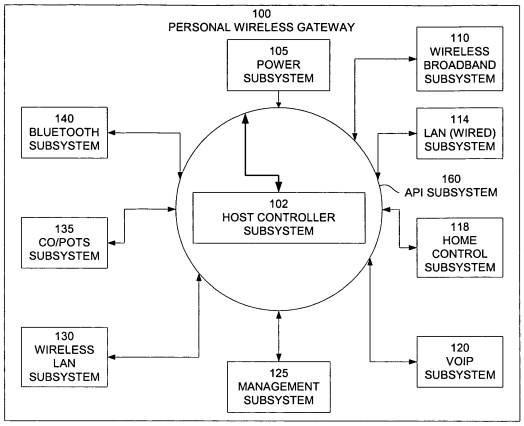
Bibliographic data

Publication date: 2009-04-14
Application date: 2005-09-09
Earliest priority date: 2004-09-13

Inventors: LAPERCH RICHARD C

CPC classification: H04L 65/1026, H04L 65/1036, H04W 4/90, H04W 64/00, H04W 76/50, H04W 80/00, H04W 84/12, H04W 88/16
IPC classification: H04Q 7/20

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

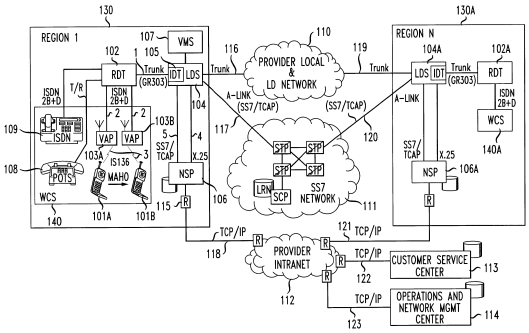
A personal wireless gateway (PWG) comprises a host controller that bridges telecommunications devices using different transmission media allowing a telecommunications device designed for a particular media to be used to communicate over any other available media. Corded and cordless plain old telephones (POTS) may initiate and receive telephone calls over the public switched network (PSTN) or may be bridged to a mobile telephone to initiate and receive telephone calls via the mobile telephone network. A telephone configured for voice over IP (VoIP) may initiate and receive telephone calls via a broadband connection, the PTSN, or a mobile telephone network. A broadband connection may also be used to support high-speed data exchange between the Internet and one or more computer (e.g., laptop, general purpose computer, personal data assistant) via a wireless LAN or via a mobile telephone connected to a wireless data network The PWG is adapted to provide the location of the PWG to an emergency assistance service when an emergency assistance number is called from any device during predefined intervals and/or if the caller is unable to speak. Additionally, the PWG provides devices without fixed locations the attribute of a known location. The location information may be stored expressly by the user or gleaned from the user profile information. By way of illustration and not as a limitation, the emergency assistance service may be a “911” operator.

First claim

A personal wireless gateway comprising:
a host controller subsystem adapted to communicate with communications subsystems and a management subsystem;
a communications subsystem adapted to interface with a wireline communications device;
a communications subsystem adapted to interface with a mobile communications device, wherein the host controller is adapted to bridge communications between the wireline communications device and the mobile communications device under control of the management subsystem;
wherein said management subsystem is further adapted to
determine mobile telephone network signal and battery strength of the mobile communications device,
if the signal or battery strength is below a first threshold value, then:
direct outbound calls to an alternative communications device;
forward calls to the mobile communications device to the alternative communication device;
monitor the incoming signal strength; and
if the incoming signal strength is above a second threshold, then permit inbound calls to, and out-bound calls from, the mobile communications device.

72. Wireless centrex call transfer

US6771953B1 | AT&T Corp



Bibliographic data

Publication date: 2004-08-03
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A method for transferring a telephone call with a mobile station in a wireless centrex system, comprising the steps of:
establishing an active call between another communication device and said mobile station;
requesting, using an input on said mobile station, an intelligent transceiver of said wireless centrex system to transfer said active call, said mobile station being registered with said intelligent radio transceiver of said wireless centrex system, said intelligent transceiver being further in communication with a local digital switch via a wireline interface without being connected to any public cellular system and said local digital switch being further in communication with a network server platform;
forwarding said call transfer request from said intelligent transceiver to said network server platform using a feature request message.

73. System for Optimizing Cellular Telephone Call Placement With Minimal User Overhead

US20080261603A1 | MobileMax Inc

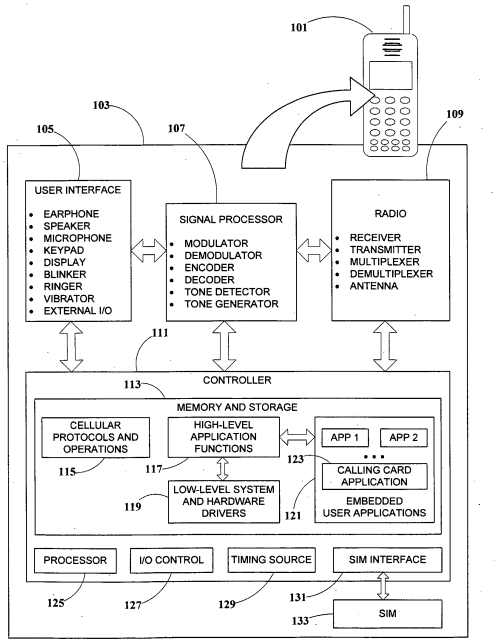
Bibliographic data

Publication date: 2008-10-23
Application date: 2005-06-02
Earliest priority date: 2004-06-02

Inventors: SEVER GIL, AMIT NOACH

CPC classification: H04M 1/27485
IPC classification: H04Q 7/22, H04Q 7/38, H04M 1/725, H04M 1/2745

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A method and system for automatically placing calls made from a mobile telephone in an economical manner via calling card and call-back programs, with minimal user overhead. The system may be installed on an existing telephone by the user. To operate, the user initiates the placement of a call in the regular manner, as if the call were placed directly, and the system automatically places the call in the most economical way, such as via calling card or call-back program. The user can employ any dialing conveniences offered by the mobile telephone, including “speed dialing”, “phone book” dialing, or recent call dialing. All interaction with the calling card/call-back server is handled automatically; the user need not be aware that the call is being placed via a calling card or call-back program. Additional automatic features include automatic calling card recharging and selection of SIM for telephones supporting multiple SIM's.

First claim

A method for placing an outgoing call from a mobile telephone to a destination having a destination telephone number entered on the mobile telephone by a user, the method comprising:
detecting a user attempt to place an outgoing call;
for an attempted outgoing call placement by a user, obtaining the destination telephone number dialed by the user;
determining whether the destination telephone number corresponds to a local outgoing call versus a long-distance outgoing call;
if the destination telephone number corresponds to a local outgoing call, returning to said detecting a user attempt;
if the destination telephone number corresponds to a long-distance outgoing call, aborting the user's attempted outgoing call placement;
determining an alternate routing for the outgoing call;
accessing a service providing said alternate routing;
sending the destination telephone number entered by the user;
completing the placement of the outgoing call via said alternate routing.

74. Mobile and packet-based call control

US20070070976A1 | Bridgeport Networks Inc

Bibliographic data

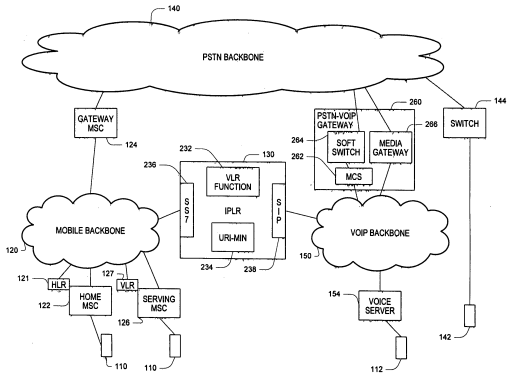
Publication date: 2007-03-29
Application date: 2006-07-25
Earliest priority date: 2005-07-25

Inventors: MUSSMAN HARRY E, HAN WEN K, WILHOITE MICHAEL T, GOODMAN LEE, JOYNER TOM, JHAWAR SANJAY S, BLUMENTHAL STEVEN H

CPC classification: H04L 2012/6443, H04L 61/106, H04L 65/103, H04L 65/104, H04M 2203/1091, H04M 3/4234, H04M 7/006, H04M 7/1235, H04W 4/16, H04W 76/10, H04W 84/04, H04W 92/02

IPC classification: H04L 12/28

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A telecommunication approach provides telephone service to subscribers on terminals registered on a mobile network that are consistent with the services provided to those subscribers at terminals on a fixed communication network. For instance, the subscriber on the terminals on the mobile network may have access to mid-call features and private dialing plans that are supported using elements on the fixed network, and calls placed to the subscribers at addresses (e.g., wireline numbers or SIP addresses) on the fixed network may be delivered to their terminals on the mobile network.

First claim

A method for providing telecommunication services comprising:
accepting at a first element a signal indicative of a call to a subscriber at an address on a fixed network;
extending the call to a second terminal registered on a mobile telephone network via a packet-based data network, including receiving a signal indicative of the call at a second element coupled to the mobile telephone network and to the packet-based data network, and routing the call to the terminal based on routing information available to the second element.

75. Method and gateway for controlling call routing

US7647052B2 | Motorola Inc

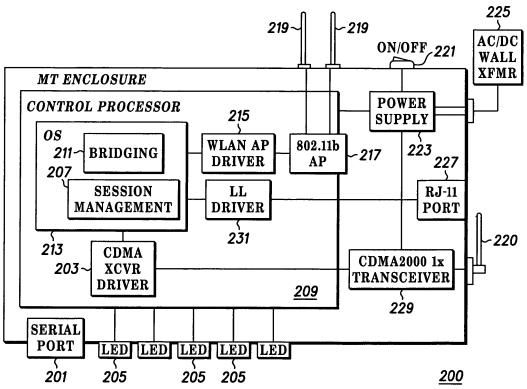
Bibliographic data

Publication date: 2010-01-12
Application date: 2005-09-16
Earliest priority date: 2003-11-13

Inventors: TELL DANIEL F, MALCOLM RICHARD J

CPC classification: H04W 4/16, H04W 88/16, H04W 92/02
IPC classification: H04L 12/66, H04W 40/00, H04W 88/16, H04M 7/00, H04W 4/16, H04W 92/02, H04L 12/64

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A gateway (111, 200) and method for routing calls for a wireless communication unit (113) via a selected network (105, 124, 131) comprises an access point (217) supporting a wireless LAN and a modem (203, 229) for wireless connections to a wireless WAN and an interface 227 with a wired local loop (105). The methodology involves using a first network, such as a local loop if available and a second network, such as a packet data WAN 131 otherwise as well as maintaining the busy status of the first network via the second network.

First claim

A method of selecting a network for initiating a call, the method comprising:
receiving at a gateway a call request from a wireless communications unit via a WLAN session;
checking at the gateway the status of a first network connected to the gateway and;
when the first network is available initiating by the gateway, via the first network, a first network call request corresponding to the call request and sending by the gateway a message via a second network connected to gateway indicating that the first network is no longer available and wherein initiating a first network call request comprises receiving one of a call ringing, a call answer and a busy signal and sending a message indicating that the first network is idle when a call corresponding to the first network call request has been completed;
when the first network is not available, initiating by the gateway, via the second network, a second network call request corresponding to the call request.

76. APPARATUS FOR REROUTING CALLS PLACED ON A MOBILE TELEPHONE

WO2001049060A1 | KREATEL COMM AB, CARLSSON NICLAS, LOEWENBRAND DAVID

Bibliographic data

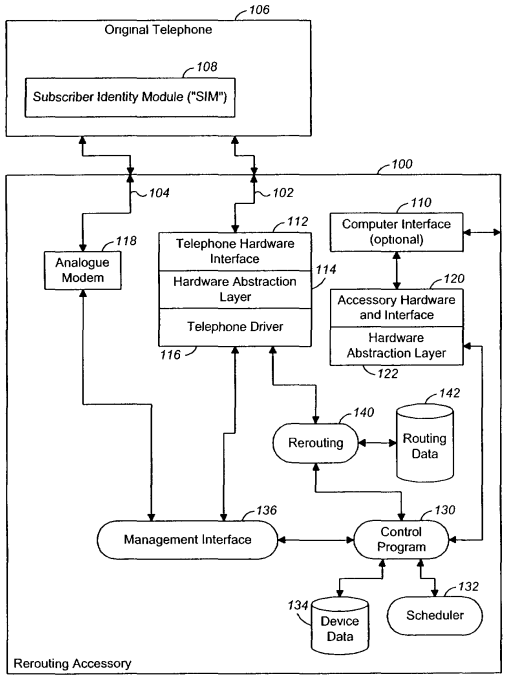
Publication date: 2001-07-05
Application date: 2000-12-27
Earliest priority date: 1999-12-28

Inventors: CARLSSON NICLAS, LOEWENBRAND DAVID

CPC classification: H04M 1/006, H04M 1/72519, H04M 15/30, H04M 15/49, H04M 15/745, H04M 15/8044, H04M 15/83, H04M 2207/18, H04M 2215/0108, H04M 2215/32, H04M 2215/42, H04M 2215/46, H04M 2215/745, H04M 2215/82, H04M 2215/92, H04M 2242/22, H04M 3/42059, H04M 3/48, H04Q 3/72, H04W 4/16, H04W 4/24, H04W 88/06

IPC classification: H04M 1/00, H04W 88/06, H04M 15/00, H04W 4/24, H04W 4/16, H04M 1/725, H04M 3/48, H04Q 3/72

External links: Google Patents, Espacenet, EP Register, Patentscope, PatBase Express, PatBase, Orbit



Abstract

Methods and apparatus for providing telecommunications services to a subscriber having a mobile telephone. In one aspect, the invention features an add-on accessory configured to connect physically or by wireless connection to the mobile telephone and to communicate with, and control operation of, the mobile telephone through an external interface. In another aspect, the invention features programming for the mobile telephone that includes routing data and rerouting instructions, the programming being operable to change the operational behaviour of the mobile telephone in placing a telephone call requested by a user of the mobile telephone, the programming being further operable to cause a telephone call requested by the subscriber to be rerouted to a subscriber-requested destination through a server connected to a public switched telephone network.

First claim

An apparatus for providing telecommunications services to a subscriber having a mobile telephone, comprising: programming for the mobile telephone stored on a tangible medium of expression as digital electronic information comprising routing data and rerouting instructions, the programming being operable to change the operational behaviour of the mobile telephone in placing a telephone call requested by the subscriber, the programming being further operable to cause a telephone call requested by the subscriber to be rerouted to a subscriber-requested destination through a server connected to a public switched telephone network and wherein the programming is embodied in an add-on accessory.

77. Method and Device for Communications While Using a Single Telephone Device

US20090270082A1 | MOTTES DORRON

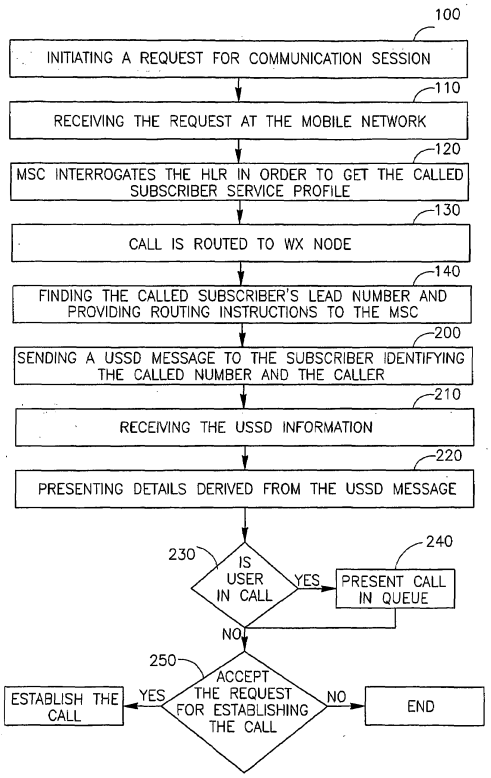
Bibliographic data

Publication date: 2009-10-29
Application date: 2005-12-27
Earliest priority date: 2005-01-04

Inventors: MOTTES DORRON

CPC classification: H04M 2203/2011, H04M 2203/2077, H04M 3/42229, H04M 3/428, H04M 3/436, H04M 3/46, H04M 3/53308, H04M 3/54, H04W 4/16, H04W 8/04, H04W 8/18
IPC classification: H04M 3/42, H04W 4/16, H04W 8/18, H04W 8/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

For use in a cellular network, a method and device are provided for establishing communication sessions with a user of a single telephone device, wherein the requests to establish the communication sessions are destined to more than one different communication address. Also, there is provided a method for managing a plurality of requests to establish communication sessions with a user of a single desktop telephone device having a single subscriber address identification defined in the cellular network, and wherein the plurality of requests are received while another communication session is active with that user. Also, there is provided a method for establishing communication sessions with a user of such a single desktop telephone device, wherein at least two of the requests for establishing these communication sessions with the user specify each a different communication address.

First claim

A method for establishing communication sessions with a user of a single telephone device, wherein requests to establish said communication sessions are destined to at least two different communication addresses.

78. Efficient communication through networks

US7724879B2 | ANIP Inc

Bibliographic data

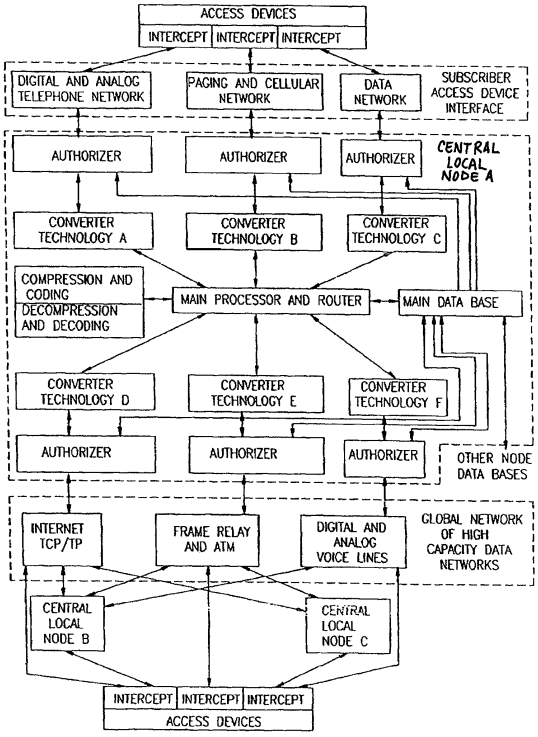
Publication date: 2010-05-25
Application date: 2007-08-24
Earliest priority date: 1994-10-11

Inventors: MASHINSKY ALEXANDER

CPC classification: G06Q 20/367, H04L 45/00, H04M 15/46, H04M 15/8044, H04M 2215/42, H04M 2215/56, H04M 2215/745, H04M 3/42195, H04M 7/006, H04Q 2213/1307, H04Q 2213/13095, H04Q 2213/13098, H04Q 2213/13103, H04Q 2213/13138, H04Q 2213/13152, H04Q 2213/13166, H04Q 2213/13173, H04Q 2213/13204, H04Q 2213/1329, H04Q 2213/13389, H04Q 3/0016

IPC classification: H04M 3/42, H04M 15/00, H04M 7/00, H04Q 3/00, H04M 11/06, H04L 12/701

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A method and device that interrogates the availability of a called party before placing a communication from the calling party to the called party. A callback may be initiated so that both communications are completed simultaneously. The routing of communication may take place through any one of a number of different networks and at another time of the day, even if the caller does not otherwise have access to those networks.

First claim

A method for communication between two access devices via one or more networks, comprising the steps:
receiving a transmission in a first format through a first communication network from a first access device, the first format comprising a telecommunication protocol for establishing and transmitting voice communication for a phone call in one of a digital telephone network, an analog telephone network, and a cellular network;
performing a first conversion converting the transmission from the first format to a second format, the second format being an internet protocol;
sending the converted transmission through a second communication network, the second communication network being a data network, for reception by a second access device;
performing a second conversion further converting the converted transmission from the second format to a further format suitable for the second access device, wherein the first access device and the second access device comprise telecommunication nodes, and said further format comprises said first format or another telecommunication protocol.

79. Call handling on dual-mode wireless handsets

US10117134B2 | Qwest Communications International Inc

Bibliographic data

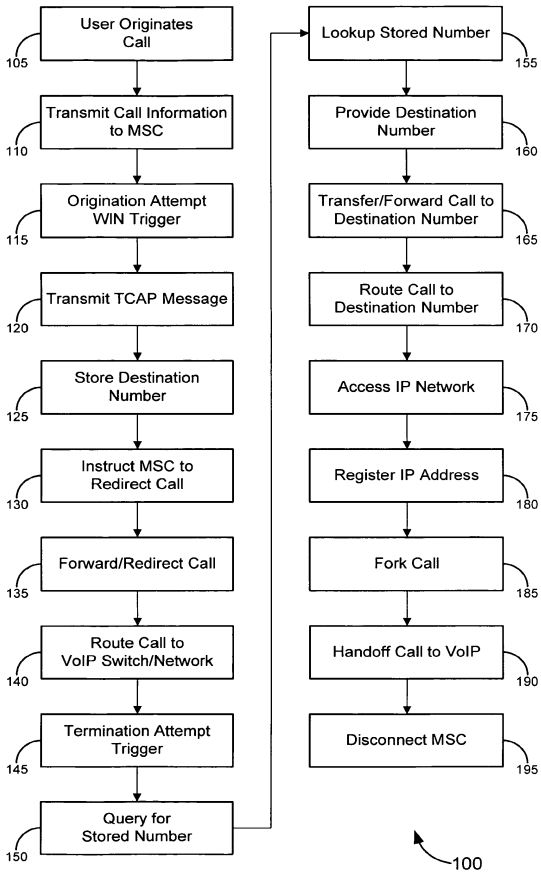
Publication date: 2018-10-30
Application date: 2014-07-25
Earliest priority date: 2005-04-06

Inventors: LABAUVE LANCE, COOK CHARLES I, STEVENS GILMAN R

CPC classification: H04L 29/06027, H04L 29/1216, H04L 61/157, H04L 65/1069, H04L 65/80, H04M 1/2535, H04M 2250/02, H04M 2250/06, H04W 36/0022, H04W 80/04, H04W 84/042, H04W 88/06, H04W 88/14, H04W 92/02

IPC classification: H04W 36/00, H04W 88/06, H04L 29/06, H04M 1/253, H04W 92/02, H04L 29/12, H04W 80/04, H04W 84/04, H04W 88/14

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

Embodiments of the invention provide novel solutions, including systems, methods and/or software, for handling calls in a dual-mode VoIP/cellular environment. Merely by way of example, some systems can be configured to determine whether to use a VoIP system or a cellular system to handle a particular call, and/or to transition a call from one network to the other network. Other systems can be configured to substitute a public number (which might be, for example, a VoIP number) for a private number (which might be, for example, a cellular number) when routing a call originating from a dual-mode phone on a cellular network. Further systems can be configured to allow a VoIP system to serve as an anchor for calls originated and/or delivered on a cellular system, for instance to facilitate a transition between cellular and VoIP service during a call.

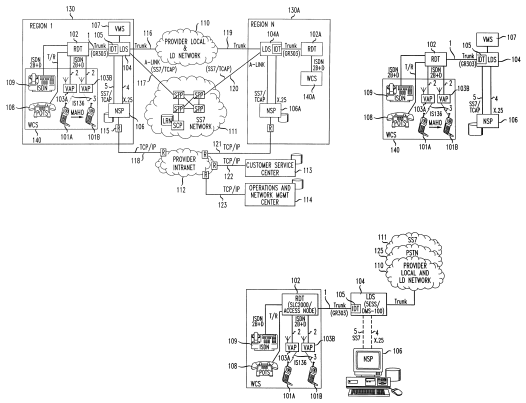
First claim

A telecommunication system for handling a call placed by a dual-model phone capable of operating in a cellular mode and in a Voice over Internet Protocol (“VoIP”) mode, the system comprising:
a mobile switching center (“MSC”) in a cellular system configured to:
receive an outgoing call from the dual-mode phone to a destination telephone separate from the dual-mode phone, the outgoing call comprising call information originating from the dual-mode phone operating in the cellular mode in the cellular system, wherein the call information comprises a destination telephone number associated with the destination telephone that identifies a destination for the call and information identifying the dual-mode phone, wherein the destination telephone number is different from a telephone number of the dual-mode phone, and wherein the dual-mode phone is simultaneously registered with the cellular system and the VoIP system;
obtain information for transferring the call to a VoIP system from the cellular system;
transmit the destination telephone number to the VoIP system, wherein the destination telephone number is transferred to the VoIP system via at least one of in-band signaling or out-of-band signaling; and
transfer the call to the VoIP system from the cellular system while the dual-mode phone is operating in the cellular mode, such that the VoIP system can route the call to the destination telephone number received from the MSC while the dual-mode phone is operating in the cellular mode and can thereafter transition the call away from the cellular

system when the dual-mode phone begins operating in the VoIP mode.

80. Wireless centrex call hold

US6591115B1 | AT&T Corp



Bibliographic data

Publication date: 2003-07-08
Application date: 1999-12-13
Earliest priority date: 1998-12-31

Inventors: CHOW ALBERT, KIM JINMAN, RUSSELL JESSE EUGENE, WANG SPENCER, YING WENCHU

CPC classification: H04W 4/00, H04W 76/15, H04W 84/04
IPC classification: H04W 4/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

The instant invention discloses a method and system for providing a novel wireless centrex service that untethers subscribers from the immobility associated with traditional desktop telephones. Essentially, the present invention extends the benefits of wireless voice and data services to subscribers having a need to move within a plurality of localities such as business and hospital campuses.

First claim

A system for handling a telephone call to a mobile station in a wireless centrex system including an intelligent radio transceiver, comprising:
a local digital switch, responsive to an incoming call, creating a voice path between an origin of the incoming call and the local digital switch via a line side interface, said intelligent radio transceiver in communication with said local digital switch without being connected to any public cellular system;
a network server platform coupled to said local digital switch determining where the mobile station called is registered and how to route the incoming call to said mobile station and sending a page message to the mobile station to activate an indicator that indicates the existence of said incoming call; and
an intelligent radio transceiver receiving a call hold request from said mobile station and placing said call on hold and notifying said network server platform that said call has been placed on hold.

81. Informing caller of callee activity mode

US7542558B2 | Avaya Inc

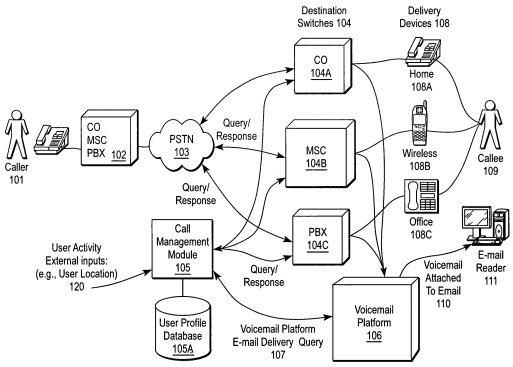
Bibliographic data

Publication date: 2009-06-02
Application date: 2005-02-16
Earliest priority date: 2004-02-20

Inventors: KLEIN MARK D, MANZO MICHAEL SCOTT, MAHMOOD TAMARA HILLS, MAURER ANDREW M, KOLBLY MICHAEL J, STELTER RONALD D, BRACKBILL DOUGLAS L

CPC classification: H04M 2201/38, H04M 2203/2072, H04M 3/42374
IPC classification: H04M 3/42

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A system and method provide callee activity mode information to a caller (including a potential caller). Thus the caller can find out the current callee activity mode, and the callee's availability to receive telephone calls. Callees can configure the system and method to provide different types of information depending on various factors including caller identity. The invention provides functionality for displaying callee activity mode information after a call is attempted, or before it is attempted, or both.

First claim

A computer-implemented method of providing a first user activity mode to a remotely located second user, comprising:
transmitting the first user activity mode to a device controlled by the second user prior to an initiation of a call to the first user;
outputting, at a device controlled by the second user, a representation of the first user activity mode;
wherein the first and second users are not associated with a common private branch exchange.

82. System for facilitating parallel data transfer from a wireless caller into a communications center

US8010092B2 | Genesys Telecommunications Laboratories Inc

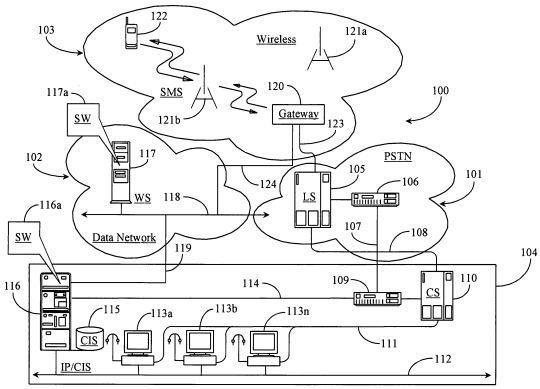
Bibliographic data

Publication date: 2011-08-30
Application date: 2004-06-23
Earliest priority date: 2004-06-23

Inventors: PERLMUTTER MICHAEL, KIKINIS DAN

CPC classification: H04M 3/51, H04M 7/0048, H04W 4/12, H04W 88/184
IPC classification: H04M 3/42, H04W 4/12, H04M 7/00, H04W 88/18, H04M 3/51

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A system for identifying and interacting with callers has: a telephone switch for receiving and distributing incoming calls; a messaging server for sending or receiving messages and attachments; and, a software routine for identifying wireless callers and for matching them to messages in the messaging server. The system is characterized in that upon receiving a call the system attempts to identify the call to a caller and of the caller is not already known in the system or identified an automated message is generated and sent to the caller asking for the desired information. In one embodiment the caller sends a message when the call is placed to optimize identification.

First claim

A system for managing a cellular telephone call, comprising:
a server receiving the cellular telephone call in a voice-carrying protocol over a first data path from a caller using a cellular telephony appliance; and
software executing on the server processing and routing the call;
wherein the server, routing the call, sends the voice-carrying protocol data of the call and one or more text message protocol messages to the routing destination in a second data path, the text message identifying the caller and sending information about one or both of the call or the caller; and in an instance there is no identification for the caller received with the call at the server, sends a text message protocol message to the cellular telephony appliance in the first data path requesting identification data and includes any received identification data with the voice-carrying protocol data on the second data path.

83. Enhanced call return in a wireless telephone network

US6496691B1 | BellSouth Intellectual Property Corp

Bibliographic data

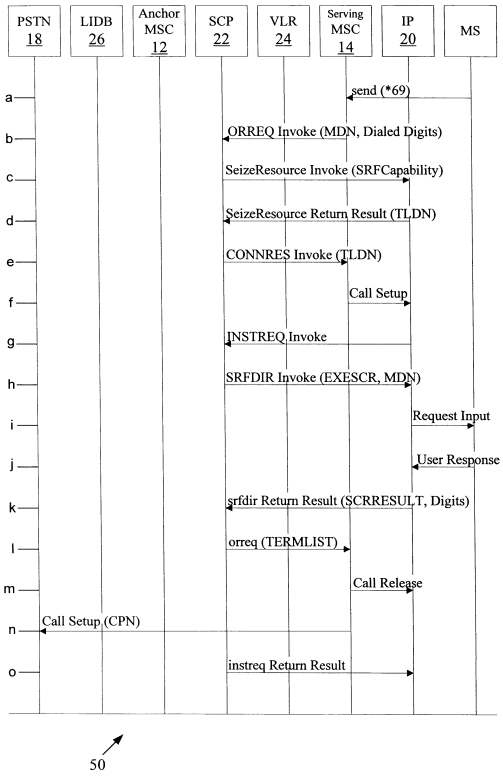
Publication date: 2002-12-17
Application date: 1999-12-23
Earliest priority date: 1999-12-23

Inventors: EASLEY LARRY SCOTT, CARDINA DONALD M

CPC classification: H04M 2207/12, H04M 2207/18, H04M 2242/22, H04M 3/42042, H04M 3/42093, H04M 3/42195, H04W 4/16, H04W 4/20, H04W 8/183

IPC classification: H04M 3/42, H04W 4/20, H04W 8/18

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A method for enabling enhanced call return in a wireless network comprising receiving an incoming telephone call from a caller, wherein the incoming telephone call identifies a mobile subscriber (MS) as a callee thereof; capturing caller-specific information for the caller, wherein the caller-specific information includes at least one of the name of the caller and the telephone number of the caller; and storing the caller-specific information into an intelligent peripheral (IP) within the wireless network. The method further comprises allowing the MS to access the caller-specific information stored in the IP. The present invention thus allows the mobile subscriber (MS) to subscribe to an enhanced call return (ECR) feature as part of the mobile telephone service plan. The ECR feature allows the mobile subscriber to access caller-specific information for a predetermined number of past callers and also to return calls from those past callers. The caller-specific information may include caller's name, caller's telephone number and the date/time the call was received from the caller.

First claim

A method for enabling enhanced call return in a wireless network, the method comprising:
receiving an incoming telephone call at an anchor mobile switching center (MSC) within the wireless network from a caller, wherein the incoming telephone call identifies a mobile subscriber (MS) as a callee thereof;
capturing caller-specific information for the caller, wherein the caller-specific information includes at least one of the name of the caller and the telephone number of the caller, and wherein capturing the caller-specific information includes storing the caller-specific information into an LIDB (line information database) within the wireless network upon origination of the incoming telephone call;
configuring an intelligent peripheral (IP) within the wireless network to maintain a storage for the caller-specific information for each of a predetermined number of past callers placing calls to the mobile subscriber;
storing the caller-specific information into the IP, wherein storing the caller-specific information into the IP includes:
informing a home location register (HLR) for the mobile subscriber of receipt of the incoming telephone call;
the HLR retrieving the caller-specific information from the LIDB after being informed of the receipt of the incoming telephone call;
transferring the caller-specific information to the IP via a first message from the HLR to the IP, wherein the first message from the HLR to the IP is a service request (SERVREQ) invoke message.

84. Wireless device to manage cross-network telecommunication services

US7298833B2 | Avaya Integrated Cabinet Solutions Inc

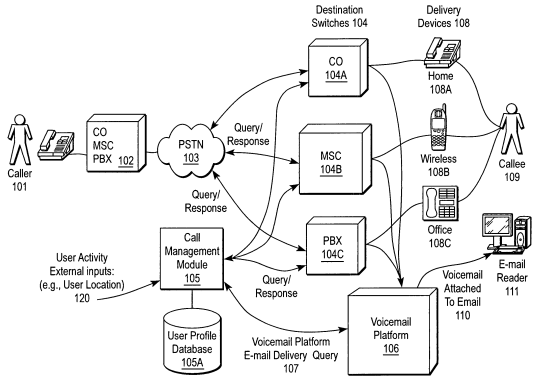
Bibliographic data

Publication date: 2007-11-20
Application date: 2005-09-28
Earliest priority date: 2004-09-29

Inventors: KLEIN MARK D, MANZO MICHAEL SCOTT, MAHMOOD TAMARA HILLS, KOLBLY MICHAEL J, STELTER RONALD D, BRACKBILL DOUGLAS L

CPC classification: H04L 12/66, H04M 2201/60, H04M 2203/4536, H04M 3/42153, H04M 3/42263, H04M 3/436, H04M 3/533, H04M 3/54
IPC classification: H04M 3/42

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A communication remote control system allows a user to remotely configure call management functions across various phone networks using a client device. The communication remote control system centrally handles call management for the user's telephones. The communication remote control system may provide a centralized address book, call log, and voicemail. The user can specify various parameters including modes, filters, schedules, and the like, which are stored in the communication remote control system. The communication remote control system routes incoming calls made to the phone networks to the user's delivery device, which may be part of the client device. Incoming calls are routed to a specified telephone number, sent to voicemail, or otherwise disposed of or users can change modes manually or can specify automatic mode selection based on time of date, day of week, location, and/or other factors.

First claim

A computer-implemented method for handling incoming communications to a user, comprising:
for at least one user activity mode:
determining at least one communication management directive to be associated with the user activity mode for each of a plurality of communication networks;
storing in a database separate from the plurality of communication networks, the association between the communication management directive and the user activity mode;
responsive to a communication being initiated to one of a plurality of user addresses associated with the user and with one of the plurality of communication networks:
determining a current activity mode for the user;
retrieving the stored association for the current user activity mode;
responsive to the retrieved association and responsive to a determination as to which user address was used in initiating the communication, determining which communication management directive applies to the initiated communication;
providing the applicable communication management directive to said one of the plurality of communication networks.

85. Virtual phone service over wireless systems

US20060003770A1 | PARK SEYONG

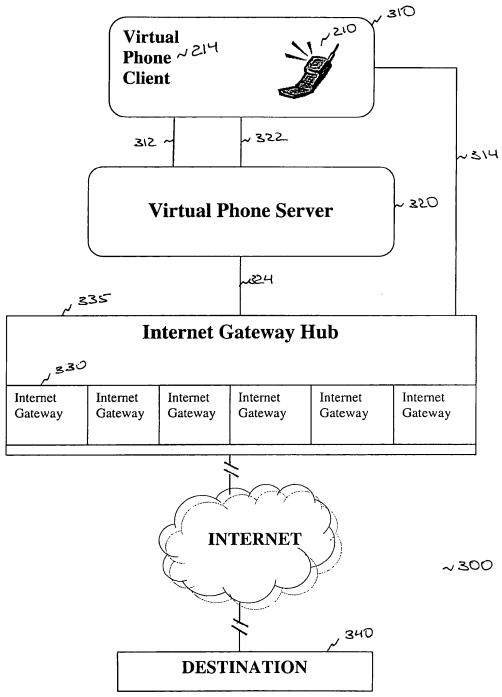
Bibliographic data

Publication date: 2006-01-05
Application date: 2004-06-14
Earliest priority date: 2004-06-14

Inventors: PARK SEYONG

CPC classification: H04L 65/103, H04L 65/1053, H04L 65/1069, H04W 88/16
IPC classification: H04W 88/16

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A system and method for routing telephone calls, data calls and other information to or from a wireless telephone using a low cost communications network (other than traditional telephone circuit switched network), where such network is at least part of a communications link through which a call is routed. An Internet gateway is situated proximate to the location of the wireless telephone and through which calls are cost-effectively routed. A virtual phone client (“VPC”) is implemented in the wireless telephone for communication with a virtual phone server (“VPS”), accessible via a wireless network. The VPC also communicates with an Internet gateway identified by the VPS. The communication in the origination or termination of a call between the VPC and VPS facilitates the routing of the call through the identified Internet gateway to effectuate the call with the wireless telephone at lower cost to the wireless telephone subscriber.

First claim

A method for routing telephone calls placed from a wireless telephone comprising the steps of:
receiving dialing codes received from a wireless telephone;
selecting an Internet gateway from a plurality of Internet gateways based on at least a portion of said received dialing codes;
transmitting instructions responsive to at least a portion of said received dialing codes to the selected Internet gateway;
routing the telephone call via the selected Internet gateway.

86. Advanced call screening appliance

US7054417B2 | Qwest Communications International Inc

Bibliographic data

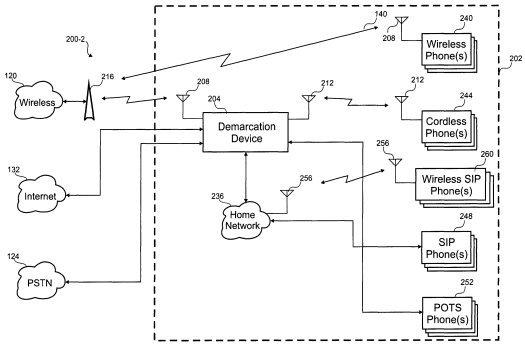
Publication date: 2006-05-30
Application date: 2003-08-19
Earliest priority date: 2003-08-19

Inventors: CASEY STEVEN M, PHILLIPS BRUCE A

CPC classification: H04L 2012/6443, H04L 2012/6481, H04M 2207/20, H04M 3/42059, H04M 3/436, H04M 3/493, H04M 3/527, H04M 3/546, H04Q 1/028, H04W 4/16, H04W 76/20, H04W 92/02, H04W 92/10

IPC classification: H04M 11/00, H04M 1/64, H04M 3/42, H04Q 1/02, H04M 3/493, H04M 3/54, H04W 4/16, H04W 92/02, H04M 3/527, H04L 12/64, H04W 76/04, H04W 92/10, H04M 3/436

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

According to the invention, a network interface device for processing a telephone call is disclosed. The network interface device includes a first and second communication interfaces, a telephone switch and a controller. The first communication interface is coupled to at least one of a wireless phone network, a public switched telephone network (PSTN), and a voice over Internet protocol (VOIP) network. The first communication interface receives the telephone call from any of a number of callers that are remote to the network interface device. The second communication interface coupled to one or more phones at a user location where the one or more phones are associated with a telephone number that any of the callers can use to call the one or more phones. The telephone switch is coupled to both of the first communication interface and second communication interface and optionally routes an incoming phone call to the second communication interface if one or more access control rules permit routing the incoming phone call to the second communication interface. The controller analyzes the one or more access control rules and either routes the incoming phone call from the first communication interface to the second communication interface or prevents the incoming phone call from reaching the second communication interface. The one or more phones ring when the incoming call is routed to the second communication interface.

First claim

A network interface device for processing a telephone call, the network interface device comprising:
a first communication interface coupled to at least one of a wireless phone network, a public switched telephone network (PSTN), a satellite phone network, and a voice over Internet protocol (VOIP) network, wherein the first communication interface receives the telephone call from any of a plurality of callers remote to the network interface device;
a second communication interface coupled to one or more phones at a user location, wherein :
the one or more phones are associated with a telephone number, and
the plurality of callers can call the one or more phones with the telephone number;
a telephone switch coupled to both of the first communication interface and second communication interface, wherein the telephone switch optionally routes an incoming phone call to the second communication interface if one or more access control rules permit routing the incoming phone call to the second communication interface; and
a controller that analyzes the one or more access control rules which comprise either 1) routing the incoming phone call from the first communication interface to the second communication interface, 2) routing the incoming phone call to a voice response system, or 3) preventing the incoming phone call from reaching the second communication interface, wherein the one or more phones ring when the incoming call is routed to the second communication interface,
wherein the controller routes the incoming phone call to a voice response system which queries a caller of the incoming phone call to record a greeting, and on a subsequent phone call from the caller routed to the second communication interface, a ring tone for the subsequent call comprises the greeting; and
wherein the second communication interface comprises both a PSTN interface and an IP network interface, and at least one phone coupled to the PSTN interface and at least one phone coupled to the IP network interface

simultaneously participate in the subsequent call.

87. IP-enhanced cellular services

US20070047707A1 | Net2phone Inc

Bibliographic data

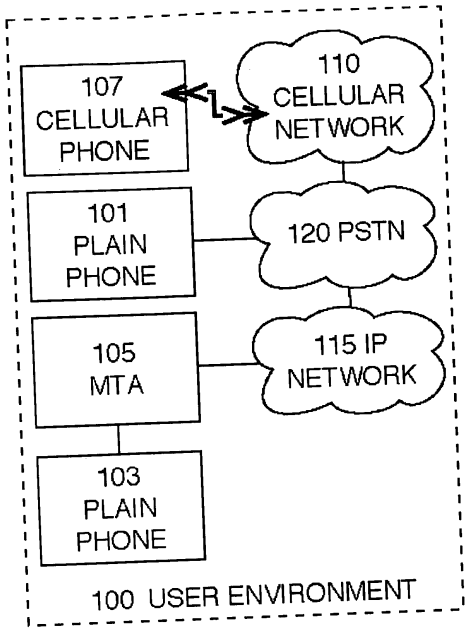
Publication date: 2007-03-01
Application date: 2005-08-26
Earliest priority date: 2005-08-26

Inventors: MAYER DANIEL J, STANIFORTH ALAN V

CPC classification: H04M 15/41, H04M 15/43, H04M 15/47, H04M 15/50, H04M 15/51, H04M 15/56, H04M 15/80, H04M 2215/0148, H04M 2215/0152, H04M 2215/0164, H04M 2215/202, H04M 2215/22, H04M 2215/32, H04M 2215/52, H04M 2215/54

IPC classification: H04M 15/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

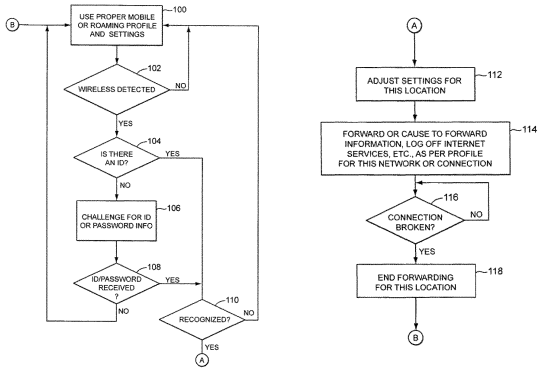
A federation of multinational PSTN, IP and cellular service providers coordinate their accounting by: populating a subscriber database of subscribers to one number services, a service providers database and a payments clearing database having amounts owed across the service providers based on the individual service provider's portion of pre-agreed payments for services; collecting accounting data from the service providers; updating the relevant databases with the data collected; and providing accounting data to the service providers and subscribers. Voice over IP service is applied to a cellular phone by selecting a compatible codec at peripheral gateways of IP network paths, thereby avoiding transcoding by a connecting multimedia terminal adapter. A portable module, multimedia terminal adapter cellular internet protocol gateway for media communications over an IP network (MTAC IPG) bridges a cellular network, an IP network and a PSTN so that a user may locally dial a cellular phone that is then used to enter the IP network and dial the called party. The MTAC IPG provides gateway functionality and packetizing.

First claim

A multimedia communications method employing a portable multimedia terminal adapter cellular internet protocol gateway (MTAC IPG), between a cellular network and an IP network, comprising:
registering the MTAC IPG with a SIP Proxy;
providing a signaling-and-media-operative connection for a cellular phone that is in separate communication with a cellular network;
in response to a user locally dialing a first dial string that is the number of the cellular phone, signaling the cellular phone to go off-hook;
authenticating the user as an authorized user and thereafter dialing out over the IP network using a second dial string through the cellular phone;
providing gateway functionality between the cellular phone connection and the IP network;
transmitting cellular phone media flows encoded by a cellular phone codec to the IP network;
packetizing/depacketizing and buffering the media flows as the media flows flow between the cellular and IP networks.

88. Realtime, location-based cell phone enhancements, uses, and applications

US9842442B2 | Resight LLC



Bibliographic data

Publication date: 2017-12-12
Application date: 2014-09-23
Earliest priority date: 2005-08-03

Inventors: KONICEK JEFFREY C, LISA STEVEN G

CPC classification: F24F 11/30, F24F 11/56, F24F 11/62, G07C 9/00182, G08B 13/00, H04L 12/2816, H04M 1/72513, H04M 1/72572, H04M 1/72577, H04M 2203/1016, H04M 2207/18, H04M 2242/14, H04M 2242/30, H04M 2250/10, H04M 3/53333, H04M 3/54, H04M 7/006, H04W 4/021, H04W 4/025, H04W 4/14, H04W 4/80, H04W 84/12, H05B 47/105, H05B 47/19

IPC classification: G07C 9/00, H05B 37/02, H04W 4/00, H04L 12/28, H04M 3/42, H04W 24/00, H04W 4/02, H04W 4/14, H04W 84/12, H04M 7/00, G08B 13/00, F24F 11/00, H04M 3/54, H04M 3/533, H04W 4/04, H04M 1/725

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

Enhancements of and to cell phone operations are based in whole or in part on determining the location of the cell phone. Systems and methods select and determine locations or areas of importance or relevance, and based on that information and other programmed factors affect or alter the operations of the cell phone. While the systems and methods are illustrated by use of cell phone embodiments and applications, they are equally applicable to virtually any portable or mobile communication device, including for example, wireless laptop computers and PDAs.

First claim

A method of responding to a receiving cellular device's receipt of a first message from a sending cellular device, comprising:
the receiving cellular device receiving the first message from the sending cellular device;
the receiving cellular device detecting, using its geographic location detection hardware, its geographic location coordinates;
in response to receiving the first message, without contemporaneous user input, the receiving cellular device sending a reply message that is caused to be delivered to the sending cellular device to indicate the receiving cellular device's receipt of the first message;
wherein the reply message:
includes information that indicates that the first message has been received by the receiving cellular device;
is sent by the receiving cellular device depending on whether the receiving cellular device is at a certain geographic location determined by the receiving cellular device using the geographic location coordinates detected by the receiving cellular device's geographic location detection hardware;
includes a common name corresponding to the geographic location coordinates, the common name determined by the receiving cellular device causing the geographic location coordinates to be translated to the common name;
in response to the reply message, the receiving cellular device receiving a second message from the sending cellular device including a hyperlink relating to the common name corresponding to the geographic location coordinates;
in response to a selection of the hyperlink, the receiving cellular device opening a browser to view information stored at the internet location corresponding to the hyperlink.

89. Call forwarding on screening

US8761745B2 | Verizon Patent and Licensing Inc

Bibliographic data

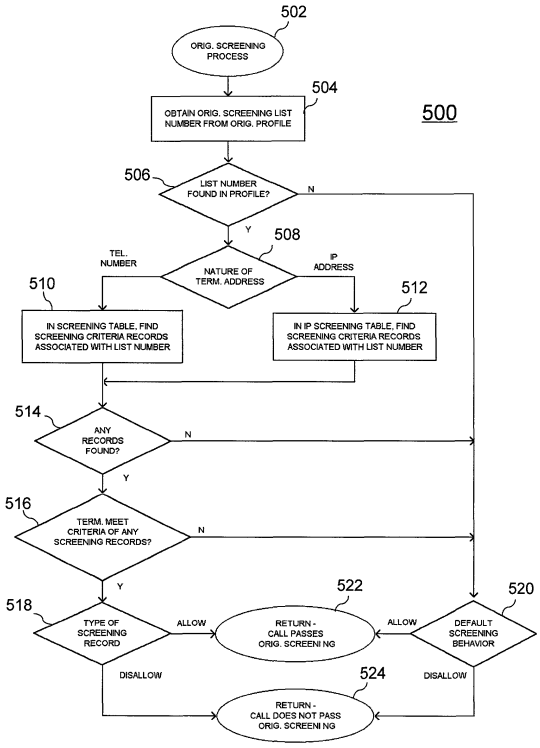
Publication date: 2014-06-24
Application date: 2002-03-18
Earliest priority date: 2001-03-20

Inventors: GALLANT JOHN K

CPC classification: G06Q 20/102, G06Q 30/04, G06Q 40/00, H04L 12/1403, H04L 12/1446, H04L 41/00, H04L 43/06, H04L 43/0817, H04L 43/16, H04L 47/125, H04L 47/19, H04L 47/2408, H04L 47/2433, H04L 47/2441, H04L 61/00, H04L 63/0272, H04L 63/102, H04L 63/1416, H04L 63/1458, H04L 65/103, H04L 65/104, H04L 65/1043, H04L 65/1069, H04L 65/1096, H04L 67/06, H04L 67/14, H04L 67/303, H04L 67/306, H04L 67/34, H04L 69/08, H04L 69/329, H04M 15/06, H04M 15/41, H04M 15/43, H04M 15/44, H04M 15/47, H04M 15/49, H04M 15/51, H04M 15/52, H04M 15/53, H04M 15/55, H04M 15/56, H04M 15/58, H04M 15/63, H04M 15/745, H04M 15/80, H04M 15/8207, H04M 15/8214, H04M 15/8292, H04M 2207/203, H04M 2215/0104, H04M 2215/0108, H04M 2215/0148, H04M 2215/0152, H04M 2215/0164, H04M 2215/0168, H04M 2215/0172, H04M 2215/0176, H04M 2215/0188, H04M 2215/2013, H04M 2215/202, H04M 2215/2046, H04M 2215/22, H04M 2215/44, H04M 2215/46, H04M 2215/54, H04M 2215/7813, H04M 2215/782, H04M 3/2218, H04M 3/42229, H04M 3/465, H04M 7/0075, H04M 7/0078, H04M 7/128, H04Q 3/0029, H04W 4/029, H04W 4/20

IPC classification: G06Q 40/00, G06F 15/16, H04L 12/24, H04L 12/56, H04L 12/26, H04L 12/66, H04L 29/08, H04M 3/42, H04M 15/00, H04M 3/00, G06F 15/173, H04L 29/06, H04M 3/22, H04M 15/06, H04M 7/00, H04Q 3/00, H04L 29/12, H04M 3/46, H04W 12/12, H04L 12/14, H04M 3/436, G06Q 30/04, G06Q 20/10

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

An approach for providing telephony and other services over a data network is disclosed. A user profile information is maintained for a party to control the screening of inbound communications requests intended for the party. Means are disclosed for redirecting an inbound call to a designated alternative location if it is determined that the inbound call meets at least one screening criterion. The user profile information controls screening criteria and disposition of calls that are intercepted by the screening process.

First claim

A method comprising:
receiving, by one or more devices, a request from a device of an originating party to establish communications with a device of a destination party,
the request including information identifying a type of session and a quality level for the session;
determining, by the one or more devices, whether the request is permissible based on applying at least one criterion to at least one aspect associated with the request,
the determining whether the request is permissible including:
determining whether a type of an address, with which the device of the originating party or the device of the destination party is associated, corresponds to a telephone number or an Internet Protocol (IP) address, and
performing a screening process on the request,
the performing the screening process including:
performing a first screening process on the request using a first screening data structure that includes one or more telephone numbers when the type of the address corresponds to the telephone number, or

performing a second screening process on the request using a second screening data structure that includes one or more IP addresses when the type of the address corresponds to the IP address;
determining, by the one or more devices, that the request is not permissible based on performing the screening process on the request;
accessing, by the one or more devices and based on determining that the request is not permissible, a user profile, associated with the device of the destination party, to determine whether the device of the destination party is associated with a forwarding-on-screening feature;
determining, by the one or more devices, that the forwarding-on-screening feature is associated with the device of the destination party;
obtaining, by the one or more devices and from the user profile, forwarding contact information, associated with the device of the destination party, based on determining that the forwarding-on-screening feature is associated with the device of the destination party,
the forwarding contact information including a telephone number or an IP address;
transmitting, by the one or more devices, a response to the request,
the response including the forwarding contact information, and
a plurality of addresses, associated with the destination party, being provided to the device of the origination party when the request is permissible.

90. A method for deciding the network over which a communication should be routed

EP1672899B1 | Swisscom AG

Bibliographic data

Publication date: 2010-09-29
Application date: 2004-12-16
Earliest priority date: 2004-12-16

Inventors: VAN KOMMER ROBERT

CPC classification: H04L 65/1069, H04L 69/329, H04M 7/0057, H04W 48/18, H04W 88/06
IPC classification: H04L 29/06, H04M 7/00

External links: Google Patents, Espacenet, EP Register, PatBase Express, PatBase, Orbit

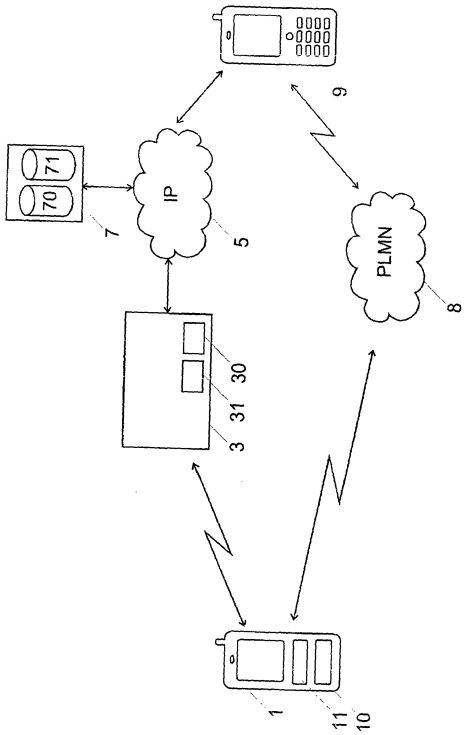


Fig. 1

Abstract

Telecommunication system comprising: at least one central directory (7) accessible over the Internet (5), said directory including a list of mobile stations(1, 9), a plurality of access points (3) connected to said central directory (7) over the Internet (5), said access pointsbeing accessible over a personal area network, a connection-based network (8), a plurality of mobile stations (1,2,9) comprising a first communication part for establishing voice and/or data communication over said connection-based network (8), and a second communication part for communicating with an accesspoint (3) in the vicinity over said personal area network, wherein the presence of at least some of said mobile stations (1, 9) in said personal area network are registered in said central directory (7), said central directory (7) comprising a set of mobile-station dependent criteria (70) accessible by said mobile stations (1, 2) and/or by said accesspoint (3) for deciding if a voice and/or data communication with a recipient (9) should be established over the Internet (5) or over said connection-based network (8).

First claim

A method for establishing a speech and/or data communication between a calling mobile station (1, 2) and a recipient (9), comprising the steps of:
providing in a central directory a plurality of criteria set or modified by said recipient over a web page,
connecting an access point (3) to the Internet (5),
establishing a direct local communication over a personal area network between said mobile station (1, 2) and said access point (3),
performing a verification in said central directory (7) in the Internet of the presence of said recipient (9),
retrieving in said central directory (9) said criteria depending on the recipient (9),
based on said verification and on said criteria, automatically deciding if a communication with said recipient (9) should be established over the Internet (5), using an address provided by said central directory (7), or over a connection-based network (8).

91. Methods and systems for automatic forwarding of communications to a preferred device

US8761363B2 | Telesctor Resource Group Inc

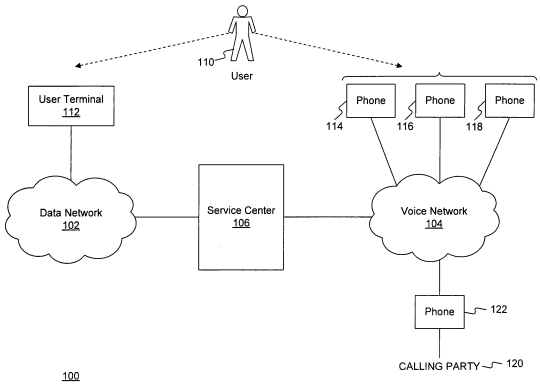
Bibliographic data

Publication date: 2014-06-24
Application date: 2003-11-24
Earliest priority date: 2001-02-27

Inventors: RAJAGOPALAN MAHESH, KUNUTURI NAGENDRA, REDING CRAIG L, SINGH JAGMIT, HELBLING CHRISTOPHER L

CPC classification: H04M 15/745, H04M 2201/60, H04M 2215/0108, H04M 3/4211, H04M 3/42153, H04M 3/42263, H04M 3/436
IPC classification: H04M 3/42, H04M 1/56

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

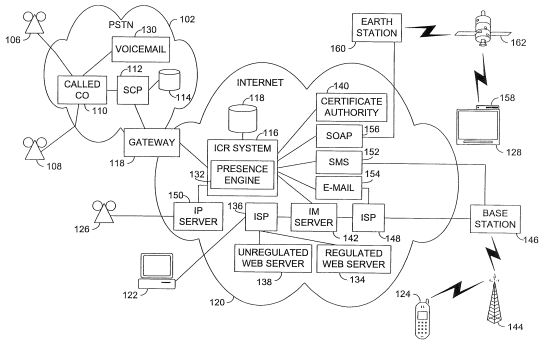
Methods and systems for routing a communication to a preferred device are disclosed. A service center consistent with the present invention is operable to receive information pertaining to a communication to a user from a calling party, and retrieve data corresponding to the user using the received information. The service center also determines a preferred device of the user based on the retrieved data, wherein the preferred device is one of a plurality of devices associated with the user. Thereafter, the service center ascertains whether the preferred device of the user requires a new mode of delivery, and routes the communication to the preferred device of the user based on the ascertaining.

First claim

A method for routing a communication to a preferred device, comprising:
receiving information pertaining to a communication from a calling party to a device associated with a user being contacted by the calling party;
retrieving data corresponding to the user being contacted by the calling party using the information pertaining to the communication;
retrieving data corresponding to the calling party;
determining a preferred device of the user being contacted by the calling party based on the retrieved data corresponding to the user;
determining a preferred device of the calling party from a plurality of devices associated with the calling party based on the retrieved data corresponding to the calling party;
determining whether the preferred device of the user being contacted by the calling party requires a different data format than the preferred device of the calling party;
automatically sending contact information identifying the preferred device of the calling party to the preferred device of the user being contacted by the calling party in the data format of the preferred device of the user in response to the determination that the preferred device of the user being contacted by the calling party requires a different data format than the preferred device of the calling party;
establishing a communication between the preferred device of the user being contacted by the calling party and the preferred device of the calling party in response to the determination that the preferred device of the user being contacted by the calling party does not require a different data format than the preferred device of the calling party;
when unable to establish the communication between the preferred device of the user being contacted by the calling party and the preferred device of the calling party, sending information indicating that the calling party should contact the preferred device of the user being contacted by the calling party to the preferred device of the calling party.

92. Intelligent interactive call handling

US8355731B2 | AT&T Intellectual Property I LP



Bibliographic data

Publication date: 2013-01-15
Application date: 2010-05-06
Earliest priority date: 2004-01-12

Inventors: KENT JR LARRY G, DANIELL W TODD, ARNOFF MARY S

CPC classification: H04M 2203/2011, H04M 3/51, H04M 3/5191, H04M 3/54, H04M 7/0033, H04Q 2213/13091, H04Q 2213/13345, H04Q 2213/13389, H04Q 3/0045, H04Q 3/72

IPC classification: H04Q 7/00, H04M 7/00, H04Q 3/00, H04M 3/54, H04Q 3/72, H04W 40/10

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

An intelligent interactive call handling system is provided that typically includes a central office, a call-handling device, and an internet call routing system. The central office typically triggers a query responsive to receiving a call request. The call-handling device is coupled to the central office, receives the query, and triggers an internet call routing query. The internet call routing system, which is coupled to the call-handling device, typically receives the internet call routing query, determines presence of the called party with respect to at least one registered communication device, sends a prompt to the called party at said at least one registered communication device responsive to the presence determination, receives a reply from said at least one registered communication device, and routes the call responsive to the reply. Methods and other systems are also provided.

First claim

An intelligent interactive call handling system, comprising:
a central office operable to trigger a query responsive to receiving a call request for a called party;
a call-handling device coupled to the central office, the call-handling device operable to receive the query, and trigger an internet call routing query; and
an internet call routing system coupled to the call-handling device, the internet call routing system being operable to receive the internet call routing query, determine presence of the called party with respect to a registered communication device, send a prompt to the called party at said registered communication device responsive to the presence determination, receive a reply from said registered communication device and forward the reply to the call-handling device;
wherein the call-handling device forwards the reply from the internet call routing system to the central office and the central office routes the call responsive to the reply.

93. Routing wireless communications

US20060234712A1 | MM INVENTIONS LLC

Bibliographic data

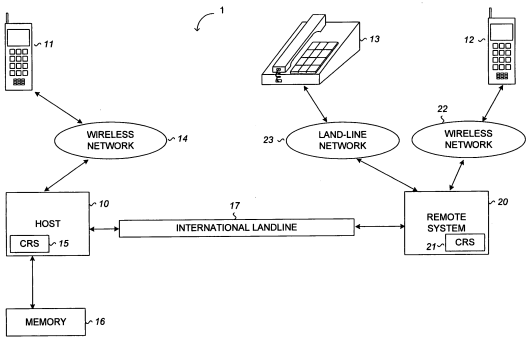
Publication date: 2006-10-19
Application date: 2005-04-13
Earliest priority date: 2005-04-13

Inventors: FALLIS KEVIN, O'BRYAN DAN, ZHANG LANG, BLACKBURN CHRIS

CPC classification: H04L 63/08, H04M 15/8044, H04M 2207/20, H04M 2215/42, H04M 2215/745, H04Q 2213/13098, H04Q 2213/13103, H04Q 2213/13138, H04Q 2213/13141, H04Q 2213/13383, H04Q 3/66, H04W 12/06, H04W 76/10, H04W 8/18, H04W 8/26

IPC classification: H04M 1/66, H04W 12/06, H04W 76/02, H04W 8/26, H04W 8/18

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A method for routing wireless communications by a host system comprises receiving from a wireless communication device(CD) of a wireless subscriber(WS) a valid routing request data; authenticating WS's account information as valid subscriber account based on predetermined authentication criteria, and if account information is valid, receiving from wireless CD a destination telephone number(DTN) of a destination CD, resolving the valid routing request data to a predetermined wire-based medium; and establishing communication between subscriber's CD and destination CD via predetermined wire-based medium based on DTN. Another method comprises receiving from a user's CD a valid routing request data and a DTN of a wireless CD of WS; authenticating WS's account as valid based on received DTN and predetermined authentication criteria; and if WS's account is valid, resolving valid routing request data to a predetermined wire-based medium; and establishing communication between user's CD and subscriber's CD via predetermined wire-based medium.

First claim

A method for routing wireless communications by a host system, the method comprising:
receiving from a wireless communication device of a wireless subscriber a valid routing request data;
authenticating a wireless subscriber's account information as a valid subscriber account based on predetermined authentication criteria, and if the account information is valid:
receiving from the wireless communication device a destination telephone number of a destination communication device;
resolving the valid routing request data to a predetermined wire-based medium;
establishing communication between the subscriber's wireless communication device and the destination communication device via the predetermined wire-based medium based on the destination telephone number.

94. Means for reducing call cost

GB2405057A | ELLIS CHRISTOPHER WILLIAM HEND

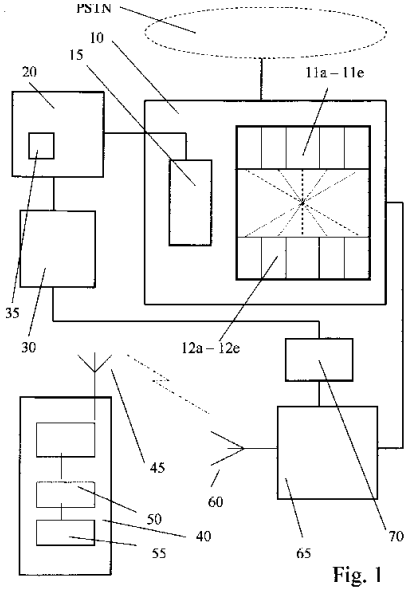


Fig. 1

Bibliographic data

Publication date: 2005-02-16
Application date: 2003-06-11
Earliest priority date: 2003-06-11

Inventors: ELLIS CHRISTOPHER WILLIAM HEND

CPC classification: H04W 48/18, H04W 76/20
IPC classification: H04W 48/18, H04W 76/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

Means are provided to allow mobile handsets to communicate with network control resources to mimimise the cost of calling mobile phones from fixed networks and also to minimise the cost of calls between different mobile networks. A call from a fixed to a mobile communication unit is directed by means of a mobile user identifier to a call node (10), an alert is sent to the mobile communication unit (40), and a connexion set up between the mobile communication unit and the call node using a selected one of a plurality of communication systems for delivery of the call.

First claim

Claims 1. A communications system comprising a call node hosting an
identifier for a user and arranged to associate the identifier with a communication unit for communicating with the user, the communication unit being able to communicate with the call node via any one of a plurality of telecommunications systems, wherein the call node is arranged to accept communications directed to the identifier of the user and to alert the communications unit of an accepted communication, the communications unit being operative to communicate details of the plurality of telecommunications systems to the call node so that it can form a connection via a suitable one of the telecommunications systems with the communications unit to link the accepted communication to the communications unit.

95. METHOD AND SYSTEM FOR SECURE REDIRECTION OF INCOMING AND OUTGOING MULTIMEDIA SESSIONS OVER A DATA NETWORK

WO2007010541A2 | BACKVON LTD, NISENBLAT POL, EFRATI OFIR

Bibliographic data

Publication date: 2007-01-25
Application date: 2006-07-20
Earliest priority date: 2005-07-20

Inventors: NISENBLAT POL, EFRATI OFIR

CPC classification: G06Q 10/107, H04L 12/5692, H04L 63/0428, H04L 63/0823, H04L 65/1069, H04L 65/80, H04M 2203/2061, H04M 2207/35, H04M 3/436, H04M 3/533, H04M 7/1205

IPC classification: H04J 4/00

External links: Google Patents, Espacenet, EP Register, Patentscope, PatBase Express, PatBase, Orbit

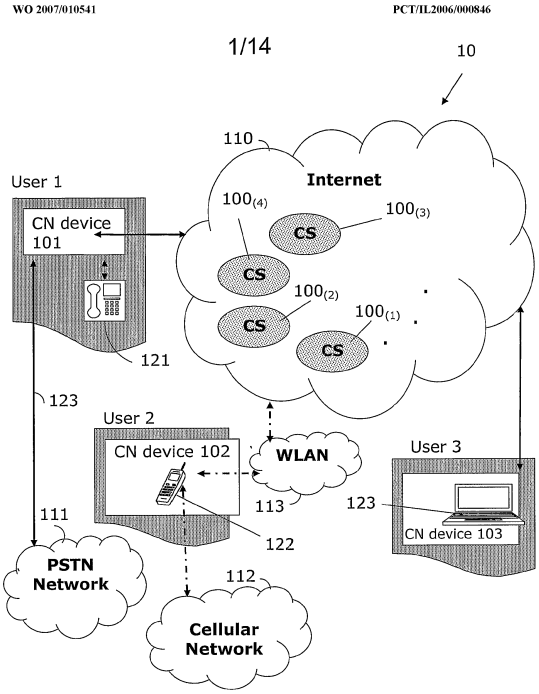


Fig. 1A

Abstract

The present invention presents a method and system for enabling users to communicate over telephony and WWW networks, comprising: (a) one or more community servers connected to the WWW network for receiving and redirecting calls from a caller to a called party, wherein at least the caller is a registered user; (b) a plurality of client node devices, each provided to one or more users for enabling said users to communicate with other registered or unregistered users through said one or more community servers, each client node device connected to its corresponding community server over said WWW network, wherein at least a portion of said client node devices are also connected to said telephony network; and (c) a plurality of users' phones, each comprising a corresponding client node device or connected to said corresponding client node device for communicating over the telephony and WWW networks. The present invention further relates to methods for: (a) determining a best available communicating route for transferring a call between a caller and a called party over a telephony and WWW networks; (b) providing a secure registration of users over telephony and WWW networks; (c) providing secure authentication of registered users over telephony and WWW networks; (d) sharing communication resources over telephony and WWW networks to provide the best available communication route; (e) providing a SPAM control over telephony and WWW networks; (f) providing a multilingual answering machine service over telephony and WWW networks; and (g) providing a secure eCommerce service over telephony and WWW networks.

First claim

A system for enabling users to communicate over telephony and WWW networks, comprising: a. one or more community servers connected to the WWW network for receiving and redirecting calls from a caller to a called party, wherein at least the caller is a registered user; b. a plurality of client node devices, each provided to one or more users for enabling said users to communicate with other registered or unregistered users through said one or more community servers, each client node device connected to its corresponding community server over said WWW network, wherein at least a portion of said client node devices are also connected to said telephony network; and c. a plurality of users' phones, each comprising a corresponding client node device or connected to said corresponding client node device for communicating over the telephony and WWW networks.

96. Systems and methods for automatic call forwarding in a wireless mobile station

US7116975B1 | Cingular Wireless II LLC

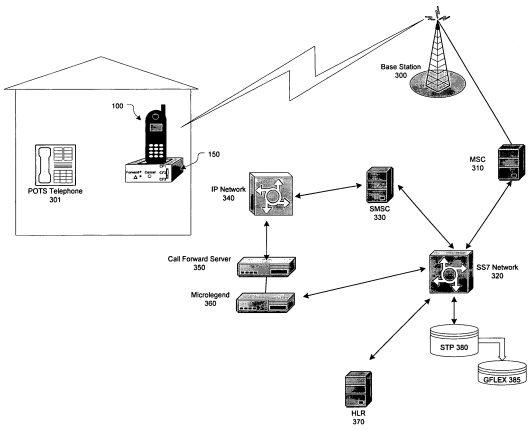
Bibliographic data

Publication date: 2006-10-03
Application date: 2004-01-21
Earliest priority date: 2003-01-21

Inventors: LINK II CHARLES MARTIN, CARDINA DONALD MICHAEL, BONNER THOMAS WAYNE

CPC classification: H04M 2203/1091, H04M 3/54, H04W 4/14, H04W 4/16
IPC classification: H04M 3/42

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

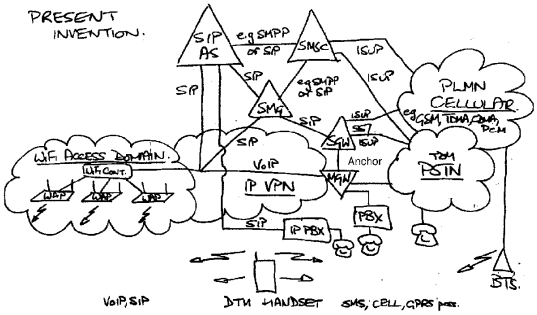
Apparatus, method and system for notifying a communications-switching center that subsequent communications directed to a wireless number associated with the wireless unit are to be routed to a destination number associated with the wireless unit. In response to a triggering event by the wireless unit through the base unit, the base unit causes the wireless unit to transmit an SMS message to the communications-switching center. The SMS message includes a notification that subsequent communications directed to the wireless number associated with the wireless unit are to be routed to the destination number associated with the wireless unit.

First claim

A method of forwarding a call directed to a wireless device operational on a wireless network to a destination number comprising:
detecting the presence of the wireless device by a base unit, the base unit including a destination number selection switch having at least two settings;
determining the destination number to which the call will be forwarded;
creating a data message comprising a call forward instruction;
causing a communication between the wireless device and the wireless network wherein the data message is communicated to the wireless network;
receiving the data message at an SMSC of the wireless network;
determining at the SMSC if the data message comprises a call forward request;
forwarding the data message to a call forward server if the data message comprises a call forward request,
the determining step being performed by the base unit scanning a memory location in the wireless device to retrieve the destination number based on the destination number selection switch setting.

97. Communicating call control and/or presence data using a radio access network messaging channel

GB2426410A | Nortel Networks Ltd



Bibliographic data

Publication date:	2006-11-22
Application date:	2005-06-03
Earliest priority date:	2005-05-17
Inventors:	BRUECKHEIMER SIMON DANIEL, DOMVILLE IAN
CPC classification:	H04L 65/103, H04L 65/104, H04M 2207/18, H04M 3/42365, H04M 3/42382, H04W 36/0011, H04W 36/14, H04W 4/14, H04W 4/20
IPC classification:	H04L 12/56, H04L 12/28, H04M 3/42, H04W 4/12, H04W 4/14, H04L 29/06, H04M 7/00, H04W 36/14
External links:	Google Patents, Espacenet, PatBase Express, PatBase, Orbit

Abstract

The invention makes use of the Short Message Service (SMS) or Unstructured Supplementary Services Data (USSD) capabilities present in today's cellular networks as a means of providing call control and presence signalling and, in particular, for providing the means of effecting hand-off at least from/to the cellular domain to/from the WiFi domain. SMS and USSD were originally designed as engineering channels, but SMS has become highly popular as a service in its own right. SMS and USSD are built into all existing cellular (GSM, CDMA etc.) network and predate the current GPRS overlay. In particular, SMS and USSD can be used while a call may be active in the cellular domain, and a handset may send and receive such messages, with an additional facility which may be used by the invention of receiving acknowledgements of successful receipt of an outgoing SMS by the messaged party - effectively a confirmation from the network. The present invention proposes to use SMS or USSD as a means of an adjunct call control and presence signalling in the cellular domain between a handset and the SIP domain.

First claim

Claims: 1. In a radio access network system, a method of call control
comprising the step of: using a radio access network messaging channel to communicate call control signalling data thereby to control a call.

98. System and method for electronic message notification

US8320528B2 | AT&T Intellectual Property I LP

Bibliographic data

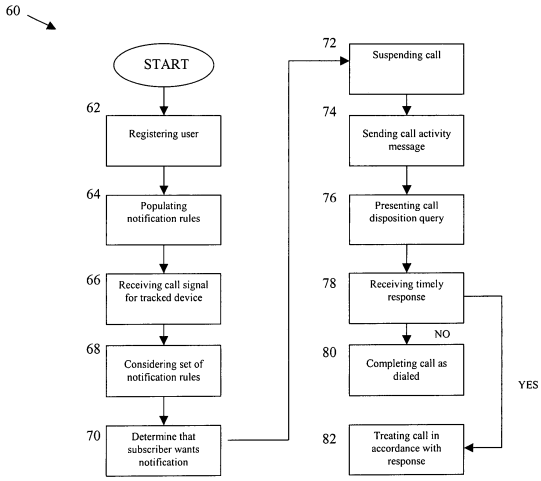
Publication date: 2012-11-27
Application date: 2005-04-27
Earliest priority date: 2004-06-14

Inventors: DIROO YOLIUS, WALTER EDWARD, MCLAUGHLIN PAUL R, WHITE RUSSELL W

CPC classification: H04M 2201/60, H04M 3/42042, H04M 3/42382, H04M 3/533, H04M 3/537, H04M 3/54

IPC classification: H04M 3/42, H04Q 7/20, H04M 7/00, H04M 1/24, H04M 3/54, H04M 3/537, H04M 3/533, H04H 60/04

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A system and method are disclosed for facilitating enhanced call awareness. A system incorporating teachings of the present disclosure may include an interface that receives a signal associated with a call to a telephone number. A call information engine may be coupled to the interface and may recognize that a party to the call subscribes to an enhanced call activity service. In some cases, the party may be a called party or a calling party, and the activity may include an incoming call to the telephone number, an outgoing call, a missed call, or a waiting voicemail message. A memory may maintain a data network address for the party, and a messaging engine may initiate sending of a message containing call information to the data network address. The message may be sent in response to a trigger signal output by a notification engine without consideration for whether or not a telephone line associated with the telephone number is busy.

First claim

A call information system, comprising:
an interface to receive a signal, wherein the signal is associated with a call from a first communication device to a second communication device;
a call information engine to determine that the first communication device is associated with a subscriber of a call activity information service;
a call suspension mechanism to suspend the call; and
a call disposition engine to:
send a call disposition query associated with the suspended call to a stored data network address of the subscriber, wherein the stored data network address is associated with a third communication device associated with the subscriber and wherein the call disposition query comprises an electronic mail message; and
receive a call disposition command from the third communication device associated with the subscriber, wherein the call disposition command indicates a call disposition for the suspended call.

99. Method, call setup device and computer product for controlling and setting up calls with reduced costs

US8385949B2 | Opticaller Software AB

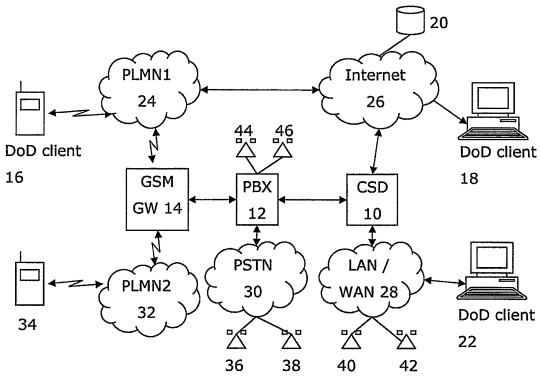
Bibliographic data

Publication date: 2013-02-26
Application date: 2011-06-15
Earliest priority date: 2005-02-01

Inventors: HANSSON MATTIAS, STEIJER JORGEN

CPC classification: H04M 15/8044, H04M 2215/42, H04M 3/4234, H04M 7/003, H04W 84/16
IPC classification: H04W 4/00, H04M 5/00

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A method, call setup device (10) and computer program product for controlling telephone call setup for an associated user and having access to different communication networks are provided. The call setup device (10) comprising a data receiving unit (52) receiving a first data message (DM 1) from the user comprising callee identifying information and user identifying information and a control unit (48) having access to call placing units (12, 14, 58), each connected to corresponding network (24,32) and providing telephone call set up via these networks, wherein the control unit analyses the callee and user identifying information, orders a call placing unit to set up a first telephone call to a user terminal, orders a call placing unit to set up a second telephone call to a callee terminal and orders an interconnection of the first and the second call.

First claim

A method of controlling the setting up telephone calls for a user associated with a call setup device, where the call setup device has access to at least one communication network via a corresponding call placing unit, comprising:
receiving, by the call setup device, at least one first data packet from a web site associated with the call set up device, said data packet comprising callee identifying information as well as user identifying information comprising a phone number of a terminal of the user, where the callee information and user identifying information have at least partly been entered by the user via a screen provided by the web site after logging in to said web site,
analysing the callee identifying information and user identifying information, ordering a call placing unit to set up a first telephone call to said cellular terminal of the user,
ordering a call placing unit to set up a second telephone call to a terminal of the callee based on the callee identifying information, and
ordering the interconnection of the first and the second call;
further comprising determining a preferred call setup scheme for setting up a call between the callee and the user based on said analysis, where the ordering of a call placing unit to set up a first telephone call and ordering of a call placing unit to set up a second telephone call are performed based on said analysis,
wherein the determining of a preferred call set up scheme comprises determining networks via which the connection is to be set up, and
wherein the determining of a preferred call setup scheme is based on rules regarding network usage provided for said user.

100. Integrating telephonic service subscribers

US20070058613A1 | TELEVOLUTION Inc

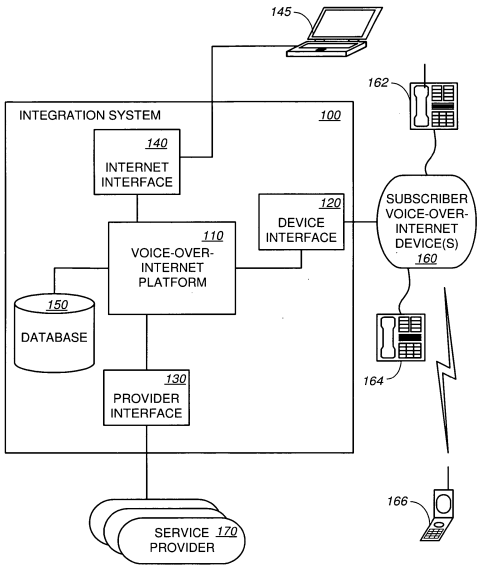
Bibliographic data

Publication date: 2007-03-15
Application date: 2005-09-15
Earliest priority date: 2005-09-15

Inventors: BECKEMEYER DAVID S

CPC classification: H04L 65/1026, H04L 65/1036, H04M 7/0069
IPC classification: H04L 12/66

External links: Google Patents, Espacenet, PatBase Express, PatBase, Orbit



Abstract

A telecommunication system comprises a first interface, a second interface, and a voice-over-Internet device. The first interface enables a telephonic handset coupled to the voice-over-Internet device to communicate via a phone service. The second interface enables the telephonic handset to communicate via a data network coupled to the voice-over-Internet device. The voice-over-Internet device is configured to modify the phone service. The voice-over-Internet device exposes services provided over the data network to service subscribers. As a result, a mobile or wired telephone service customer can subscribe to add-on services provided by a service provider over the data network without the knowledge or permission of the existing telephone service company.

First claim

A telecommunication system comprising:
a first interface configured to enable a telephonic handset to communicate via a phone service;
a second interface configured to enable the telephonic handset to communicate via a data network;
a first voice-over-Internet device coupled to the first interface and the second interface, the first voice-over-Internet device configured to modify the phone service.